

QUIETKAT

2021 OWNERS MANUAL



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This manual contains important safety, performance and service information. Read it before you take the first ride on your new QuietKat.

Do Not Discard



INTRODUCTION

Thank you for purchasing an electric mountain bike by QuietKat.

This is a serious piece of machinery designed for use by adults in fully controlled and safe environments. As the purchaser/owner of the bike, you are responsible with the task of keeping the rider safe at all times. Your bike has great capabilities and can grow with the skills of the rider to high levels, but it is imperative that the responsible adult is in control during the entire learning process and gives full attention at all times.

The QuietKat is designed for off-road use, but can also be ridden on the road. Please obey all laws regarding Electric Assisted Bicycles and/or Motorized Vehicles and their usage in your area. QuietKat may only be ridden in safe areas where all laws are being followed and all required permissions are given. QuietKat recommends the use of a DOT (Department of Transportation) rated helmet at all times.

Because it is impossible to anticipate every situation or condition which can occur while riding, this manual makes no representation about the safe use of the bicycle under all conditions. There are risks associated with the use of a bicycle which cannot be predicted or avoided, and which are the sole responsibility of the rider.

This Owner's Manual provides important information regarding safety and maintenance of your QuietKat e-bike. Please read through the entire manual prior to operating your machine and save this manual for future reference.

Thanks again for purchasing a Quietkat product. We hope you enjoy the ride!

Jake Roach, President — QuietKat





FOREWORD ON SAFETY

An electric bicycle can be a great way to access terrain that may be impossible by any other means. It can also be dangerous, especially if you ride terrain above your ability level or beyond the capability of the bike itself. If you are headed into the backcountry, be prepared. QuietKat recommends bringing a bike-specific multi-tool that includes various hex wrenches, screwdrivers, and a bicycle chain tool. Bring water, food and clothing appropriate for the season and the environment. A dry trail with good traction may turn impassible with a little rain, meaning you will need to walk the bike. Always practice proper backcountry safety protocols.

The bicycle will not protect you in an accident. There are no seat belts or air bags, and therefore a crash even at low speeds can result in injury or death. If you are in an accident, inspect the bike thoroughly before continuing with your ride. If you aren't sure, do not ride the bike; take it to a professional bicycle mechanic or repair shop for a professional inspection.

If you experience any mechanical problems while on a ride, immediately turn off the electric power at the battery prior to attempting any repairs. Repairs include anything such as putting the chain back on, adjusting brakes, or adjusting accessories. Attempting to replace or re-engage the chain while the power is on could result in injury.

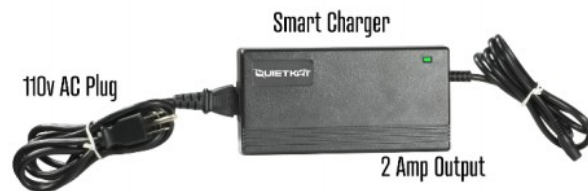
Secure all cargo, and ensure loose straps are secured to avoid interference with the moving parts on the bike. Be aware of loose clothing, especially on the drive side (Right Side) of the bicycle, as to avoid interference between your clothes and the drivetrain. Be sure the wheels spin freely and there is nothing that could get caught in the spokes or prevent the wheels from turning freely. If you get a piece of clothing or equipment caught in the front chainring, first turn the power off. The chainring is not on a freewheel system and won't go backwards like a typical bike. You may need to be prepared to cut or remove clothing that gets caught in the drivetrain in order to remove it from the system.

QuietKat electric bicycles use lithium-ion battery technology which require some care and maintenance. Please refer to the Battery Care section of this manual for important safety and care information for the battery.

The QuietKat bike is a fun and exciting ride! Always be aware of your surroundings and your environment. Be cautious of other riders and pedestrians. Always stay in control and within your ability. QuietKat always recommends the use of a DOT (Department of Transportation) Rated helmet at all times.



JEEP E-BIKE





RIDGERUNNER





APEX



Lithium Battery (multiple size options)
Panasonic Battery Cells

Protective
Cover

Power Charging
Port

Sealed & Water Resistant





WARRIOR

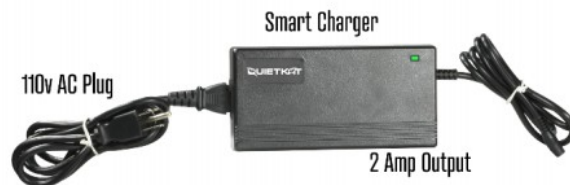


Lithium Battery (multiple size options)
Panasonic Battery Cells

Protective
Cover

Power Charging
Port

Sealed & Water Resistant





RANGER



Lithium Battery (multiple size options)
Panasonic Battery Cells

Protective Cover

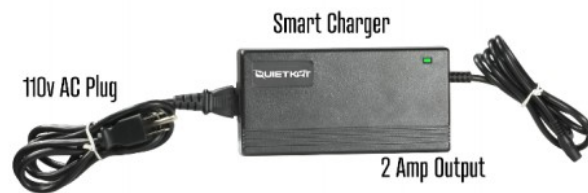
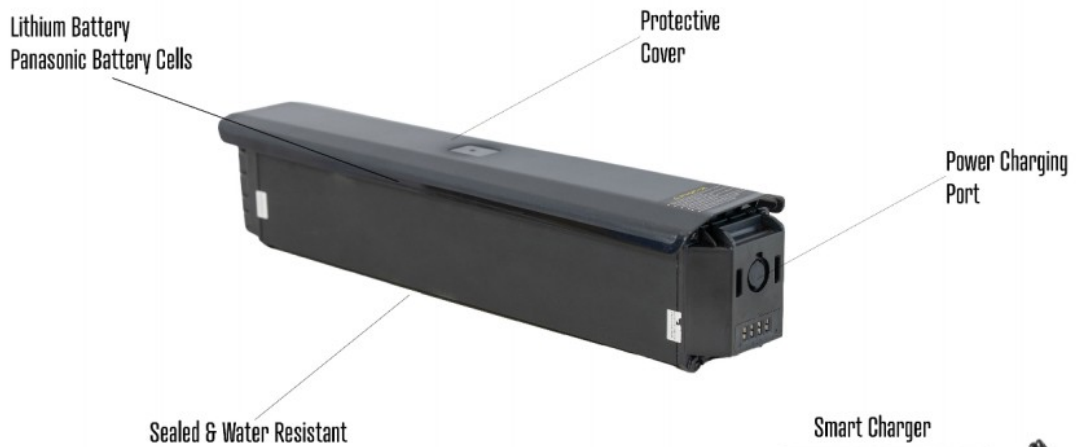


Sealed & Water Resistant





RIPPER





VILLAGER

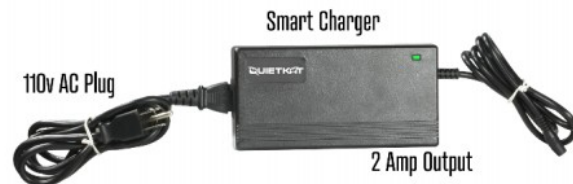


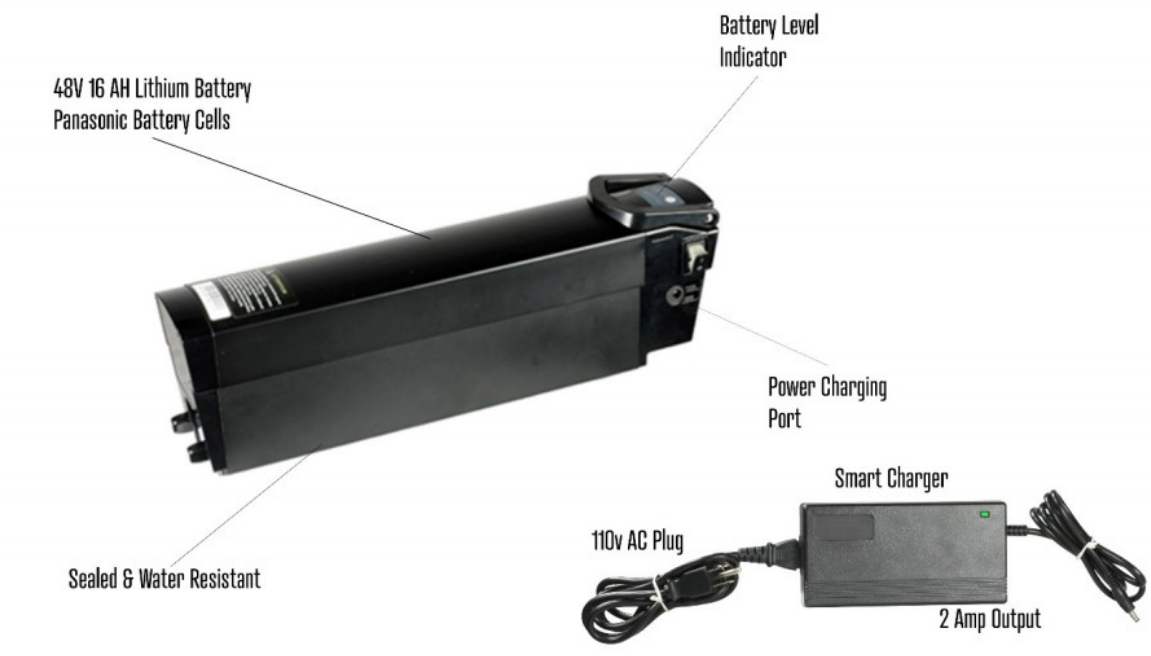
Lithium Battery (multiple size options)
Panasonic Battery Cells

Protective
Cover

Power Charging
Port

Sealed & Water Resistant







SHERPA

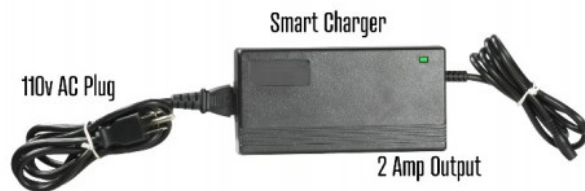


Lithium Battery (multiple size options)
Panasonic Battery Cells

Protective
Cover

Power Charging
Port

Sealed & Water Resistant





CHAPTER 1 – UNBOXING AND ASSEMBLY

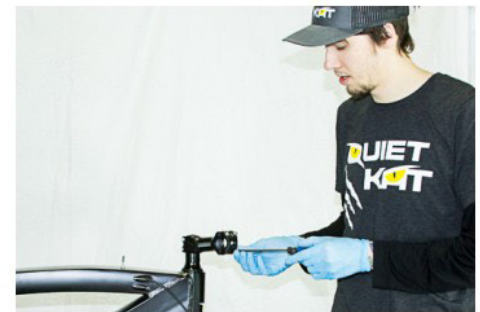
QuietKat recommends that the bike be assembled, inspected and adjusted by a certified bicycle mechanic or bicycle shop before riding.

You Will Need:

4mm Hex Key	Cable Cutters
5mm Hex Key	General Purpose Grease
15mm Wrench or Pedal Wrench	Torque Wrench (Optional)
Phillips Head or JIS Screwdriver	

Unboxing

- 1- Carefully remove the bike from the box.
 - a. Use caution when opening the box as there may be staples exposed when opening the lid.
 - b. It is easier to clip the zip ties attaching the front wheel to the bike and remove the front wheel from the box first.
 - c. Take out all the accessories and the box with pedals and other miscellaneous parts, and the battery charger before removing the bike.
- 2- Remove all bubble wrap and other packaging materials and place them back in the box.
- 3- Be careful not to cut hydraulic brake lines when removing zip-ties and protective packaging.
- 4- Install the seat-post into the seat-tube and hang the bike from a bike repair stand (if possible).
 - a. If you do not have a repair stand, place the bike on the floor and engage the kickstand. Use caution as the bike could tip over prior to installing the front wheel, even with the kickstand engaged. For extra safety, lean the bike against a wall or solid object to avoid tipping over.
- 5- Attach the handlebars.
 - a. Using a 4mm allen wrench, remove the 4 screws from the front of the stem and remove the bracket.
 - b. Place the handlebars on the stem, with REAR brake and gear shifter (if equipped) on the riders RIGHT and put the bracket and 4 screws back into place.
 - i. Don't worry about aligning the handlebars yet. Tighten the screws until snug. DO NOT OVERTIGHTEN!



