FreeRider®

working together

ATTENTION
Read all parts in this manual before operating your scooter

FR510DX2/ FR510DXs2

FR168-3/ FR-168-3S

FR168-4/ FR168-4S/FR168-4S2b

USERS INSTRUCTION MANUAL

FOREWORD

Please read and follow all instructions in this Users Instruction Manual before attempting to operate your **Freerider** Scooter for the first time. If there is anything in this manual that you do not understand, or if you require additional assistance for setting it up , contact your Authorized **Freerider** Agent.

Using your **Freerider** product safely depends upon your diligence in following the warnings, cautions and instructions in this manual. Using your **Freerider** Scooter safely also depends upon your good judgment and / or common sense, as well as that of your Provider, Carer or Health Professional. Always think safety!

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INTRODUCTION

Congratulations on purchase of your **Freerider** Scooter.

Please read this User Instruction Manual carefully before your attempt to operate **Freerider** Scooter. Your User Instruction Manual will assist you to get the most from your machine.

This manual contains important information regarding the safe operation and maintenance of your **Freerider** Scooter. Before beginning to use your Scooter, make sure you completely read and understand all instructions thoroughly. Please observe the "Rules for safe use"and the Safety Instructions outlined on page 5,12 of this manual. If you have any queries concerning operation or maintenance, consult your authorized **Freerider** dealer.

Please keep in mind that the operator of the Scooter is responsible for hazards occurring to other people or their property.

Your **Freerider** Scooter has numberous features not found on other power Scooters. With proper care and maintenance, you will enjoy many years of dependable service.

Your **Freerider** Scooter needs to receive maintenance at regular intervals and should be inspected frequently for proper mechanical operation. Troubles shooting Guidelines, methods of detecting improper operation and making minor adjustments are included in manual.

Follow all recommendations to obtain trouble free, safe and enjoyable operation of your **Freerider** Scooter.

Please remember that when it comes to service and repairs, your authorized **Freerider** dealer knows your **Freerider** Scooter best.

PRODUCT DESCRIPTION

- Rear-wheel drive via sealed drive axle
- 36 A/H sealed non-maintenance lead-acid batteries.
- Automatic charging system.
- Off-board charging facility.
- Seat with folding backrest, height adjustment and adjustable width arm-rests.
- Seat rotates and is fully adjustable forwards and backwards and for height.
- Multi-positional handle bars for greater comfort, driving mirror, front basket for storing personal items.
- A simple 'wig-wag' tyre control lever situated on the handlebar, controls speed, braking and direction.
- Steering is controlled by handlebar attached to a linkage system containing front wheels for FR168-4/FR168-4S/ FR510DX2/FR510DXs2.
- Steering is controlled by handlebar attached to a fork system containing the single front wheel for **FR168-3/FR168-3S**.
- 'System-of-the-art' micro-controller electronics ensure a smooth, comfortable and safe drive on all surfaces and gradients.
- Two piece steel chassis for ease of transporting.
- Your scooter can be dismantled into separate components without the use of tools for ease of transporting. However, your scooter is not designed to transport the user in a moving vehicle; for advice on transporting consult your selling agent.

Your **Freerider** Scooter should be serviced as recommended by an approved **Freerider** distributor in order to ensure safe, reliable operation. For details and list of options available for user, refer to accessories section of this manual.

FR510DX2/FR510DXs2 FEATURE GUIDE

1 Steering handlebars
2 Drive mirror
3 Console
4 Charging socket
5 Basket
6 Front light
7 Direction indicator lights
8 Front and rear bumper
9 Amber side reflectors
10 Floor mat
11 Pneumatic wheels with grey tyres
12 Rear lights and indicators
13 Adjustable angle seat with backrest

FR168-4/FR168-4S/FR168-4S2b FEATURE GUIDE

1 Adjustable steering handlebars
2 Driving mirror
3 Console
4 Charging socket
5 Basket
6 Front light
7 Direction indicator lights
8 Front and rear bumper
9 Amber side reflectors
10 Floor mat
11 Pneumatic wheels with grey tyres
12 Rear lights and indicators
13 Adjustable angle seat with backres

FR168-3/FR168-3S FEATURE GUIDE

1 Adjustable steering handlebars
2 Driving mirror
3 Console
4 Charging socket
5 Basket
6 Front light
7 Direction indicator lights
8 Front and rear bumper
9 Amber side reflectors
10 Floor mat
11 Pneumatic wheels with grey tyres
12 Rear lights and indicators
13 Adjustable angle seat with backres

PURPOSE OF YOUR FREERIDER SCOOTER

Your **Freerider** Scooter is suitable for persons who require independent mobility combined with comfort, maneuverability, reliability and a product that needs a minimal amount of maintenance.

The intended user should possess some degree of ability with the use of both arms and hands, reasonable balance and eyesight, and a degree of spatial awareness. The user should have received training in the use of the product, preferably in their normal environment. The maximum user weight for your Scooter can be found in the rear of this manual, under'Technical Specification'(see page 33,34).

Your Scooter is suitable for use indoors in shopping malls or precincts for example, or outdoors on dry, smooth level surfaces. It climbs slopes safely up to 8° rain or snow, on loose slippery surfaces and slopes or on wet grass etc., which could become a danger to the rider. Passengers must not be carried. Excess baggage outside of the seating area can affect stability.

Your Scooter is a 'Class 2' (B) * vehicle and designed for pavement use only. The Scooter must only be used on the road with caution if a pavement is not available. It is designed for a single occupant who experiences difficulty or discomfort when walking for prolonged periods, but has the use of both legs and the physical, visual and cognitive ability to operate the Scooter safely.

Do not drive your Scooter if you are under the influence of alcohol, drugs or medication that may affect your ability. If in doubt consult your doctor. As a pavement user you should

familiarize yourself with the current editions of the Highway Code.

*** DEFINITION**

Electrically powered scooter are classified in the following categories :
Class 2 as defined in "The use of invalid carriages on the Highways Regulations 1988"
A scooter tyre invalid carriage designed for the use on the footway, with maximum speed up to 4 M.P.H.
Class 'B', as defined in The European Standard EN12184 :1999. A scooter sufficiently compact and maneuverable for some indoor environments and capable of traveling over longer distances and negotiating outdoor obstacles.

RULES FOR SAFE USE

These symbols below are used in this owner manual to identify and warnings and cautions. It is very important for you to read and understand them.

Warning: Failure to note the warnings in this users manual may result in personal injury.
Cautions: Failure to observe the cautions in this users manual in damage to your scooter.

Your scooter is a powerful machine, for your safety and the safety of bystanders, please read all of the instruction in this manual before operating your scooter, they have been prepared from years of experience with this tyre of equipment.
Follow notes carefully to ensure safety at all times.
Always make certain your machine is in full working order before starting your journey.

1. Do not ride your scooter without reading this instruction manual. Also read all of safety instructions and warnings starting on page12 of this manual.

2. Only drive your scooter if your health condition will allow you to be safe.

3. Do not exceed the maximum safe gradient outlined for your vehicle (see Technical Specification, page 33).
Warning: Always have the anti-tipping wheels fitted when outdoors or on rams indoors (see Fig18 page19).

4. Do not carry passengers or exceed the maximum carrying weight.

5. Do not mount or dismount your scooter unless it is switched off with the freewheel device fully engaged.

6. Do not switch your scooter 'on' with the forward/reverse lever depressed. **Warning:** Do not hang bags etc over your steering handlebars, always use the front basket. Failure to observe this warning may interfere with your controls and put you and other at risk.

7. Do not mount or dismount your scooter unless the speed adjustment dial is set to minimum.

8. Do not reverse your scooter onto uneven inclines or surfaces. Be cautions when traversing slopes.

9. Do not drive your Scooter in a confined space unless the speed adjustment dial is set low.

10. Do not turn suddenly at full speed, especially on uneven or sloping ground.

11. Do not drive your Scooter where you cannot safely or legally walk. Obey the Highway Code.

12. Do not drive your Scooter unless the seat is locked into the driving position.

13. Do not drive your scooter with the handlebar adjustment lock, in the unlocked position.

14. Do not drive your scooter over deep, soft terrain (eg. soft earth, deep grass, snow).

15. Do not drive when under the influence of alcohol or certain drugs which may impair your safety.

16. Avoid climbing or descending kerbs, you may ground your chassis and fall over.

17. Always approach small obstacles "straight on" and at slow speed. Do not attempt to climb or descend kerbs. This may damage your Scooter

18. Always stop fully before changing dissection (forward or reverse).

19. Always keep your feet on the vehicle when driving.

20. Always proceed carefully while riding, especially as you approach the downgrade of a ramp.

21. Always avoid uneven surfaces.

22. Always consult your physician or a therapist if in doubt about your ability to operate a Scooter.

23. Transport- Do not sit on your scooter while it is in a moving vehicle. Always strap down your scooter then transfer to the vehicle seat.

24. The batteries fitted to your scooter are Maintenance free and do not require topping up with distilled water. Do not attempt to remove the safety values situated in the top of the battery. Failure to observe this warning will invalidate your battery guarantee.

25. Do not drive your Scooter through deep water or clean with a high pressure hose.

26. Do not drive your Scooter through sea sand or sea water, this is very corrosive. Always wash salt splashing from the metal parts of your scooter with hot soapy water as soon as possible. This is also important during the winter mouths when roads and pavements have been treated with sal1t to prevent icing.

Please remember you are a motorized pedestrian and must observe all rules and regulations of other pedestrians wherever possible. Your scooter has not been designed for use on normal roads, except for crossing between pavements and where a pavement is not available.

Please have a safe journey

GETTING YOU KNOW YOUR SCOOTER

Your **Freerider** scooter is delivered in a strong tri-wall carton. When unpacking the carton, first remove all of the sharp metal staples which are located in the top. Carefully dispose of the staples to avoid injury. Remove all packing materials, avoid using sharp instruments as this may damage the scooter. Carefully remove the scooter from the carton; to minimize damage to the scooter and the operator, two people should be used for this operation.

Safely dispose of all packaging materials, your local waste disposal authority can advise you on this procedure.

Your **Freerider** Scooter is delivered fully assembled, fitting the two batteries and the seat assembly together with some minor adjustments are detailed on the following pages, under 'Operating your **Freerider** Scooter'. A full technical specification for your **Freerider** Scooter can be found at the rear of this manual.

A great deal of thought and consultation has gone into the design of your state-of-the-art, life-changing scooter. Your **Freerider** Scooter will help to increase your mobility and therefore give you more time and energy to enjoy life.

Six models of **Freerider** Scooter are described in this manual. **Freerider** models have same control functions but vary in wheel sizes, battery location and seats. Please refer to your appropriate model when reading the manual. A full technical specification for each model can be found at the rear of this manual. A great deal of thought has gone into the design of your **Freerider** Three wheeled vehicle which will allow you to negotiate obstacles found in confined shopping areas, four wheels will give you added stability on uneven surfaces. This is just one of the features you will find on your **Freerider** Scooter.

Others are:

COMFORT- The contoured seat helps cushion you from the vibrations of a journey, giving you maximum comfort. A fully proportional speed-controller with a speed restriction facility allows you a smooth jerk-free ride. Automatic braking gives you that added peace of mind.

VERSATILITY- The removable fold down seat, together with a facility to fully lower the steering handlebar, allows your . to be easily transported in an average saloon or hatchback car for those days when you travel further afield.

SERVICE- Your **Freerider** scooter has been designed to be service friendly. Sealed batteries which are virtually maintenance-free will give your **Freerider** the power it requires. Should you need to take you batteries on an aircraft, then you can peace of mind because the batteries are totally Spill-free. (Please consult your carrier for details).

SAFETY- The advanced speed controller has been designed with extensive self-checking circuits to give you the maximum 'state-of-the-art' safety technology. Fully automatic braking give the driver confidence in any environment. The on/off key be removed for added security and safety, this disables the electronic drive circuitry, and your **Freerider** scooter cannot therefore be easily driven away by any other person.

CAUTION- Do not switch 'off' the on/off power key when you are moving; this will automatically apply the motor parking brake suddenly and could place you in a dangerous situation. Your scooter is fitted with anti-tipping wheels. Do not remove these anti-tipping wheels, they are an important part of the scooter design provided specifically for your safety. They help protect against backwards tipping on excessively sharp inclines.

CHARGING- Your scooter is fitted with a battery level indicator. Charging is straight forward. Your charge is fully automatic and will reduce to a top-up charge mode when the re-charge cycle is complete. (See Batteries and Battery Charging section of this manual).

OPERATING YOUR FREERIDER SCOOTER

Before setting out on your scooter you need to make sure that your seat is in the correct driving position. Your **Freerider** distributor will set the seat to the correct height for your individual needs (note: see warnings on page 9). The seat has four basic adjustments to assist your comfort.

1. **Seat Lock Lever :**(Fig 1). This allows the seat to swivel through 360°NB: It can be re-located on the right side for your convenience. Pull up fully to release the seat allowing rotation. Release level to lock the seat into the desired position.

Warning: When driving, the seat should be locked in the straight ahead position.

Caution: The seat locking level must lock be lifted up fully when rotating the seat, failure to observe this may result in unnecessary wear of the seat post.

Removing seat from Scooter: The seat mounting post is designed with a special safety lifting point, this will prevent the seat from inadvertently dismounting itself in the case only be demounted by turning the 90° the forward driving position.

Warning: The seat base has a series of threaded holes for universal mounting, on no account must your scooter seat be relocated from the original factory setting. Failure to observe this warning will put you into an unstable and dangerous situation which could cause you harm.

2. **Armrest Width Adjustment:** On each side at the rear of the seat you will find a large black knob (Fig 2). By simply loosening this knob you are able to slide the armrests in or out to whatever width you desire. Re-tighten the knobs fully. You may need a friend to assist you with this initial setting up operation. This may extend the width of your Scooter.

Caution: The backrest of your seat will not fully fold forwards if armrests are positioned too closely towards one another.

Warning: Do not drive your scooter with the arms removed or in the raised position.

3. **Armrest Angle Adjustment :**(Fig 3). The armrest angle can be adjusted individually to suit your needs. To make adjustments to the armrest angle you will need two 13mm spanners (not provided). Lift the arm upwards, you will note the adjusting bolt. First loosen the locking nut, rotate the bolt in or out until the required angle is found, lower the arm and check the angle for comfort; re-adjust as necessary. Finally tighten the locking nut.

Warning: When lowering the arm make certain clothing or fingers are not positioned under it.

4. **Seat Height Adjustment:** You may need to alter the seat height setting at a later date, please follow these instructions.

1.Remove your seat from the Scooter by lifting the seat locking lever and lifting the seat clear of the vehicle (see Fig 4). Note your seat for safety reasons can only be removed when it is Turned 90°. Please take care when lifting heavy weights. Place your seat on a soft clean work area.

FIG 1

FIG 2

FIG 3

FIG 4

2. With the aid of a 17mm spanner (not supplied) loosen the 10mm seat clamp fixing bolt (see Fig 5).

3. Remove the 10mm fixing bolt and reposition the bolt into one of the four preferred location holes of the seat mounting tube (see Fig 6).

4. Re-tighten the 10mm fixing bolt. Refit the seat onto your Scooter.

Warning: Do not have the seat set too high, you must be able to place both feet firmly on the Scooter's floor area. Stability will be reduced the higher your seat is set on the mounting tube. Always take great care when cornering, lean into the corner to achieve the best stability from your Scooter.

5. **Seat Slide of the seat:** (see Fig 7) Located on the right front side of the seat. The lever allows you to adjust your seat forwards and backwards when sitting on the seat. Simply pull up the lever and move in the desired position backward by pushing or forward by hitching. As soon as the lever is released, the seat will lock into the new position.

Caution: The best the seat has fully locked by hitching backwards and forwards.

Warning: Do not carry out this operation when your scooter is moving, first stop apply the brakes and then carry out the seat position.

CAPTAIN SEAT

The seat as fitted to your **Freerider** Scooter, has a fold down backrest . The seat has four height positions similar to those found on the standard seat. Your **Freerider** distribution wick position the seat to allow you the most comfortable driving position.

6. Backrest Angle Adjustment (option): The angle of your backrest can be adjusted to a comfortable driving position by the operation of the lever situated on the left side of your seat. When sitting on your seat, lean backwards against the backrest and at the same time lift the operation lever upwards. Lean forwards or backwards once the locking mechanism has released, positioning the backrest in a comfortable driving position. Releasing the lever will lock the backrest in your chosen position.

Caution: Care should be taken during this operation as the backrest mechanism has a strong assisting spring to aid movement. Please Note: Damage can result the mechanism if the backrest is not supported during this operation.

7.**Backrest Height Adjustment**: The upper cushion of your backrest (See Fig 8) can be adjustment for height, giving you more back support if you are tall, by operating the small latch cushion up or push down for the most comfortable position. The headrest will also lift out for convenience.

HANDLEBAR ADJUSTMENT

The handlebar of your Scooter is designed to allow you to position it in a comfortable driving position. It can be locked into numberous positions or unlocked to move freely for transportation.

The handlebar lock is operated by a black lever positioned on the right hand side of the handlebar (see Fig 9, page10). To release the handlebar from a locked position pull the black lever upwards, the handlebar will now move freely, but under mild tension.

