



Ouingo DISTRIBUTED BY WWW.wholesalemobility.com.au HANDBOOK & SERVICE MANUAL QUINGO VITESS 2

MAY 2016 - ISSUE 10

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Owners Manual and Service Record Quingo Vitess 2

Keep this Manual in a safe place

This document contains the information required to familiarise yourself with your vehicle

Complete all the information within this document

If any information is not clear please contact your service provider immediately

This document must remain with the vehicle throughout its life

NOTICE This vehicle was supplied by.

Product Model Number..... Serial Number..... Date of Purchase.....

Contents

NOTICE

The contents of this document regarding photographs and text may change because of specification upgrades. AVC Ltd retains the right to change specification of its products without prior notice.

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Read this manual thoroughly before driving or operating the vehicle.

Every mobility scooter operates differently. Do not assume they are the same. If you have any doubt about the content of this manual phone your service provider immediately. Read the instructions contained within this document, they apply to the Quingo Vitess 2. The photographs in this document depict the Quingo Vitess, Quingo Vitess 2 and Quingo Toura

Maintain the vehicle correctly and ensure a Quingo trained technician services it regularly.

Safety Notices

Within this manual there are important safety notices. They are clearly marked on the appropriate pages. Make sure that you understand these notices. If any part is unclear phone your service provider.

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Intended Use of the Scooter & Intended User

Intended Use of the Scooter

Designed solely for use by a disabled person (up to the maximum recommended weight) who requires a mobility scooter with maximum versatility and a safe, comfortable seating position with maximum manoeuvrability. This unit can be transported in the rear of a car but weight and dimensions should be checked before purchase.

The vehicles have been classified according to EN 12184 as class B mobility product (For indoor and outdoor areas). Speed, range, turning circle, safe climbing ability, maximum obstacle height and permissible operating conditions can be found in "Technical Specifications". All models are fitted with a suitable lighting system for use on public roads.

The scooters are not intended to run in deep water (over 5cm) or muddy areas, but can be run on hard ground. Avoid sandy or gravel areas as this can seriously affect the range. These scooters are not intended as off-road vehicles.

Use by Another Person or Insurant

The vehicle can be used by an additional person other than the owner/driver.

Before usage the following checks should be carried out:

- Is the seat height comfortable?
- Is the angle of footrests correct?
- Are the armrests adjusted correctly?
- Is the seat adjusted forward or rearward to suit the driver?
- Have the controls been explained?
- Has the free wheel device been demonstrated?
- Have you been shown how to operate the handlebar emergency brake?
- Have you had a demonstration of the capabilities of the product?
- Have you been shown the charging procedure?
- Has the driver been given a copy of the handbook?

Before the additional driver is allowed on their own, please check they are capable, both physically and mentally, to drive the vehicle safely.

EMI Information

Information regarding Electromagnetic Interference (EMI)

This section contains information on the possible effects of electromagnetic interference to your vehicle.

EMI refers to the effects that electromagnetic energy might have on the control systems of your vehicle. The interference could cause the brakes to release, the vehicle to move by itself or damage the electronics.

There are broadly three types of sources of electromagnetic energy:

- 1. Hand Held, Short Range Portable Transceivers. Examples include: CB radios, walkie-talkies, security, fire and police transceivers, mobile phones and other devices that transmit a signal even when not in use.
- 2. Medium Range Mobile Transceivers. Examples include: police, fire, ambulance and taxi transceivers.
- **3.** Long Range Transmitters and Receivers. Examples include: radio and television towers and amateur (HAM) radios.

There is an immunity level that has to be met by law and your scooter has been tested to the required level. For a full technical explanation see Page 31 in this document.

WARNING

Even though your vehicle meets the requirements, it is recommended that you follow certain precautions.

- 1. Do not operate hand held transceivers such as CB radios or mobile phones while the vehicle is switched on.
- 2. Be aware of transmitter masts, such as television and radio stations. Avoid getting close to them.

If your vehicle starts to operate by itself switch it off and call your service provider. Report all faults of this type.

Life Expectancy of the Product

The life expectancy of the product to be 5 years. This is provided that it is used in strict accordance with the intended use as set out in this document and all service and maintenance requirements are carried out as recommended.

The estimated life expectancy may be exceeded if the product is used carefully and properly maintained. It can also be considerably reduced by extreme or incorrect use. Although we estimate the life expectancy for this product, it does not constitute an additional warranty.

Display & Controls

Your Quingo has many features that other scooters do not have. It's important that you understand all the functions.

Switch on the ignition and the display will light up. The information you need to know for now is as follows:

Temperature Gauge: On the top right hand side of the display in the photograph below is the number 9c. This is the temperature gauge and it will show the current outside temperature. Your engineer can set this display in Celcius (as shown below) or in Fahrenheit.

Battery Gauge: When fully charged, the battery gauge has 8 bars and these bars will disappear when your scooter is in use. Starting from right to left the battery is running down from 'F' (Full) to 'E' (Empty). Do not let the bars drop below 4 before returning home and recharging.

Note that battery indicators provide a guide only and are not 100% accurate. The recommended way of reading the available charge in your scooter is to find a piece of flat ground clear of obstacles. Switch the scooter to half speed and pull in the throttle fully. Check the reading on the display, this is your battery state.

