



ELECTRIC BICYCLE

User Manual

[VIVI TT2020-S3]

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.

Table of Contents

Safety.....	0
Parts Assembly	1
Handlebars.....	1
Seat	1
Front Wheel	2
Pedals	2
Operation	4
Pedal Assistance	5
Using Pedal Assistance	5
Understanding the Display	5
Guidelines for Using Pedal Assistance	6
Using Gears	6
Guidelines for Using Gears	7
Using Brakes	7
Guidelines for Using Brakes.....	7
Batteries and Battery Charging.....	8
Removing the Battery Pack	9
Maintenance	9
Battery Storage	10
Battery Fuse	11
Brakes	11
Cable Adjustment	11
Tyre Pressures	12
Chain Care	12
Torque Settings	12
Frequently Asked Questions	13
Troubleshooting	13
Specifications	16
Record Your Kelb.bike Info	16

Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed.

You WILL be KILLED or SERIOUSLY INJURED if you do not follow instructions

It is vital that you read and understand this user manual before using the product, including safety warnings, and any assembly and operating instructions. Keep the manual for future reference. Safety precautions and recommendations detailed here must be fully understood and followed to reduce the risk of injury, fire, explosion, electrical hazard, and/or property damage. Safety information presented here is generic in nature – some advice may not be applicable to every product. The term "equipment" refers to the product, be it electrical mains powered, battery powered or combustion engine powered.

- Before Use - If you are not familiar with the safe operation/handling of the equipment or are in any way unsure of any aspect of suitability or correct use for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety.
- Do NOT operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases or dust. The equipment may create sparks or heat that may ignite flammable substances.
- Keep clear of moving parts.
- Equipment may be a potential source of electric shock or injury if misused.
- Do NOT operate the equipment if it is damaged, malfunctioning or is in an excessively worn state.
- Do NOT allow others to use the equipment unless they have read this manual and are adequately trained.
- Keep packaging away from children - risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property.

General Personal Safety

- Wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect from eye and ear injury, poisoning, burns, cutting and crush injuries. Protective equipment such as safety goggles, respirators, non-slip safety footwear, hard hat, hearing protection etc should be used for appropriate equipment / conditions. Other people nearby should also wear appropriate personal protective equipment. Do not wear loose clothing or jewellery, which can be caught in moving parts. Keep hair and clothing away from the equipment.
- Stay alert and use common sense when operating the equipment. Do not over-reach. Always maintain secure footing and balance.
- Do not use the equipment if tired or under the influence of drugs, alcohol or medication.
- This equipment is not intended for use by persons with reduced physical, sensory or mental capabilities.

General Equipment Use and Care

- The equipment is designed for domestic use only.
- Handle the equipment safely and carefully.
- Before use, inspect the equipment for misalignment or binding of moving parts, loose components, damage or any other condition that may affect its operation. If damaged, have the equipment repaired by an authorised service centre or technician before use.
- Prevent unintentional starting of the equipment - ensure equipment and power switches are in the OFF position before connecting or moving equipment. Do not carry equipment with hands or fingers touching any controls. Remove any tools or other items that are not a part of the equipment from it before starting or switching on.
- Do not force the equipment. Use the correct equipment for your application. Equipment will perform better and be safer when used within its design and usage parameters.
- Use the equipment and accessories etc. in accordance with these instructions, considering working conditions and the work to be performed. Using the equipment for operations different from those intended could result in hazardous situations.
- Always keep equipment components (engines, hoses, handles, controls, frames, housings, guards etc) and accessories (cutting tools, nozzles, bits etc) properly maintained. Keep the equipment clean and, where applicable, properly lubricated.
- Store the equipment out of reach of children or untrained persons. To avoid burns or fire hazards, let the equipment cool completely before transporting or storing. Never place or store the equipment near flammable materials, combustible gases or liquids etc.
- The equipment is not weather-proof, and should not be stored in direct sunlight, at high ambient temperatures or locations that are damp or humid.
- Do not clean equipment with solvents, flammable liquids or harsh abrasives.
- For specific equipment safety use and care, see Equipment Safety.