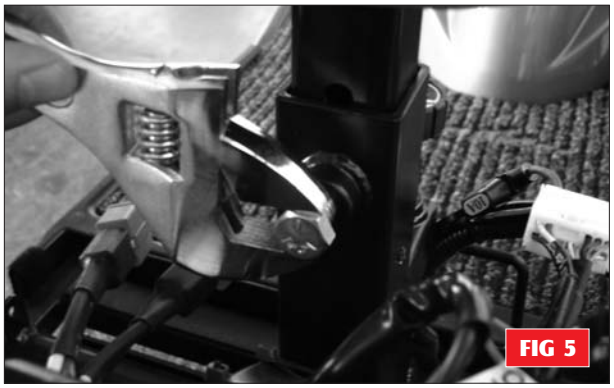


FIG 5

FIG 6

FIG 7

FIG 8

To lock the handlebar into a comfortable driving position, simply push the black lever downwards until the handlebar is locked firmly into position.
With the combination of the height adjustment together with the handlebar movement, you should find a suitably comfortable driving position.

Warning: Always make certain the handlebar locking lever is fully down and the handlebar is securely clamped onto the chrome support plates before driving your Scooter. To make service adjustment of this part, refer to the Care and Maintenance section of this manual.

FIG 9

CONTROL FEATURES

Your controls are located on the handlebar console (see Fig10) they are:

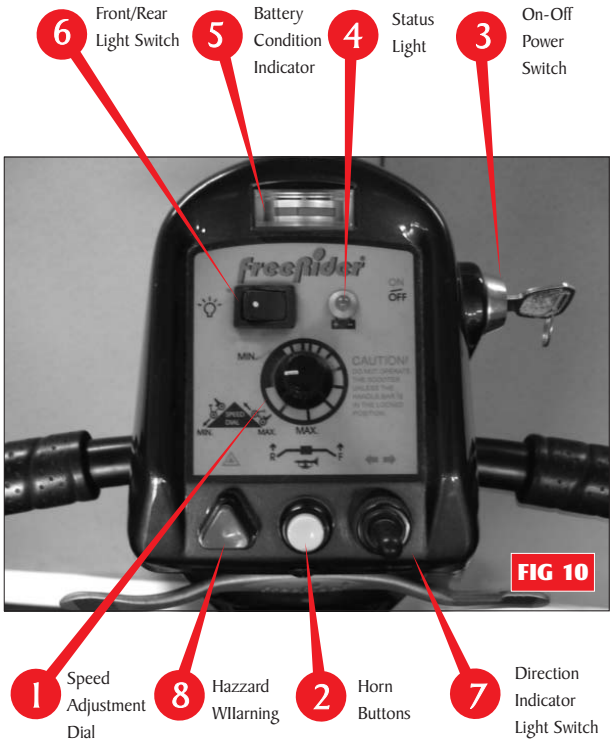


FIG 10

1. **Speed Adjustment Dial:** This allows you to pre-select your desired top speed. The dial is proportional to speed and can be set anywhere between minimum ('min') and maximum ('max') increments. Turn the dial knob anticlockwise to minimum for a very gentle operation, and clockwise towards maximum to increase your speed. NOTE: When attempting to climb obstacles, you will need to set the dial to a high setting. Remember the higher position you set your speed dial to, the faster your Scooter will travel.

2. **Horn Buttons:** (yellow). Sounds a polite warning signal.

3. **On-Off Power Switch: Located at the right side of the control console. Insert the key and turn clockwise. You will note after a second the needle on the battery state indicator moves towards the green sector and the green status light illuminates. Your Scooter is now ready to drive. To switch off your machine turn the key anticlockwise. Remove the key when your vehicle is left unattended. Do not attach heavy additional keys to your key ring, the weight can damage the switch unit.**

Caution: Do Not switch to 'off' when your Scooter is moving. Failure to observe this warning will result in the motor brake being applied suddenly and placing you 1.in a dangerous situation.
You should only switch 'off' when in motion in the case of an emergency. Continual use in this mode may cause undue stress to the drive system and damage the main electronic speed control unit. Be extremely cautious on slopes. Sit upright in your seat or your machine could become less stable.

Sleep Time: When you rest your Scooter with the electronics switched 'on' you are using valuable battery power. Your Scooter will automatically go into a sleep mode to preserve battery energy after approximately 15 minutes, the battery indicator and green status light goes off. To start your Scooter again simply switch the key switch to 'off' and back to 'on' again, your Scooter is now ready to go.

4. **Status Light:** When you turn your Scooter on, the green light on your console will illuminate at a constant rate. The status light is connected to a very sophisticated diagnostic system which can identify faults which could occur on the main speed control system or some other part of your Scooter's electronic drive system. For instance if your batteries run low in power, the status light will flash slowly at one flash a second; this indicates your batteries need recharging.

If you notice the status light flashing at two flashes per second, you are being notified that the battery voltage is too low and you must stop using your Scooter at the earliest opportunity.

Your status light has nine similar flashing diagnostic signals, reference to these diagnostic codes is found under 'Fault Finding' at the rear of this manual.

5. **Battery Condition Indicator:** Located at the top of your console. When your Scooter is switched on, the needles on the gauge will move across the scale from the left 'red' sector towards the 'green' sector, indicating the state of charge in your batteries. As the power is used up in your

batteries the needle will move towards the red sector indicating the state of charge at that precise time. When the needle is fully over to the right (green sector), the batteries are fully charged. When the needle falls towards the red sector your batteries are losing power, but you will still have power to spare. When the needle falls into the red sector your batteries are low in power and need to be re-charged, although you will still have approximately half-an-hours normal flat pavement driving in reserve. It is not recommended to use this power regularly as it will shorten battery life. It is wise to re- charge your batteries when the needle enters the red zone (see Batteries and Battery Charging section of this manual).
NOTE: When driving up a slope or similar obstacle your Freerider Scooter will be working hard, the battery gauge will move into the red sector, it will return towards the green sector once the load on your motor is reduced, this does not indicate low batteries.

6. **Front/Rear Light Switch:** This rocker tyre switch controls the function of the front and rear lights. Simply push down on the left side (white spot) (Fig 11) for 'on' and the right side for 'off'.

7. **Direction Indicator Light Switch:** Located at the bottom right of your console, the direction indicator lights for right and left manoeuvres are controlled by this switch. When making a turning manoeuvre on the road the appropriate switch dissection warning light (See Fig 10), will flash. To cancel the direction indicator return the switch to the centre position. The left direction indicators are activated by 'flicking' the switch to the left.
Caution: Please note the direction indicators are not self-canceling. **Warning:** Please be aware to test the function of your direction light before each journey. Failure to observe this warning could put you and other road users into a dangerous situation.

8. **Hazard Warning:** Positioned to the bottom left o your console, when pressed this red triangular button activates all of the amber flashing direction lights to warn other road users that you are stationary or in distress. This function should only be used in emergencies. You will note that both green direction lights at the top of your console are flashing to warn you the hazard system is in operation. To cancel the hazard warning simply press and release the red triangular button.

FORWARD, REVERSE CONTROL LEVER (Wig wag)

Located under the handlebar grips. Your speed for forwards and reverse motion and braking is controlled here. The right thumb lever moves your Scooter in a forwards direction (Fig 12) and also controls the rate of speed by the proportional amount of pressure applied.

The left thumb lever moves the Scooter in a reverse direction and controls the rate of speed by the pressure applied (Fig 13). The lever when released will return itself, and you will gently stop. You will note that you can obtain the reverse of this procedure by pulling the levers backwards with your thumb.

Warning: Do not hang bags etc over the steering handlebars which could interfere with the movement of your control lever. Failure to observe this warning could put you in a dangerous situation.
Note: Your approved **Freerider** distributor can modify your vehicle for left-hand forward operation use.

Warning: If you are not an accomplished outdoors powered vehicle driver, we strongly recommend that you first practice in an open, safe area, free from traffic, preferably with a **Freerider** Scooter who can assist you.

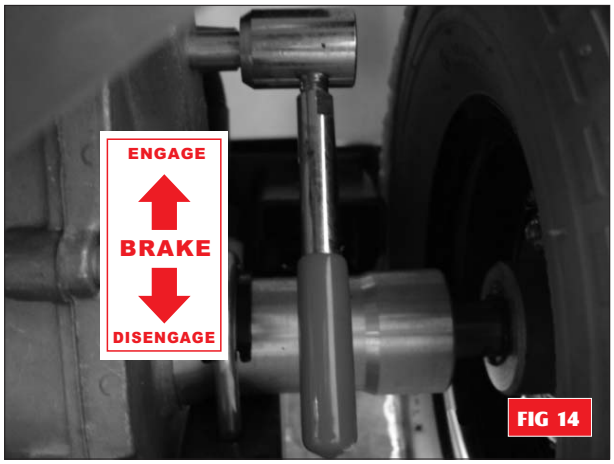
FIG 11

FIG 12

FIG 13

FREEWHEELING YOUR SCOOTER

If for the reasons of convenience, you require to push your scooter, the drive from the motor can be disconnected to allow the vehicle to roll freely.
Free wheel procedure: The free wheel device is a 'red' handled lever located at the rear right hand side of your machine under body cover (See Fig 14).
To free wheel your scooter push down the red lever; gently rock your machine to assist the drive to disengage. You can now push your scooter with ease.
To re-engage the drive simply pull up the red lever; again gently rocking your machine will allow full engagement of the drive system.



Caution Notes:

1. You must sit on your scooter with free wheel in the disengaged position. When the free device is disengaged, you have no braking function of your scooter. Do not park your scooter on a slope with free wheel device disengaged.

2. If the scooter is in the free wheel mode, when turn on your machine and depress your speed control, you will not be able to move under motor power. Dismount and re-engage the drive.

3. "Always' check that the free wheel device is in the drive position before attempting to drive your machine after it has been left unattended for a period of time. Failure to observe this warning may result in an accident.

General Note: If you are able to push your scooter the drive to the transmission brake is disconnected. Do not attempt to drive your scooter. Please check once more the above mentioned procedure for re-engaging the drive.

Warning: Yellow warning notice label situate on your rear cover located under your seat.

⚠ WARNING
EMERGENCY FREEWHEELING DEVICE
NEVER SIT ON YOUR SCOOTER WITH THE FREEWHEEL DEVICE IN THE DISENGAGED POSITION. ALWAYS RE-ENGAGE THE EMERGENCY FREEWHEELING DEVICE AFTER USE. FAILURE TO COMPLY WITH THIS WARNING MAY RESULT IN INJURY.

Please take extreme care

SAFETY INSTRUCTIONS & WARNINGS

GENERAL

Warning: Do not attempt to operate your new Scooter for the first time without completely reading and understanding all of the facts in this Users Instruction Manual.

Your Scooter is a state-of-the-art device designed to enhance and increase your mobility. **Freerider** provides a range of Scooters to best suit the individual needs and circumstance of the Scooter user.

Please be aware that the final selection and purchasing decision regarding the model of Scooter to be used is the responsibility of the Scooter user who is capable of making such a decision with assistance from his/her healthcare professional (i.e. medical doctor, physical therapist etc.)

The contents of this Users Instruction Manual are based on the expectation that the mobility device
Expert has properly fitted the Scooter to the user and
Has assisted the prescribing healthcare professional and/or

The authorized **Freerider** Distributor in the instruction process for the safe use of the scooter.

There are certain situations, including some medical conditions, where the Scooter user will need to practice operating the Scooter in the presence of a trained attendant. A trained attendant can be defined as a family member or care professional specially trained in assisting a Scooter user in various daily living activities.

When you begin to use your Scooter, you will probably encounter situations in which you will need some practice. Simply take your time and you will soon become confident and in control as you manoeuvre through doorways, on and off elevators, up and down ramps and over moderate terrain. Below are some tips, precautions and other safety measures that will help you to become accustomed to the safe operation of your Scooter.

Your Scooter is fitted with a number of "Safety & Warning Instruction labels"(see page16).

These labels communicate important warnings or instructions - Please familiarize yourself with their location.

SAFETY CHECK

Get to know the feel of your Scooter and it's capabilities. **Freerider** recommends that you perform a safety check before each use to make certain your Scooter operates smoothly and safely. For details on how to perform these necessary inspections, see the Care and Maintenance section of this manual. Perform the following inspection prior to using your Scooter.

- Check tyre inflation, maintain at 30 p.s.i. (210 kpa)
- Check all battery connections, make certain they are serviceable and not corroded.
- Check front basket is fitted correctly.
- Check batteries have been fully charged.
- Check operation of brakes.

Warning: It is critical that the pressure in the pneumatic tyres is maintained at 30 p.s.i. (210 kpa) at all times. Failure to observe this warning may result in a serious failure of the tyre or wheel, causing serious personal injury and/or damage to your Scooter.

Warning: Do not carry passengers on your **Freerider** Scooter. Your Scooter is designed for a single occupant which complies with legal requirements for pavement vehicles. Carrying passengers on your Scooter may result in personal injury and/or property damage.

WEIGHT LIMIT

Your Scooter is designed for a maximum user weight limit of 136kg (300lbs).

Warning: Exceeding the weight limit will void your warranty and may result in personal injury and damage to your scooter. **Freerider** will not be held responsible for injuries and/or property damage resulting from failure to observe these weight limitations. Please also remember when carrying heavy objects that this will increase your total weight and may make your Scooter unstable.

CORNERING

Excessively high cornering speeds can create the possibility of tipping. Factors which affect the possibility of tipping include, but are not limited to, cornering speed, steering angle (how sharply you are turning), uneven surfaces, inclined surfaces (such as heavily cambered pavements), riding from an area of low traction to an area of high traction (such as passing from grass areas to a paved area - especially at high speed while turning), and abrupt directional changes. Do not corner at high speed! If you feel that you may tip over in a corner, reduce your speed and steering angle to prevent your Scooter from tipping.

Warning: When cornering sharply, reduce your speed. When using your **Freerider** Scooter at higher speeds, anticipate Changes in the road surface. This will greatly reduce the possibility of a tip or fall. To avoid personal injury or property damage, always exercise common sense when cornering.

BRAKING

Your **Freerider** Scooter is equipped with one powerful brake system:
Electric/Mechanical Disc Park Brake: Located on the end of your drive motor it activates mechanically after the regenerative brake slows your Scooter to a near stop, or when power is removed from the drive system for any reason, as in the case of switching your machine off!
Brake engagement is far more abrupt at higher speeds. It is important that you anticipate when the brakes will engage and that you are braced for the resulting deceleration.

Warning: Your Scooter can decelerate very quickly. Do not decelerate or turn abruptly when traveling at high speed unless absolutely necessary. If it is necessary to decelerate or turn abruptly when driving at high speed, brace yourself by gripping the steering handlebar tightly and positioning your feet firmly on the floorboard. Users who cannot grip the handlebar tightly and/or place their feet firmly against the footboard should avoid deceleration from or turning abruptly at high speed, and therefore should avoid travelling at high speed. Failure to observe this warning could result in serious personal injury and property damage. Always brace yourself firmly when decelerating your Scooter.
Never drive down slopes at full speed, always adjust your speed to the driving condition and allow for gradual descents on inclines.

OUTDOOR DRIVING SURFACES

Your Scooter is designed to provide optimum stability under normal driving conditions i.e. dry, level surfaces composed of concrete or asphalt. However **Freerider** recognizes that there will be times when you will encounter other surfaces such as packed soil, grass and gravel. These surfaces may not be sound and fail to give good traction, caution should be considered before driving on this tyre of surface to prevent stability problems resulting in injury or damage to your Scooter.

- Reduce your Scooters speed when driving on uneven terrain or soft surfaces.
- Avoid long and unsafe grass that can become tangles in the running gear or may hide debris and holes.
- Avoid snow, this can quickly build up around your wheels.
- Avoid loosely packed sand and gravel.
- If you feel unsure about a driving surface, please anticipate and avoid that surface.

STREET AND ROADWAY DRIVING

Warning: Your Scooter has not been designed for operation on public streets and roads. It is designed for operation on pedestrian pavements and traffic free shopping areas.
Your Scooter must be driven with due care and compliance with the Road Traffic Acts and conditions of the Highway

Code. Always obey all local pedestrian traffic rules. Wait until your path is clear of traffic, and then proceed with extreme caution. Note: Always wear light or illuminating clothing When driving your Scooter. Be aware that it may be difficult for traffic to see you when you are seated on your Scooter. Only drive your Scooter on the road when a public pavement is not available (i.e. in the countryside) or when crossing the roadway from one pavement to another.

INSURANCE

Although it is not a legal requirement for accident insurance cover (third party), it is a sensible precaution. Your **Freerider** Authorized Agent will be able to give you details of specialist insurance companies or you own insurance company will be able to advise you.

WEATHER PRECAUTIONS

Warning: **Freerider** recommends that you do not operate your Scooter in icy or slippery conditions or on salted surfaces i.e. Roads and Pavements etc. Such use may result in accident, personal injury or adversely affect the performance and safety of your Scooter.

Warning: **Freerider** recommends that you do not expose your Scooter to any tyre of heavy moisture at any time i.e. rain, snow or power washer. Such exposure can damage your Scooter. Never drive through deep water or expose your Scooter to sea water. Do not operate your Scooter if it has been exposed to heavy moisture until it has been thoroughly dried out.