Speedometer: This will display your current speed. Your engineer can set this display in 'kph' (kilometres per hour as shown below) or in 'mph' (miles per hour).

IMPORTANT NOTES ON THE SPEEDOMETER

The Speedometer is a guide to the speed you are travelling at.

The speed shown has a +. - 15% variance compared to actual speed.

The maximum speed you can travel at will be affected by certain conditions such as:

- TEMPERATURE
- WEIGHT OF THE DRIVER
- TYRE PRESSURES
- TERRAIN

Odometer: This displays the total distance your Quingo has covered. Your engineer can set this display in 'km' (kilometres as shown below) or in 'miles'.

IMPORTANT NOTES ON THE ODOMETER

There are many factors that can affect the range of an electric vehicle and these are detailed in the:

- BATTERY CHARGING
- TROUBLE SHOOTING GUIDE
- COMMON QUESTIONS

Sections of the handbook.



Display & Controls

When buttons are pressed on the dashboard, in most cases an icon will illuminate on the display. Below we show the basic functions of the switches and what is displayed. There are also other features that can be displayed.

Please note that the separate displays in this photograph show different indications.



The Horn

Notice that you have 2 horn buttons to allow for both left and right-handed users. In this instance no additional icon is displayed.

Display & Controls

WARNING NOTICE!

The lever mechanism should be treated with care as it could become damaged if misused. Carry out recommended checks. **Do not pull both levers in at once.** This will damage the mechanism.

- 1. (Carry out daily) Before using the scooter check the mechanism for full and free movement (see photograph below). With the ignition off and the key removed pull the lever in fully on the right hand side then release. The lever should return immediately to the normal position. Pull the left hand lever in fully then release. The lever should return immediately to the normal position (it sticks) contact your service provider immediately and DO NOT ATTEMPT TO OPERATE THE SCOOTER.
- 2. Never lean or place your body weight on the levers. This will damage the mechanism.
- 3. If you have a weather cover on the scooter, please take care when removing it especially in the tiller area. Make sure the cover does not snag the levers.
- 4. Do not hang objects such as bags or attach dog leads to the handlebar or the lever mechanism.



Handbrake: This is for emergency use only. In the unlikely event that the main braking system should fail this can be used to slow the vehicle.

Warning: If the ignition switch is turned off while the vehicle is at speed the vehicle will **9** come to an abrupt stop. If you are in a situation where you need to stop abruptly use the emergency brake. Only switch off the ignition as a last resort.

Emergency Brake

A brief explanation of how the brakes work on your scooter.

Your scooter has 3 braking systems.

- 1. The emergency brake. This is situated on the tiller (See arrow below). This is a hand operated brake to be used in an emergency only.
- 2. The electromagnetic brake or Automatic handbrake. When you move off this releases automatically. When the scooter stops it engages automatically and stops the scooter rolling forward or backward.
- 3. The regenerative brake. This works when you release the accelerator lever. The faster you release the lever the faster the machine slows down. When it slows down enough, the automatic brake engages.



Free Wheel Device

Important Safety Notice: The freewheel device allows the vehicle to be moved without power. When the lever is moved upwards the automatic brakes are released. This means there is no braking except for the emergency brake (Page 9). Follow these instructions and if you are in any doubt contact the service provider immediately.

Points when using the freewheel device.

NEVER release the brake and sit on the scooter NEVER release the brake on a slope. Only on flat ground ALWAYS remove the ignition key

If you are unsteady on your feet do not attempt this manoeuvre

- 1. Make sure the scooter is on level ground
- 2. Remove the ignition key
- 3. Do not sit on the scooter at any time the vehicle is in free wheel
- 4. Release the lever (see photos)
- 5. Push the scooter to the area you require using the emergency brake (Page 9) to control the speed
- 6. Lock the lever (see photos)





The freewheel release lever is situated under the right hand side of the seat. This is shown in the locked position. To release, push forward. This may be quite stiff to operate. The vehicle is now in free wheel mode

When you have finished moving the scooter, pull the lever back into the locked position immediately.

If you do not lock the free wheel device and try to use the scooter you will see this on the display:



The 'spanner' icon with the number 5.

The spanner means there is a fault and the number 5 means the free wheel is not locked.

The scooter will not drive. To clear the fault:

- 1. Turn the ignition off & get off the scooter immediately.
- 2. Lock the free wheel device as shown on page 10
- 3. Turn on the ignition and the spanner and number 5 will disappear
- 4. The scooter will now operate correctly.

Another common rider fault is pulling in the lever mechanism (Page 8) at the same time when turning on the ignition. The scooter will see a fault and the spanner with the number 6 will show on the display. Simply release the lever for a few seconds and the scooter will automatically reset.

You can now drive off.

General Note on Adjustments

Your Quingo is unique as it has many adjustment combinations.

The general rule is to keep the footrests as far forward as possible. Keep the seat as low as possible and adjust the seat and tiller to suit. This places the weight forward, which aids comfort to the rider and enhances stability especially when negotiating hills.