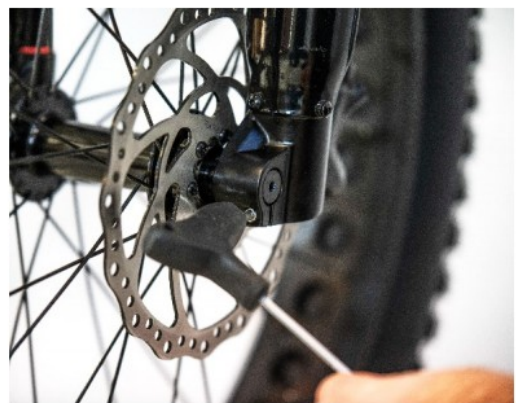


Attach the Front Wheel

RIDGERUNNER / JEEP / APEX

The 2020 RidgeRunner, Jeep eBike and Apex bikes use an inverted fork which provides maximum stiffness and traction. Inserting the front wheel on this type of design can be tricky, so follow these instructions carefully.

1. Remove the axle from the fork.
 - a. First loosen the clamps on the bottom of each fork leg with a 5mm hex-wrench.
 - b. Ensure both bolts on each leg are loose, in some cases you may need to remove the bolts completely for this step.
 - c. On each end of the axle is a 4mm hex-head bolt. Remove the brake side bolt.
 - d. Reach between the fork legs and guide the axle out towards the drive-side fork leg.
 - i. You can use a tool on the 4mm hex-head bolt on the drive side to twist the axle to help break the friction.
2. Align the wheel between the fork legs and be careful to align the brake rotor into the caliper.
 - a. Because of the inverted design the fork leg may twist, this is normal. Simply twist the fork leg into position to align the brake rotor and caliper.
 - b. If the brake lever was squeezed, or the pistons have squeezed the brake pads together, use a Brake Pad Spreader to push the pistons back to their open position (Hydraulic Brakes Only). If you don't have a spreader, you can carefully use a clean, flat head screwdriver.
3. Insert the axle through the drive-side fork leg, through the hub, and through the brake-side fork leg.
4. Insert the 4mm hex-head bolt into the axle on the brake side. Tighten to 7nm.
5. Ensure the drive side 4mm hex-head bolt in the axle is tight to 7nm.
6. Tighten the clamps on the bottom of each fork leg with the 5mm bolts.
 - a. Tighten the clamps to 10nm
7. Rotate the wheel to ensure proper brake clearance on the rotor.
8. Re-align the brake caliper on the rotor if needed (SEE PG 17)





WARRIOR, RANGER, RIPPER, VILLAGER, VOYAGER, SHERPA

- 1- Place the axle into the dropouts on the front fork, be careful to align the brake rotor into the brake caliper.
 - a. If the brake lever was squeezed, or the pistons have squeezed the brake pads together, use a Brake Pad Spreader to push the pistons back to their open position (Hydraulic Brakes Only). If you don't have a spreader, you can carefully use a clean, flat head screwdriver.
 - b. Make sure the washer is between the fork and the 15mm nut.



Center the wheel in the fork. The tire should have equal space on each side.

- c. If the wheel is not centered, loosen the 15mm nuts on the axle, and straighten. It can help to put the bike on the floor (if on a stand) and let gravity help lower the dropouts around the axle.



- 2- Use your 15mm wrench to tighten axle nut until snug. **DO NOT OVERTIGHTEN!** The nut should be hand tight, do not use a power tool as you can damage the axle threads.
 - a. Be careful when tightening to ensure the axle stays parallel to the ground. Place some weight over the handlebars and press down while tightening the nuts to ensure the axle stays level and straight.
- 3- Re-align the brake caliper on the rotor if needed (SEE PG 17)





Align the Brake Caliper and Rotor

1. With the wheel inserted into the bike, loosen bolts that attach the brake caliper to the adapter just enough so the caliper can move side to side.
2. Squeeze the brake lever to engage the pistons and squeeze the rotor with the pads; keep it squeezed while tightening the Brake Caliper bolts.
3. Release the brake lever and spin the wheel to ensure the rotor is centered within the pads.
4. For Mechanical Disc Brakes, you can make fine adjustments to the inside pad position with a 5mm Allen key on the side of the brake caliper.
5. The same process can be used for both front and rear brakes.
6. For more information on disc brakes and disc brake care and maintenance, go to QuietKat.com for a full catalog of maintenance videos.



ATTACH THE PEDALS

- 1- The pedals are left and right side specific. The end near the threads will have an L or R on them, indicating Left and Right.
- 2- Put a small dab of grease on the threads of each pedal before inserting into the crank.
- 3- The right side is threaded normally, and the left is reverse threaded. This must be screwed in opposite to the right (to the left). The greased pedal should thread on smoothly, **DO NOT CROSSTHREAD!**



- 4- Pump tires to desired pressure
 - a. The range for the tires is from 5psi to 30psi.
 - b. 5psi is the lowest the tire is rated for.
 - c. 5-15psi is for very soft sand or snow.
 - d. 15-25psi is the recommended range for most off-road riding, depending on your preferences and the specific terrain you are travelling.
 - e. 25-30psi is for pavement or hard, smooth surfaces.
 - f. Lower pressures can provide more traction, however increase the risk of punctures, and decrease the range of the motor. Higher pressures can decrease the possibility of a puncture, but also can decrease grip on softer and varied terrain.
 - g. We recommend using a 2psi difference between the Front tire and Rear Tire (+2psi in the Rear tire) to maximize traction in the front and stability in the rear. Example: 15psi Front, 17psi Rear)
 - h. If you are in an area with a lot of thorns we recommend adding a tube/tire sealant or liner.





Align the Handlebars and Brake Levers

- 1- If you have the bike in a repair stand, place the bike on the floor.
- 2- Align the handlebars to the correct angle.
 - a. Loosen the stem bracket attaching the handlebars so the bars can move freely side to side and roll forward and back.
- 3- Ensure the handlebars are centered left to right.
- 4- Roll the handlebars forward and/or backwards to get the angle correct.
 - a. The up-sweep and back-sweep of the handlebars is designed to adjust the bars for comfort. The handlebars are properly aligned when the handlebar grips are parallel to the ground. A rotational difference of +/- 15 degrees is acceptable for comfort.
- 5- Align your brake levers to a position of comfort. You should be able to reach the brake levers with either One or Two Fingers (Index or Index and Middle fingers)
 - a. Using your 5mm Allen key or Torque Wrench, tighten all stem bolts to 7nm (Newton Meters).



How to Adjust the Front Suspension Fork (If Equipped)

- 1- The Red dial is to lock out the fork. Turn toward lock symbol to lock the suspension travel. Turn the opposite direction to activate the spring and allow the suspension to travel.
- 2- On Coil Sprung Forks, the Left side Black knob adjusts the preload on the spring. The preload adjustment will change the characteristics of the spring, more tension (tighter) will stiffen the initial travel, while less tension will allow for more supple initial stroke of the spring.
- 3- Air Forks have a cap covering a Schrader Valve to adjust the pressure in the Air Spring. Use a Shock Pump to adjust the air spring pressure. You should have enough pressure such that the fork compresses between 10% and 15% of travel under body weight.



Final Bolt Checklist

- 1- Ensure all bolts are tight from front to back of the bike
 - a. Stem (handlebar and steer-tube bolts at 7nm)
 - b. Wheel axles
 - c. Crankarms
 - d. Chainring
 - e. Kickstand
 - f. Accessories
- 2- Bicycle "break in":
 - a. In the first 20 miles or so the cables and system components will settle and may need to be adjusted. If you are unfamiliar with adjusting the derailleur or mechanical brakes, go to our Video Assembly Page or bring it to your local bike shop.



Battery

- 1- The battery will be mostly charged when you receive it. It is better to use it first to drain it down to 10% and then charge it to 100%. This is also the case if you haven't used the bike for a few weeks. Batteries must be charged and discharged every few weeks. See the section on Battery Care.
- 2- Batteries can be charged while inside the bike frame or remove the battery to charge away from the bike. NEVER attempt to charge the battery while operating the bicycle. NEVER charge the battery in an environment with temperatures below freezing.
 - a. If you store your bike in a barn or garage be sure to store the battery above freezing temperatures to avoid damage to the battery.
 - b. See the section on Battery Care.
- 3- Remove the battery from the frame.
 - a. Turn the key to unlock the battery from the frame.
 - b. Pull the switch on the lower side of the downtube towards the drive-side of the bike to release the battery.
 - i. Be careful, the battery can fall out the bottom of the frame once you pull the switch.
 - c. For Dorado Batteries, turn the key and pull up and out on the battery handle.
- 4- To charge the battery, remove the rubber plug from the charging port.
- 5- Plug the charger into the power outlet and wait until the light on the charging unit is illuminated.
- 6- Plug the other end of the cord into the bike.
- 7- The light will change to green when it's charged. If the battery is not charged but the charger indicator light stays green, consult customer service.
 - a. Allow approximately 4-6 hours to fully charge (depending on model and power).
- 8- The charger will get hot, so make sure to keep it away from all flammable materials and surfaces.
- 9- During normal use you can charge it after every ride regardless of battery level, there is no battery memory and therefore consistent charging will not damage the battery.
- 10- The charging unit will automatically stop charging once the battery is full for safety.
- 11- Always charge in dry, ventilated conditions away from sunlight, ideally 50-80 degrees Fahrenheit.
- 12- Only use the original charger, DO NOT use any aftermarket chargers or charging accessories.
- 13- For long term battery storage, it is best to leave the battery at about 40-60% charge. Always store the battery in a cool place (colder than 65°F).
 - a. For best results, do not store for longer than 4 months without cycling the battery; use your bike to discharge, then recharge to 40-60%.

Power-On the QuietKat Electric Bike

- a. Make sure the battery is fully inserted and locked into the bike.
- b. Get on the bike, ready to ride.
- c. Press and hold the power button on the keypad for a couple seconds until the display turns on.
 - i. On the Hub Drive models (Ranger, Rover) Press and hold the M button until the display turns on.
- d. When the power comes on the power level will be set to 1, and therefore engaged for throttle or pedal assistance.
- e. Use the + or - key on the keypad to change your pedal assist power level from 0-5 (0 is the lowest assistance, 5 is maximum assistance)
- f. To turn off, press and hold the power button again for a couple seconds. You can also turn the bike off at the battery (0).





Display Screen (Analyst) MID DRIVE MOTORS

Five Button Keypad

- Power Button – Turns power and display on and off
- (+) Increases power
- (-) Decreases power
- Light button – changes level of backlight
- (i) button – scrolls through information screens on the Analyst Display.



The Analyst displays the following information:

- Current speed
- Total distance
- Trip distance
- Battery level
- Power level
- Watts output
- USB charging
- Use the (i) button to scroll through the different screens on the Analyst Display.



Display Screen (Analyst) HUB DRIVE MOTORS

Five Button Keypad

- Power Button (M) – Turns power and display on and off
- (^) Increases power
- (v) Decreases power

The Analyst displays the following information:

- Current speed
- Total distance
- Battery level
- Power level
- Watts output





CHAPTER 3 – BATTERY CARE

The battery is one of the most important components of the QuietKat electric bike. Please read this section carefully as there are many important steps to ensure the maximum life of your battery. **DO NOT EVER ATTEMPT TO DISASSEMBLE OR REPAIR THE INTERNAL PARTS OF THE BATTERY** as this can result in personal injury.