FREEWHEEL YOUR SCOOTER

Your Scooter is equipped with a manual freewheel device for convenience when you need to push it. See the Freewheeling your Scooter section on page 12 of this manual.

Warning: Do not use your Scooter in the freewheel mode without an attendant present. Personal injury may result.

Warning: Do not attempt to personally disengage your Scooter in the freewheel mode while seated on it. Personal injury may result. Ask an attendant for assistance if necessary

Warning: Do not place your Scooter in freewheel mode while on an incline. The Scooter could roll uncontrollably on its own, causing personal injury.

TYRE INFLATION

If your Scooter is equipped with pneumatic tyres, you should check their condition on a daily basis. Have the tyre pressure checked and if necessary inflated to 30 p.s.i. (210 kpa) at least once a week. Properly inflated tyres will help ensure a smooth, stable ride with minimum rolling resistance for your motor, it will also prolong the tyre's life and resistance to punctures..

Warning: Always inflate your tyres from a regulated air source. Over inflation from an unregulated air source could Over inflate your tyres resulting in "blow out" or personal injury.It is critically important that pneumatic tyres are inflated to 30 p.s.i. (210 kpa). Do not over inflate your tyres to the maximum inflation pressure of 50 p.s.i. (350 kpa) indicated on the tyre cover, failure to observe this warning could damage your Scooter wheels.

MOTOR VEHICLE TRANSPORTATION

Currently there are no standards approved for "tie down" systems in a moving vehicle of any tyre to transport a person while seated in a Scooter.
Although your Scooter may be equipped with a positioning belt *, this is not designed to provide proper restraint during motor vehicle movements.
Anyone travelling in a motor vehicle should be properly secured in the motor vehicle seat with a safety belt fastened securely.

Warning: Do not sit on your Scooter while it is in a moving vehicle. Personal injury may result.

Warning: Always make certain that your **Freerider** Scooter is properly secured when being transported. Failure to comply may result in personal injury and/or damage to your Scooter.

* POSITIONING SAFETY BELT (NOT SUPPLIED)

Your authorized **Freerider** Agent, therapist and other healthcare professionals are responsible for determining your requirement for a positioning belt in order to operate your Scooter safely.

Warning: If you require a positioning belt to safely operate your Scooter, make certain it is adjusted and fastened securely. Serious personal injury may result if you fall from your Scooter.

ACCESSING YOUR SCOOTER

Getting on and off your Scooter requires a good sense of balance. Please observe the following tips when getting on or off your Scooter:

- Make certain your **Freerider** Scooter is switched off at the power switch, and the power key is removed.
- Ensure your **Freerider** is not in the freewheel mode (see page 12 Freewheeling your Scooter)
- Make certain the seat and handlebars are locked firmly into position.
- The seat armrests can be lifted up to make access easier. Make certain you do not attempt to drive with the armrests raised.

Warning: Position yourself as far back into the Scooter seat as possible to prevent tipping and causing injury.

Warning: Avoid using the armrests for weight bearing purposes, such use may cause the Scooter to tip and cause personal injury and/or damage to the Scooter.

Warning: Avoid putting weight onto the steering handlebars, such use may cause the Scooter to tip and cause personal injury and/or damage to the Scooter.

Warning: Avoid putting all of your weight onto the footboard, such use may cause the Scooter to tip and cause personal injury.

MODIFICATIONS

Freerider has designed your Scooter to provide maximum mobility. A range of accessories are available from Authorised Freerider Agents, to further customise your Scooter needs. However, under no circumstances should you modify, add, remove or disable any feature, part or function of your machine.

Warning: Failure to observe this warning may result in personal injury and/or damage to your Scooter.

INCLINES

More and more modern buildings are designed with disability
access in mind. Ramps have specified percentage of inclination, designed for easy and safe access. Some ramps may have turning switchbacks (180 degree turns) that require you to have good cornering skills on your Scooter.

- Proceed with extreme caution as you approach the downgrade of a ramp or other incline, sit right back in your seat, brace your arms on the handlebars and your feet on the floorboard
- Take a wide arc with your **Freerider's** front wheel around tight corners, your rear wheels will follow preventing you from cutting the corner short and bumping or getting hung up on raised kerbs.
- When descending an incline keep your speed adjustment set to the slowest speed setting to ensure a safely controlled descent and driving in a forward direction only. If your Scooter descent is quicker than you anticipated allow the Scooter to completely stop, then progress at a slower speed setting.

Warning: Never drive down an incline at full speed.

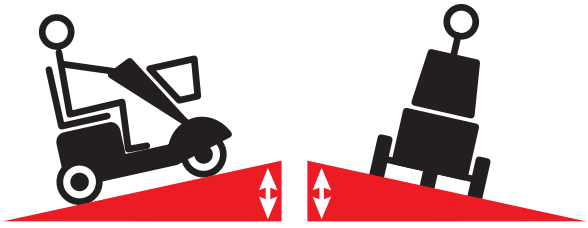
- When climbing an incline, try to keep your Scooter moving, if you must stop, start up again slowly and then accelerate smoothly with caution. Avoid sudden stop starts, lean forward towards your handlebars to increase stability and prevent rearward tipping.

Warning: When climbing an incline, do not zig-zag or drive at an angle up the face of the incline. Drive your Scooter smoothly up the incline without stopping, this greatly reduces the possibility of a tip or fall.

Warning: You should not travel over a potentially hazardous incline i.e. areas covered with ice or snow, cut grass or wet leaves or any unstable surface.

Warning: Do not overload your Scooter at the rear when climbing an incline. Always lean forward to
Provide the best stability and prevent rearward tipping.

Warning: Any attempt to climb or descend an incline steeper than shown in the Scooter Specification at the rear of this manual may put your Scooter in an unstable position and cause it to tip, resulting in personal injury. Never remove the anti-tip wheels of your Scooter, they are an important part of your Scooters design. See also Control on an Incline page19.



STAIRS AND ESCALATORS

Warning: Scooters are not designed to travel up or down stairs or escalators. Always use an elevator. Failure to observe this warning may result in injury to yourself and others and damage your Scooter.

PREVENTING UNINTENDED MOVEMENT

Warning: If you anticipate being seated in a stationary position for an extended period of time turn off the power key switch, this will prevent unexpected motion due to inadvertent movement of the direction control (wig-wag) lever. Failure to observe this warning may result in personal injury.

DISPOSAL OF ELECTRO-MOBILE SCOOTER

In time when your Scooter becomes unusable it must be disposed of in accordance with the laws implemented at that time. For further information regarding the recycling arrangements for this tyre of vehicle and its batteries, contact your local authority or government department, details of this can be found in your telephone directory.

ALWAYS TAKE CARE AND BE SAFE

SAFETY WARNING & INSTRUCTION LABELS

The following labels are positioned on your Freerider, they communicate important warnings or instructions regarding the safe operation of your scooter. Please familiarize yourself with their location.

Control console label

Located on right of handlebar cover

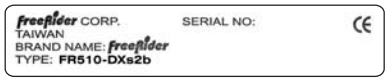
Located at the left or right hand rear cover of Scooter

Located at right rear of handlebars near charging socket

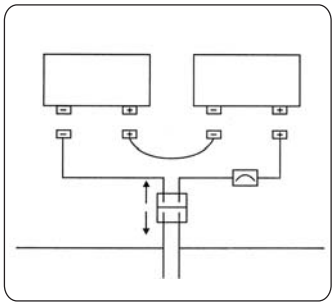
Located on front wheel cross member

Located on the top of the Scooter's rear cover (under seat)

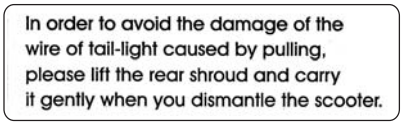
Located on the top leftside of the rear cover (under seat).



Data serial plate located on front wheel cross member



Wiring diagram for batteries located under rear cover



Yellow label located on the top of the rear cover

LEARNING TO GET ABOUT

Warning: If you are not an accomplished outdoors mobility product driver, we strongly recommend that you first practice in an open area, free from traffic and preferably with an attendant who can assist you.

MOUNTING

For your first drive make certain that you and your new Scooter are on a level surface. Put the power on/off key into its slot, but leave it turned off. Stand behind the Scooter's seat, and reach down to the 'Seat Lock Lever'. It will be on the left side directly under the armrest.

Grasp the 'black' knob on the lever and pull up, releasing the Seat (Fig 15). It will now turn easily to meet you. If need be, you can lock the seat into position to make it steady before you sit down. You can also lift up the armrest to assist this procedure. Seat yourself and swing the seat to face the handlebars. Make sure you are straight, then release the spring assisted lever, making certain that it locks your seat stop simply release the lever, the brakes will be automatically applied.firmly in position. Next, turn the 'Speed Adjustment Dial' to minimum (min), and turn the 'on/off' key to 'on' (Fig 10, page10). (The battery state indicator will move and the green status light will illuminate). Gently press the right thumb control lever (Fig 12, page 11) to start you in a forward direction. To stop simply relese the lever, the brakes will be automatically applied.

Warning: Please take care not to have your thumb on the forward/reverse control lever when you switch 'on' your Scooter; this will result in your machine going into a fault mode. Switch 'off' then 'on' again to clear the fault.

Warning: If your Scooter has been adapted for left hand, forward operation then this procedure will be reversed: i.e. pressing with the left thumb for forward direction and the right thumb for reverse direction.

Warning: If your Scooter has been converted with a " Delta" tyre control system,please refer to the separate

instructions provided with this accessory (see also page 40 of this manual)

DISMOUNTING

Always switch off your Scooter before dismounting. Locate the seat lever and pull up (Fig 15). Now you can swing the seat away, lock it, and ease yourself onto your feet.

If you prefer you can swing the armrests back to allow you to pivot on your seat and then ease yourself onto your feet.

Caution: Do not use the handlebars as a crutch to lever yourself out of your seat. Failure to observe this warning may damage the handlebar mechanism and make the Scooter unstable.

FIG 15

PARKING IN PUBLIC

If you need to park and leave your **Freerider** Scooter, simply remove your key. This will keep the brake on and make your Scooter more difficult to move. It is best to leave it in sight of someone like a store assistant etc. who can watch it for you. Another precaution is to you're your serial number and the date of purchase.

Your serial number can be found on a plate attached to the front cross member located under the body cover.

BASIC DRIVING

Make certain you are comfortably seated on your Scooter and both armrests are down. Ensure that the 'Speed Adjustment Dial' (Fig 10, page 10) is turned to minimum for your first drive. When you have become more confident you can increase the setting to a higher speed. Push the right 'Thumb Lever Control' (Fig 12, page 11), as described earlier. You will very gently move forwards. Release the lever, and you will gently stop. Practice these two basic functions until you get used to them.

Steering the Scooter is easy and logical by turning the handle bars in the direction you wish to manoeuvre. Be sure to remember to give a wide clearance when turning so that the rear wheels follow the path of the front one, instead of cutting short.

Cutting short on pavement corners or 'cut outs' can mean that a back wheel will go off the pavement, causing a stability problem. Avoid this at all times by steering an exaggerated wide arc around the obstacle.

If you must steer in a tight spot, such as entering a doorway or when turning around, stop, turn the handlebars to where you want to go, then apply the power gently. This will make the Scooter turn sharply. It will still go gently, and with complete stability. Practice in an open area, until you are proficient.

Reversing requires attention. Be sure your 'Speed Adjustment Dial' is turned to minimum before you reverse (Fig 10, page 10). Push the left thumb reverse control lever (Fig 13, page 11). Remember, when you reverse you have to steer in the opposite direction to the way you want to go. Practice is required here, again use that open space. Please note as a safety requirement reverse speed is half of forward speed.

Note: If your Scooter is set up for left forward driving the afore mentioned description is reversed.

REMEMBER: If it is a tight turn, turn your steering column before applying power. Steer wide of all corners and obstacles, please move slowly and with care.

Warning: Do not turn your 'on-off' power key switch to the 'off' position when your Scooter is in motion, failure to observe this warning may irreparably damage the main electronic speed control unit or drive transmission. Always first slow your Scooter down to a stationery position before you switch your Scooter off.

CONTROL THROUGH TIGHT SPOTS

When you start using your Scooter you will meet some obstacles that will require some practice to drive through smoothly.

Here are some common problems, with tips that will help you master them quickly. You will soon be in control through doors and up and down ramps with surprising ease by following these tips.

CONTROL THROUGH DOORS

Approach an unfamiliar door slowly, sizing it up. Does it have a knob or push bar? Does it open toward you or away? Think in terms of using the power of the Scooter to do the work for you! You need not strain.

Hold the doorknob or bar in one hand and apply power with the other hand. (Remember that you can drive forwards by using your left thumb to move the wig-wag lever towards you.) If the door is self closing, you can go through, allowing the door to close behind you, if you go quickly enough. If not, just stop when you're clear of the door and push it closed.

If the door opens toward you, hold the knob or bar with one hand and gently let the reverse power do the work. When

the door is open wide enough, go ahead quickly, leaving the hand on the door to keep it free of the Scooter and letting go as you pass the doorjamb. It is an easy technique. Practice makes perfect. Remember - your Scooter can do the work without wearing you out!

Going through doors, with the back wheels: If you're not moving, your rear wheel is probably caught. Reverse and try again. Take your time - relax - enjoy yourself.

CONTROL ON AN INCLINE

More and more buildings have ramps for wheelchair access. Some have a change of direction in the middle, and good cornering is required.

Make a wide manoeuvre with your front wheel around tight corners.so that your back wheels follow a wide arc to stay clear of the corner.

If you stop while facing uphill, the automatic parking brake will hold you safe. To start again, slowly push the forward direction lever, the parking brake will release and you will start to move.

When you approach an incline, it is best to lean forward, (Fig 16.17). This moves the centre of gravity of your Scooter towards the front of the Scooter for improved stability.

When going down an incline, keep your speed slow. This will keep you in a safely controlled descent. It is best to lean backwards, this moves the centre of gravity of your Scooter towards the rear of the scooter for improved stability. If you wish to stop completely, release the control lever, and you will come to a gentle stop, avoid sudden stop starts.

Warning: Do not exceed the incline guidelines or any other specifications presented in this manual.

CONTROL OVER STATIONARY OBSTACLES

Stationery obstacles (steps, kerbs etc) must be avoided where possible. Your Scooter has small wheels and a ground clearance of 4.0cm. Proceed with extreme caution when driving near raised surfaces, unprotected ledges and/or drop-offs such as kerbs, porches, stairs etc.
Most new pavements have wheelchair access ramps at intersections, use these at all times. Plan your route where possible to avoid poor and uneven surfaces. Do not attempt to ride up or down kerbs as you may ground your Scooter and damage it's construction.

CONTROL OVER GRASS & GRAVEL ETC.

Care must be taken when attempting to drive over soft surfaces such as those found in parks etc. The surface may look level, but this can be deceiving and hidden dangers may make your Scooter become unstable or grounded. Avoid unkept grass, loose deep gravel or sand, do not exceed the capabilities of your Scooter.
Always have an attendant to assist you in circumstances

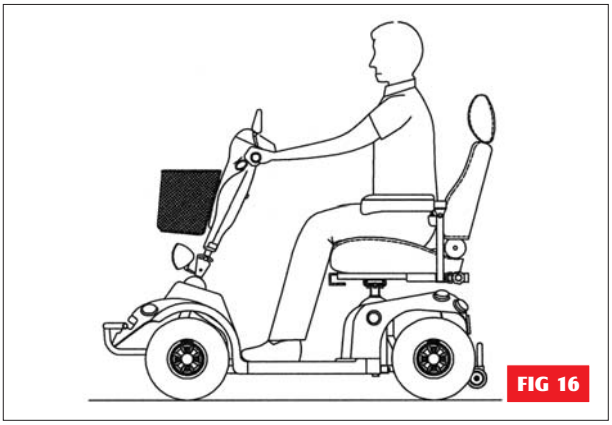


Fig16:Normal driving position

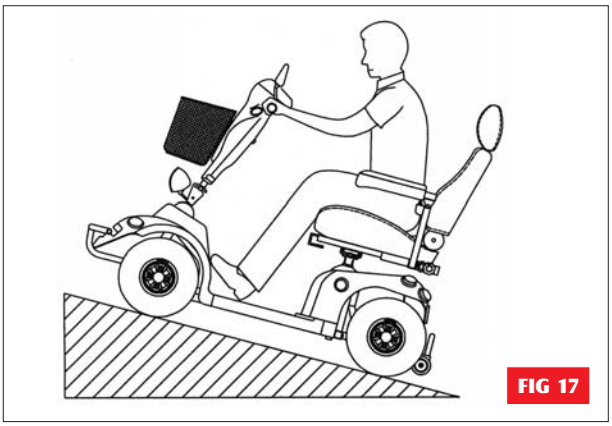


Fig17:Normal driving position

where you are not certain of the terrain. Always anticipate and think safety.

Caution: Because of the power of your **Freerider** Scooter, you will be able to climb inclines. But The maximum safe gradient limit is 10 degrees. The reason for this is to ensure good stability. Always have the anti-tipping wheels fitted to your machine (Fig 18) when climbing angles or obstacles.
Always avoid turning on slopes or climbing kerbs.