Parts assembly

Handlebars

1. Carefully place the bicycle assembly on a flat surface so that it rests on the front fork and rear wheel.
2. Slide the handlebar stem into the fork tube until fully inserted.
3. Rotate the handlebar assembly, if required, so it is aligned "square" to the front fork. That is, the handlebar will be at 90° to the bicycle frame when the front wheel is straight.
4. Using a 6mm Allen key and torque wrench, tighten the handlebar stem bolt to the specified torque.

The orientation of the front fork is correct when the brake calliper is facing forward. The orientation of the handlebar is correct when the control cables and brake levers are facing forward. **It is ESSENTIAL that the fork and handlebar are assembled correctly. The adjacent image (bicycle shown fully assembled) shows correct fork / handlebar assembly.



Seat

When setting seat height, it is important to ensure that the resulting ride position is not only comfortable, but also safe. You should be able to remain stable and properly handle the bicycle when at a standstill, touch the ground etc. You should also be able to comfortably reach the pedals when riding and comfortably and safely operate the handlebars and all controls. A good reference height for the seat is at hip height. Do NOT have the seat raised enough so you can see the maximum height marker on the seat post. • Ensure that when the seat is clamped, you cannot rock it back and forth or rotate it.

1. Insert the seat post/seat assembly into the bicycle frame and adjust it to a comfortable position – do NOT have the seat raised enough so you can see the maximum height marker on the seat post.
2. Rotate the clamp lever from the unlock position to the lock position. If the seat post is not clamped firmly, increase pressure by unlocking the clamp, then rotating the adjustment knob right (clockwise) a ¼ turn, then re-test and adjust as necessary.



The seat angle can also be adjusted, again for best comfort. To adjust angle, using a 13mm spanner, loosen (rotate left) the seat clamp nuts (CC) on either side of the seat until the front of the seat can be moved up/down. Set the angle as required, then tighten the nuts securely.



Note that small changes in seat position can have a substantial effect on comfort. It is recommended to make seat adjustments in small increments and test the position, then re-adjust as necessary.

Front Wheel

1. Turn the bicycle over so it is resting on the handlebar and seat. Remove the black plastic spacer from the wheel fork.
2. Install the front wheel by lowering it into the slots at the bottom of the fork legs, making sure that the brake disc sits into slot on the brake pad assembly.
3. Remove the plastic nut and washer from the axle skewer and then slide the skewer through the centre of the wheel.



4. Fasten the nut and washer back onto the skewer. As you tighten, check the tension on the quick release handle (R), it should require firm pressure to close, locking the wheel in place.

Pedals

It is critical that you follow the pedal to crank arm attachment procedure carefully to ensure correct assembly. • During assembly, do NOT use excessive force to screw the pedals into the crank arms – this may indicate misalignment of the pedals or mis-matched threads. If the pedal does not "feel right" when being screwed in, STOP immediately and check that it is the correct pedal and that it is aligned properly with the crank arm. **Failure to follow the instructions here or take due care may damage the equipment and void any product warranty.**

1. Starting with the right-hand crank arm, identify the right-hand pedal assembly, which is identified by having the pedal bolt stamped "R".

2. Very carefully begin screwing the pedal bolt into the crank arm (rotate right / clockwise). If the bolt does not "feel right" when being screwed in, STOP immediately and check that it is the correct bolt and that it is aligned properly with the crank arm. Screw the pedal bolt in fully, then tighten to the specified torque using a 15mm spanner and torque wrench.



3. Repeat the above procedure for the left-hand crank arm, noting that the pedal bolt and crank arm thread is left-hand (rotate left / anti-clockwise to tighten) and that the pedal bolt is stamped "L".

Note: If there are no Left and Right markings on the pedals, sit the pedals side by side and inspect the thread on each. As shown in the image below, the thread on the left pedal starts high on the left side, and the thread on the right pedal starts high on the right side.



Assembly is complete. The bicycle should resemble the following image.