1. Transportation:

- a. Batteries can be transported (with proper paperwork) via truck, train, and vessel, NOT by airplane.
- b. Keep out of sun & rain during transportation.
- c. When transporting on a vehicle rack, take the battery off the bike and transport it in the vehicle.
- d. Keep dry, well ventilated, and out of direct sunlight.
- e. Handle with care during assembly.
- f. Do not throw, toss, or slide batteries.
- g. Do not place under heavy objects.
- h. Do not transport or store near flammable, explosive, or sharp objects.

2. Storage:

- a. Do not store a fully charged battery pack; discharge or charge the battery to 40% - 60% state of charge (SOC).
- b. Do not leave battery pack on the ground, or on concrete. If needed, use a piece of insulation to remove contact with the ground.
- c. To ensure a longer battery life cycle, it is recommended to discharge and recharge the battery every 2-3 months.
- d. Best way to discharge your battery is to ride your bike.
- e. Deep cycling is not necessary for lithium and can harm the overall life cycle of the Lithium-Ion cells.
- f. After storage time, simply recharge the battery to full SOC and allow it to sit on the charger for an extra 30mins to 1hr after completed charge to ensure proper cell balance.
- g. Do not leave the battery connected to a charger during its storage period or prolonged periods of time.
- h. Do not store the battery in temperatures exceeding 40°C (104°F). Lithium-Ion can be stored in cool or cold environments (0°C or 32°F) but must always be warmed up to room temperature before charging.
- i. NEVER charge the battery when freezing. Attempting to charge a frozen battery can cause irreversible damage.

3. Operation:

- a. Always ensure the battery is fully installed and locked in the ebike before powering on.
- b. Avoid dropping below 5% battery power. This can shorten the life of the battery.
- c. If the battery fully discharges causing the ebike to turn off automatically, re-charge the battery pack within 12 hours. Failure to do so could shorten the battery life.
- d. Do not try to utilize a battery pack that has turned off automatically until it has been recharged.
- e. Charging the battery to 100% is fine if the bike will be used within a short time. Otherwise avoid charging to 100% (see section on Storage above).
- f. The battery will perform best under the following conditions:
 - i. 0°C to 50°C (32°F to 122°F) for discharging.
 - ii. Room temperature always for charging, 20°C (68°F).
 - iii. NEVER attempt to charge a frozen battery. If a battery has been stored in an environment below freezing, allow enough time for the battery to warm up to room temperature, 20°C (68°F) before charging.



4. Safety In winter, keep the battery as warm as possible. Freezing temps can cause lithium-ion batteries to fail quickly.
 - a. Keep out of direct sunlight. If the internal temperature of the battery pack is in excess of 75°C (167°F) there will be damage to the battery's capacity and a reduction in battery life and can increase the risk of a fire or explosion.
 - b. Do not wash the battery shell with organic solvent.
 - c. In case of fire, do NOT use CO2 to extinguish fire. Use CCl4 or Class D extinguisher to extinguish fire. You can use sand or soil to help extinguish fire as well, only use water to ensure the fire does not spread to surrounding areas.
 - d. Handle the battery pack with care. Do not throw, drop, or expose to heavy vibration.
 - e. Do not submerge the battery pack in water. The battery pack can get wet in the rain, or when washing the bike but do not submerge.

5. Riding Tips to Maximize Your Battery
 - a. Use the pedals as often as possible, especially when starting. DO NOT simply rely on the throttle for power; using only throttle power will decrease the life of the battery.
 - b. Start in a low gear and low power. This means looking ahead and shifting to a lower gear before coming to a stop, so you are in the correct low gear to resume riding again.
 - c. Use low gears for climbing steep hills. Avoid putting unnecessary torque into the transmission, which requires more power from the motor and battery.
 - d. Minimize starts and stops by looking ahead and planning the route.

CHAPTER 4 – SAFE OPERATION, MAINTENANCE AND INSPECTION

- 1- Before First Ride (After Initial Build and Inspection):
 - a. Adjust seat to comfortable height.
 - b. Adjust the saddle rails fore/aft positioning for comfort.
 - c. Adjust the handlebar, shifter, and brake lever position to your preference.
 - d. Read Chapter 2 of this manual to become familiar with the components and how the motor and analyst work.
 - e. Squeeze brake levers and test the braking power with the bike in a stand, or just walking alongside the bike. DO NOT attempt to ride the bike if the brakes are not adjusted properly.

- 2- Before Every Ride:
 - a. Check tire pressure and tread wear. Check the sidewalls for damage.
 - b. Check the brakes, ensure brakes have adequate power and appropriate amount of brake pad remaining.
 - c. Check that wheels are straight and turning freely. Ensure spokes are consistently tight.
 - d. Check the Chain tension and lube the chain to reduce friction and increase shifting precision.
 - e. Check that the handlebars and stem are secure; and tighten all stem bolts to 7nm.

- 3- After every ride:
 - a. Wipe down frame with soap and water. DO NOT use a power washer or high-pressure hose, this could damage the motor and electrical components.
 - b. Mud and dirt can be washed away with a low-pressure hose, avoiding direct flow with the electrical components and motor assembly.



4- Monthly Maintenance:

- a. Check frame for any damage.
 - i. Look for any dents, cracks, or chips to the frame. Although some may only be cosmetic, a small crack in the frame can be a serious safety hazard. **DO NOT** ride the bike if you identify any cracks in the frame.
- b. Check for loose spokes.
 - i. Squeeze the spokes together to check the spoke tension. Spokes should flex slightly and return to their original position. See your local bike shop for wheel truing and spoke replacements if necessary. Tighten any loose spokes with a spoke wrench.
- c. Check forks for damage and air pressure (if applicable).
 - i. The fork legs should move freely. Check the seals where the stanchions enter the lower legs of the forks. These seals can wear over time, and if not kept clean can damage the fork stanchions as well.
- d. Check cassette and chainring for wear/damage.
 - i. Ensure the chain flows freely around the front chainring and each gear in the rear. Inspect the teeth in the front chainring as well as each individual cog in the rear. It is typical for grease and dirt to build up along the sides of the chainring, cassette cogs, and pulley wheels on the rear derailleur.
 - ii. Use a bicycle degreaser or chain cleaner and a brush to clean and degrease the chain and drivetrain components. Re-Lube with bicycle specific chain lube and wipe off excess.

5- General Safety Tips

- a. The user assumes the responsibility for the risk of injury or death as a result of riding or using QuietKat products. It is the responsibility of the user to know and obey all local laws, rules, and regulations regarding the use of electric assisted bicycles.
- b. Always wear an appropriate helmet when riding. QuietKat always recommends the use of a DOT (Department of Transportation) rated helmet.
- c. All QuietKat electric bikes are designed for use by persons 16 years of age and older. Always follow local laws and regulations regarding age restrictions and the use of electric bicycles.
- d. Riders must have the physical coordination, reaction time and mental capacity to ride and manage traffic, road conditions, sudden situations, as well as respect and obey the local laws governing bicycle and electric bicycle use.
- e. If you have an impairment or disability, consult your physician before riding any bicycle.
- f. Avoid baggy or loose clothing while operating your QuietKat.
- g. Turn off battery before performing any repairs or maintenance. Any turning of the cranks will cause the motor to engage, which could result in injury.
- h. **ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.**
- i. If you need to walk the bike, you can press and hold the (-) button on the keypad. Holding the (-) button will engage the motor at a walking pace to make it easier to walk alongside the bike in tricky terrain.

CHAPTER 5 – WARNINGS

1- Adult Supervision Required

- a. QuietKat is designed for riders 16 years of age or older. Adult supervision is required for any operator under the age of 18.
- b. Never allow a child to alter the settings or to ride without adult supervision.
- c. Begin in a safe area and become familiar with all aspects of the bike before heading out on a ride.
- d. **ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.**

2- Follow Safe Riding Practices





- a. The QuietKat is designed for ONE (1) rider only.
- b. Long hair, loose clothing or loose items worn by the rider must be secured to prevent interference with moving parts or the surroundings.
- c. Do not exceed the weight limit. Heavier riders may significantly reduce performance and / or render the vehicle unstable and/or exceed the capability of the brakes and other control devices. Exceeding the weight limit may cause structural damage not covered by the warranty.
- d. Do not touch any moving parts.
- e. Be aware, some parts such as brake rotors can become extremely hot during use. Avoid contact with these components until properly cooled.
- f. Do not ride at night or under low visibility conditions without proper lighting and safety practices. Follow all local laws regarding the use of electric bicycles at night.
- g. Do not submerge this vehicle in water.
- h. Do not ride on steep or uneven surfaces.
- i. Do not ride faster than the conditions permit, or beyond your ability.
- j. The rider should be securely seated on the unit ready to ride before turning the power on.
- k. ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.

3- Wear Protective Equipment

- a. Off-road riding presents many hazards such as loose dirt, obstacles and varied conditions. Always wear a helmet.
- b. Other personal safety items highly recommended are gloves, wrist, elbow, knee/shin and eye protection. Failure to use appropriate safety equipment can increase the risk of injury.
- c. ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.

4- Proper Maintenance Is Required

- a. Failure to maintain your QuietKat and keep your bike in proper operating condition can lead to an accident resulting in injury, death, and/or property damage.
- b. If you have any questions about the proper care and maintenance of this vehicle consult your dealer/distributor or contact QuietKat Customer Service.

CHAPTER 6- WARRANTY INFORMATION

Every QuietKat comes with a Lifetime Limited Warranty against manufacturing defects in materials and workmanship on its frame, and a One-Year Limited Warranty on the battery, controller and motor assembly. This warranty only applies to the original registered owner of the QuietKat and is not transferable. Original purchase receipt or invoice is required for all warranty claims.

The limited warranty does not apply to normal wear and tear, malfunctions or failures due to abuse, neglect, improper use or repair, improper maintenance, alteration, modification, or other improper use.

The limited warranty does not apply to damage sustained in a crash.

The limited warranty does not cover routine maintenance such as component adjustments due to shipping, use of the product, nor does the warranty cover replacement of parts that have not been properly maintained.



The one-year warranty on QuietKat's lithium ion batteries does not include damage from a power surge, use of improper charger, improper maintenance or other such misuse, normal wear or water damage.

If a component is deemed to be defective or damaged without user error or other improper use, QuietKat will assist in replacing the frame or specific part in question. This includes any parts damaged in shipping. We will not replace any part deemed to be damaged by the user in a crash.

In the case of repair or parts replacement under warranty, we will work with the owner to find a local certified bicycle repair shop to make the necessary fix. QuietKat will also cover the associated repair labor fees that are directly associated with the specific warranty situation.



CHAPTER 9 – ERROR CODES

1. Mid-Drive Motors (RidgeRunner, Quantum, Apex, Warrior, Jeep E-Bike)

Error	Description	Repair Notes
07	High Voltage Protection	Check the battery connections and charge state.
08	Hall Sensor Malfunction	Contact QuietKat Customer Service or your local QK dealer.
10	Motor Temp Sensor	Stop riding, turn the motor off and allow to cool. If problem persists, contact QuietKat customer service.
12	Controller Sensor Error	Contact QuietKat Customer Service or your local QK dealer.
13	Battery Temp Setting	Turn off the bike, remove the battery and ensure proper connections. Allow the battery to cool. If problem persists, contact QuietKat customer service.
21	Wheel Speed Sensor	Check the wheel speed sensor on the rear wheel. Ensure magnet on the spoke aligns with magnet on frame.
22	BMS Communication Fault	Remove the battery, Contact QuietKat Customer Service
30	Communication Fault	Contact QuietKat Customer Service or your local QK dealer.