Always make certain that your Scooter is in full working order before attempting to drive. Never attempt to drive beyond the design capability of your **Freerider** Scooter. Observe weather conditions. Tyres can slip on wet or icy surfaces.

DO NOT DRIVE THROUGH DEEP WATER OR LEAVE YOUR FREERIDER EXPOSED TO HEAVY RAIN.

i.e. During or after a thunderstorm.

Do not attempt to turn when negotiating an incline, only turn when all wheels are fully on or off the incline; failure to observe this warning could result in the machine becoming unstable and toppling over.

Always lean forward when ascending an incline and backwards when descending an incline. This will enable you to maintain good stability and will eliminate any chance of an upset.

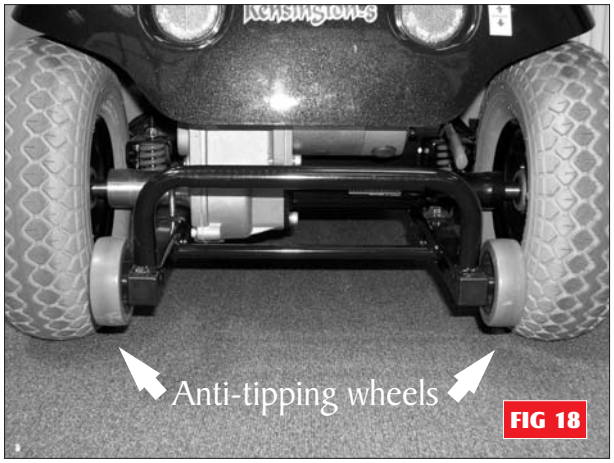


FIG 18

PLEASE NOTE: The rear stability of your Scooter is dependent on a number of factors which you should consider before attempting to climb an incline or other obstacle: (a) your height; (b) the height of your seat; (c) your weight and (d) the angle of the incline you are attempting to climb. All of these factors can affect the rear stability of your **Freerider** Scooter. If you are unsure of your capability to climb an obstacle, then try another route - always think 'safety first'.

Please take care and be safe

TRANSPORTING YOUR SCOOTER

Whether it is for a holiday, a day out to visit family or friends, or a trip to the shop, your scooter can be taken along too.

Depending on the size or model of your car you will be able to load your scooter in one of the following methods.

1. With the aid of a car hoist. Your fealer will be able to advise on suitable equipment.
2. With the aid of ramps. Ramps will aid you to drive your scooter straight into a people carrier or estate car, if the rear opening is low you may have to remove your scooter seat and lower handlebars. You will also require a suitable folding ramp to lift your scooter into your car. Your **Freeride**r Distributor will be able advise you of suitable for this purpose (See Fig 19).
3. Small hatchback or estate or estate car (See Fig 20.21).
4. If your car is small or has a conventional boot, your scooter can be dismantled into six basic parts (See Fig 29).

LOADING YOUR SCOOTER

1. Remove your seat or fold down the backrest as necessary (Fig 22).
2. Lower the steering handlebars sufficiently to allow the handlebars clearance under the top of your tail gate entry, lock handlebars into position with black locking lever (See Fig 9 page 10).
3. Set your speed 'min-max' adjustment dial (See Fig 10 page10).
4. Switch Scooter 'on' and gently operate the speed control lever, to make a slow and controlled accent of ramp.
5. When you have safety loaded your scooter into your vehicle switch off the power switch. Load ramp into vehicle.

To unload your scooter from your car follow points to 5 in reverse order.

Warning:

- Always make certain that you are on level ground when loading and unloading your scooter from your carrying

FIG 19

FIG 20

FIG 21

vehicle. Always keep your body clear of your scooter to prevent entrapment.

- Always make certain your scooter tyres and your ramp surface is dry, failure of observe this warning could make your scooter unstable and put you in a dangerous situation.
- Always make certain your ramps are at a sufficiently low angle to maintain good stability and climbing adhesion. Failure to observe this warning could put you in a dangerous situation.
- Never ride on your scooter when loading it into a vehicle, warning could put you in dangerous situation.
- Always make certain that your scooter and any ancillary art is correctly strapped into your carrying vehicle to prevent forward or reward movement during normal driving or in the case of severe braking. Most of modern vehicles have 'loading eyes' situation in the carrying vehicles floor, use these with suitable straps to prevent your scooter moving.

Warning: Always make certain your scooter drive system is in the engaged position.

DISMANTLING YOUR SCOOTER FOR JOURNEYS AWAY

For convenience, you may want to dismantle your scooter to allow it to be transported in a smaller space. Your scooter can be dismantled into six individual parts (See Fig 29, Page 21). To enable scooter to be dismantled and transported follow these simple instructions. This procedure can be carried out without tools.

1. Drive your scooter close to the vehicle into which you are about to load it. You may need some assistance to life the components once your machine is dismantled.
2. Switch off your scooter. First remove the seat by releasing the 'black' locking lever. Rotate the 90° to the right or left (See Fig 1,4), lift the seat upwards slightly twisting.This will release it from its mounting tube.
3. Lift up the rear cover, disconnect the rear light plug and socket (See Fig 23), please safely to one side. Note the cover is secure by Velcro tyre material at each side at the front and in the centre. Unfasten the battery straps by parting Velcro fastening.
4. Battery Plugs: Disconnect the two shrouded battery plugs be gently pulling apart. These plugs are polarized and only be fitted together one way. Do not force together when reassembling.
5. Carefully lift up each battery with the handle provided. Use two hands for this operation, one to steady the battery .
   Note: Make certain that the carry handles is fastened tightly prior to lifting the battery. Please the batteries on a firm and safe surface. Your batteries are sealed and cannot spill if tipped over. Always carry the batteries upright.
   Warning: Do not place metal objects over open battery terminals. BEWARE of short circuits. Make certain the terminals are covered by the red and black plastic protectors at all times.
6. Lift the front wire basket from the mounting bracket on the handlebar cover, you will note this mounts on three clips (Fig 24).
7. Lower the handlebars by releasing the locking lever. The handlebar will rest on the floor mat. Note place a soft piece of material under the painted console for protection.
8. Electric Plugs: disconnect the 12 pin and 3 pin 'white' connectors (Fig 25) by squeezing the small latch and carefully pulling apart. These connectors are polarized and

FIG 22

FIG 23

FIG 24

FIG 25

can only be reconnected together one way. Note the locating lugs on the connectors, do not force these connectors together when refitting.

9. A: De-Docking Lock Pin (FR510DX2/FR510DXs2):
The de-docking lock pin locates the rear motive powered unit to the front steering platform. The locking pin locates through holes in the front square chassis tube bracket and the rear chassis location tube. The locking pin is held for convenience at one end by a ring and chain. At the lower end of the locking pin is a spring loaded clip. When secured through the two chassis parts, the de-docking locking pin (Fig 26) is prevented from removal by the spring loaded clip.

Warning: It is good practice to visually check this locking pin weekly for correct location through the two chassis points. Visual access to the locking pin can be viewed under the rear body cover.

B: Locking Mechanism (FR168-4/4S/3/3S): The front of and rear chassis components are locked into position with a spring loaded pin (Fig 27). The spring loaded into a hole in the rear of the front chassis unit preventing the two chassis components from lifting apart driving.
To unlock the two chass is parts rotate the locking mechanism knob inf an anti-clockwise direction indicated by the "loosen arrow".Turn the knob approximately four full turns until you can lift it upwards against the spring pressure. Carefully separate the two halves of your Scooter (Fig 28) by holding the 'C' shape handle on rear of the Scooter so that the rear chassis remains level. With your other hand, lift the seat post vertical until the front and rear sections have separated.
NOTE: This operation is made easier if you first lower and lock the tiller. You will find the front section is better balanced in this position.

10. You are now ready to separate the two halves of your Scooter.

Warning: Before you carry out this operation,have you remembered to unfasten all of the connectors and plugs? Failure to observe this could result in unnecessary damage.

Caution: Please keep the rear chassis level at all times during the de-docking operation, failure to observe this caution will result in the two sections jamming together.
The Scooter is now dismantled into its 6 basic parts (Fig 29).

1. The Seat
2. The Batteries
3. The Basket
4. Rear Motive Powered Unit
5. Steering Platform
6. Rear Cover

You can now load your Scooter into a suitable car.

Caution: Protect clothing when lifting Scooter parts, some components may have lubricating fluids on their surfaces.

Work out the best practice to stow each part of your machine, this will vary with different car designs. An old blanket can be used to stop the various parts rubbing against each other. It is good practice to stand the batteries upright and locate them so they do not fall over and touch the battery posts on any metal framework. Your Scooter will increase the

FIG 26

FIG 27

FIG 28

FIG 29

load in Your car, please remember this and adjust your driving to suit this condition.

Note: In some midsize cars the scooter seat may need to be stowed on the front seat of the vehicle. Use the cars safety belt to secure the seat in position.

Caution: The body mouldings on your Scooter have not been designed for lifting your machine. Use the firm metal lifting handles only.

Warning: Take care when lifting heavy parts. If in doubt always seek assistance when lifting parts in or out of your vehicle.

HOW TO RE-ASSEMBLE YOUR SCOOTER

Your Scooter is very easy to re-assemble once you reach your destination. To re-assemble, follow the preceding procedure in reverse order, noting the following:

1. When re-assembling the front and rear sections of your Scooter, make certain you are on firm, level ground. Place the front and rear units close together with the channel of the rear motive unit. With one hand support the rear motive unit at the seat post keeping it level. With your other hand lift the rear of the front steering section by the seat post and lower it into the 'U' shaped channel (See Fig 30), simultaneously locate the locking pins brackets together.

A: Fit the safety locking pin through the location holes, make certain that the spring loaded safety 'clip' is firmly located into the safety " locking pin"

B: 1. When re-assembling the front and rear section of your three wheels scooter, make certain you are on firm, level ground. Please the front and rear chassis units close together with the round tube of the front steering section facing the 'u' shaped channel of the rear motive unit.

2. Pivot the rear chassis unit background onto the anti-tipping wheels and pull down the central support leg, lower the rear chassis onto the support leg (3 wheels scooter).
   Warning: Do not pivot the rear chassis this warning will damage the paint finish.

3. Lock the two chassis sections together by pushing forward on the seat mounting post, this allows the rear support leg to pivot upwards under spring pressure and the two chassis sections lock together. You will note the locking mechanism with an audible "click".

4. The front and rear chassis parts can now be fully locked together by rotating the locking mechanism in a clockwise direction indicated by the "tighten" (See Fig 31). Fully tighten the locking mechanism (approximately four full turns) until the locking pin is fully located. Pull backwards and forwards on the seat mounting post to determine that the two chassis parts are correctly located together, no movement in the two chassis parts should be found.
   Warning: Failure to fully engaged the safety pin mechanism correctly could result in an accident, please take particular care.

FIG 30

FIG 31

5. Connect the white six pin electrical plug together (See Fig 25 Page20). DO NOT FORCE TOGETHER, you may have connected it the wrong way round.
6. Replace the two batteries onto the chassis making certain they are correctly located onto the velcro fastener. Replace the two battery plugs into their connectors
7. When you have re-assembled your scooter and fitted the rear cover and seat, switch the power key to the 'on' position. The battery level gauge will move and the 'green' status light will illuminate. This will indicate that you have re-connected the battery connectors correctly. If the battery level indicator and status light do not illuminate then you have not connected the wiring connectors correctly (See Fig 23,25 Page 20).

Test the drive function of your machine. Does your scooter move forwards correctly? If your scooter does not drive, the freewheel lever may be in the 'disengaged' position, see section 'Freewheeling your scooter' Page in this manual.

Important Notice: Your scooter has been designed for pavementuse only, **IT IS NOT A DIRECT REPLACEMENT FOR A SEAT IN A MOVING VEHICLE.**

Now enjoy your Freerider.

BATTERIES & BATTERY CHARGING

BATTERY INSTALLATION

Your Scooter is equipped with two maintenance free 12 volt batteries. The batteries are linked together by wiring cables to supply the electronic system with 24 volts of power

Warning: It is imperative that the two batteries are connected correctly to prevent a short circuit between the two batteries.

When first installing the batteries follow these assembly instructions.

1. Connect the red wire of the battery cable to the positive (+) terminal of the battery, with the screw, nut and washer provided.
2. Connect the black wire of the battery cable to the negative (-) terminal of the battery, with the screw, nut and washer provided.
3. Repeat this procedure on the second battery making certain the plastic red/black terminal covers are secured over each terminal.
4. Secure the two batteries into position with the velcro ®® hold down adhesive technique.
5. Connect the two black plugs of the batteries into the two black sockets of the wiring circuit.
6. Switch on your Scooter, the battery meter will now move to show the state of charge in the batteries and your Scooter is ready to drive.
7. Switch off your Scooter, fit the battery cover and seat.

BATTERY CONNECTIONS

Warning: Batteries are heavy, always handle with two hands. Do not allow metal tools to touch both battery terminals together, this will cause an electrical short and may damage the battery and injure you. Make certain the red and black battery wires are correctly attached to the '+' and '-' terminals as the diagram below. Failure to observe this warning may cause an explosion, short circuit, fire or injury to your person.

BATTERY CHARGING

Your Scooter has a lot of power for a small Scooter. Keeping it working to its maximum potential means that its two batteries must be maintained with full power. Nightly recharging, after use, will help you to give them a longer life and will ensure your Scooter is always ready to go when you are.

BATTERIES

Your Scooter is fitted with two sealed maintenance-free Batteries, especially designed for motive traction use. This means that you do not have to worry about topping up the cells.

Warning: Do not attempt to remove the safety valves situated in the top of the battery. Failure to observe this warning will invalidate your battery guarantee.

Your Scooter batteries are virtually Maintenance-free because the electrolyte is immobilized in a special form and therefore will not leak out, even if the battery is accidentally overturned. Because your **Freerider** batteries are sealed they are more likely to be accepted for carriage on aircraft.
Please consult your carrier prior to departure, as they will need advance warning that you wish them to carry batteries. Please note: Each carrier reserves the right not to carry what may be termed 'HAZARDOUS CARGO'. **Freerider** cannot be held responsible for their final decision.

BATTERY CHARGER

The battery charger supplied, is special to your Scooter and it may not be suitable for any other powered mobility product. Only use the charger supplied with your Scooter; other makes of charger may permanently damage your batteries and would invalidate the Guarantee.

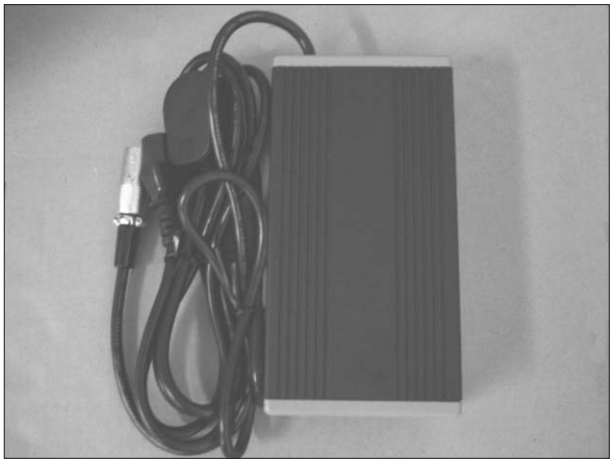
YOUR GUIDE TO SAFE AND LASTING BATTERIES

1. For longest life, your batteries should be re-charged after use. Preferably over night.
2. If your Scooter is not used for a period of time, a refreshing charge should be given every month. Never leave your batteries in a discharged condition. This is particularly important with sealed batteries as fitted to your Scooter. If your batteries discharge below a total terminal voltage of 12 volts (6 volts per battery), the charger supplied with your Scooter will not operate. Please consult your **Freerider** dealer.
3. If your Scooter has been stored away for some time, re-charge your batteries before re-using it.
4. Every six months, check the connections on the batteries, making sure they are tight and clean, make certain the red/black terminal covers are maintained.
5. Batteries carry a limited guarantee from the original manufacturer which is subject to a stringent wear and

tear clause. Any battery faults due to a defect in the original manufacture will normally become obvious within the first two months. Any gradual deterioration in performance after this period is normally associated with fair wear and tear, mis-use or accidental damage and, as such, is not covered by the manufacturer's warranty. (This does not affect your statutory rights).

Note: If one battery becomes faulty during the guarantee period only that battery from the pair will be replaced.

CHARGING YOUR BATTERIES AWAY FROM YOUR SCOOTER



For convenience your Scooter is supplied with an off board charging cable. In circumstances when your Scooter is stowed in your car etc., your two batteries can be recharged away from your Scooter with the aid of the 'off board' charging cable (PK90-0401).
The cable links together your batteries and Charger. Simply connect the two black connectors on your batteries to the link cable and the 3-pin plug of your Charger to the 3-pin socket of the link cable.
Connect your Charger to a convenient wall socket, switch on, your batteries are now being recharged away from your Scooter.

FREQUENTLY ASKED QUESTIONS

Why do my batteries require recharging?