The Quingo Vitess 2 allows users to assume the correct seating position (as shown in white dotted lines) Feet forward and forearms level with the tiller

Seat Adjustments

The seating on your scooter can be adjusted to various positions for your comfort. The service engineer will set these adjustments up for you but if you want to adjust it yourself please see the below instructions. If you have a weak grip do not attempt these adjustments.

REMOVE THE IGNITION KEY BEFORE ADJUSTING ANYTHING

To adjust the armrest height loosen the clamp and move the arm rest up or down to suit. The armrests should always be in line with the handlebars.



Revolving Seat: The seat is able to revolve and lock every 45 degrees. This has 2 functions. The first is to allow easy access on and off the scooter. The second is to allow a comfortable seating position when stationary, for example, when sitting in a café. To operate (when seated) lift the lever and turn the seat to the desired position. When at that position release the lever and turn the seat until you hear it lock.

Important: When returning the seat to the forward or driving position make sure the seat has locked before driving off.



If the lever is stiff, rock the seat gently sideways and it will release.

Seat Adjustments

Seat Slider: Allows the seat to be adjusted forwards or backwards. Pull the lever upwards and adjust to suit. Release the lever and move the seat slightly back and forth until you hear the seat lock. Always keep the seat as far forward as possible as this aids stability of the scooter. When locked, the seat will not be able to be moved.

If you require extra legroom for getting on or off the scooter there is a special feature to help. Locate the lever on the right hand side of the seat. Pull it upwards. Holding the lever up push the seat fully back as far as it will go. This will give you extra room to get on the vehicle. Pull the seat forward and adjust to your riding position. If the seat is not in the correct position for driving and you switch on the ignition a warning will come up on the display. It will show a flashing seat & lock (ringed) plus the hazard lamps will flash with the warning horn.



Display warning

REMOVE THE IGNITION KEY BEFORE ADJUSTING ANYTHING. ALWAYS MAKE SURE THE SEAT IS LOCKED BEFORE RIDING THE SCOOTER



To adjust the legroom pull the lever upward and push or pull the seat to the correct position. Release the lever and push or pull on the seat until you hear a click. The seat is now locked.

Pull the seat forward until the warning stops.



Extra access adjustment



To adjust the headrest height, push the button inward and lift or lower the headrest to the required height. When a "click" is heard the headrest is locked.

Backrest, Footplates & Seatbelt Adjustments

Backrest Adjustment

To adjust the backrest angle, locate the lever situated on the right hand side of the seat. Pull it upwards and adjust as required. Release the lever and the backrest will lock.

Footplate Adjustment

The footplates can be adjusted for angle and reach. It is recommended that a service engineer carry this out. If you want to adjust it back or forward loosen the lock as shown. Move into position and lock. Some vehicles are fitted with a lock nut.

You will notice that the footplates are springy when pushed. This is designed to increase blood flow to the legs. When you are on the scooter push occasionally up and down on the plates. This is good exercise and will help you with your circulation.



Tiller Features

The tiller carries all the important connectors. When sitting on the scooter push the tiller fully forward (See how to adjust the tiller on this page)





To adjust the seat height, remove the seat and rear cover. Release the bolt with 2 x 17mm spanners. Remove the bolt and raise or lower the seat to suit. Replace the bolt in the desired hole and tighten.

Important: It is recommended that adjustment be carried out by a service engineer.

Removing the Basket

To remove the basket pull the pin out and simply pull the basket forward.

To refit the basket, line up the 2 tubes and push the basket as far forward as possible.

Push the pin in fully.

Maximum Weight

The maximum load weight of the basket is 8kg



Transporting the Scooter

If you want to transport the scooter in a car, first remove the seat. Rotate the seat and pull the seat upwards. You may need help with this, as the seat is heavy. You will also require ramps to assist loading the scooter into the vehicle. Contact your service provider for supply. The space you require is139cm long x 61cm high x 66cm wide for the scooter.



1. Use the backrest adjustment lever to fold seat as shown



2. To remove the seat pull the revolving seat lever up, turn the seat & lift. (Caution this is heavy- seek advise and assistance) Remove the rear cover by lifting upwards. This is attached with Velcro.



3. Release the tiller and fold until handlebars touch rear body. *NB. Model shown here is Quingo Toura but the principle is identical.*

Battery Charging





Connection Instructions

When you receive your scooter the batteries are partially charged. Fully charge for 12 hours before use.

Place your scooter in an area that is dry and well ventilated. Make sure a power point is nearby.

The scooter should be switched off and the key removed.

Turn off the mains switch. Never connect or disconnect the charger with the mains turned on.

Connect the charger to the charging socket on the tiller (see Fig 1.)

Once the charger is connected, switch on the mains.

The power-on lamp illuminates red when switched on. The charger lamp starts yellow, changes to green when charged (charge for the full duration 8-12 hours).

Switch off the mains and remove the plug from the battery when fully charged. Do not leave the charger plugged in with the power off. This will discharge your battery.

Correct charging prolongs battery life.



GENERAL NOTES REGARDING THE BATTERY CHARGER

Battery chargers are subject to regular upgrades. For full instructions read the leaflet supplied with the charger, which can be found in the Battery Charger box.

IMPORTANT

Batteries have a limited guarantee; <u>if they have not been charged correctly and they fail,</u> <u>they will not be replaced under the guarantee</u>. An engineer will be able to detect "misuse or neglect" immediately, so follow the correct charging procedures to prolong their life.