Operation

Before riding, ensure that all required fasteners are tightened to the correct torque. • Charge the battery prior to use. • Ensure that the pedal assistance system is switched OFF when the bicycle is not in use. • Always wear a helmet and appropriate safety equipment and always keep both hands on the handlebars and both feet on the pedals whilst riding. Read, understand and follow all safety recommendations before riding. • Avoid riding in damp conditions, rain etc. as this may affect operation or possibly damage the bicycle electronics.



No	Name	No	Name
1	Frame	12	Front brake lever
2	Front Wheel	13	Rear brake lever
3	Rear Wheel and Drive Motor	14	Front light
4	Seat Post / Seat	15	Rear reflector
5	Pedal (Right)	16	Rear Derailleur
6	Pedal (Left)	17	Front Fork
7	Chain	18	Brake caliper (Front)
8	Pedal Assistance / Gear Change Controls	19	Freewheel
9	Crank Assembly (Bottom Bracket)	20	Chain Wheel
10	Handlebar	21	Mudguard
11	Battery pack		



Remarks:	1	Distance from span to ground	38-42'
	2	Distance from top of handlebar to ground	45'
	3	Wheel diameter	26'
	4	Body length	67'

Pedal Assistance

Charge the battery prior to use. • Pedal assistance is not mandatory for riding – normal bicycle riding ("pedal power") alone can be used. It is recommended to use pedal assistance when necessary, and not rely on it solely. When using pedal assistance, also pedal for best efficiency. • The bicycle must be moving, or have enough pressure placed on the pedals (in a forward direction) to activate pedal assistance. • If you apply the brakes when pedal assistance is active, the drive provided by the motor reduces in proportion to how much braking pressure you apply. Once the bicycle reaches a sufficiently slow speed or stops completely, pedal assistance automatically deactivates.

The bicycle pedal assistance system comprises an electric motor built into the rear wheel hub, a battery pack with key security and charging port (on the other side of the battery pack), pedal assist throttle, and display.



Using Pedal Assistance

1. Place the security key in the battery pack key slot and rotate to the "O" (ON) position. Once the key is in the ON position, it cannot be removed from the key slot.
2. Begin moving using pedal power, press the pedal assist throttle downward to activate the motor.
3. After riding, rotate the key to the "X" (OFF) position and remove the key.

Understanding the Display

The display has two functions:

- The Mode section consists of three lights which indicate the level of pedal assistance provided.
 - One light: low level assistance / speed
 - Two lights: medium level assistance / speed
 - Three lights: high level assistance / speed
- The power section indicates the battery charge level, where one bar is minimum, and five bars is full.



Guidelines for Using Pedal Assistance

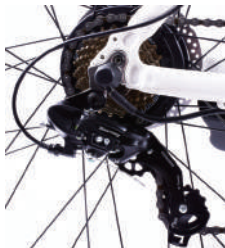
To get the best performance and service life from the pedal assistance system, understand and apply the following techniques:

- When pedal assistance is active, the drive motor engages to provide assistance only while the bicycle is in motion and you are pedalling. The amount of assistance provided depends on your pedalling force and the level of pedal ride assistance currently selected (where applicable) and / or being applied.
- Pedal assistance progressively reduces as bicycle speed increases and stops completely when the current speed exceeds 25kmh. Pedal assistance re-engages when speed drops below 25kmh (provided you are pedalling).
- Start moving from stationary by pedalling as per a normal bicycle. Using pedal assistance only when "pushing off" places undue loads on the system and uses a lot of energy.
- It is recommended to pedal as per a normal bicycle when riding up inclines. Using pedal assistance only when climbing uses a lot of battery energy.
- Pedal assistance automatically reduces or disengages whenever the brakes are activated (and / or when you stop pedalling).

Using Gears

Some model bicycles are equipped with gears. Gears are used to change the ratio between rotations of the rear wheel and the crank set. This enables you to pedal less and travel faster on flat or downhill sections, or pedal faster and travel slower to climb hills. Gearing is independent to pedal assistance, so pedal assistance operates the same regardless of selected gear. Remember, however, that pedal assistance is "governed" by overall speed.