2. Hub-Drive Motors (Ranger, Ripper, Villager, Voyager)

Error	Description	Repair Notes
10	Communication Fault	Check the display wires are connected properly to the bike. If problem persists, contact QuietKat customer service.
21	Abnormal Current	Check the battery is correctly installed into the bike. If problem persists, contact QuietKat customer service.
22	Abnormal Throttle	Check to ensure the throttle is connected properly. Try removing to verify the bike still powers under pedal assist. If the problem persists, replace the throttle.
23	Motor Phase Loss	Check the battery is correctly installed into the bike. If problem persists, contact QuietKat customer service.
24	Hall Sensor Fault	Contact QuietKat Customer Service or your local QK dealer.
25	Brake Sensor Fault	Check that the Brake sensors are plugged in properly. If problem persists, contact QuietKat customer service.



Q: Can I climb hills with the QuietKat?

A: QuietKat electric bikes are designed for ascending hills. The e-bikes have enough power to ascend as steep of a hill as you are comfortable riding up and back down again.

Q: Will my QuietKat rust over time?

A: No, QuietKat's design utilizes stainless hardware and an aluminum frame. Keep components such as chain and gears clean to avoid corrosion and poor performance.

Q: Can I exceed the weight rating on the bikes or trailers?

A: This will void the warranty. E-Bikes and trailers are designed to work within their weight limits.

Q: How do the e-bikes perform in Mud, Snow and Sand?

A: You can reduce the tire pressure for better performance on soft terrain; keep in mind this is still a bicycle and will be limited by snow or mud that is deep or lacking support for the tires.

Q: Can the QuietKat go through Water?

A: Yes, but do not submerge the motor or any electronic components, including the battery compartment.

Q: Is the suspension adjustable for varying terrain?

A: Yes. All air-spring suspension models can be adjusted using a shock pump. Some components are equipped with additional adjustments such as lockout, compression, and rebound dampening.

Q: Are the wheel bearings sealed?

A: Yes. Best way to keep the wheels spinning smoothly is to keep the bike clean. Use grease / lube for all parts mechanical parts.

Q: Will it fit into the back of my SUV?

A: The Voyager model is designed to fold up and fit in the back of an SUV or wagon. For other models, use a hitch-mounted bike rack with a rating of 80lbs per bike. Visit QuietKat.com for bike rack options.

Q: Can I switch out my seat to a different style?

A: Yes. This is a standard mountain bike design and many aftermarket options are available, including the QuietKat comfort saddle at www.QuietKat.com

Q: Can I buy extra batteries?

A: Yes, extra batteries are available for purchase.

Q: Can I ride it on bike trails and access roads?

A: Always check local laws and regulations. Rules can change based on the specific trail you are on, and which entity manages the land you are travelling on.

Q: Can I use it to pull a deer out of the woods?

A: Yes, we recommend using one of the cargo trailers. Do not overload the trailer with too much weight. DO NOT DRAG a deer on the ground with the e-bike.



2020 QuietKat Electric Mountain Bike
Owner's Manual

This manual contains important safety, performance and service information. Read it before you take the first ride on your new QuietKat.

Do Not Discard



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INTRODUCTION

Thank you for purchasing an electric mountain bike by QuietKat.

This is a serious piece of machinery designed for use by adults in fully controlled and safe environments. As the purchaser/owner of the bike, you are responsible with the task of keeping the rider safe at all times. Your bike has great capabilities and can grow with the skills of the rider to high levels, but it is imperative that the responsible adult is in control during the entire learning process and gives full attention at all times.

The QuietKat is designed for off-road use, but can also be ridden on the road. Please obey all laws regarding Electric Assisted Bicycles and/or Motorized Vehicles and their usage in your area. QuietKat may only be ridden in safe areas where all laws are being followed and all required permissions are given. QuietKat recommends the use of a DOT (Department of Transportation) rated helmet at all times.

Because it is impossible to anticipate every situation or condition which can occur while riding, this manual makes no representation about the safe use of the bicycle under all conditions. There are risks associated with the use of a bicycle which cannot be predicted or avoided, and which are the sole responsibility of the rider.

This Owner's Manual provides important information regarding safety and maintenance of your QuietKat e-bike. Please read through the entire manual prior to operating your machine and save this manual for future reference.

Thanks again for purchasing a Quietkat product. We hope you enjoy the ride!

Jake Roach, President — QuietKat





FOREWORD ON SAFETY

An electric bicycle can be a great way to access terrain that may be impossible by any other means. It can also be dangerous, especially if you ride terrain above your ability level or beyond the capability of the bike itself. If you are headed into the backcountry, be prepared. QuietKat recommends bringing a bike-specific multi-tool that includes various Allen Keys, Screwdrivers, and a Bicycle Chain Tool. Bring water, food and clothing appropriate for the season and the environment. A dry trail with good traction may turn impassible with a little rain, meaning you will need to walk the bike. Always practice proper backcountry safety protocols.

The bicycle will not protect you in an accident. There are no seat belts or air bags, and therefore a crash even at low speeds can result in injury or death. If you are in an accident, inspect the bike thoroughly before continuing with your ride. If you aren't sure, do not ride the bike; take it to a professional bicycle mechanic or repair shop for a professional inspection.

If you experience any mechanical problems while on a ride, immediately turn off the electric power at the battery prior to attempting any repairs. Repairs include anything such as putting the chain back on, adjusting brakes, or adjusting accessories. Attempting to replace or re-engage the chain while the power is on could result in injury.

Secure all cargo, and ensure loose straps are secured to avoid interference with the moving parts on the bike. Be aware of loose clothing, especially on the drive side (Right Side) of the bicycle, as to avoid interference between your clothes and the drivetrain. Be sure the wheels spin freely and there is nothing that could get caught in the spokes or prevent the wheels from turning freely. If you get a piece of clothing or equipment caught in the front chainring, first turn the power off. The chainring is not on a freewheel system and won't go backwards like a typical bike. You may need to be prepared to cut or remove clothing that gets caught in the drivetrain in order to remove it from the system.

QuietKat electric bicycles use lithium-ion battery technology which require some care and maintenance. Please refer to the Battery Care section of this manual for important safety and care information for the battery.

The QuietKat bike is a fun and exciting ride! Always be aware of your surroundings and your environment. Be cautious of other riders and pedestrians. Always stay in control and within your ability. QuietKat always recommends the use of a DOT (Department of Transportation) Rated helmet at all times.