Batteries are the fuel tank for your Scooter. They provide the vital energy to power your vehicle. When you ride your Scooter, the drive motor consumes the energy stored in the batteries. The battery's energy is gradually reduced over the period of driving time and will need to be replaced before you can use your Scooter again.

Similar to the situation with a motor car, in that you need to replenish the petrol as it is used up as energy, likewise with your Scooter, you need to replace the used battery energy by re-charging the discharged battery cells.

How does my Charger work?

Your battery Charger is an intelligent automatic charging Instrument. Your Charger's robust framework contains a number of quality components; namely a transformer, rectifier and complex control circuitry.

The Charger receives the 90/230 volts domestic electricity supply via a standard 3-pin wall plug and reduces this voltage down to 24volts via a transformer. At the same time it rectifies the A.C., alternating domestic current into D.C., direct current. This matches exactly, the voltage characteristics stored by your Scooter's batteries.

Your Charger automatically controls the re-charge cycle from the moment that you switch it on to the moment the green 'Charge Complete' light on the face of your Charger illuminates.

When your battery's voltage is very low, the Charger will work extremely hard to replenish the spent energy. This is called the 'Bulk Charging' stage. As the battery voltage approaches 90% of the full charge capacity, the Charger reduces its output for the final stage of the re-charge cycle. The time taken from switch-on to the end of the bulk charging will vary, depending on the amount that the batteries have been used, or in time their age. At this point a timer is automatically started, to regulate the final stage of the charging cycle, this set time ensures maximum capacity and battery life.

The length of time to re-charge your batteries will vary from 8 up to 12 hours. This variation in time is due to the following factors:

1. Depth of discharge - The amount of energy you have removed from your batteries when driving your Scooter.
2. Battery age - This is due to the changes in their internal electrical resistance. Note very old batteries may take longe to fully recharge.

Where can I re-charge my batteries?

In most safe domestic environments, i.e. your house, garage or shed. Do not expose to rain or spray - for indoor use only. Later on in this information, there is reference to the way temperature variations can affect the performance of your vehicle. When charging your batteries where reasonably practicable, ensure that the battery Charger is close to the vehicle being charged so that the temperature of the battery Charger and batteries are almost compatible.

For example, a vehicle may be outside whilst the battery

Charger is inside. It is possible in this situation that the battery Charger will sense the inside temperature, whereas the batteries on the vehicle will be at the outside temperature, resulting in an undercharged situation. This situation must be avoided.

How often must I re-charge my batteries?

Many factors come into play when deciding how often to

charge your batteries. You may use your vehicle all day on a Daily basis or you may not use it for weeks at a time. Other factors such as driver and baggage weight, smooth or rough terrain, flat areas or inclines and speed must all be considered.

With these variables you should concern yourself with two questions: HOW OFTEN should I charge and for HOW LONG? The Charger is designed so that it is impossible to overcharge your batteries. If you follow the guidelines below, your batteries will provide safe and reliable operation.

1. If you use your vehicle during the day. Put it on charge as soon as you have finished using it. The Charger is fully automatic so it will not overcharge your batteries. Your vehicle will be ready each morning to give you several hours use. It is recommended that you charge your batteries after daily use until the green 'Charge Complete' light illuminates.
2. If you use your vehicle infrequently (once a week or less) you should charge it at least once per week until the green ' Charge Complete' light illuminates. Remember: Keep your batteries fully charged and avoid deeply discharging them.
3. Storing batteries: Batteries should always be stored fully charged. Check once a month and recharge fully if needed. Sealed batteries can hold their charge for approx. 6 months. If they are left connected on the Scooter, remember key switches, meters and electronic circuits can drain the batteries rapidly. It is advisable to disconnect the batteries for prolonged storage. Store in a warm, dry room.

How can I ensure maximum battery life?

Simply put, a fully charged battery is a happy battery! A fully charged battery will provide reliable performance and extended battery life, so keep your batteries fully charged whenever possible.

Handling your batteries

Extra care must be taken when handling batteries, if you decide to dismantle your vehicle for transportation etc. Dropped batteries, even from a very small height, can lead to damage of the internal components, causing premature cell failure. Your batteries are sealed and do not require maintenance. Do not force open the valves in the battery top.

Disposal

Caution: Used batteries must not be disposed of by means of a domestic refuse disposal unit (dustbin) etc. Please contact your Dealer to dispose of used batteries. Please note, he may charge for this service.

BATTERY WARRANTIES

The batteries fitted to your vehicle are guaranteed against a manufacturing or material defect for 6 months. Any battery faults due to a defect in manufacture or materials will be obvious within a few weeks of use. Your batteries are not guaranteed to perform to full capacity for 12 months. This will, of course be dependent on the actual use of the vehicle and how often the batteries are cycled i.e. discharged and charged.

Gradual deterioration in performance and reduction in range is normal and associated with fair wear-and-tear, misuse or accidental damage. Under these circumstances, the warranty will not apply. It is a fact that some users due to their hectic lifestyle, weight or operating conditions, may wear their batteries out during the original battery manufacturer's guarantee period due to extensive use of their Scooter. This is termed 'Cycle Life'. Batteries have a defined number of discharge cycles they can make i.e. the more times you use your Scooter the more cycles your battery will make - the shorter their life span.

If you take time to run-in your batteries properly, it will be worth it. Remember: how long your batteries will provide service is quite often a reflection of the care they receive. This is how to run-in your new batteries:

1. Fully recharge any new batteries prior to your initial use. This will bring your battery up to about 88% performance.
2. Ride your vehicle around the house or garden. Do not venture too far away until you become accustomed to the controls and feel of the vehicle. This will gently run-in your batteries.
3. Give your batteries another full charge and run the vehicle again. The batteries will now perform to over 90% of their full potential.
4. After ten to fifteen charging cycles, the batteries will top off at 100% charge and last for an extended period due to your patience and care in the first few days of operation.

How can I get the maximum operating time per charge?

Rarely do we have an ideal driving situation such as a smooth, flat, hard terrain with no wind or curves and warm temperatures. More often, we are presented with hills, uneven and loosely packed surfaces, curves, wind, cold and heavy loads. All of these factors will affect the distance or running time per battery charge.

Here are a few suggestions for obtaining the maximum range per charge:

1. Always charge your batteries fully prior to your trip. It is a good idea to keep your Charger connected when the 'Charge Complete' (green) light is illuminated in the 'Top-Up' maintains mode.
2. Maintain relevant tyre-pressures as stated in the Technical Specifications of this Users Instruction Manual.
3. Plan your trip in advance to avoid inclines, kerbs and soft surfaces.
4. Limit your baggage weight to essential items.
5. Try to maintain an even speed to avoid stop and start driving.
6. Ensure recommended routine servicing of the vehicle's components, i.e. motors, brakes, electrical connections etc., is carried out as instructed in this Users Instruction Manual.

Warning: When working or disposing of your batteries

1. Always make certain the terminals of your batteries are covered with the red/black terminal protectors. Do not allow metal objects to short out the terminals, your battery could explode causing you injury.
2. Do not allow your batteries to freeze. If frozen allow them to naturally thaw out before charging, failure to observe this warning may damage the batteries.
3. If you need to replace your batteries, contact your **Freerider** Agent. Only batteries supplied as original equipment on your machine will give you the best performance. When charging batteries make certain the positive and negative terminals are correctly assembled. Failure to observe this warning may cause an explosion, short circuit or fire.
4. Always handle batteries carefully, they are heavy. Wear protective gloves and glasses when handling.
5. Dispose of worn out batteries carefully, contact your local waste disposal authority for advise.

CARE & MAINTENANCE

Your Scooter like any other electro-mechanical machine will benefit from regular servicing by your Freerider dealer.

You too, can help keep your Freerider in tip-top condition by following a simple guide to home maintenance.

Note: Only competent people should carry out service work.

SEAT UPHOLSTERY

A damp cloth and a little soapy water will keep your seat, backrest and arms looking smart. Do not use abrasive cleaners as this will damage the coating. Upholstery can be damaged by chemical cleaners. The coating material can also degrade over a period of time due to contamination by natural oils in the hair and skin.
Ultra-violet light can also reduce the life of the upholstery coating material. This is a normal ageing process and cannot be guaranteed (see exclusions in the Guarantee Terms).

BODYWORK

The painted bodywork on your Scooter can be lightly washed with clean soapy water. Do not use abrasive cleaners or strong detergents. This could fade the colour, an auto tyre shampoo works well. Remove salt contact as this is very corrosive to bright metal parts.

Caution: Do not hose down your Scooter with a powerful cleaner. Water could be forced into the electronics and cause permanent damage.

On the painted finish, be cautious not to wash with a dirty cloth as this could scratch the paint finish. Auto polish can be used to keep the paintwork and bright chrome parts in pristine condition.

The metal framework of your Scooter should be cleaned once a year and any paintwork damaged should be treated to prevent further attack from the elements.

Do not store your Scooter in damp conditions. This may affect the electronics if left for very long periods of time. Moisture, if left unattended can cause deterioration on metal work, protect with proprietary cleaners.

ELECTRONICS

Servicing of the drive electronics and charger should only be carried out by your local Freerider service dealer. These units are sealed and should not be opened. BROKEN SEALS WILL INVALIDATE YOUR GUARANTEE.

Do not operate your Freerider Scooter in exceptional weather conditions i.e. very heavy rain. Cover your machine up, if it is to be left unattended and outside for a long period of time. Do not drive through deep water with your Scooter. This could damage the electronic speed controller. Sea and road salts are very corrosive and should be neutralized quickly.

MOTOR

The motor on your Freerider Scooter is fitted with long-life brushes. The brushes should be inspected for wear every 12 months or more frequently if you use you Scooter daily for long periods. The brushes should be changed when they have worn down to approximately 8mm in length. Access to these brushes can only be made by dismantling the motor body.

Caution: Only competent people should service the motor's components.

DRIVE TRANSMISSION LUBRICATION

This unit is factory filled and will not normally need additional lubrication.

Note: Your **Freerider** Scooter transmission is filled with a special lubricant. Do not attempt to force grease into the transmission as this will contaminate the original lubrication and will invalidate your guarantee.

Caution: Take care when lifting the transmission, keep well away from clothing. It is normal to find a light film of lubrication around this part.

MOTOR BRAKES

Safety Note: For your own safety, we recommend that you check the function of your Scooter brakes prior to a journey.

Motor Brake: If the motor brake is functioning correctly and the drive is engaged you will not be able to push your machine when it is switched off. Or switched on with the speed control lever in the 'zero speed', central position.

If your machine can be pushed as described above, the motor brake could be faulty, or the freewheel system has been disengaged. Please do not use, contact your local **Freerider** distributor.

Note: Check the Freewheeling Instructions on page 12 of this manual.

Driving Brake: Warning: When you drive your **Freerider** Scooter and you let go of the speed control lever your Scooter should reduce speed very quickly. If you notice a change in the normal slowing/braking condition, and your Scooter does not slow down quickly, please do not use your machine, contact your **Freerider** distributor.

HANDLE BAR BEARINGS

The bearings which control the movement of the steering handle bar may need to be adjusted if up and down movement is noticed in your steering handle bars, and those are accessed at the base of your handle bars.

The bearings are adjusted by first releasing the locking nut anti-clockwise one full turn with a suitable spanner (Fig35).

Turn the upper bearing adjustment nut clockwise, one flat at a time until all of the up and down movement in the handle bars is removed. Retighten the lock nut clockwise into position with a second spanner. Do not over tighten the bearing adjustment nut, as this will damage the bearing tracks.

The handle bar bearings are NOT 'Sealed for life' and may require lubrication with a general purpose bearing grease on an annual basis.

TYRES

Check the condition of your tyres regularly. Look for signs of wear, cuts and foreign objects lodged in the tread. Also, maintain the tyre pressures at all times; failure to comply with this can lead to poor performance of your machine and could make your machine unsafe and/or unstable.

Warning: Your **Freerider** is designed with 'split' wheel rims. Do not remove wheel bolts with the wheel inflated. Maintain pneumatic tyres at 30 p.s.i. (210 kpa). Failure to observe this warning may result in personal injury. Note low or unequal tyre pressures can make your Scooter become unstable and reduce battery / motor performance.

TYRE SERVICING REAR WHEEL

To remove a rear wheel from your **Freerider** Scooter for the service of a tyre or tube carry out the following instructions (only competent people should carry out this procedure).

1. Switch off your Scooter and remove the key.
2. Using a suitable body stand, lift the side of the vehicle you wish to service off the ground. Place the stand under the metal chassis. Care must be taken when lifting heavy loads, you may need a friend to help you. Care should also be taken when working on a stand.
   Please be safe. Do not lift by the plastic bodywork.
3. With the aid of a 19mm spanner (not supplied) remove the centre hub nut and washer (see fig 33).
   Slide the wheel from the mounting axle. Rear wheels are fitted to the drive axle via a hub which locates onto a key.
4. These wheels fit tight onto the axle and may need some pressure from a bearing puller onto the wheel hub to release them from the axles. Look for spacing washers and take care not to mislay the drive key which fits between the wheel hub and the axle shaft.
5. First deflate the air from the wheel assembly by removing the valve core from the valve with a suitable valve key

FIG 32

(purchased from auto shops).
Warning: Please note the rims of your wheel are a split rim system, do not dismantle the wheel from the hub without first letting air out of the tyre.
With the aid of 13mm spanners (not supplied) remove the four nuts and washers from the rear of the wheel hub.

6. Remove the four wheel bolts and part the hub from the wheel rims. Part the inner and outer wheel rim from the side wall of the tyre.

To re-assemble the wheel and hub simply follow the above procedure in reverse order noting the following points:

1. Make certain you have tightened the two wheel rims to the centre hub.
2. Make certain your tyre is re-inflated to the recommended pressure 30 p.s.i. (210 kpa)
3. Make certain that you replace any spacing washers and keys in the order that they wereremoved.
4. Locking Nut: The special nylon 'locking' centre hub nut may lose its effectiveness when it has been removed over a number of times. If the plastic locking ring at the end of the nut becomes worn or damaged, then the nut should be replaced with a new part obtained you is your **Freerider** Agent.

TYRE SERVICING FRONT WHEEL

The tyre should be exchanged when the tread has worn out. Remove the wheel from the fork with the aid of 19mm and 21mm spanners. The front wheel has two bearings which may have various spacing washers between the fork, please note the order of these washers.

Remove the tyre from the wheel by following point 6 above for Rear Wheels, using a 13mm spanner and hex key. For re-assembly, just reverse procedure making certain that all washers supplied are replaced correctly.

TYRE PRESSURES

The Scooter wheels are pneumatic and their pressure needs to be maintained at 30 p.s.i. (210 kpa)

Warning: Pressures exceeding those recommended will result in an uncomfortable ride. Underinflation will result in poor battery and motor performance. Do not exceed the maximum pressures marked on the side wall of the tyre, this could damage the tyre or wheel rim.

Caution: The fitting of solid inserts into the wheels to replace the pneumatic tube (puncture proofing) is not recommended as these products detract from the natural cushioned ride produced from 'air' filled tyres. If you require puncture proof tyres, your dealer can, at an extra cost, insert a liquid puncture proofing agent.

BATTERIES

Keep your batteries well charged (see Battery Charging section of this manual). Keep batteries clean and in a dry frost-proof place. Keep battery terminals tight. Your **Freerider** Agent will be able to test your batteries for their state of service.

Note: a charge may be made for this service.

IMPORTANT: It is not possible to predict the life expectancy of your batteries. This is mainly due to the different workloads a battery can be subjected to.

Some **Freerider** Scooter users will use their vehicle every day and for long periods of time. Their batteries will receive a near total discharge, and the life of the batteries will be short **(less than 12 months in some cases).**

Other Scooter users will use their machines less frequently, putting their batteries through a less demanding discharge lifestyle. These batteries will probably have a longer life in excess of 12months). This can only be a general guide and one cannot be more specific, due to other factors such as; motor loads, tyre pressures, general service factors, working conditions, periods of non-use and abuse etc.

When you need to purchase batteries, always insist on the model fitted as standard equipment to your Scooter. Do not use less expensive car starter batteries. If in doubt, consult your local **Freerider** authorised agent.
Warning: Correct disposal of exhausted batteries is advised.

Please note: The charger supplied with your **Freerider** Scooter is specifically designed for sealed type batteries and may not work correctly with other battery designs. (See also Batteries and Battery Charging section of this manual).

LUBRICATION

The **Freerider** Scooter has been designed with low maintenance in mind. Wheel bearings and steering bearings are sealed for life. The following points will need checking/lubricating at the following service intervals:

RECOMMENDED SERVICE INTERVALS DAILY

Check the following:
- Operation of motor brakes
- Operation of driving brake
- Operation of seat lock
- Tyre condition
- Front basket and any carrying accessory is firmly attached
- Batteries are fully charged

Caution: Only drive your **Freerider** Scooter if it is in full working order.

WEEKLY Check the following and adjust as necessary:

- Check chassis locking mechanism (see Fig 27 page 21)
- Arm rest tightening knobs (see Fig 2 page 8)
- Tyre pressures 30 p.s.i. 210 (kpa)
- Battery fastening
- Allow battery charger to go through a full recharge cycle until the green light is illuminated (see page 23)
- Clean paintwork with auto shampoo. Do not use a high pressure hose. Wax painted and bright metal parts.