The selectable gears are located on the rear wheel, known as a "gear cluster" or "cassette". The larger the gear, the smaller number of rotations per rotation of the crank. The largest gear is the "lowest" and is referred to as "1". As each gear becomes smaller, it is a "higher" gear than the previous and is numbered sequentially. The number of gears may vary between different models. Beneath the gear cluster is the derailleur mechanism, which moves the chain, so it runs on different gears. The derailleur is operated by the rider using controls mounted on the handlebars. The gear change is "indexed" so each gear selection positively engages – this is factory set and should require no adjustment. There may be slight variations between bicycle models in method to change gear "up" (from a lower gear to a higher gear), or to change gear "down" (from a higher gear to a lower gear). The image shows a "7-speed" type that uses a button for changing up gears (push button to activate derailleur), and a lever for changing down gears (rotate lever forward to activate derailleur)



Guidelines for Using Gears

To get the best performance and service life from the gear change system, understand and apply the following techniques:

- You **MUST** be pedalling during gear changes.
- Do not attempt to change multiple gears in a single action. Allow each gear change to complete fully before the next change.
- Always use an appropriate gear for your speed, the terrain and incline. This helps you ride most efficiently.
- Keep the chain and gears properly lubricated and clean.
- If you notice noise after changing gear or an ability to select a gear or the chain not running smoothly, have the gear system inspected and adjusted by a bicycle mechanic or suitably qualified person.

Using Brakes

All bicycle models are equipped with a front and rear wheel braking system. Brakes are used to slow the bicycle down. The braking systems may use different mechanics; however, the functionality is the same, and that is to change the energy of the moving bicycle into heat energy ("friction"):

For disc brakes, this means pads made from a special friction material pinching against a disc mounted to the centre of the bicycle wheel.



The brakes are operated by the rider through levers mounted to the handlebars. The left-hand lever operates the rear brake, the right-hand lever operates the front brake. The ability of the rider to adequately slow and/or stop the bicycle depends largely on the skill of the rider, the surface being ridden on and other factors such as rain, tyres, adjustment and condition of the brake parts etc.

Guidelines for Using Brakes

To get the best performance and service life from the brake system, understand and apply the following techniques:

- In wet conditions, which reduces friction, always provide additional distance for braking and adjust how quickly you apply the brakes.
- When applying the brakes, particularly the front brake, use a lower pressure to start with until you feel the brakes starting to "bite", then increase pressure as required. Do **NOT** over-apply the brakes and cause the wheel to stop rotating – this may result in loss of control.

- Maintain the brake friction components (pads, shoes, rubbers) in good condition and replace when they reach the wear limit.
- Maintain brake adjustment so that the brakes perform effectively, the levers are comfortably positioned, and there is not excessive play in adjustable components.
- If the brakes are not performing effectively, making abnormal noise or any part is not serviceable or cannot be adjusted correctly, have the brakes inspected and adjusted by a bicycle mechanic or suitably qualified person.
- If the brake cables become frayed or otherwise damaged, have them replaced by a bicycle mechanic or suitable qualified person.

Batteries and Battery Charging

Never modify the electrical system. Alterations may cause a fire, resulting in serious injury and could also damage the electrical system. • Charge with the supplied charger only. Use of the wrong charger may cause a fire or explosion, resulting in serious injury. • Ensure the voltage and frequency of the charger is compatible with mains electrical supply. • Use the battery charger in dry locations only. • The battery must be charged before first use. • For maximum battery performance and service life, charge the battery after each use, and charge at temperatures between 0 and 40°C (32 and 104°F). • Battery charging generally takes 4 to 6 hours from discharged to fully charged. Do NOT charge the battery continuously for more than 24 hours. • If the bicycle has not been used for over 4 weeks, charge the battery before use. • Always switch the bicycle OFF after each use.