JEEP E-BIKE



48V 14.5AH Lithium Battery
Panasonic Battery Cells

Protective
Cover

Power Charging
Port

Sealed & Water Resistant

110v AC Plug

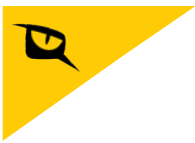
Smart Charger

2 Amp Output

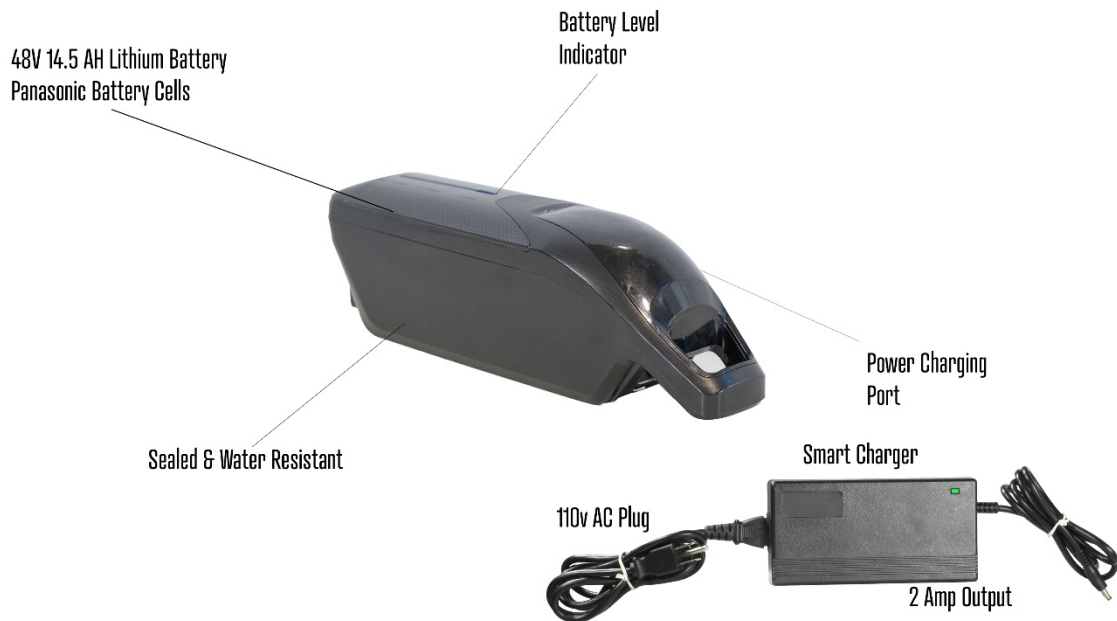


RIDGERUNNER





QUANTUM





APEX



Lithium Battery (multiple size options)
Panasonic Battery Cells

Protective
Cover

Power Charging
Port

Sealed & Water Resistant

Smart Charger

110v AC Plug

2 Amp Output



WARRIOR





RANGER



Lithium Battery (multiple size options)
Panasonic Battery Cells

Protective
Cover

Power Charging
Port

Sealed & Water Resistant

Smart Charger

110v AC Plug

2 Amp Output

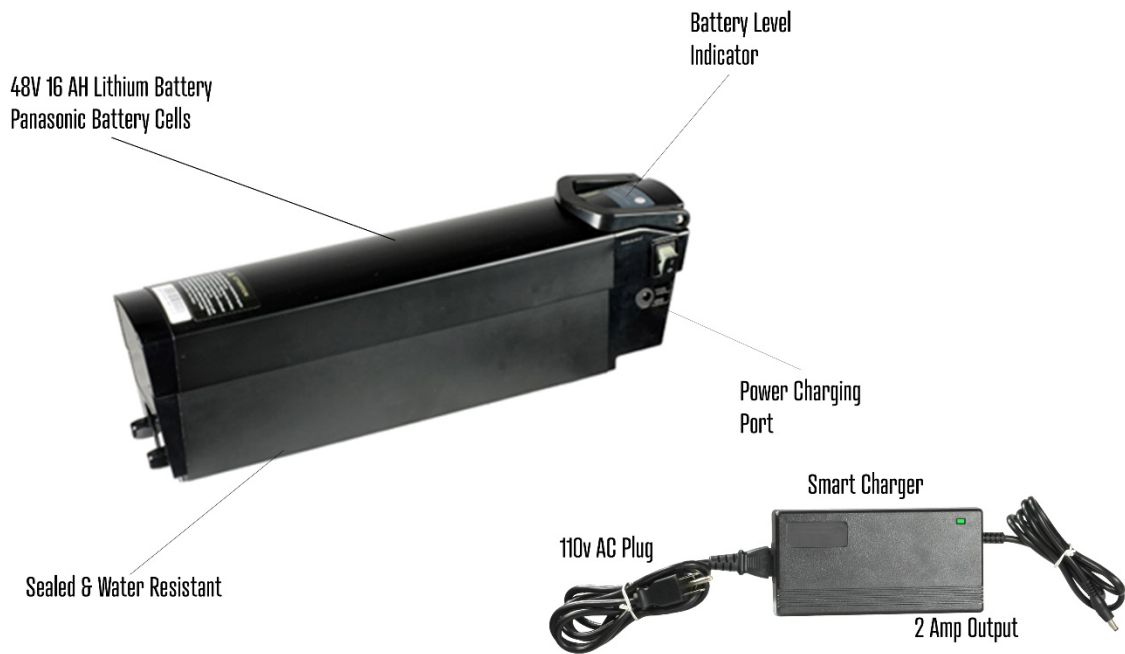


RIPPER



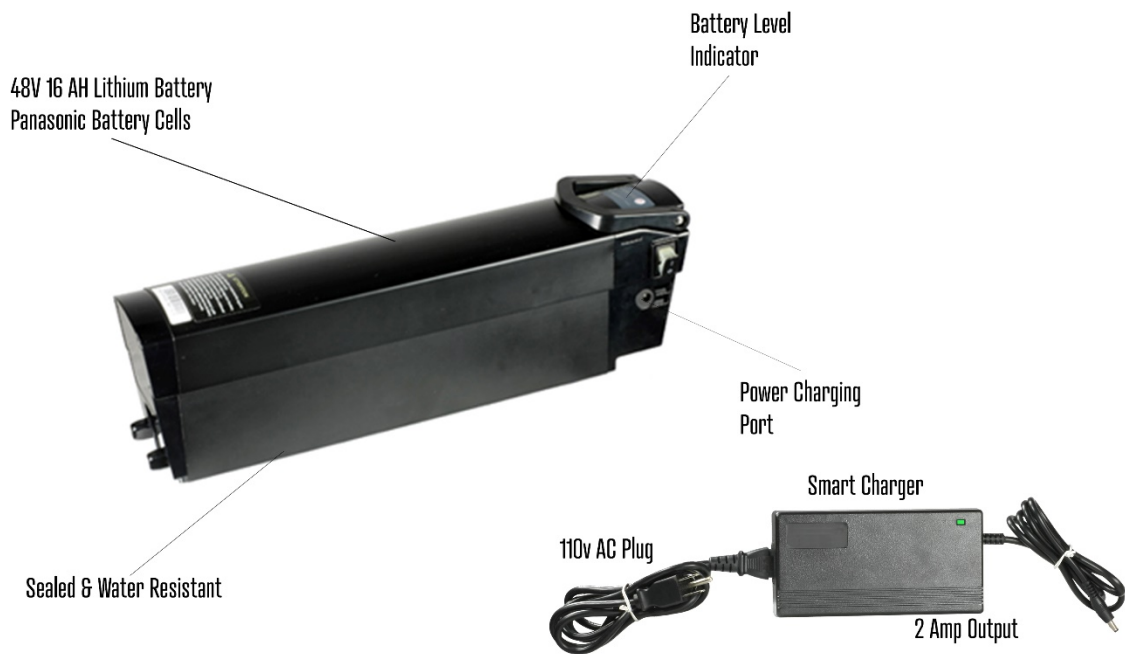


VILLAGER





VOYAGER





CHAPTER 1 – UNBOXING AND ASSEMBLY

QuietKat recommends that the bike be assembled, inspected and adjusted by a certified bicycle mechanic or bicycle shop before riding.

You Will Need:

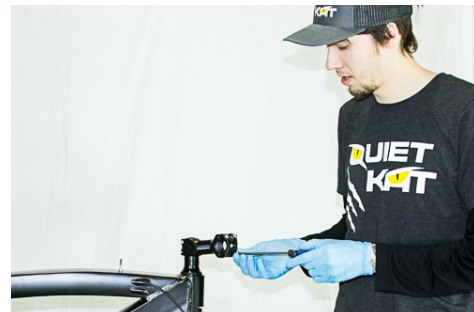
- 4mm Hex Key
- 5mm Hex Key
- 15mm Wrench or Pedal Wrench
- Phillips Head or JIS Screwdriver
- Cable Cutters
- General Purpose Grease
- Torque Wrench (Optional)

Unboxing

- 1- Carefully remove the bike from the box.
 - a. Use caution when opening the box as there may be staples exposed when opening the lid.
 - b. It is easier to clip the zip ties attaching the front wheel to the bike and remove the front wheel from the box first.
 - c. Take out all the accessories and the box with pedals and other miscellaneous parts, and the Battery Charger before removing the bike.

- 2- Remove all bubble wrap and other packaging materials and place them back in the box.
- 3- Be careful not to cut hydraulic brake lines when removing zip-ties and protective packaging.
- 4- Install the seat-post into the seat-tube and hang the bike from a bike repair stand (if possible).
 - a. If you do not have a repair stand, place the bike on the floor and engage the kickstand. Use caution as the bike could tip over prior to installing the front wheel, even with the kickstand engaged. For extra safety, lean the bike against a wall or solid object to avoid tipping over.

- 5- Attach the handlebars.
 - a. Using a 4mm allen wrench, remove the 4 screws from the front of the stem and remove the bracket.
 - b. Place the handlebars on the stem, with REAR brake and gear shifter (if equipped) on the riders RIGHT and put the bracket and 4 screws back into place.
 - i. Don't worry about aligning the handlebars yet. Tighten the screws until snug. **DO NOT OVERTIGHTEN!**





Attach the Front Wheel

QUANTUM

- 1- Remove the quick-release axle from the fork. To remove, align the quick release lever with the groove in the axle body. Turn anti-clockwise to loosen the axle from the brake side fork leg. Once the threads are removed from the brake-side fork leg, pull the axle out through the drive side.
- 2- Align the front wheel's hub with the fork legs, and be careful to align the brake rotor into the caliper
 - a. If the brake lever was squeezed, or the pistons have squeezed the brake pads together, use a Brake Pad Spreader to push the pistons back to their open position (Hydraulic Brakes Only). If you don't have a spreader, you can carefully use a clean, flat head screwdriver.
- 3- Insert the axle running through the fork legs and the hub of the front wheel. When the axle reaches the brake-side fork leg, turn the axle clockwise to thread into the fork leg.
- 4- The axle should be snug, then the quick-release lever can be turned into position (pointing up and towards the rear of the bike) and secured to fully tighten the axle to the hub.
- 5- **DO NOT USE A TOOL** to add leverage to close the quick-release lever.
- 6- Rotate the wheel in the fork to ensure clearance of the brake rotor in the caliper
- 7- Fine tune the brake caliper if needed. (SEE PG 17)



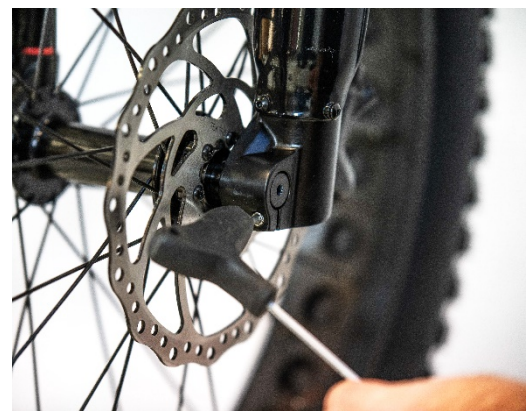
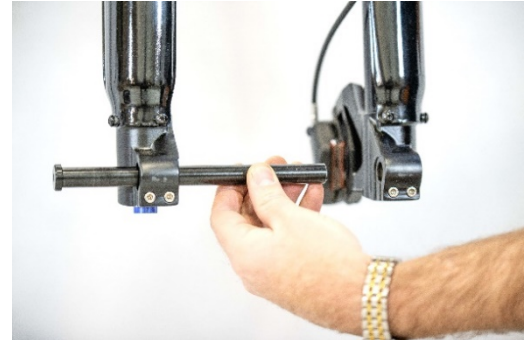
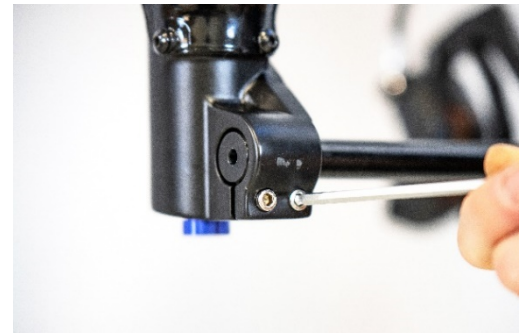


Attach the Front Wheel

RIDGERUNNER / APEX

The 2020 RidgeRunner and Apex bikes use an inverted fork which provides maximum stiffness and traction. Inserting the front wheel on this type of design can be tricky, so follow these instructions carefully.

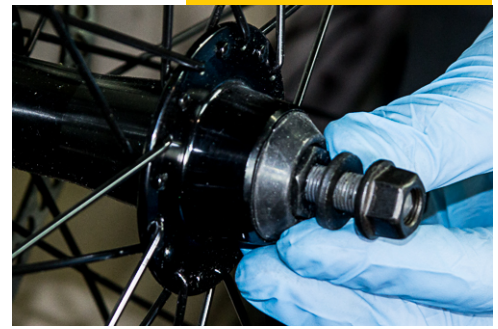
1. Remove the axle from the fork.
 - a. First loosen the clamps on the bottom of each fork leg with a 5mm hex-wrench.
 - b. Ensure both bolts on each leg are loose, in some cases you may need to remove the bolts completely for this step.
 - c. On each end of the axle is a 4mm hex-head bolt. Remove the brake side bolt.
 - d. Reach between the fork legs and guide the axle out towards the drive-side fork leg.
 - i. You can use a tool on the 4mm hex-head bolt on the drive side to twist the axle to help break the friction.
2. Align the wheel between the fork legs and be careful to align the brake rotor into the caliper.
 - a. Because of the inverted design the fork leg may twist, this is normal. Simply twist the fork leg into position to align the brake rotor and caliper.
 - b. If the brake lever was squeezed, or the pistons have squeezed the brake pads together, use a Brake Pad Spreader to push the pistons back to their open position (Hydraulic Brakes Only). If you don't have a spreader, you can carefully use a clean, flat head screwdriver.
3. Insert the axle through the drive-side fork leg, through the hub, and through the brake-side fork leg.
4. Insert the 4mm hex-head bolt into the axle on the brake side. Tighten to 7nm.
5. Ensure the drive side 4mm hex-head bolt in the axle is tight to 7nm.
6. Tighten the clamps on the bottom of each fork leg with the 5mm bolts.
 - a. Tighten the clamps to 10nm
7. Rotate the wheel to ensure proper brake clearance on the rotor.
8. Re-align the brake caliper on the rotor if needed (SEE PG 17)





WARRIOR, RANGER, RIPPER, VILLAGER, VOYAGER

- 1- Place the axle into the dropouts on the front fork, be careful to align the brake rotor into the brake caliper.
 - a. If the brake lever was squeezed, or the pistons have squeezed the brake pads together, use a Brake Pad Spreader to push the pistons back to their open position (Hydraulic Brakes Only). If you don't have a spreader, you can carefully use a clean, flat head screwdriver.
 - b. Make sure the washer is between the fork and the 15mm nut.



Center the wheel in the fork. The tire should have equal space on each side.

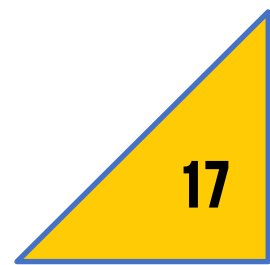
- c. If the wheel is not centered, loosen the 15mm nuts on the axle, and straighten. It can help to put the bike on the floor (if on a stand) and let gravity help lower the dropouts around the axle.



- 2- Use your 15mm wrench to tighten axle nut until snug. **DO NOT OVERTIGHTEN!** The nut should be hand tight, do not use a power tool as you can damage the axle threads.
 - a. Be careful when tightening to ensure the axle stays parallel to the ground. Place some weight over the handlebars and press down while tightening the nuts to ensure the axle stays level and straight.



- 3- Re-align the brake caliper on the rotor if needed (SEE PG 17)





Align the Brake Caliper and Rotor

1. With the wheel inserted into the bike, loosen bolts that attach the brake caliper to the adapter just enough so the caliper can move side to side.
2. Squeeze the brake lever to engage the pistons and squeeze the rotor with the pads; keep it squeezed while tightening the Brake Caliper bolts.
3. Release the brake lever and spin the wheel to ensure the rotor is centered within the pads.
4. For Mechanical Disc Brakes, you can make fine adjustments to the inside pad position with a 5mm Allen key on the side of the brake caliper.
5. The same process can be used for both front and rear brakes.



ATTACH THE PEDALS

- 1- The pedals are left and right side specific. The end near the threads will have an L or R on them, indicating Left and Right.
- 2- Put a small dab of grease on the threads of each pedal before inserting into the crank.
- 3- The right side is threaded normally, and the left is reverse threaded. This must be screwed in opposite to the right (to the left). The greased pedal should thread on smoothly, DO NOT CROSSTHREAD!