Charging your Batteries.

- 1. Always use Gel/AGM type batteries as replacements. NEVER use car lead acid batteries. If in doubt ask your Quingo Service Advisor.
- 2. Always use the correct charger. <u>Never</u> use a lead acid (Car type) charger. If the fully charged light does not come on (normally green, varies with charger type) you may have a battery or charger problem.
- 3. When storing, <u>fully</u> charge the batteries every week <u>never</u> let them run low.
- 4. Do not leave the ignition on during charging
- 5. Do <u>not</u> leave the charger switched off with the plug connected to the vehicle. This will discharge the batteries to zero.
- 6. Charge the vehicle in a well ventilated area.
- 7. Do <u>not</u> charge the vehicle in the open air. The battery charger is not waterproof.
- 8. Always charge the batteries fully after use (Normally over night). Do <u>not</u> part charge.
- 9. As the batteries age they will lose their electrical capacity so the range will decrease.
- 10. Hilly areas have a great affect on the range. As the motors heat up, they lose their efficiency, increasing demand on the batteries and decreasing the range.
- 11. If a faulty battery is found it is recommended to change both batteries.
- 12. If the charger is left on for a long period it will not affect the batteries. The charger is fully automatic and will switch off when the batteries are full. However, if the vehicle is not being used for a long period it is recommended that the charger should be used every week to top up and then disconnect.
- 13. If the batteries have been discharged for a long period, do <u>not</u> attempt to charge. Contact your service provider for advice.



Caution: If one or both batteries are damaged they could heat up when charging or in an extreme case explode. Ensure that all damaged batteries are disposed of by the supplier.



Points to remember about the canopy

Clean the canopy with warm water and a soft cloth or sponge. Do not use abrasive or chemical cleaning agents. Do not use the frame without the canopy fitted.

High winds may cause the vehicle to become unstable. If you are caught outside roll up the side curtains until you get home. This will reduce the wind pressure on the side on the vehicle. Make sure the canopy is fixed firmly.

Make sure the canopy is fitted correctly. Carry out the check daily

- The frame is stable
- The side curtains are tied up correctly
- The windscreen is clean
- The mirrors are adjusted correctly

Flashing Beacon (not a requirement for all countries—check your regulations)

When riding on a dual carriageway the law demands a flashing amber beacon. We do not recommend the vehicle is used on this type of road but if it is essential the beacon must be fitted. Phone your service provider for details.

This is not a requirement for other roads or pavements.

Daily Check List & Safety Information

Items you should check on a daily/weekly basis:

Your daily checklist

- 1. Visually check the machine for damage.
- Visually check the tyres for damage. If your tyres are pneumatic check tyre pressures (30psi/2.1bar).
 (IMPORTANT POINT: Inflation of your tyres is very important. If they are below the recommended pressure it will affect tyre wear, steering, and the range of the
 - vehicle. If your tyres are maintenance free they will not need inflating.)
- 3. Check the steering moves freely.
- 4. Is the Tiller clamp locked?
- 5. Is the seat located correctly and locked?
- 6. Check the armrests are tight in the width and height adjustment.
- 7. Are the batteries fully charged?
- 8. Is the front basket secure?
- 9. Does it accelerate and brake correctly.
- 10. Check for full and free movement of the accelerator lever.

Disposal

- The equipment wrapping is potentially recyclable
- The metal parts should be used for scrap metal recycling
- Plastic parts should be used for plastic recycling
- Electric components and printed circuit boards to be disposed of as electronic scrap
- Faulty or exhausted batteries can be returned to your supplier for disposal
- All disposal must be carried out in accordance with the respective national legal provisions. Enquire at your city district council of the local waste management companies.

Corrosion

The product is protected from corrosion where all metal parts are exposed to the elements:

- metal parts plated with zinc/cadmium passivate coating
- frame parts high impact powder coating
- plastic covers formed in UV resistant materials

Important: Possible faults & reporting them to your service provider

If the vehicle will not move with the ignition switched on your service provider will ask "What is the fault code number shown on the display?", this gives an indication of the possible fault and will save time fixing any issues.

When reporting a fault make sure you have as much information as possible for the service provider.

Driving your Vehicle & Storage

Driving your vehicle

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

Check the weather. Make sure you are wearing suitable clothing, regardless if your journey is long or short. (Remember, when it is hot to wear a hat)

If you are taking medication, check with your doctor or physician that your ability to control the vehicle will not be impaired.

Do not drink & drive, it is against the law.

If your medication affects you in any way do not ride the scooter.

Only use the scooter in accordance with its intended use (See page 4).

Always stop on a flat area and always remove the ignition key when not in use.

Do not climb kerbs higher than 7.5cm and always lean forward whilst climbing kerbs.

Do not stop when going up a hill; always get to a flat area.

Carrying Weight on the Vehicle

Front Basket – The basket mounted on the front has a weight limit of 8kg (17.5lbs). Do not exceed these weights as it could effect the steering.

NEVER BACK DOWN A SLOPE, THIS IS HIGHLY DANGEROUS

When driving on the pavement remember that people cannot hear you coming.