The battery pack can be recharged repeatedly. However, rechargeable batteries eventually need to be replaced. A significantly reduced operating period after charging indicates that the battery is no longer serviceable and should be replaced. Discard old batteries in an environmentally responsible manner.

The battery charger has a charge status LED indicator:

- Red - Battery charging.
- Green - Battery fully charged.

To charge the battery:

1. Plug the charger connector into the charging port.
2. Connect the charger to a mains electrical supply and switch ON. The indicator LED on the charger illuminates red to show the battery is charging.
3. When the battery is charged (approximately 6 hours), the charger indicator LED illuminates green. Disconnect the charger from the electrical supply, then disconnect it from the bicycle. Lower the battery pack handle to protect the bicycle charging port.



Removing the Battery Pack

1. To remove the battery, slide the safety forward and then pull the silver lever outward, moving it from the locked position to the open position, and gently rotate the front part of the bicycle around until fully folded.
2. Insert the key into the keyhole in the ON position. Apply pressure to push the key towards the battery pack so that the keyhole is depressed. While it's depressed, turn the key anti-clockwise towards the OFF position, take off the key from the battery pack.
3. The battery pack is now unlocked, and can be released from the bicycle.



Maintenance

Some maintenance activities described may be beyond the scope of some users. Do NOT attempt procedures that you are not comfortable with, or do not have the necessary tools, experience or knowledge for – take the unit to an authorised service centre or qualified technician for servicing. Items in the maintenance schedule below that are recommended to be performed by a qualified technician are highlighted yellow. • Failure to follow the maintenance recommendations, using incorrect or non-compatible accessories or replacement parts, or general negligence may result in making the product warranty void. Improper adjustment or service may result in damage to the bicycle or make it hazardous. • Maintenance requirements may be affected by any number of factors from your riding style to geographic location. • When new, parts of the bicycle may "break-in" over the course of the first approximate 100km of riding, possibly including the stretching of cables, spoke tension changes etc. It is recommended to have the bicycle inspected and serviced at an authorised service centre or by a qualified technician. • The bicycle components are subject to wear and stress. If a component is weakened through stress, age etc, it may fail without warning. It is important to regularly inspect the bicycle for any signs of component fatigue – look for cracks, fraying, discoloration etc, as this may indicate that a part is near the end of its useful life and should be replaced.

- Clean the bicycle with a soft, damp cloth – do NOT use high-pressure water cleaners or hoses, pressurised air, solvents, abrasives etc. For the console, battery and motor, do NOT use any liquids.
- When transporting in a vehicle, it is recommended to have the battery out of the bicycle during transport.
- Store the bicycle where it will be protected from rain, sun etc to help prevent corrosion, fading etc.
- For safety, longest possible service life and reliability, maintain the bicycle properly. Use the maintenance schedule below for guidance. It is very important that you check certain systems and components before each ride. The proper condition and function of these systems is critical to your safety.

Maintenance Schedule				
Component / Condition	Check Before Every Ride	*Check Periodically	Clean / Lubricate	Adjust / Tighten / Replace as Required
Tyre Pressure	■			■
Tyre Wear / Damage	■			■
Brake Adjustment	■			■
Handlebar Tightness	■	■		■
Controls and Display	■			
Seat Post Tightness	■			■
Fasteners / Mounting Hardware				■
Brake Pads / Shoes		■		■
Brake Cable Wear		■		■
Chain		■	■	■
Reflectors		■		
Battery / Charger		■		■
Steering Head Bearings		■	■	■
Derailleur		■	■	■
Wheel Spoke Tension		■		■
Wheel Trueness		■		■
Wheel Bearings		■	■	■
Bottom Bracket (Crank) Bearings		■	■	■

* Every 5 to 10 rides depending on ride length and conditions.