4- Pump tires to desired pressure

- a. The range for the tires is from 5psi to 30psi.
- b. 5psi is the lowest the tire is rated for.
- c. 5-15psi is for very soft sand or snow.
- d. 15-25psi is the recommended range for most off-road riding, depending on your preferences and the specific terrain you are travelling.
- e. 25-30psi is for pavement or hard, smooth surfaces.
- f. Lower pressures can provide more traction, however increase the risk of punctures, and decrease the range of the motor. Higher pressures can decrease the possibility of a puncture, but also can decrease grip on softer and varied terrain.
- g. We recommend using a 2psi difference between the Front tire and Rear Tire (+2psi in the Rear tire) to maximize traction in the front and stability in the rear. Example: 15psi Front, 17psi Rear)
- h. If you are in an area with a lot of thorns we recommend adding a tube/tire sealant or liner.



Align the Handlebars and Brake Levers

- 1- If you have the bike in a repair stand, place the bike on the floor.
- 2- Align the handlebars to the correct angle.
 - a. Loosen the stem bracket attaching the handlebars so the bars can move freely side to side and roll forward and back.
- 3- Ensure the handlebars are centered left to right.
- 4- Roll the handlebars forward and/or backwards to get the angle correct.
 - a. The up-sweep and back-sweep of the handlebars is designed to adjust the bars for comfort. The handlebars are properly aligned when the handlebar grips are parallel to the ground. A rotational difference of +/- 15 degrees is acceptable for comfort.
- 5- Align your brake levers to a position of comfort. You should be able to reach the brake levers with either One or Two Fingers (Index or Index and Middle fingers)
 - a. Using your 5mm Allen key or Torque Wrench, tighten all stem bolts to 7nm (Newton Meters).



How to Adjust the Front Suspension Fork (If Equipped)

- 1- The Red dial is to lock out the fork. Turn toward lock symbol to lock the suspension travel. Turn the opposite direction to activate the spring and allow the suspension to travel.
- 2- On Coil Sprung Forks, the Left side Black knob adjusts the preload on the spring. The preload adjustment will change the characteristics of the spring, more tension (tighter) will stiffen the initial travel, while less tension will allow for more supple initial stroke of the spring.
- 3- Air Forks have a cap covering a Schrader Valve to adjust the pressure in the Air Spring. Use a Shock Pump to adjust the air spring pressure. You should have enough pressure such that the fork compresses between 10% and 15% of travel under body weight.



Final Bolt Checklist

- 1- Ensure all bolts are tight from front to back of the bike
 - a. Stem (handlebar and steer-tube bolts at 7nm)
 - b. Wheel axles
 - c. Crankarms
 - d. Chainring
 - e. Kickstand
 - f. Accessories
- 2- Bicycle "break in":
 - a. In the first 20 miles or so the cables and system components will settle and may need to be adjusted. If you are unfamiliar with adjusting the derailleur or mechanical brakes, go to our Video Assembly Page or bring it to your local bike shop.



Battery

- 1- The battery will be mostly charged when you receive it. It is better to use it first to drain it down to 10% and then charge it to 100%. This is also the case if you haven't used the bike for a few weeks. Batteries must be charged and discharged every few weeks. See the section on Battery Care.
- 2- Batteries can be charged while inside the bike frame, or remove the battery to charge away from the bike. NEVER charge the battery while temps reach below freezing.
 - a. If you store your bike in a shed, barn or garage be sure to store the battery above freezing temperatures.
 - b. See the section on Battery Care.
- 3- Remove the battery from the frame.
 - a. Turn the key to unlock the battery from the frame.
 - b. Pull the switch on the lower side of the downtube towards the drive-side of the bike to release the battery.
 - i. Be careful, the battery will fall out the bottom of the frame once you pull the switch.
- 4- To charge the battery, remove the rubber plug from drive-side of the bike.
- 5- Plug the charger into the power outlet and wait until the light on the charging unit is illuminated.
- 6- Plug the other end of the cord into the bike.
- 7- The light will change to green when it's charged.
 - a. Allow approximately 4-6 hours to fully charge (depending on model and power).
- 8- The charger will get hot, so make sure to keep it away from all flammable materials and surfaces.
- 9- During normal use you can charge it after every ride regardless of battery level, there is no battery memory and therefore consistent charging won't damage the battery.
- 10- The charging unit will automatically stop charging once the battery is full for safety.
- 11- Always charge in dry, ventilated conditions away from sunlight, ideally 50-80 degrees Fahrenheit.
- 12- Only use the original charger, DO NOT use any aftermarket chargers or charging accessories.
- 13- For long term battery storage, it is best to leave the battery at about 40-60%. Always store the battery in a cool place (colder than 65°F).
 - a. For best results, do not store for longer than 4 months without cycling the battery; use it to de-charge, then re-charge to 40-60%.

Power-On the QuietKat Electric Bike

- a. Make sure the battery is fully inserted and locked into the bike.
- b. Get on the bike, ready to ride.
- c. Press and hold the power button on the keypad for a couple seconds until the display turns on.
 - i. On the Hub Drive models (Ranger, Rover) Press and hold the M button until the display turns on.
- d. When the power comes on the power level will be set to 1, and therefore engaged for throttle or pedal assistance.
- e. Use the + or – key on the keypad to change your pedal assist power level from 0-5 (0 is the lowest assistance, 5 is maximum assistance)
- f. To turn off, press and hold the power button again for a couple seconds. You can also turn the bike off at the battery (0).

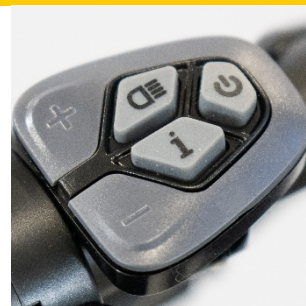




3- Display Screen (Analyst) MID DRIVE MOTORS

g. Five Button Keypad

- ii. Power Button — Turns power and display on and off
- iii. (+) Increases power
- iv. (-) Decreases power
- v. Light button — changes level of backlight
- vi. (i) button — scrolls through information screens on the Analyst Display.



h. The Analyst displays the following information:

- vii. Current speed
- viii. Total distance
- ix. Trip distance
- x. Battery level
- xi. Power level
- xii. Watts output
- xiii. USB charging

i. Use the (i) button to scroll through the different screens on the Analyst Display.



4- Display Screen (Analyst) HUB DRIVE MOTORS

j. Five Button Keypad

- xiv. Power Button (M)— Turns power and display on and off
- xv. (^) Increases power
- xvi. (v) Decreases power



k. The Analyst displays the following information:

- xvii. Current speed
- xviii. Total distance
- xix. Battery level
- xx. Power level
- xxi. Watts output



**CHAPTER 3 - BATTERY CARE**

The battery is one of the most important components of the QuietKat electric bike. Please read this section carefully as there are many important steps to ensure the maximum life of your battery. **DO NOT** every attempt to disassemble or repair the internal parts of the battery as this can result in personal injury.

1. Transportation:

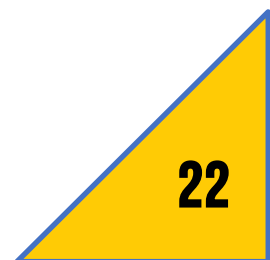
- a. Batteries can be transported (with proper paperwork) via truck, train, and vessel, **NOT** by airplane.
- b. Keep out of sun & rain during transportation.
- c. When transporting on a vehicle rack, take the battery off the bike and transport it in the vehicle.
- d. Keep dry, well ventilated, and out of direct sunlight.
- e. Handle with care during assembly.
- f. Do not throw, toss, or slide batteries.
- g. Do not place under heavy objects.
- h. Do not transport or store near flammable, explosive, or sharp objects.

2. Storage:

- a. Do not store a fully charged battery pack; discharge or charge the battery to 40% - 60% state of charge (SOC).
- b. Do not leave battery pack on the ground, or on concrete. If needed, use a piece of insulation to remove contact with the ground.
- c. To ensure a longer battery life cycle, it is recommended to discharge and recharge the battery every 2-3 months.
- d. Best way to discharge your battery is to ride your bike.
- e. Deep cycling is not necessary for lithium and can harm the overall life cycle of the Lithium-Ion cells.
- f. After storage time, simply recharge the battery to full SOC and allow it to sit on the charger for an extra 30mins to 1hr after completed charge to ensure proper cell balance.
- g. Do not leave the battery connected to a charger during its storage period or prolonged periods of time.
- h. Do not store the battery in temperatures exceeding 40°C (104°F). Lithium-Ion can be stored in cool or cold environments (0°C or 32°F) but must always be warmed up to room temperature before charging.
- i. **NEVER** charge the battery when freezing. Attempting to charge a frozen battery can cause irreversible damage.

3. Operation:

- a. Always ensure the battery is fully installed and locked in the ebike before powering on.
- b. Avoid dropping below 5% battery power. This can shorten the life of the battery.
- c. If the battery fully discharges causing the ebike to turn off automatically, re-charge the battery pack within 12 hours. Failure to do so could shorten the battery life.
- d. Do not try to utilize a battery pack that has turned off automatically until it has been recharged.
- e. Charging the battery to 100% is fine if the bike will be used within a short time. Otherwise avoid charging to 100% (see section on Storage above).
- f. The battery will perform best under the following conditions:
 - i. 0°C to 50°C (32°F to 122°F) for discharging.
 - ii. Room temperature always for charging, 20°C (68°F).
 - iii. **NEVER** attempt to charge a frozen battery. If a battery has been stored in an environment below freezing, allow enough time for the battery to warm up to room temperature, 20°C (68°F) before charging.



4. Safety In winter, keep the battery as warm as possible. Freezing temps can cause lithium-ion batteries to fail quickly.
 - a. Keep out of direct sunlight. If the internal temperature of the battery pack is in excess of 75°C (167°F) there will be damage to the battery's capacity and a reduction in battery life and can increase the risk of a fire or explosion.
 - b. Do not wash the battery shell with organic solvent.
 - c. In case of fire, do NOT use CO2 to extinguish fire. Use CCl4 or Class D extinguisher to extinguish fire. You can use sand or soil to help extinguish fire as well, only use water to ensure the fire doesn't spread to surrounding areas.
 - d. Handle the battery pack with care. Do not throw, drop or expose to heavy vibration.
 - e. Do not submerge the battery pack in water. The battery pack can get wet in the rain, or when washing the bike but do not submerge.

5. Riding Tips to Maximize Your Battery
 - a. Use the pedals as often as possible, especially when starting. DO NOT simply rely on the throttle for power; using only throttle power will decrease the life of the battery.
 - b. Start in a low gear and low power. This means looking ahead, and shifting to a lower gear before coming to a stop, so you are in the right gear to resume riding again.
 - c. Use low gears for climbing steep hills. Avoid putting unnecessary torque into the transmission.
 - d. Minimize starts and stops by looking ahead and planning the route.

CHAPTER 4 - SAFE OPERATION, MAINTENANCE AND INSPECTION

- 1- Before First Ride (After Initial Build and Inspection):
 - a. Adjust seat to comfortable height.
 - b. Adjust the saddle rails fore/aft positioning for comfort.
 - c. Adjust the handlebar, shifter and brake lever position to your liking.
 - d. Read Chapter 2 of this manual to become familiar with the components and how the motor and analyst work.
 - e. Squeeze brake levers and test the braking power with the bike in a stand, or just walking alongside the bike. DO NOT attempt to ride the bike if the brakes are not adjusted properly.

- 2- Before Every Ride:
 - a. Check tire pressure and tread wear. Check the sidewalls for damage.
 - b. Check the brakes, ensure brakes have adequate power and appropriate amount of brake pad remaining.
 - c. Check that wheels are straight and turning freely. Ensure spokes are consistently tight.
 - d. Check the Chain tension and lube the chain to reduce friction and increase shifting precision.
 - e. Check that the handlebars and stem are secure; and tighten all stem bolts to 7nm.