Storage and Corrosion Prevention

Always keep your vehicle in a dry area. Do not leave outside in the elements. If you do not have an area to store the vehicle cover it with a full waterproof cover.

Cleaning the vehicle

- only use a damp cloth and gentle detergent
- do not use any abrasive or scouring liquids
- · do not allow water near or direct contact with water
- do not use high-pressure cleaning devices.

Disinfection

Spray or wipe disinfection using a tested and recognised product is permitted. A list of the current disinfectants is available from the Robert Koch Institute at http://www.rki.de. Always wear rubber gloves when using disinfectant and wash your hands thoroughly when finished.

Read this before driving the vehicle!

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

Check the weather. Make sure you are wearing suitable clothing, regardless if your journey is long or short. (Remember, when it's hot wear a hat)

If you are taking medication check with your doctor or physician that your ability to control the vehicle will not be impaired.

Do not drink alcohol and drive - It's the law!

Only use the vehicle for the purpose it's intended. Do not drive though deep water; transport more than one person; tow other vehicles, drive on rough unpaved ground, soft mud or carry excess weight.

Do not modify the vehicle as this will invalidate your warranty.

Make sure the battery charger is disconnected.

Make sure you have adjusted the seat as instructed in this manual – get comfortable – set the speed control dial to a low setting.

Make sure the road ahead is clear. Switch on the vehicle. Check the battery level indicator is in the green area

Get comfortable and always place your feet on the footplates.

Pull in right hand accelerator lever slowly. The vehicle will now move off. The more you pull the lever in the faster the vehicle will go.

To brake, release the lever. If you become unsure or feel unsafe release the lever immediately.

As you get accustomed to the power you can increase the speed.

Getting on and off the vehicle: Stop the vehicle on a flat area. Turn off the ignition and remove the key before getting off.

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

Symptom

- Unit does not move.
 Check: Does the battery level indicator work when the ignition is switched on?
- Steering is loose or wobbly when driven. Check: Have you hit a kerb or obstacle hard? Are the handlebars straight when riding in a straight line?
- Vehicle behaves erratically when driven. Check: Does the vehicle judder or cutout.
- Short Range (Check: If the red charging lamp stays on after all night charging it may be a defective or worn out battery.)

Solution

- Freewheel is engaged.
- Batteries flat check level.
- Check for tyre damage.
- Damaged steering contact service provider.
- Loose seat contact service provider.
- Possible electronic problems contact service provider.
- Binding front wheels contact service provider.
- Binding rear wheel Emergency brake. Switch into freewheel and the vehicle should move easily - contact service provider.
- Check tyre pressures should be 30psi all round (Rear and centre wheels only)
- Replace batteries and/or charger, contact service provider.

There are 3 stages when reporting a fault.

The Service Provider is there to help you. They will ask you specific questions that need to be answered as accurately as possible. This will allow the service engineer to be equipped with the correct part when they visit you.

Before phoning the Service Provider.

Check what is wrong with the scooter: If there is a spanner & a number flashing on the tiller display (Page 11) you may be able to correct the problem. The list below shows you which problems you can fix and the others you have to phone the Service provider for them to fix.

Fault on display

Spanner 1: Battery needs recharging Spanner 2: Voltage Iow Spanner 3: Voltage too high Spanner 4: Ignition sleep mode Spanner 5: Brake fault or freewheel engaged Spanner 6: Lever Mechanism fault Spanner 7: Speed pot error Spanner 8: Motor error Spanner 9: Other error

What to do

Charge the batteries* Charge the batteries Phone Service Provider. Turn ignition off then on Check free wheel (Page 10) Phone Service Provider. Phone Service Provider. Phone Service Provider. Phone Service Provider.

* Make sure the battery charger is completing its full charge. If not inform the Service Provider.

Important Note

If you report a problem and there is found to be no genuine fault or the problem is user error you may be charged for the call out. Please check the above first before phoning.

Common Questions

I want to modify my scooter, is this ok?

No, any modification will invalidate your warranty. This is because it changes the specification of the product and the manufacturer has to abide by the CE approval marking.

I want to transport my vehicle but the boot lip is too high for me to lift the vehicle.

There are various techniques to loading the vehicle into a car such as using ramps, tail lift. It depends on what type of vehicle you own. Phone your provider for details.

Can I fit weatherproofing such as a canopy?

Yes, but fit an authorised product. Remember if you alter the vehicle in any way It will invalidate your warranty. Be aware that enclosed canopies can affect the handling of the vehicle in strong winds. (See page 21)

How long will my batteries last and what range can I expect?

It depends on many things but a rough guide to batteries is:

- Keep them charged, do not let the batteries run completely flat. If they are flat charge them up.
- The life of a battery depends upon the number of cycles the battery goes through.
- If you carry out these simple instructions your batteries will have a longer life.