Battery Storage

When storing the batteries for a long period of time:

- Charge the batteries at least every 30 days to avoid capacity loss. Batteries slowly self-discharge when unused over a long period. If the battery cells are left at a critically low charge state, the lifespan and capacity will be permanently reduced.
- Always disconnect the charger from the mains electrical supply and battery before storing the battery.
- Avoid storing batteries in extreme temperatures, whether hot or cold. The recommended battery storage temperature is between 0 and 25°C (32 to 77°F). Avoid exposing batteries to temperatures at or above 40°C (104°F) for extended periods.
- Batteries are best kept in a cool, dry place. Do not allow batteries to accumulate condensation, as this may cause shorting or corrosion.

Battery Fuse

Use fuses of the same type only – the rating (in Amperes) is printed on the end of the fuse. • If the fuse "blows" regularly, have the bicycle inspected at an authorised service centre.

The bicycle battery / electrical system may feature fuse protection to prevent damage in the event of a short-circuit, overload or over-current situation. For example, if the electrical system is exposed to excessive moisture. On some model bicycles, the fuse is accessible and can be easily replaced. If the fuse is "blown", the bicycle electronics will not be available until the fuse is replaced. To replace the fuse:

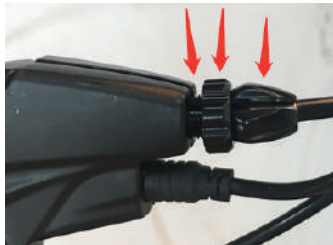
1. Using a suitable screwdriver, remove (rotate left) the fuse holder on the battery pack until fully unscrewed, then pull the fuse holder and fuse from the bicycle.
2. Discard the blown fuse. Insert the replacement fuse into the fuse holder.
3. Insert the fuse and fuse holder to the bicycle, and re-install (rotate right) the fuse holder until fully seated.

Brakes

Cable Adjustment

The brake levers are fitted with cable adjusters to compensate for cable stretch and/or adjust how much lever travel is required to activate the brake. A looser cable requires more lever travel to activate the brake, a tighter cable requires less lever travel to activate the brake. Do not over-tighten the brake cable as this may cause the brake to drag when not being pulled, which will affect the performance. Set brake adjustment so there is enough free-play at the lever for a comfortable reach and brake action, however, NOT so much that the lever can be pulled back to the handlebar. The brake can be adjusted at the lever and at the brake calliper:

1. Rotate the lock nut (A) on the brake lever (B) to the left (anti-clockwise) to loosen it, then rotate the cable screw (C) left (anti-clockwise) to tighten the cable, or right (clockwise) to loosen the cable, as required.



2. When adjustment is complete, tighten the lock nut (rotate right). Check that the wheel can spin freely when the brake is not being applied, and that it cannot be rotated when the brake is applied.

If the cable cannot be adequately adjusted at the lever, further adjustment can be made at the brake calliper.

- If the cable cannot be adjusted using the lever, re-adjust it so the brake cable is fully slack. Using a 5mm Allen key, loosen the cable bolt sufficiently so that the cable can be pulled through it. Pull the cable through the cable bolt until close to being taut. Check adjustment, and re-adjust if necessary, as described above.

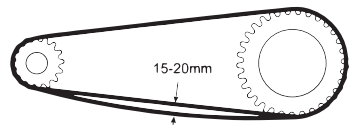


Tyre Pressures

The tyres must always be inflated to the correct pressure (as specified on the tyre sidewall) before every ride. Riding the bicycle with either too low or too high pressures will affect bicycle performance, may affect effective electrical assistance range, and may render the bicycle as dangerous. Use an accurate pressure gauge when checking pressures.

Chain Care

The chain periodically requires lubrication, depending on frequency of use and conditions etc. If the chain is noisy or running roughly, lubricate it by applying a small amount of bicycle chain lubricant to it. Do not allow the lubricant to get on to the tyres.



Torque Settings

It is important to regularly check all fasteners for adequate tightness. The following are considered highly important and should be adjusted to the specified torque values using a suitable bicycle torque wrench, sockets and adaptors. Depending on bicycle model and design, some fasteners listed below may not be applicable:

- Front Axle Nut – 35Nm
- Rear Axle Nut – 35Nm
- Handlebar Clamp Bolt – 10Nm
- Handlebar Neck Lock Bolt - 15Nm
- Handlebar Stem Bolt – 24Nm
- Pedal Bolts – 35Nm
- Brake Calliper Mounting Bolt – 7Nm
- Brake Cable Anchor Bolt – 7Nm

Frequently Asked Questions

Q: Is it normal for batteries to get warm when charging?