- 3- After every ride:
 - a. Wipe down frame with soap and water. DO NOT use a power washer or high-pressure hose, this could damage the motor and electrical components.
 - b. Mud and dirt can be washed away with a low-pressure hose, avoiding direct flow with the electrical components and motor assembly.

- 4- Monthly Maintenance:
 - a. Check frame for any damage.
 - i. Look for any dents, cracks or chips to the frame. Although some may only be cosmetic, a small crack in the frame can be a serious safety hazard. DO NOT ride the bike if you identify any cracks in the frame.
 - b. Check for loose spokes.

- i. Squeeze the spokes together to check the spoke tension. Spokes should flex slightly and return to their original position. See your local bike shop for wheel truing and spoke replacements if necessary. Tighten any loose spokes with a spoke wrench.
- c. Check forks for damage and air pressure (if applicable).
 - i. The fork legs should move freely. Check the seals where the stanchions enter the lower legs of the forks. These seals can wear over time, and if not kept clean can damage the fork stanchions as well.
- d. Check cassette and chainring for wear/damage.
 - i. Ensure the chain flows freely around the front chainring and each gear in the rear. Inspect the teeth in the front chainring as well as each individual cog in the rear. It is typical for grease and dirt to build up along the sides of the chainring, cassette cogs, and pulley wheels on the rear derailleur.
 - ii. Use a bicycle degreaser or chain cleaner and a brush to clean and degrease the chain and drivetrain components. Re-Lube with bicycle specific chain lube and wipe off excess.

5- General Safety Tips

- a. The user assumes the responsibility for the risk of injury or death as a result of riding or using QuietKat products. It is the responsibility of the user to know and obey all local laws, rules, and regulations regarding the use of electric assisted bicycles.
- b. Always wear an appropriate helmet when riding. QuietKat recommends the use of a DOT (Department of Transportation) rated helmet at all times.
- c. Your bike is designed for use by persons 16 years of age and older. Always follow local laws and regulations regarding age restrictions and the use of electric bicycles.
- d. Riders must have the physical coordination, reaction time and mental capacity to ride and manage traffic, road conditions, sudden situations, as well as respect and obey the local laws governing bicycle and electric bicycle use.
- e. If you have an impairment or disability, consult your physician before riding any bicycle.
- f. Avoid baggy or loose clothing while operating your QuietKat.
- g. Turn off battery before performing any repairs or maintenance. Any turning of the cranks will cause the motor to engage, which could result in injury.
- h. ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.
- i. If you need to walk the bike, you can press and hold the (-) button on the keypad. Holding the (-) button will engage the motor at a walking pace to make it easier to walk alongside the bike in tricky terrain.

CHAPTER 5 – WARNINGS

1- Adult Supervision Required

- a. QuietKat is designed for riders 16 years of age or older. Adult supervision is required for any operator under the age of 18.
- b. Never allow a child to alter the settings or to ride without adult supervision.
- c. Begin in a safe area and become familiar with all aspects of the bike before heading out on a ride.
- d. ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.

2- Follow Safe Riding Practices

- a. The QuietKat is designed for ONE (1) rider only.
- b. Long hair, loose clothing or loose items worn by the rider must be secured to prevent interference with moving parts or the surroundings.
- c. Do not exceed the weight limit. Heavier riders may significantly reduce performance and / or render the vehicle unstable and/or exceed the capability of the brakes and other control devices. Exceeding the weight limit may cause structural damage not covered by the warranty.

- d. Do not touch any moving parts.
- e. Be aware, some parts such as brake rotors can become extremely hot during use. Avoid contact with these components until properly cooled.
- f. Do not ride at night or under low visibility conditions without proper lighting and safety practices. Follow all local laws regarding the use of electric bicycles at night.
- g. Do not submerge this vehicle in water.
- h. Do not ride on steep or uneven surfaces.
- i. Do not ride faster than the conditions permit, or beyond your ability.
- j. The rider should be securely seated on the unit ready to ride before turning the power on.
- k. ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.

3- Wear Protective Equipment

- a. Off-road riding presents many hazards such as loose dirt, obstacles and varied conditions. Always wear a helmet.
- b. Other personal safety items highly recommended are gloves, wrist, elbow, knee/shin and eye protection. Failure to use appropriate safety equipment can increase the risk of injury.
- c. ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.

4- Proper Maintenance Is Required

- a. Failure to maintain your QuietKat and keep your bike in proper operating condition can lead to an accident resulting in injury, death, and/or property damage.

CHAPTER 6- WARRANTY INFORMATION

Every QuietKat comes with a Lifetime Limited Warranty against manufacturing defects in materials and workmanship on its frame, and a One-Year Limited Warranty on the battery, controller and motor assembly. This warranty only applies to the original registered owner of the QuietKat and is not transferable. Original purchase receipt or invoice is required for all warranty claims.

The limited warranty does not apply to normal wear and tear, malfunctions or failures due to abuse, neglect, improper use or repair, improper maintenance, alteration, modification, or other improper use.

The limited warranty does not apply to damage sustained in a crash.

The limited warranty does not cover routine maintenance such as component adjustments due to shipping, use of the product, nor does the warranty cover replacement of parts that have not been properly maintained.

The one-year warranty on QuietKat's lithium ion batteries does not include damage from a power surge, use of improper charger, improper maintenance or other such misuse, normal wear or water damage.

If a component is deemed to be defective or damaged without user error or other improper use, QuietKat will assist in replacing the frame or specific part in question. This includes any parts damaged in shipping. We will not replace any part deemed to be damaged by the user in a crash.

In the case of repair or parts replacement under warranty, we will work with the owner to find a local certified bicycle repair shop to make the necessary fix. QuietKat will also cover the associated repair labor fees that are directly associated with the specific warranty situation.



CHAPTER 9 – ERROR CODES

1. Mid-Drive Motors (RidgeRunner, Quantum, Apex, Warrior, Jeep E-Bike)

Error	Description	Repair Notes
07	High Voltage Protection	Check the battery connections and charge state.
08	Hall Sensor Malfunction	Contact QuietKat Customer Service or your local QK dealer.
10	Motor Temp Sensor	Stop riding, turn the motor off and allow to cool. If problem persists, contact QuietKat customer service.
12	Controller Sensor Error	Contact QuietKat Customer Service or your local QK dealer.
13	Battery Temp Setting	Turn off the bike, remove the battery and ensure proper connections. Allow the battery to cool. If problem persists, contact QuietKat customer service.
21	Wheel Speed Sensor	Check the wheel speed sensor on the rear wheel. Ensure magnet on the spoke aligns with magnet on frame.
22	BMS Communication Fault	Remove the battery, Contact QuietKat Customer Service
30	Communication Fault	Contact QuietKat Customer Service or your local QK dealer.

2. Hub-Drive Motors (Ranger, Ripper, Villager, Voyager)

Error	Description	Repair Notes
10	Communication Fault	Check the display wires are connected properly to the bike. If problem persists, contact QuietKat customer service.
21	Abnormal Current	Check the battery is correctly installed into the bike. If problem persists, contact QuietKat customer service.
22	Abnormal Throttle	Check to ensure the throttle is connected properly. Try removing to verify the bike still powers under pedal assist. If the problem persists, replace the throttle.
23	Motor Phase Loss	Check the battery is correctly installed into the bike. If problem persists, contact QuietKat customer service.
24	Hall Sensor Fault	Contact QuietKat Customer Service or your local QK dealer.
25	Brake Sensor Fault	Check that the Brake sensors are plugged in properly. If problem persists, contact QuietKat customer service.

BATTERY

Q: How long does it take to charge a battery for a QuietKat electric mountain bike if it's completely dead?

A: 48V & 60V battery approx. 5-6 hours. 72V battery approx. 8 hours.

Q: Does the battery charger plug into a standard 110V outlet?

A: Yes.

Q: If I purchase a QuietKat electric bike, is a battery charger included in the purchase price?

A: Yes.

Q: How many batteries does a QuietKat electric mountain bike come with?

A: One battery per QuietKat. Additional batteries can be purchased separately. 48V and 60V trike models can fit two batteries per unit to extend mileage. The battery compartment only fits one 72V battery if you have a 72V model.

Q: How many miles can I travel on one battery?

A: You can expect a range of 20-25 miles if the battery is completely full (48V & 60V). You can expect a range of 30-35 miles if the battery is completely full (72V). Mileage depends on a number of factors including rider weight, added gear, and terrain.

Q: What type of battery is in the QuietKat?

A: Lithium Ion.

Q: How many years will my QuietKat battery last?

A: QuietKat lithium batteries are certified as a 1,000 cycle battery. This means you can expect the battery to last for 20,000 - 25,000 miles based on 20-25 miles per charge. Example: If you ride 2,000 miles each year, you could expect the battery to last 10-12 years.

Q: Do I have to run my battery to completely empty before I charge it again?

A: No, but fully discharging the battery prior to charging does help with longevity and performance. Please read and fully understand the battery charging manual.

Q: Do the batteries require any ongoing maintenance?

A: No. Unlike many lead acid batteries, our batteries are sealed, requiring zero maintenance.

Q: If I don't use my QuietKat electric bike for 5 months, do the batteries need to be stored a certain way?

A: Prior to storing your electric bike battery for an extended period of time, it should be fully charged and then discharged to 40 - 60% capacity. Refer to the lithium battery manual for further information.

Q: How do I properly charge my battery on a regular basis?

A: Open the battery compartment and remove the lid. Unplug the red battery connectors. Plug the charger into the battery. Plug charger into the wall. The battery can be charged from any 120 - 240V AC plug.



CHAPTER 10 – FREQUENTLY ASKED QUESTIONS CONT.

WARRANTY

Q: What is the warranty on a QuietKat electric mountain bike?

A: QuietKat offers a 1-year warranty on all components. The frame has a lifetime warranty. Please read the full warranty information located in your owners manual.

GENERAL

Q: Can I climb hills with a QuietKat?

A: QuietKat electric mountain bikes can climb hills as steep as 20 degrees. Because it is front wheel drive, it is best to stand up and lean forward to get as much traction as possible on the front drive tire when crossing hilly terrain.

Q: Will my QuietKat ever rust?

A: No. QuietKat's design utilizes stainless hardware and aluminum tubular framing.

Q: I see the QuietKat Prowler model is rated for up to a 275 lb weight capacity. I weigh 285 lbs, will this work for me?

A: Will it work? Yes. Is it ideal for horsepower? No. You would be better off with a different QuietKat electric bike so you have extra weight capacity for gear and to travel hilly terrain with ease.



CHAPTER 10 – FREQUENTLY ASKED QUESTIONS CONT.

Q: How does a QuietKat perform in mud, snow, and sand?

A: QuietKat electric bikes are built with Fat-Bike tires which are capable of passing through shallow mud, sand and snow. The tires can be deflated down to as low as 8lbs for added traction in these conditions.

Q: Can the QuietKat go through water?

A: Yes, but do not submerge the motor or any electronic components, including the battery compartment.

Q: Is the suspension adjustable for varying terrain?

A: Yes.

Q: Are the wheel bearings sealed?

A: Yes, They require zero maintenance. Bikes feature standard mountain bike hubs which require basic bicycle maintenance.

Q: Will a QuietKat fit into the back of my SUV?

A: Our Voyager model will fit into any standard size SUV. You will have to fold down the handlebars and lower the seat to its lowest position. The overall smallest dimensions by lowering the seat and folding the handlebars are: 65"L x 32"W x 32"H.

Q: Can I switch out my seat to a different style?

A: Yes. The design of a QuietKat utilizes similar components to a mountain bike.

Q: Can I buy extra batteries?

A: Yes, extra electric bike batteries are available for purchase.

Q: Can I ride a QuietKat on bike trails and access roads?