SIX MONTHS Check and adjust as necessary:

- Tyre wear, replace as necessary
- All fasteners and fittings for sound function
- Tension of handle bar lock and hinge bolt
- Battery connections
- Inspect all electrical plugs and sockets for damage and good contact and fit.

Lubricate the following:
- Wig-wag accelerator lever pivot point (see Fig 34)

- Spray metal parts with moisture repellent (Wd40)
- Seat lock lever pivot bolt
- Seat rotation, grease face of seat post and pivot pin at base of seat.
- Seat arm hinges
- Inspect, lubricate and adjust upper handle bar steering bearings

ANNUALLY Check the following and adjust as necessary:

- Motor carbon brush wear (minimum brush length 8mm)
- Front wheel bearings for wear
- Handle bar bearings
- Chassis for sound welds
- Rear Drive wheel hub keys
- All wheel bolts
- Drive axle securing bolts
- Motor mounting bolts
- Magnetic motor brake disc and function
- Main control box electrical connections
- Main wiring loom for damage
- All steering components
- Clean chassis and repaint any exposed parts
- Lubricate on/off power key barrel
- Replace any damaged axle seals
- Cycle test charger for full operation function
- Cycle test batteries for operating capacity (This test can be performed by your **Freerider** Agent)

Note: the items listed under weekly and six months should be incorporated into this annual inspection.

LUBRICATION

Use a general purpose light lubricating oil on moving parts. All wheel bearings are factory sealed and should not normally need lubricating. Handle bar bearings should be lubricated with a general purpose bearing grease. However, your drive axle is factory filled with a special lubricant and will not normally need replacing.

Caution: Do not mix other lubricants with this factory fitted drive axle lubricant. Failure to observe this caution will invalidate your guarantee.

FIG 34

Please note: These service intervals are a guide, more frequent use of your Scooter may require adjustment to these suggested intervals.

RECOMMENDED AREAS FOR ADJUSTMENT STEERING COLUMN ADJUSTMENT

The steering column locking system works on a 'cam' principle to lock the column in the desired driving position (see Fig 9 page 10).

If you notice the column is not firmly held when the black cam operating lever is fully down, follow this procedure to readjust the 'cam' tension:

1. Push steering column forward as far as it will go with the locking lever released, i.e. pushed upwards. Support steering column.
2. With a 10mm spanner (not supplied) loosen the locking nut positioned on the opposite side to the black locking lever (Fig 32).
3. Next to the locking nut is a chrome threaded 'clamping nut' this has a slightly tapered shape. Turn this clamping nut clockwise approximately a quarter of a turn.
4. Push the 'black' clamping lever down and test that the tiller is tightly held in place; adjust 'clamp nut' until correct tension is achieved on clamp plates.
5. Tighten locknut with 10mm spanner.

FIG 35

BASIC FAULT FINDING

If your Freerider Scooter will not start:

1. Check the power key switch is turned 'on'. If it is, the battery condition indicator meter will be operating. If the green status light on your console is flashing once per second, charge your batteries.

If the battery condition meter and the green status light fail to operate when the key switch is in the 'on' position, check the following:

1. Make sure the battery charger is not plugged into the tiller charge socket, this will prevent drive.
2. Check both battery connectors.
   Check battery terminal condition.
3. Check the 'circuit breaker' (Fig 36): If your Scooter stops for no apparent reason, it is probably due to the circuit breaker disconnecting from the speed control lectronic box.

   On rare occasions, a temporary overload on the electric circuit can occur - for instance when climbing a steep incline. If this happens, the circuit breaker, which is located under your Freerider's rear cover and beneath your seat will trip and pop out. To reset the circuit breaker wait for two minutes to allow the temperature activated switch to cool down. Locate the plunger on the circuit breaker through the access hole (Fig 36). Place a finger onto the circuit breaker and press down on the plunger until it remains down. You are now ready to drive again.

   If the circuit breaker trips up again wait for 5 minutes and try again.

Caution: If you find the circuit breaker is continually tripping out, contact your authorised Freerider dealer.

The battery condition indicator meter operates and the green status light flashes, your Freerider does not drive:

Check the 'white' plug's, located under the rear cover and positioned in the main controller module (see Fig 25 page 20). Check also the status fault codes (page 32) indicated by the green L.E.D. on your console flashing.

If your **Freerider** does not slow down or behaves erratically:

1. Turn off the power 'on' key switch.
2. Inform your authorised **Freerider** dealer.

Warning: If you find for any reason your Scooter does not reduce speed when you let go of the forward-reverse speed lever . Switch your Scooter 'off' with the on/off key.

The parking brake will activate immediately and stop your Scooter. Beware the scooter will stop very suddenly, brace yourself with the handlebars, sit back in your seat.

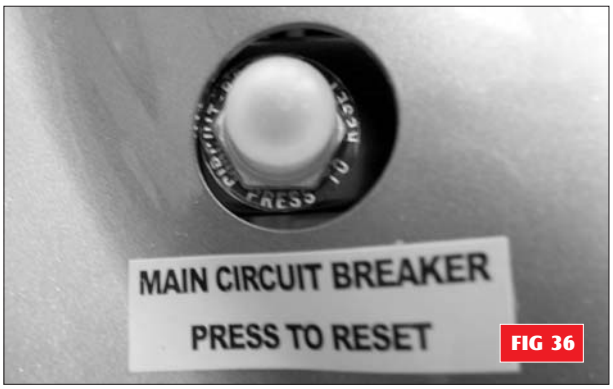


FIG 36

Warning: This operation should only be carried out in an emergency; continual use of this facility will damage the drive transmission and motor brake.

Inform your authorised Freerider dealer before using your machine again.

Warning: If you feel for any reason that your Scooter is not driving correctly or making an unusual noise, stop using the machine. Be safe, contact your Freerider dealer, he will be able to advise you.

IMPORTANT SPEED CONTROLLER INFORMATION
GENERAL DESCRIPTION

The speed controller system incorporates a sophisticated micro-processor design (Fig 37). It is located under the rear cover of your Scooter. The in-built micro-controller continually monitors the Scooter's systems to ensure safe and reliable operation.

FIG 37

SAFETY CONDITIONS MONITORED INCLUDE

- Speed control system integrity
- Internal voltages and circuits
- Motor voltages and circuits
- Freewheel speed limiting downhill.
- Battery voltage

When the battery voltage is low, the 'status' indicator light situated on the control console (a green light positioned next to the battery state indicator meter (Fig 10 page 10) will flash

slowly as a warning to recharge your batteries. If the 'speed controller' detects a fault the green light will flash rapidly, with the number of flashes indicating the nature of the fault. For example, the controller will not operate if the speed thumb lever (wig-wag) is not in the zero speed position with the Scooter switched 'on'. Return the speed lever (Wig-Wag) to the zero speed position, when the scooter will be allowed to operate normally once again.

If your Scooter is turned 'on' but not operated for a set period of time (15 minutes approx) the speed controller system will automatically turn itself 'off' to conserve valuable battery energy. It can be turned on again by turning the on/off switch to 'off', and then to 'on' again.

FAULT DIAGNOSIS

Faults with the main speed controller are rare. Most faults on powered vehicles are associated with wiring or misconnections due to poor maintenance or incorrect installation of connectors when assembling the Scooter after transportation in a car.

If your Scooter should fail to operate you will be assisted in diagnosis and locating the area of the fault by observing the number of flashes emitted from the 'green' status light on your control console (fig 10 page 10).

If your Scooter fails to operate and the green status light is not illuminated, first check the points aforementioned under 'FAULT FINDING'.

If your green status indicator light is flashing, first switch your Scooter to 'off' and back to 'on' again to see if the problem will clear. If the 'status' light continues to flash and your Scooter will not drive, refer to the 'STATUS FAULTS CODE' on page and take the appropriate remedial action as advised in the 'comments' column. If in doubt consult the dealer from whom you purchased your **Freerider** Scooter.

CHARGING CIRCUIT FUSE

One fuses protect your Scooter charging circuit from receiving an overload of electrical current. The fuse used in the Scooter is the same type which is found on automobiles. In the unlikely event that a fuse should 'blow' and needs replacing (Fig 38) use only a fuse of a 10amp rating. Please note this size of fuse has been selected to give your Scooter the best protection without premature blowing.

Warning: Do not use fuses with a higher rating than 10amps as this may cause permanent failure to the wiring and wiring connectors or personal injury.
The 10amp fuses are located under the Scooter's rear body cover (Fig 39). The fuse is positioned in a black plastic housing which is sealed by a hinged lid.

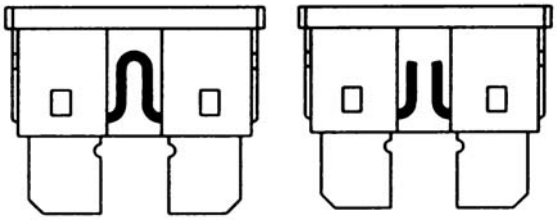


FIG 38

FIG 39

For access to a fuse remove the four screws located in the rear body cover, lift cover. Locate and lift the fuse block on it's wire, lift up the fuse lid and withdraw the 'read' fuse. Replace the blown fuse with recommended 10amp (pink) fuse, close fuse lid and replace fuse block.

Reposition rear body cover, refit four screws. **If the fusecontinually fails, contact your Freerider supplier.**

STATUS FAULT CODES

FLASH CODE (No.of flashes)	FAULT DISPLAYED BY PROGRAMMER	FREERIDER SCOOTER CONDITION	COMMENT
1 Flash	Battery needs recharging	Driving still possible	The battery voltage has dropped below 23.3 volts in neutral. Recharge the batteries soon.
2 Flashes	Battery voltage too low	Drive inhibited	The battery voltage at Controller has dropped to 16.5 volts. Check the battery condition and the connections.
3 Flashes	Battery voltage too high	Drive inhibited	The battery voltage at the controller is greater the 32 volts. Check the battery condition and the connections. Suspect a charger malfunction.
4 Flashes	Current limit time out	Drive inhibited	The Controller has detected a shorted or overworked motor. Check the loom for shorts or check out the motor. Contact your Service Agent.
5 Flashes	Brake fault	Drive inhibited	Check the Freewheel Lever is fully engaged. Check the Park Brake and wiring for open or short circuits. Contact your Service Agent.
6 Flashes	Out of neutral when power switched on at key switch	Drive inhibited. Drive possible if neutral selected within 10 secs.	Return the speed lever to neutral. Re-adjust the speed lever neutral if necessary. Consult your Service Agent.
7 Flashes	Speed pot error (wig wag)	Drive inhibited	Check speed pot wiring for open or short circuits. Speed pot may not be correctly set up. Contact your Service Agent.
8 Flashes	Motor volts error	Drive inhibited	Motor or wiring is faulty. Contact your Service Agent.
9 Flashes	Other internal error	Drive inhibited	Contact your Service Agent.

SPEED CONTROLLER SETTINGS

The forward-reverse speed Controller (Fig 37 page 30) is a state-of-the-art microprocessor designed to give smooth and safe operation. For maximum performance, protection and convenience the Controller is housed in a solid die cast aluminium case situated under the rear body cover.

The speed Controller, 'Dynamic' model DS72KO1(Rhino 70amp) is programmed by **Freerider** to obtain the maximum performance and safety for your Scooter.

Warning: Performance adjustments should not be made which could put the operator in a serious situation of control or braking. Performance adjustments should only be made by a person fully trained and conversant with the programming process and it's capabilities. Warning: Incorrect settings could cause injury to the Scooter operator and/or to bystanders, or damage to the vehicle and/or surrounding property. If in doubt consult your **Freerider** Manufacture

The original manufacturer's settings for this Scooter are:

	168-3	168-3S	168-4	168-4S	168-4S2b	510DX2	510DXs2
SET-UP MENU DESCRIPTIONSETTINGS							
Acceleration	1	1	1	1	1	1	1
Deceleration	6	6	6	6	6	8	8
Forward Speed	10	10	10	10	10	8	10
Reverse Speed	4	4	5	4	4	4	5
Reduce Speed	4	4	4	4	4	4	4
Buzzer Volume	10	10	10	10	10	10	10
Motor Resistance	60	60	60	60	60	60	60
Sleep Time	15	15	15	15	15	15	15
Maximum Current	70	70	70	70	110	70	70
Park Brake Delay	6	6	6	6	6	6	6
OPTION MENU DESCRIPTIONSETTINGS							
Single-Ended Pot	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Standard Speed Pot	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Motor Reverse	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Pot Reverse	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Brake Checking	ON	ON	ON	ON	ON	ON	ON
Load Compensation	ON	ON	ON	ON	ON	ON	ON
Enable Sleep	ON	ON	ON	ON	ON	ON	ON
Check for Slope	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Current Limit Tim	ON	ON	ON	ON	ON	ON	ON

TECHNICAL SPECIFICATION

Model Code:FR168-4

SPECIFICATION:

Overall length	120cm/47inches
Overall width	58cm/23inches
Ground clearance	6.5cm/2.5inches
Maximum load	136kgs/300lbs
Range up to	32km/20ml(26Amp batteries)
Total weihgt(excl.batteries)	53.5kgs/118 lbs
Heaviest port	21kgs/46 lbs
Wall to wall turning radlus	104.5cm/42inches
Maximum Speed	8.8km/5.5mph(10 inches rear tires)
Battery	26Amp/36Amp/50Amp

Model Code:FR168-4S/FR168-4S2b

SPECIFICATION:

Overall length	120cm/47inches
Overall width	58cm/23inches
Ground clearance	6.5cm/2.5inches
Maximum load	136kgs/300lbs
Range up to	40km/25ml(36Amp batteries)
Total weihgt(excl.batteries)	53.5kgs/118 lbs
Heaviest port	21kgs/46 lbs
Wall to wall turning radlus	104.5cm/42inches
Maximum Speed	9.6km/6mph(12 inches rear tires)
Battery	26Amp/50Amp

Model Code:FR168-3

SPECIFICATION:

Overall length	113cm/44.5inches
Overall width	61.5cm/24.2inches
Ground clearance	8cm/3.2inches
Maximum load	136kgs/300lbs
Range up to	32km/20ml(26Amp batteries)
Total weihgt(excl.batteries)	49.5kgs/109lbs
Heaviest port	21kgs/46lbs
Wall to wall turning radlus	94cm/37inches
Maximum Speed	10km/6.25mph
Battery	26Amp/36Amp/50Amp

Model Code:FR168-3S

SPECIFICATION:

Overall length	113cm/44.5inches
Overall width	62cm/24.4inches
Ground clearance	8cm/3.2inches
Maximum load	136kgs/300lbs
Range up to	40km/25ml (36Amp batteries)
Total weihgt(excl.batteries)	50kgs/110lbs
Heaviest port	21kgs/46 lbs
Wall to wall turning radlus	94cm/37inches
Maximum Speed	9.6km/6mph(12"rear tire)
Battery	26Amp/36Amp/50Amp

Model Code:FR510DX2/510DXs2

SPECIFICATION:

Overall length	138cm/54.7inches
Overall width	63cm/24.5inches
Ground clearance	8.5cm/3.4inches
Maximum load	136kgs/300lbs
Range up to	40km/25ml(36Amp batteries)
Total weihgt(excl.batteries)	68kgs/150 lbs
Heaviest port	23.5kgs/52 lbs
Wall to wall turning radlus	116cm/45.5inches
Maximum Speed	10km/6.25mph
Battery	36Amp/50Amp

CLASSIFICATION Type 'B' indoor/with some outdoor capability (EN12184 : 1999) Class 2 (The use of invalid carriages on the highway regulations 1988)
Maximum safe climbing angle: 8°(136kg) rider

Warning: The safe climbing angle is measured with the seat in the highest position, and a rider weight of 300lbs (136kg). The motor on your scooter is powerful and may be able to climb a steeper incline than the maximum safe climbing angle.
Exceeding the safe climbing angle may put you at risk of injury. On no account must you attempt to climb an incline of more than 8°

Maximum speed: up to 4mph (6km/h) [+/- 10%] dependent on weight and manufacturing tolerances.

Range: Up to 10 miles (16km) between charges under ideal conditions. Note: Range varies with weight, terrain, temperature, battery condition etc. and is subject to manufacturing tolerances.

Recommended Tyre Pressure: Front solid, Rear 30psi (210 kpa). Do not exceed maximum inflation figure indicated on tyre wall.

Batteries: 2 x 12 volt. Maintenance free. 26AH sealed lead acid.

Charger:
AC input. 230 volt. 50 Hz. 71w. 0.57A UK Plug 5 Amp f use internal TIA. DC output 24 Volt. 2 Amp. Conforms to: EN60335-2-29 and En12184.

Electrical System: 24 volt DC.

ADDITIONAL FEATURES

Drive system: Rear wheel, direct drive via sealed drive axle.

Motor: 24 volt DC. Permanent magnet, totally enclosed for outdoor use. Internal brushes. 3.0 Amp. (no load) 350W. 5100R.P.M.

Brake: Automatic dynamic regenerating braking system with spring activated magnetic solenoid parking brake. Free wheel facility.

Modular Design: Easily dismantled into six basic pieces for convenient transporting.