A: Yes, it is normal that the batteries will become warm during the charging process.

Q: How long will my batteries last before needing replacement?

A: Average battery life depends on use and conditions. Even with proper care, rechargeable batteries do not last forever. Generally, lithium-ion batteries will last more than 800 charge-discharge cycles. A partial charge/discharge counts fractionally against those numbers; discharging the battery to 50% then recharging it completely uses up one half of a charge cycle.

"End of useful life" refers to the point at which a battery can no longer supply 60% or more of its original rated ampere-hour (Ah) capacity. At this point, degradation of the battery being able to be fully charged accelerates and the battery will need to be replaced.

A: What happens if the battery discharges while riding?

Q: Pedal assistance will stop when battery charge reaches a minimum level (check level on the console, if applicable). Lights (if applicable) may still function for a period. Your bike can be ridden without pedal assistance.

Troubleshooting

Malfunction	Possible Cause	Possible Solution
Pedal assistance not working	<ol style="list-style-type: none"> 1. Under-charged battery. 2. Battery no longer serviceable. 3. Battery charger faulty. 4. Motor electrics or switches damaged / faulty. 	<ol style="list-style-type: none"> 1. Charge battery. Follow battery care procedures. 2. Have battery checked. Replace if faulty. 3. Have charger checked. Replace if faulty. 4. Seek diagnosis and repair from authorised service centre.
Reduced range and/or speed	<ol style="list-style-type: none"> 1. Under-charged battery. 2. Battery no longer serviceable. 3. Low tyre pressure. 4. Brakes dragging. 5. Terrain, headwind, etc. 	<ol style="list-style-type: none"> 1. Charge battery. Follow battery care procedures. 2. Have battery checked. Replace if faulty. 3. Inflate to recommended pressure. 4. Adjust. 5. Normal.
Gear change (where applicable) rough / not changing	<ol style="list-style-type: none"> 1. Derailleur cables sticking / stretched / damaged. 2. Derailleurs / shifter not correctly set. 	<ol style="list-style-type: none"> 1. Lubricate / adjust / replace cables. 2. Adjust.
Chain slip / jumping off sprockets	<ol style="list-style-type: none"> 1. Worn sprockets. 2. Stretched chain. 3. Front sprocket loose / out of true. 4. Sprocket teeth bent / broken. 5. Derailleur / shifter not correctly adjusted. 	<ol style="list-style-type: none"> 1. Replace. 2. Replace. 3. Re-true / tighten. 4. Replace. 5. Adjust.