Range can be affected by many things such as:

- Worn batteries: As they get older the range decreases
- Faulty or worn drive train: Uncommon but will be checked by the engineer during service.
- **Binding brakes:** If your vehicle is fitted with a front emergency brake is could be sticking, the engineer will check this during service
- Low air pressure in the tyres: Common fault with low range, always keep the tyre pressures correct
- Cold weather: Battery performance decreases as the temperature drops
- **Incorrect charging:** Part charging will eventually damage the batteries, always fully charge your batteries after use
- Weight: The heavier the weight carried on the vehicle, the lower the range.
- The type of terrain: For example if the vehicle is constantly used on grass, shingle or generally soft ground the power consumption doubles. This means your range will decrease by 50%

Can I leave my scooter outside in the open as I do not have anywhere to store it and how can I guard against damage or corrosion?

Always keep the vehicle in a dry area. Do not leave it outside in the elements. If you do not have an area to store the vehicle cover it with a full waterproof cover.

Breakdown (UK) - Phone 01582 430900

If your vehicle breaks down do not instruct a 3rd party (A dealer, garage or friend) to fix the problem. Phone your Service Provider immediately. Failing to do so will invalidate your warranty.

When phoning the Service Department with a fault

Do's:

- Be as clear as possible when explaining the problem.
- Listen to the Service Operator. They will ask you a series of questions. Answer them as precisely as possible. This helps to determine the problem so that the Service Engineer can bring the correct parts with him/her.

Remember:

- When your vehicle is under guarantee there are certain situations where it will not be covered such as tyres or damage. Make sure you understand what you are covered for.
- Before you book an engineer for a possible fault make sure there is a problem. If the engineer does not find anything wrong you will be charged for a call out.

Servicing (UK) - Phone 01582 430900

• This vehicle is designed for minimum maintenance but it is essential that a qualified engineer service the vehicle once a year. If the vehicle is used constantly we recommend twice-yearly maintenance.

• Make sure the engineer fills in the Handbook on completion for all servicing carried out on this vehicle.

• Keep all receipts for servicing and repairs with this handbook. This may add value when selling the vehicle and may be required in the event of a warranty claim.

• On completion of the service, test the vehicle before the engineer leaves and make sure you are satisfied with the work carried out.

Service check list (for the Quingo Engineer)

- Check page 26 for fault codes
- Initial diagnostic road test
- Wheel bearings wear and lubricate
- Wheel alignment of the 3 front wheels. There must be a negative toe in 1 to 5 degrees
- Steering and tilting mechanism. Check that it locks under pressure
- Wear or damage to tyres or wheels
- Bodywork fixtures
- Throttle play and adjustment. Check for full and free movement
- Bodywork, wheel clearance, lights secure
- Steering bearing for wear. Check for backwards and forwards movement.
- Seat mounting. Check the access feature works correctly with the warning lamps
- Transaxle mountings are tight
- Handlebar alignment, check for damage
- Motor brush wear
- Motor speed check
- Transaxle play
- Electromagnetic brake operation
- Freewheel operation, check the display fault indicator, check brake holding on slope
- Frame for damage, cracks or corrosion
- General corrosion
- All operational controls work correctly
- Battery condition and charger operation
- Tighten all nuts & bolts
- Check tie rod bolts
- Final road test
- Clean vehicle
- Customer road test & sign off

1 st service Engineers Name Engineers Signature
2 nd service Engineers Name Engineers Signature
3rd service
Engineers Name Engineers Signature
4 th service Engineers Name Engineers Signature
5 th service Engineers Name Engineers Signature

Staple additional pages as required. This page must be filled in. Add additional repairs.

Important Technical Information regarding Electromagnetic Interference (EMI)

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

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

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

See page 5 of this manual for additional information.

Warranty Statement. Important information for the owner

The period of warranty varies from country to country ranging from 1 year to 3 years. Please see your purchase order for full details.

In accordance with the warranty conditions for new vehicles the warranty is as follows active from the date of delivery.

- Should any part of the vehicle require repair or replacement as a result of a specific manufacturing or material defect within the warranty period from the date on which possession of the vehicle was transferred to the original purchaser and subject to it remaining within that ownership. The part or parts will be repaired or replaced free of charge if the vehicle is returned to the seller.
- 2. Any repaired or replaced part will benefit from any arrangements for the balance of the warranty period remaining.
- 3. Items of a consumable nature, tyres, tubes, motor brushes, bulbs, batteries, upholstery will not be covered during the warranty period, unless such items have clearly suffered undue wear as a direct result of an original manufacturing defect.
- 4. Batteries are covered against a specific manufacturing or material defect. Batteries are consumable items and any battery requiring replacement during the warranty period due to normal use will not be considered defective and therefore not replaced free of charge. Batteries found to be damaged due to incorrect charging or maintenance will not be covered by the warranty.
- 5. To apply the warranty conditions should your vehicle require attention, under these arrangements, notify Quingo's UK authorised service provider Forever Active immediately, giving full information about the nature of the defect. Forever Active will arrange for work under the warranty conditions to be carried out by an authorised Forever Active engineer.
- 6. No responsibility will be accepted for repairs or replacements arising as a result of:
 - a. The vehicle or part not being maintained in accordance with the manufacturers recommendations
 - b. The vehicle or part having been damaged by neglect, accident, overloading, miss-use or the vehicle being used in a manner which exceeds the designed parameters.
 - c. The vehicle or parts having been altered from the manufacturer's specification or repairs carried out by an unauthorised repairer.
 - d. The vehicle or part fitted with unauthorised extras or alterations to the design.
 - e. Any repairs or servicing carried out by unauthorised engineers

The vehicle should be serviced at least once over a 12-month period. If you are a hard user we recommend a twice-yearly service. If your warranty is greater than one year a once yearly service is mandatory.