Adjustable Locking Tiller: for driving comfort.

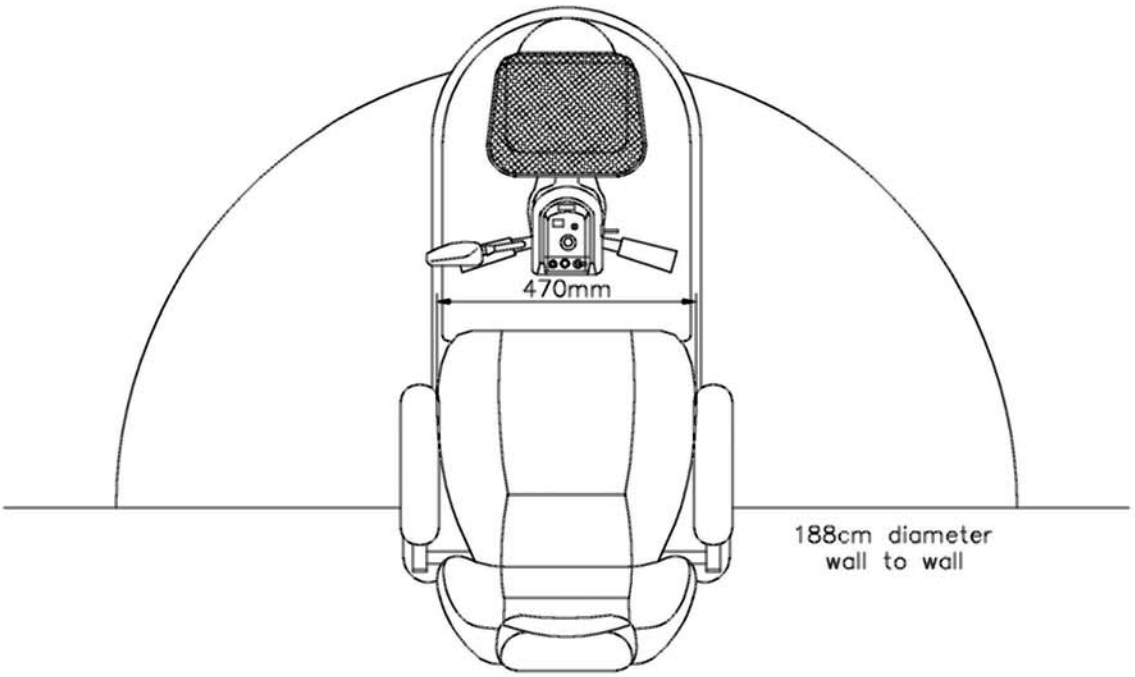
Proportional Speed Control: State of the art design for safety and smooth operation; incorporating 'Fault' diagnosis.

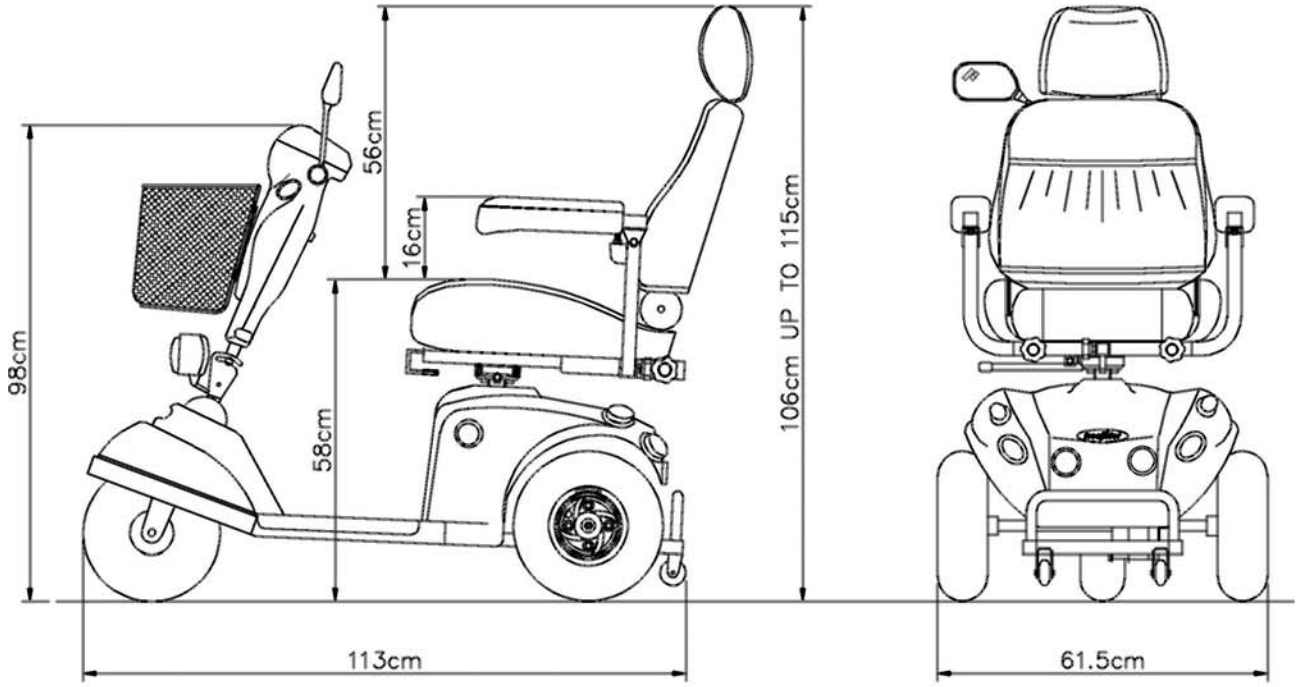
Contoured Seat: Adjustable for height, arm width and armrest angle. Swivels for easy access.

Automatic Charger: Charging point is on the rear cover.

CE complies with E.M.C. Directive 89/336/EEC
complies with Medical Devices Directives 93/42/EEC

SIZE SPECIFICATION-FR168-3/FR168-3S





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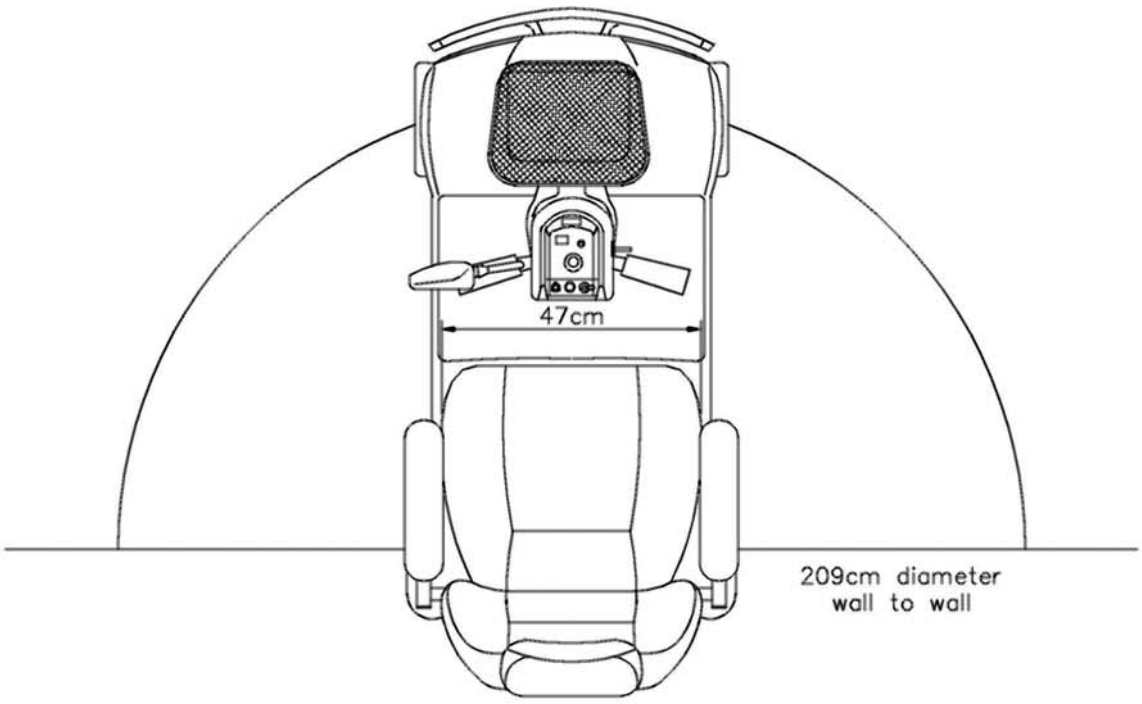
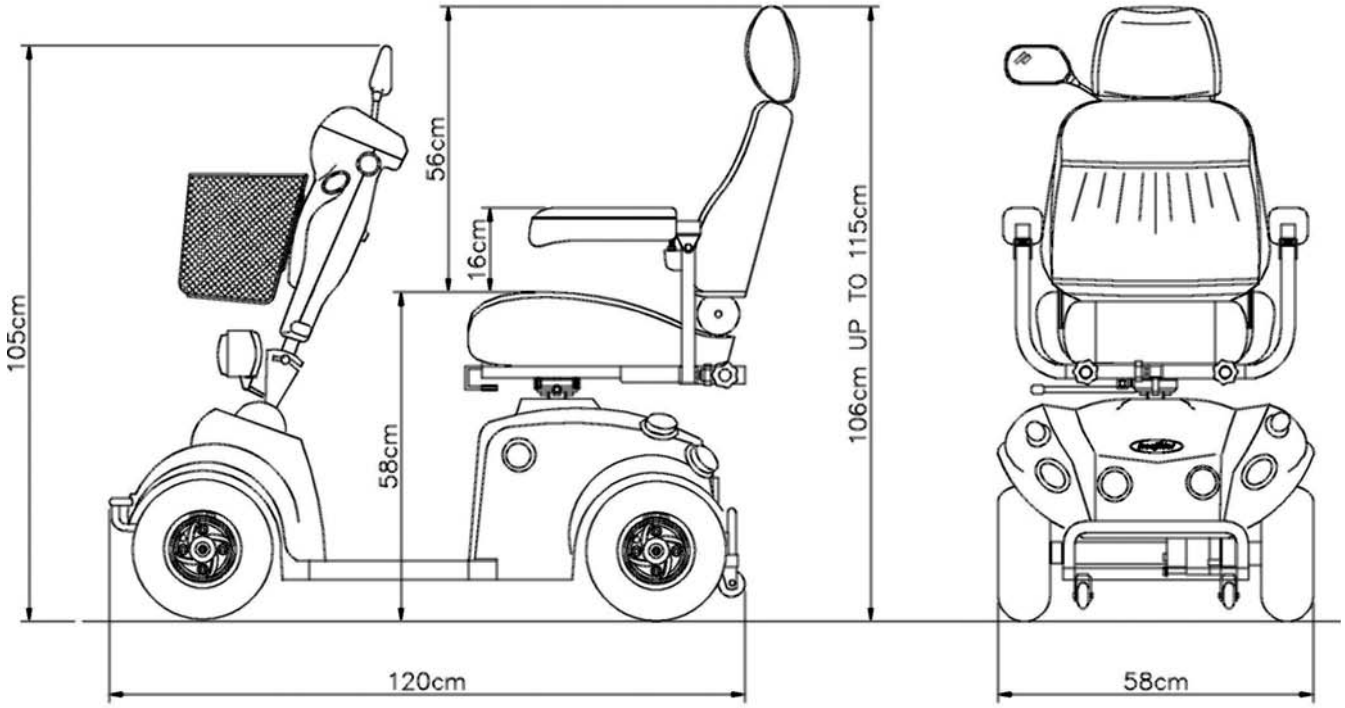
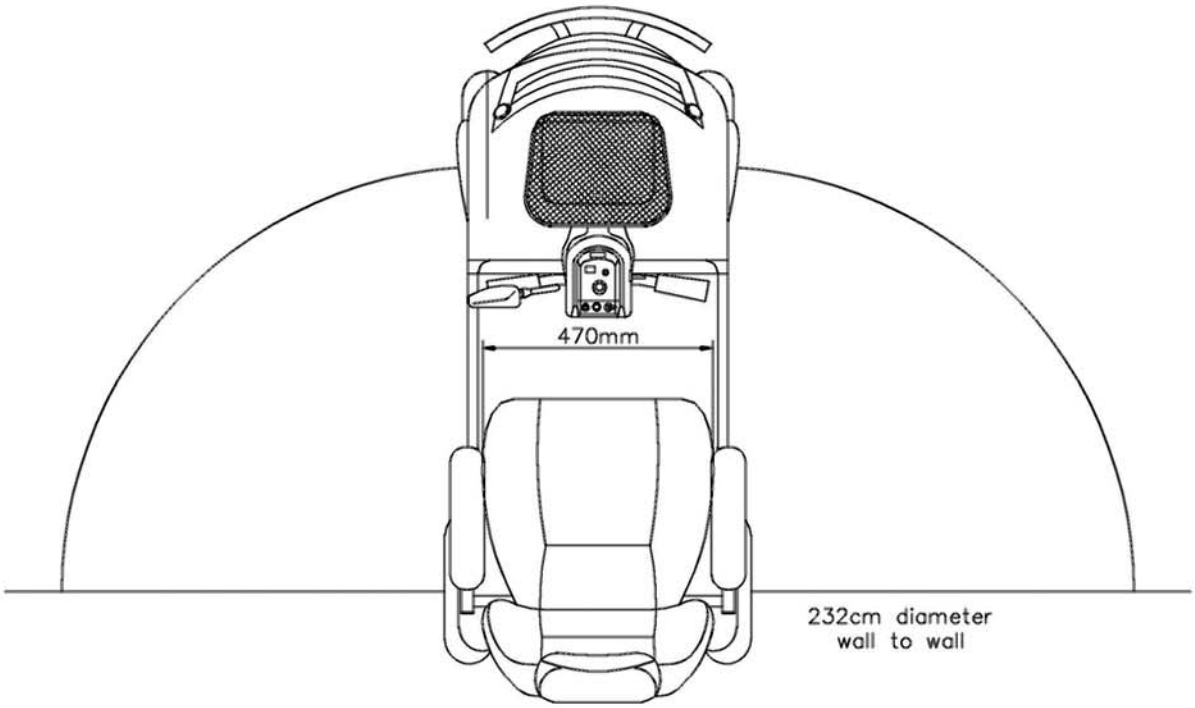
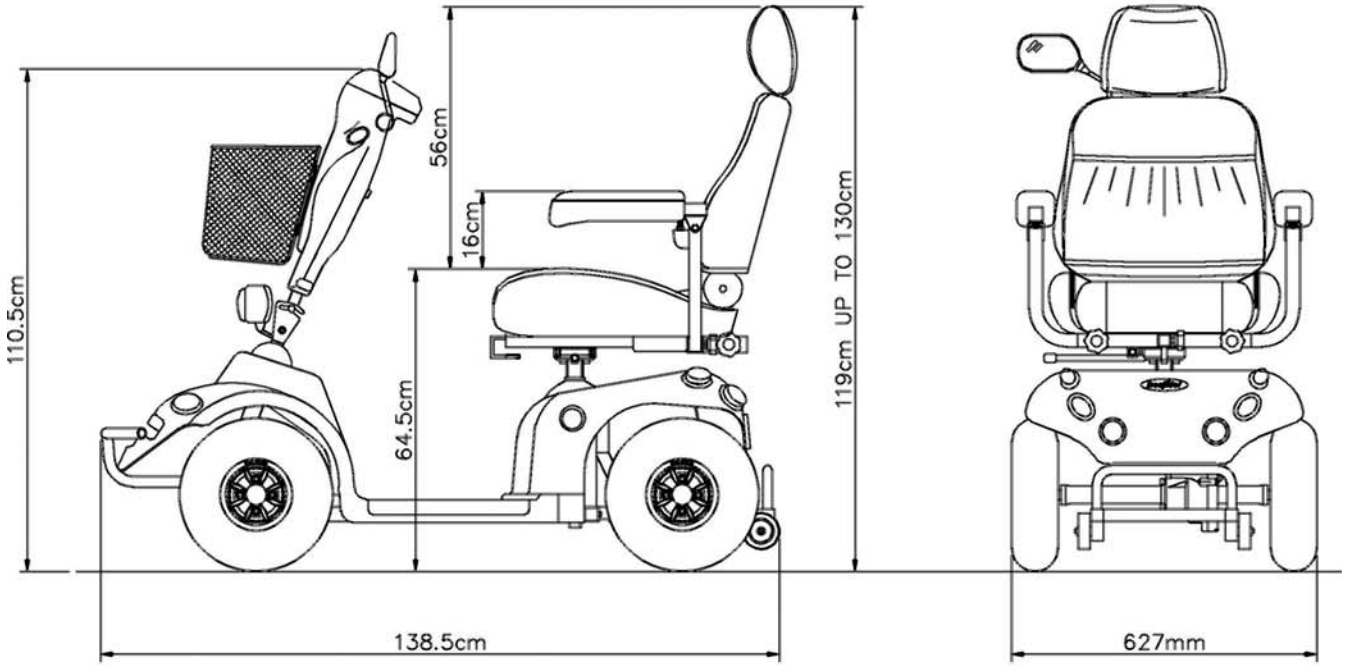