Malfunction	Possible Cause	Possible Solution
Clicking noises when pedalling	<ol style="list-style-type: none"> 1. Stiff chain link. 2. Loose pedals / bearings. 3. Loose bottom bracket / bearings. 4. Bent bottom bracket or pedal bolt. 5. Loose pedal arm bolts. 	<ol style="list-style-type: none"> 1. Lubricate chain. 2. Tighten / adjust bearings. 3. Tighten / adjust bearings. 4. Replace. 5. Tighten.
Grinding noise when pedalling	<ol style="list-style-type: none"> 1. Pedal bearings too tight. 2. Bottom bracket bearings too tight. 3. Rear wheel not straight. 4. Chain too tight. 5. Deraileur dirty. 	<ol style="list-style-type: none"> 1. Adjust. 2. Adjust. 3. Align so chain is straight. 4. Adjust. 5. Clean and lubricate.
Brakes not effective	<ol style="list-style-type: none"> 1. Pads worn. 2. Pads / discs dirty. 3. Brake cables binding / stretched / damaged. 4. Brakes levers binding. 5. Brakes require adjustment. 	<ol style="list-style-type: none"> 1. Replace. 2. Clean and degrease. 3. Lubricate / adjust / replace cables. 4. Clean pivots. 5. Adjust.
Brakes squeal	<ol style="list-style-type: none"> 1. Pads / discs dirty. 2. Brakes not centred. 3. Calliper fasteners loose. 	<ol style="list-style-type: none"> 1. Clean and degrease. 2. Centre brakes and adjust. 3. Tighten.
Brakes chatter / vibrate	<ol style="list-style-type: none"> 1. Brake mounting bolts loose. 2. Brakes out of adjustment. 3. Steering head bearings loose. 	<ol style="list-style-type: none"> 1. Tighten. 2. Centre brakes and adjust. 3. Adjust bearings.
Wheel vibration / wobble	<ol style="list-style-type: none"> 1. Axle bent or broken. 2. Wheel out of true. 3. Wheel hub bearings loose / not serviceable. 4. Quick-release (if equipped) mechanism loose. 	<ol style="list-style-type: none"> 1. Replace. 2. True wheel. 3. Adjust / replace. 4. Adjust.
Steering not accurate	<ol style="list-style-type: none"> 1. Wheels not aligned to frame. 2. Steering head loose / binding. 3. Front forks or frame bent. 	<ol style="list-style-type: none"> 1. Align wheels. 2. Adjust. 3. Straighten.
Motor "clicks" / has reduced power and /or shuts off	<ol style="list-style-type: none"> 1. Under-charged battery. 2. Motor internal fault. 	<ol style="list-style-type: none"> 1. Charge battery. Follow battery care procedures. 2. Replace.
No power when pedal assistance switched ON	<ol style="list-style-type: none"> 1. Blown fuse. 2. Loose connectors / wiring damage. 3. Faulty switch. 4. Faulty controller. 	<ol style="list-style-type: none"> 1. Replace. 2. Check connectors / wiring. Replace as required. 3. Replace. 4. Replace.

Malfunction	Possible Cause	Possible Solution
Pedal assistance OK, but no display	1. Loose connectors / wiring damage. 2. Faulty controller.	1. Check connectors / wiring. Replace as required. 2. Replace.
Display OK, but no pedal assistance	1. Loose motor connectors / wiring damage. 2. Poor contact at battery terminals. 3. Faulty braking sensor.	1. Check connectors / wiring. Replace as required. 2. Inspect and clean terminals. 3. Replace.
Bicycle runs at full speed without pedalling	1. Faulty crank sensor. 2. Faulty throttle. 3. Faulty controller.	1. Replace. 2. Replace. 3. Replace.
Throttle (if equipped) not returning to neutral position	1. Grip jamming against throttle. 2. Faulty throttle.	1. Reposition grip so gap to throttle is 1 to 2mm. 2. Replace.
Pedal assistance operating intermittently or not as expected	1. Loose connectors / wiring damage. 2. Faulty controller. 3. Faulty crank sensor. 4. Faulty throttle.	1. Check connectors / wiring. Replace as required. 2. Replace.
Charger shows "full charge" in an unusually short amount of time	1. Faulty charger. 2. Faulty batteries.	1. Replace. 2. Replace.
Charger indicator not illuminating when charger is plugged into outlet	1. Outlet has no power. 2. Faulty charger.	1. Check charger plugged in and electrical supply ON. 2. Replace.
Charger indicator flashes red and never changes to green	1. Damaged wire from charger to battery. 2. Faulty batteries.	1. Replace charger. 2. Replace.

Specification

Battery Range	36V 10.4Ah Li-ion battery
Battery Range	Up to 40km (with pedal assist)
Charge Time	4-5 hrs
Max Speed	20mph
Frame Material	Aluminium Alloy
Motor	350W brushless
Gears	Shimano 21-speed-gears
Brake	Front and rear disc brakes

Record Your VIVI bike Info

No	Item	Info
1	Bicycle Serial Number	
2	Battery Serial Number	
3	Model	
4	Color	
5	Date of Purchase	
6	Dealer's Name	
7	Dealer's Phone	
8	Dealer's E-mail	