Failure to service your vehicle annually will invalidate your warranty.

The warranty is offered in addition to and does not detract from the contractible rights you have under statute or common law.

Quingo Vitess 2 Technical Specification

Speed6kph (4mph) and 12.9kph (8mph)Length/Width127cm (50") x 64cm (25")Height (seat at lowest setting)134cm (53")Wheelbase89cm (35")Fully cushioned seat unit with closed cell foam rubber includes seat base, backrest, headrest (where fitted) and armrests.Seat depth33cm (13") measured to ISO 7176.7Backrest height min/max76 - 89cm (30 - 35")Seat height from deck min/max45 - 55cm (17.7 - 21.7")Seat height from deck min/max64 - 70cm (25.2 - 27.6")Legroom min/max75 - 90cm (29.5 - 35.4") **Extra Legroom when stationery98cm (38.5.") **Foot area56 - 63 (22 - 24.8") ****Total unladen weight116kg (256lbs)Weight of each battery15.5kg (34.2lbs)Weight of heaviest component96kg (211.7lbs)Tyre type/PressureF&R Pneumatic/pressure 30psi/2.1barSuspension FrontFloating axle with independent outer wheelsSuspension RearTwin coil spring (Adjustable)Motor400-watt constant loadBattery Capacity12V 50Ah x 2 offMaximum Capacity182kg (28.6st) (400lbs)Range48km (30miles) See notes regarding rangeGround Clearance c/l of vehicle12.7cm (5") *Turning radius113cm (44.5")Safe climbing angle12 DegreesKerb climbing7.5cm (3") ***	Class Type	Classified according to EN12184 as class B mobility unit	
Length/Width $127 cm (50") \times 64 cm (25")$ Height (seat at lowest setting) $134 cm (53")$ Wheelbase $80 cm (35")$ Fully cushioned seat unit with closed cell foam rubber includes seat base, backrest, headrest (where fitted) and armrests.Seat width $47 cm (18.5")$ Seat depth $33 cm (13")$ measured to ISO 7176.7Backrest height min/max $76 - 89 cm (30 - 35")$ Seat height from deck min/max $45 - 55 cm (17.7 - 21.7")$ Seat height from ground min/max $45 - 55 cm (17.7 - 21.6")$ Legroom min/max $75 - 90 cm (29.5 - 35.4") **$ Foot area $56 - 63 (22 - 24.8") ****$ Total unladen weight $116 kg (256 lbs)$ Weight of each battery $95 kg (34.2 lbs)$ Weight of heaviest component $96 kg (211.7 lbs)$ Tyre type/PressureF&R Pneumatic/pressure $30 psi/2.1 bar$ Suspension RearTwin coil spring (Adjustable)Motor 400 -watt constant loadBattery Capacity $12V 50Ah \times 2$ offMaximum Capacity $182 kg (28.6 st) (400 lbs)$ Range $48 km (30 miles)$ See notes regarding rangeGround Clearance c/l of vehicle $12.7 cm (5") *$ Turning radius $113 cm (44.5")$ Safe climbing angle 12 DegreesKerb climbing $7.5 cm (3") ***$	Speed	6kph (4mph) and 12.9kph (8mph)	
Height (seat at lowest setting) $134 cm (53")$ Wheelbase $89 cm (35")$ Fully cushioned seat unit with closed cell foam rubber includes seat base, backrest, headrest (where fitted) and armrests.Seat width $47 cm (18.5")$ Seat depth $33 cm (13")$ measured to ISO 7176.7Backrest height min/max $76 - 89 cm (30 - 35")$ Seat height from deck min/max $45 - 55 cm (17.7 - 21.7")$ Seat height from ground min/max $64 - 70 cm (25.2 - 27.6")$ Legroom min/max $75 - 90 cm (29.5 - 35.4") **$ Fot area $56 - 63 (22 - 24.8") ****$ Total unladen weight $116 kg (256 lbs)$ Weight of heaviest component $96 kg (211.7 lbs)$ Tyre type/PressureF&R Pneumatic/pressure 30 psi/2.1 barSuspension FrontFloating axle with independent outer wheelsSuspension RearTwin coil spring (Adjustable)Motor 400 -watt constant loadBattery Capacity $12 V 50 h x 2 off$ Maximum Capacity $12 N cm (44.5")$ Safe climbing angle $12 Degrees$ Kerb climbing $7.5 cm (3") ***$	Length/Width	127cm (50") x 64cm (25")	
Wheelbase $89 \text{cm} (35^{\circ})$ Fully cushioned seat unit with closed cell foam rubber includes seat base, backrest, headrest (where fitted) and armrests.Seat width $47 \text{cm} (18.5^{\circ})$ Seat depth $33 \text{cm} (13^{\circ})$ measured to ISO 7176.7Backrest height min/max $76 - 89 \text{cm} (30 - 35^{\circ})$ Seat height from deck min/max $45 - 55 \text{cm} (17.7 - 21.7^{\circ})$ Seat height from ground min/max $64 - 70 \text{cm} (25.2 - 27.6^{\circ})$ Legroom min/max $75 - 90 \text{cm} (29.5 - 35.4^{\circ}) **$ Extra Legroom when stationery $98 \text{cm} (38.5^{\circ}) **$ Foot area $56 - 63 (22 - 24.8^{\circ}) ****$ Total unladen weight $116 \text{kg} (256 \text{lbs})$ Weight of heaviest component $96 \text{kg} (211.7 \text{lbs})$ Tyre type/PressureF&R Pneumatic/pressure 30psi/2.1barSuspension FrontFloating axle with independent outer wheelsSuspension RearTwin coil spring (Adjustable)Motor 400 -watt constant loadBattery Capacity $12V 50Ah x 2$ offMaximum Capacity $182 \text{kg} (28.6 \text{st}) (400 \text{lbs})$ Range $48 \text{km} (30 \text{miles})$ See notes regarding rangeGround Clearance c/l of vehicle $113 \text{cm} (44.5^{\circ})$ Safe climbing angle 12 Degrees Kerb climbing $7.5 \text{cm} (3^{\circ}) ***$	Height (seat at lowest setting)	134cm (53")	
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Suspension RearTwin coil spring (Adjustable)Motor400-watt constant loadBattery Capacity12V 50Ah x 2 offMaximum Capacity182kg (28.6st) (400lbs)Range48km (30miles) See notes regarding rangeGround Clearance c/l of vehicle12.7cm (5") *Turning radius113cm (44.5")Safe climbing angle12 DegreesKerb climbing7.5cm (3") ***	Suspension Front	Floating axle with independent outer wheels	
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Battery Capacity12V 50Ah x 2 offMaximum Capacity182kg (28.6st) (400lbs)Range48km (30miles) See notes regarding rangeGround Clearance c/l of vehicle12.7cm (5") *Turning radius113cm (44.5")Safe climbing angle12 DegreesKerb climbing7.5cm (3") ***	Motor	400-watt constant load	
Maximum Capacity182kg (28.6st) (400lbs)Range48km (30miles) See notes regarding rangeGround Clearance c/l of vehicle12.7cm (5") *Turning radius113cm (44.5")Safe climbing angle12 DegreesKerb climbing7.5cm (3") ***	Battery Capacity	12V 50Ah x 2 off	
Range48km (30miles) See notes regarding rangeGround Clearance c/l of vehicle12.7cm (5") *Turning radius113cm (44.5")Safe climbing angle12 DegreesKerb climbing7.5cm (3") ***	Maximum Capacity	182kg (28.6st) (400lbs)	
Ground Clearance c/l of vehicle12.7cm (5") *Turning radius113cm (44.5")Safe climbing angle12 DegreesKerb climbing7.5cm (3") ***	Range	48km (30miles) See notes regarding range	
Turning radius113cm (44.5")Safe climbing angle12 DegreesKerb climbing7.5cm (3") ***	Ground Clearance c/l of vehicle	12.7cm (5") *	
Safe climbing angle12 DegreesKerb climbing7.5cm (3") ***	Turning radius	113cm (44.5")	
Kerb climbing7.5cm (3") ***	Safe climbing angle	12 Degrees	
	Kerb climbing	7.5cm (3") ***	