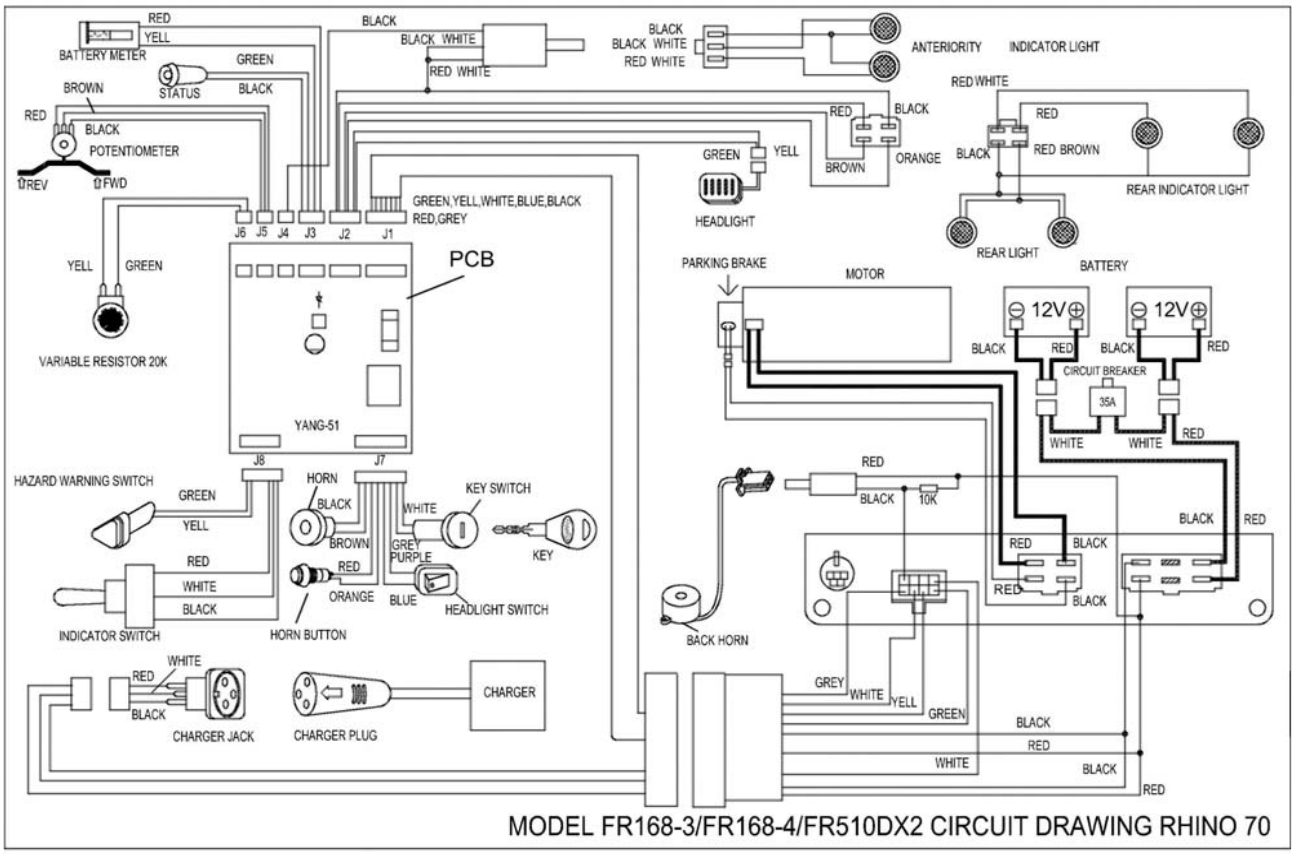


SIZE SPECIFICATION-FR510DX2/FR510DXs2

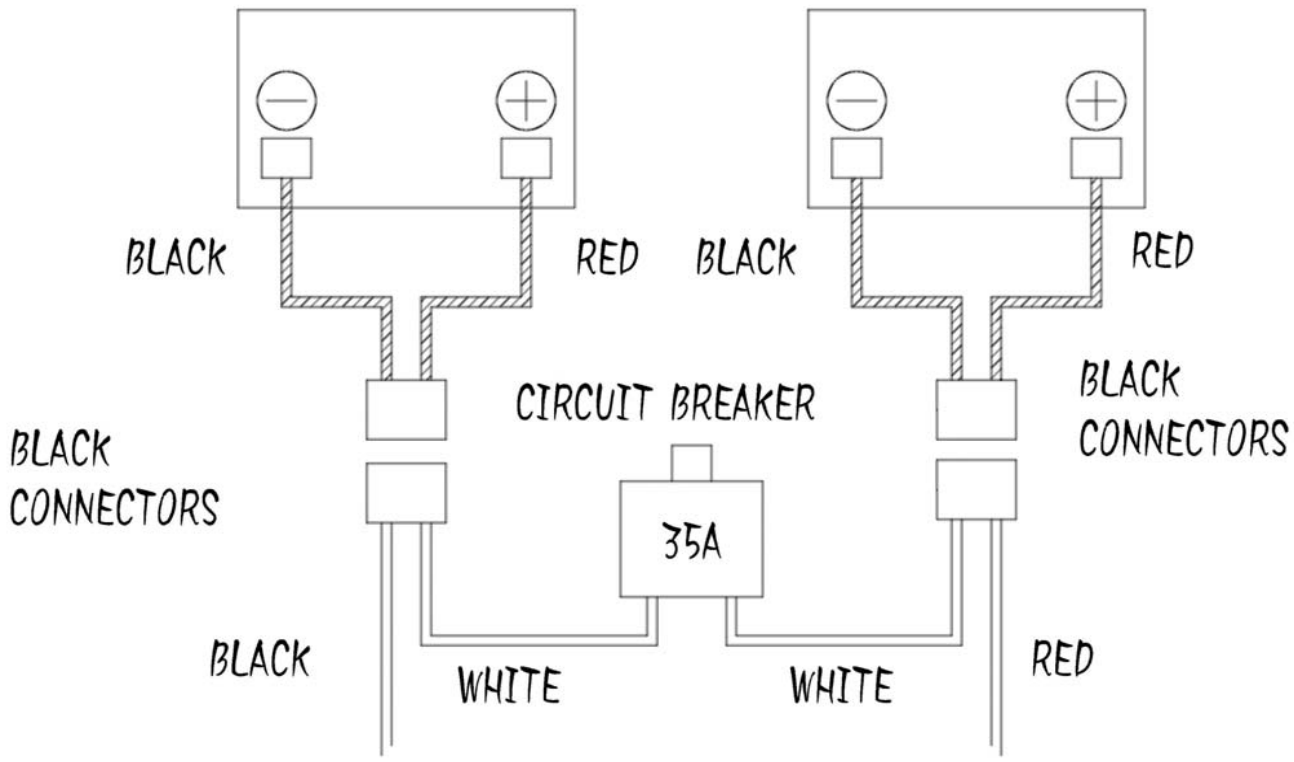




CIRCUIT DIAGRAMS



BATTERY WIRING DIAGRAM



ADVISORY SAFETY NOTICE

Warning: Radio wave sources may affect Scooter control. Your powered Scooter is designed to operate in appropriate environments, however radio wave sources such as radio or TV broadcasting stations, amateur (Ham) radio transmitters, two-way radios and cellular portable telephones can affect powered motorised Scooters.

The following warnings listed below should reduce the chance of unintended brake release or uncontrolled powered Scooter movement.

1. Do not turn on hand held personal communication devices such as citizen ban (CB) radios and cellular phones, while your **Freerider** Scooter is turned on.
2. Be aware of nearby transmitters such as radio or TV stations, and try to avoid coming into close contact with them.
3. If unintended movement or brake release should occur, turn your **Freerider** OFF as quickly as it is safe to do so.
4. Be aware that adding accessories or components or modifying your **Freerider** Scooter may make it more susceptible to interference from radio wave sources. Note: There is no easy way to evaluate their effect on the overall immunity of your powered Scooter.
5. Report all incidents of unintended movement or brake release to your **Freerider** supplier, noting if there is a radio wave source nearby. He will then be able to diagnose your Scooter to eliminate any possible Scooter component failure. Please note a charge may be made for this service. Your Scooter has been tested to the following standards with reference to EN12184. Emissions EN50022(B), Immunity IEC1000-4-3, E.S.D. IEC801-2

Note: All figures, speeds, measurements and capacities shown in this manual are approximate and do not constitute specifications. Our policy is one of continual improvement. We reserve the right to alter, without notice, any weights, measurements or other technical data shown in this manual. If you require specific accurate data, please contact your **Freerider** authorised dealer.

Enjoy your Scooter

FREERIDER SCOOTER SPARE PARTS

Your Scooter is an electro-mechanical machine. Some of its consumable components will need replacing due to normal wear and tear.

The following list of components can be purchased from your local **Freerider** Agent from whom you purchased your Scooter. Quoting model code

DESCRIPTION	PART number	DESCRIPTION	PART number
Handlebar Rubber Grip	PP02-0201	Charger Circuit Fuse (10amp)	PKEI-1002-1
Charger Socket Assembly	PAEI-0405	Battery Cable	PK90-0300-R
Front Basket	PM90-0100	Off Board accessary Charging Cable	PK90-0401
Anti-Tipping Wheel	PP07-0102	Power Key	PM90-0900
Drive Transaxle 168-4/168-4S	PM11-0206	Power Key Switch	PM01-0100
Drive Transaxle 168-3/168-3S,510DX2/510DXs	PM11-0207	Horn Button	PKEI-0103
Motor	PM11-0316-SY51	Horn	PKEI-0603
Motor Brake	PM11-0101	Battery Meter	PKEI-0700
Motor Carbon Brush	PM11-0403-50	Top Control Board (P.C.B.)	PAEI-0300-B1
Motor Carbon Brush Cap	PP11-0201	Controller	PKE2-0100
Front Wheel Bearing (6202ZZ)	PM00-0303	Potentiometer 5k Assembly	PAEI-0201
Self Lock Nut Front/Rear Wheel M12	PU00-1202	Potentiometer Spring	PM02-0200
Arm Rest Pad	PP14-0101	Variable Resistor 20k (min-max speed)	PAEI-0100
Arm Tighten Knob	PP00-0200	Black Knob (min-max speed)	PP01-0500
		Circuit Breaker (35amp)	PKE2-0403

OPTAINAL ACCESSORIES

For information regarding these optional accessories please contact your Authorised Freerider Agent.

REAR BASKET
Provides easily accessible additional carrying capacity for shopping. Basket maximum load 4kg (9lbs)

LOCKABLE STORAGE BOX
This smart storage box allows you to lock away your valuable items when leaving your Scooter unsupervised. Maximum load 2kg(4.5lbs).

STICK/UMBRELLA HOLDER
Ideal way to carry walking aids.

DELTA CONTROLLER
For Scooter users with limited hand dexterity. Allows the user to control the Scooter by pulling the lever toward themselves.

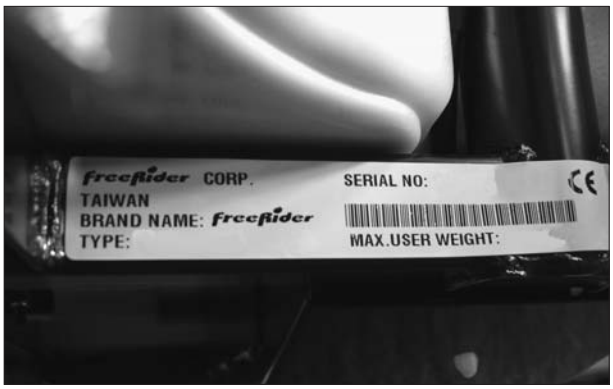
Warning: The rear basket and crutch/cane holder will extend the dimensions of your Scooter. Please allow for this when turning. Do not overload carrying accessories as this will make your Scooter less stable.

Please note : Accessories illustrated are displayed on various models of Freerider Scooters.

GUARANTEE TERMS

GUARANTEE TERMS

Please keep a note of your serial No. .....
(This is located on a plate on the front frame tube, under the front body cover).



Your Scooter is guaranteed for 12 months from the date of purchase against faults arising due to defects in manufacture or materials. This guarantee does not detract from, but is in addition to your legal rights. Parts replaced or repaired under the terms of this guarantee will be covered for the balance of the 12 months period. This guarantee applies only to parts supplied or approved by **Freerider®**

Due to the individual prescription nature of this product. This guarantee is not transferable.

Note: Extended guarantee insurance can be arranged by your **Freerider** Distributor, he will be able to advise the extra cost of this cover.

WARRANTY REGISTRATION

To enable **Freerider** to handle any enquiries regarding the guarantee of your Scooter; please complete and return the pre-paid warranty registration card supplied with your Scooter at your earliest convenience. If you prefer use our website at www.freerider.com.tw

Exclusions: This guarantee does not extend to consumable items which may need replacing due to normal wear and tear, namely tyres, tubes, punctures, lubrication, carpets, oil seals, gaskets, screws, brake shoes, mirrors, bulbs, upholstery, motor brushes, fuses, batteries, handgrips etc. or to damage to the product caused by mis-use, neglect or accident for which **Freerider** or its agent cannot be held responsible.
This guarantee does not apply if your Freerider shows signs of excessive wear and abuse, or has been modified without the authority of **Freerider**.

This guarantee does not cover the following items:
1. Any noise or vibration, which does not effect the quality and function of the machine.
2. Damage due to lack of maintenance or improper use or operation or storage.
3. Fees for the regular service inspection and maintenance.
4. Any fees incurred as a result of warranty repair, losses or compensation because of the inability to use the Scooter (telephone use, shipping, car rental, travel fees etc.)

METAL WORK: Metal components, such as the framework and bright metal parts require special attention and may deteriorate in certain conditions. Moisture and salt may corrode parts left unattended, proprietary auto cleaner polishes should be used to Prevent long term damage. Failure to clean and protect these components may void your warranty.

PAINT WORK: This guarantee does not cover deterioration of paintwork resulting from the lapse of time i.e. natural fading. It is the users responsibility to clean and protect the painted surfaces.

SPEED CONTROLLER: Servicing of the speed controller or battery charger must only be carried out by your local authorised Freerider distributor. Any attempt to open or dismantle these items render the guarantee void on that item.

BATTERIES: Batteries carry a limited 12 month guarantee from the original manufacturer which is subject to a stringent wear and tear clause. Any battery faults due to a defect in the original manufacture will normally become obvious within the first two months of use.(See batteries and battery charging section of this manual). Any gradual deterioration in the performance after this period is normal and associated with fair wear and tear, mis-use or accidental damage and as such is not covered by the manufacturers warranty. (Batteries are guaranteed as single parts, only the failed part is replaceable).

Warning: Do not attempt to open the battery vent plugs.

SERVICE CHECKS

In line with all mobility vehicles, your **Freerider** will benefit from regular service inspections to keep it in pristine condition. The frequency of these service inspections will depend on the amount of use your vehicle is put to. We strongly recommend you contact your local **Freerider** distributor to arrange for a service visit. (See Care & Maintenance Section of this manual).

Your **Freerider** product must be fully serviced at least every 12 months or more frequently if conditions and use require it.

Please contact your authorised **Freerider** distributor who will be able to advise you of his current costs affecting service visits. Please note: Non-warranty service costs are chargeable.

The warranty on your **Freerider** may not apply if routine maintenance is not carried out as defined in the 'Care and Maintenance' section in this manual.

WARRANTY SERVICE VISIT: If your Scooter should need attention due to failure as defined under the guarantee terms, please contact the distributor from whom you purchased your machine. The Scooter shown and described in this manual may not be exactly identical in every detail as your own **Freerider**. However, all instructions are still entirely relevant, irrespective of detail differences. If you are not sure of any details, please consult your **Freerider** Authorised Distributor before driving your Scooter.

DISCLAIMER

Freerider® disclaims all responsibility for any personal injury or property damage which may occur as a result of improper or unsafe use of its products. Mechanical or electrical defects will be dealt with on a contingency liability basis. The part or parts will be replaced or repaired but no responsibility for damage or injury can be implied to **Freerider®**.

Guidelines in this manual are intended to assist you in the safe operation of your **Freerider** powered Scooter. If you should have any questions about the correct operation of your Scooter, please contact your authorised **Freerider** dealer. Consult your doctor and therapist if you are in doubt about your ability to operate your **Freerider** Scooter.

It is the responsibility of the user to carry out daily inspections and regularly maintain and keep records of inspection and maintenance covered in this manual. The user is also responsible for the proper use of the Scooter as detailed in this manual.

SERVICE HISTORY

This section is designed to assist you in keeping a record of any service and repairs to your **Freerider** Scooter. Should you decide to seel or exchange your Scooter in the future this will prove most helpful to you.Your Service agent will also benefit from a documented record and this book should accompany the Scooter when service or repair work is carried out. The service agent will complete this section and return the book to you.

DETAILS OF WORK CARRIED OUT	DEALER STAMP
	DATE INITIALS

DETAILS OF WORK CARRIED OUT	DEALER STAMP
	DATE INITIALS

DETAILS OF WORK CARRIED OUT	DEALER STAMP
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YOUR LOCAL DEALER

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