* Measurement taken from the centre of the vehicle.

** From the hip joint area to the ball of the foot

- *** Measured as a safe maximum kerb height
- **** Measured from the rear cover to the end of the footplate

Range: Up to 30 miles (48km) with standard battery configuration.

The above range figures are theoretical, produced in accordance with ISO 7176-4 ISO 7176-4 specifies a method for determining the theoretical distance range of electrically powered wheelchairs and scooters by measuring energy consumed over a specified distance. It is applicable to electrically powered wheelchairs and scooters with a maximum speed not greater than 15 km/h, intended to provide indoor and/or outdoor mobility for one disabled person whose mass is within the range presented by ISO 7176-11.

The distance range of an electrically powered wheelchair is affected by energy consumption and battery condition. Energy consumption is affected by a number of factors such as ambient temperature, total weight and weight distribution of the user, topography, surface characteristics, and tyres. Battery condition is affected by factors such as temperature, age, charging history and discharging history. Hence the result obtained from the test specified in this part of ISO 7176-4 cannot be used to derive an accurate range estimate for a particular wheelchair (or scooter) and user. However, it can be used to give a basis for comparison between different wheelchairs or scooters under similar test conditions.

Note regarding speed: The maximum speed and performance criteria is set as per specification and cannot be changed in any way by the customer. This can only be changed by a qualified engineer equipped with a suitable electronic programmer.

Note

Specifications are correct when going to press.

Advanced Vehicle Concepts Ltd retains the right to change specifications without prior notice.

Quingo™

Please read this manual. This document contains the important information required to familiarise yourself with the vehicle. Complete all the information within this document. If any information is not clear, contact us immediately. Keep this manual in a safe place, it must remain with the vehicle throughout its life.

DISTRIBUTOR STAMP:



Advanced Vehicle Concepts 7 Stadium Way, Cradock Road Industrial Estate, Luton, Bedfordshire LU4 OJF United Kingdom

www.quingo.co.com

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