A: Always check local laws and regulations in regards to motorized vehicle use on public trails and roads. Your QuietKat is the same classification as an electric bicycle. It requires no VIN tag so it is not held to the same rules and regulations as an ATV or side x side.

Q: Can I use my QuietKat to pull a deer out of the woods when hunting?

A: Yes, but we recommend using a QuietKat Cargo Trailer or a game cart with wheels instead of dragging your game out on the ground.

Q: Are the speed and power of your electric mountain bikes adjustable?

A: Yes. With a simple programming change on the digital screen on the handlebars, the speed and power can be increased or decreased based on rider preference. Refer to the QuietKat Assembly YouTube page for a short tutorial on how to adjust settings.

Q: What is the ground clearance of a QuietKat?

A: 7 inches.



CHAPTER 10 – FREQUENTLY ASKED QUESTIONS CONT.

ASSEMBLY

Q: How do I assemble my QuietKat electric mountain bike?

A: For detailed instructions on how to assemble your QuietKat electric mountain bike, watch our instructional assembly videos on our website and read the assembly instructions in your owner's manual. QuietKat recommends that the bike be assembled, inspected and adjusted by a certified bicycle mechanic before riding.

FINANCING

Q: Is financing available for my QuietKat purchase?

A: Yes. Financing is available for every QuietKat electric mountain bike. We've partnered with Affirm to offer you flexible financing options that let you pay for your purchase over time when approved for financing. Simply add items to your cart, proceed to checkout, and after filling out your billing address and credit card information, select Affirm. You'll know whether you're approved or not in seconds and can then complete your purchase.

QUIET KAT

ALL TERRAIN | ALL ELECTRIC





**2018 QuietKat Electric Mountain Bike
Owner's Manual**

This manual contains important safety, performance and service information. Read it before you take the first ride on your new QuietKat.

Do Not Discard



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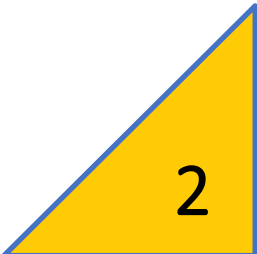
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INTRODUCTION

Thank you for purchasing an electric mountain bike by QuietKat.

This is a serious piece of machinery designed for use by adults in fully controlled and safe environments. As the purchaser/owner of the bike, you are responsible with the task of keeping the rider safe at all times. Your bike has great capabilities and can grow with the skills of the rider to high levels, but it is imperative that the responsible adult is in control during the entire learning process and gives full attention at all times.

The QuietKat is designed for off-road use, but can also be ridden on the road. Please obey all laws regarding Electric Assisted Bicycles and/or Motorized Vehicles and their usage in your area. QuietKat may only be ridden in safe areas where all laws are being followed and all required permissions are given. QuietKat recommends the use of a DOT (Department of Transportation) rated helmet at all times.

Because it is impossible to anticipate every situation or condition which can occur while riding, this manual makes no representation about the safe use of the bicycle under all conditions. There are risks associated with the use of a bicycle which cannot be predicted or avoided, and which are the sole responsibility of the rider.

This Owner's Manual provides important information regarding safety and maintenance of your FatKat bike. Please read through the entire manual prior to operating your machine and save this manual for future reference.

If at any time you have questions or need assistance with the maintenance of your QuietKat product, please contact us using the contact information below and throughout the Owner's Manual.

Thanks again for purchasing a Quietkat product. We hope you enjoy the ride!

Jake Roach, President — QuietKat





FOREWORD ON SAFETY

An electric bicycle can be a great way to access terrain that may be impossible by any other means. It can also be dangerous, especially if you ride terrain above your ability level or beyond the capability of the bike itself. If you are headed into the backcountry, be prepared. QuietKat recommends bringing a bike-specific multi-tool that includes various Allen Keys, Screwdrivers, and a Bicycle Chain Tool. Bring water, food and clothing appropriate for the season and the environment. A dry trail with good traction may turn impassible with a little rain, meaning you will need to walk the bike. Always practice proper backcountry safety protocols.

The bicycle will not protect you in an accident. There are no seat belts or air bags, and therefore a crash even at low speeds can result in injury or death. If you are in an accident, inspect the bike thoroughly before continuing with your ride. If you aren't sure, do not ride the bike; take it to a professional bicycle mechanic or repair shop for a professional inspection.

If you experience any mechanical problems while on a ride, immediately turn off the electric power at the battery prior to attempting any repairs. Repairs include anything such as putting the chain back on, adjusting brakes, or adjusting accessories. Attempting to replace or re-engage the chain while the power is on could result in injury.

Secure all cargo, and ensure loose straps are secured to avoid interference with the moving parts on the bike. Be aware of loose clothing, especially on the drive side (Right Side) of the bicycle, as to avoid interference between your clothes and the drivetrain. Be sure the wheels spin freely and there is nothing that could get caught in the spokes or prevent the wheels from turning freely. If you get a piece of clothing or equipment caught in the front chainring, first turn the power off. The chainring is not on a freewheel system and won't go backwards like a typical bike. You may need to be prepared to cut or remove clothing that gets caught in the drivetrain in order to remove it from the system.

The QuietKat bike is a fun and exciting ride! Always be aware of your surroundings and your environment. Be cautious of other riders and pedestrians. Always stay in control and within your ability. QuietKat always recommends the use of a DOT (Department of Transportation) Rated helmet at all times.





MID-DRIVE MODELS

(Apex, Predator, Warrior, Ambush)



48V 11.6AH Lithium Battery
Panasonic Battery Cells

Battery Level
Indicator

Sealed & Water Resistant

Battery ON/OFF
Switch



Power Charging
Port

Smart Charger

110v Plug

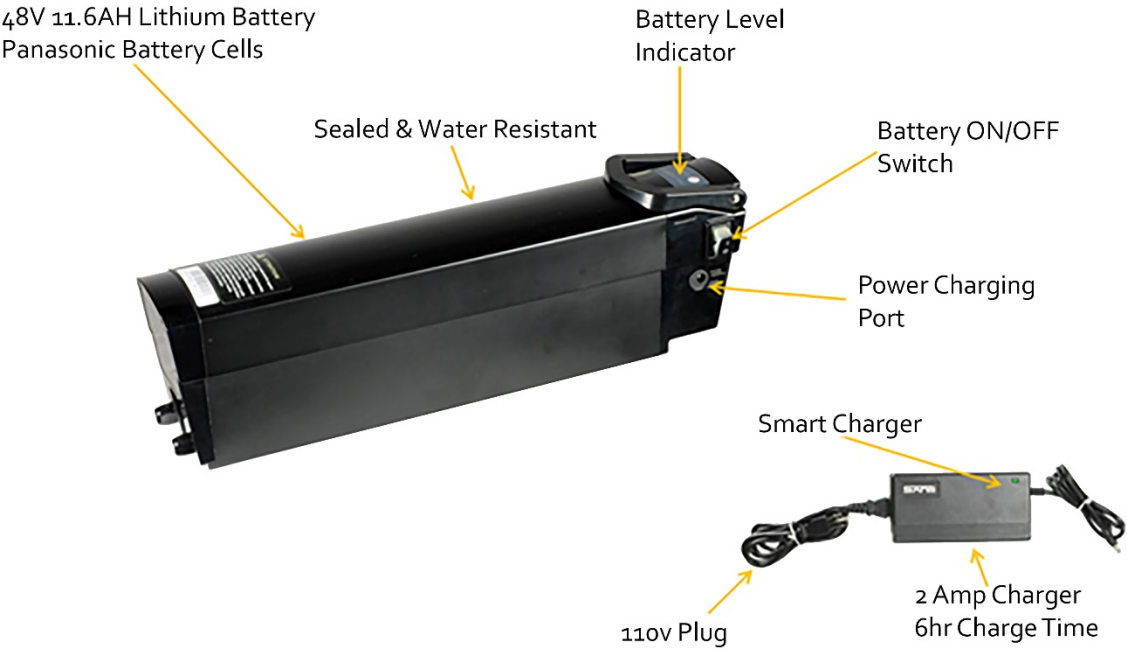
2 Amp Charger
6hr Charge Time





HUB-DRIVE MODELS

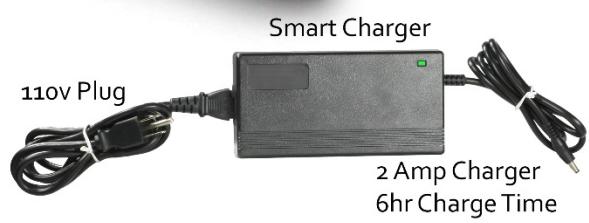
(Ranger, Rover)





LT MODELS

(Warrior LT, Ambush LT)





CHAPTER 1 – UNBOXING AND ASSEMBLY

QuietKat recommends that the bike be assembled, inspected and adjusted by a certified bicycle mechanic before riding.

You Will Need:

- 4mm Hex Key
- 5mm Hex Key
- 15mm Wrench or Pedal Wrench
- Phillips Head or JIS Screwdriver
- Cable Cutters
- General Purpose Grease
- Torque Wrench (Optional)

- 1- Carefully remove the bike from the box.
 - a. Use caution when opening the box as there may be staples exposed when opening the lid.
 - b. It is easier to clip the zip ties attaching the front wheel to the bike and remove the front wheel from the box first.
 - c. Take out all the accessories and the box with pedals and other miscellaneous parts, and the Battery Charger before removing the bike.

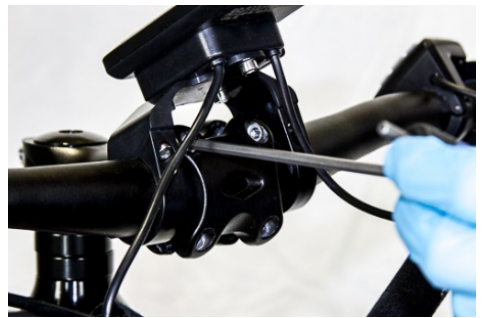


- 2- Remove all bubble wrap and other packaging materials and place them back in the box.



- 3- Install the seat-post into the seat-tube and hang the bike from a bike repair stand (if possible).
 - a. If you do not have a repair stand, place the bike on the floor and engage the kickstand. Use caution as the bike could tip over prior to installing the front wheel, even with the kickstand engaged.

- 4- Start by attaching the handlebars.
 - a. Using a 4mm allen wrench, remove the 4 screws from the front of the stem and remove the bracket.
 - b. Place the handlebars on the stem, with REAR brake on the riders RIGHT, and put the bracket and 4 screws back into place.
 - i. Don't worry about aligning the handlebars right away. Tighten the screws until snug. DO NOT OVERTIGHTEN!



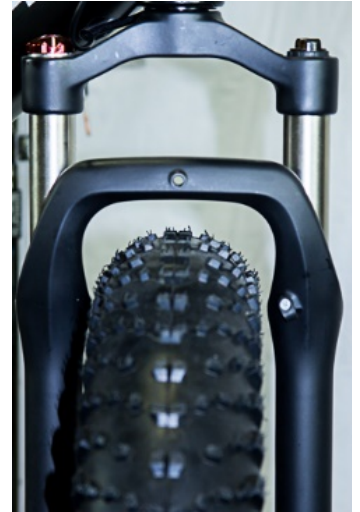


Attach the front wheel

- c. Place the axle into the dropouts on the front fork
 - i. Make sure the washer is on the outside of the dropouts and inside of the 15mm nut.



- d. Make sure the wheel is centered in the fork. The tire should have equal space on each side.
- e. If the wheel is not centered, loosen the 15mm nuts on the axle, and straighten. It can help to put the bike on the floor (if on a stand) and let gravity help lower the dropouts around the axle.



- f. Use your 15mm wrench to tighten axle nut until snug. **DO NOT OVERTIGHTEN!** The nut should be hand tight, do not use a power tool as you can damage the axle threads.



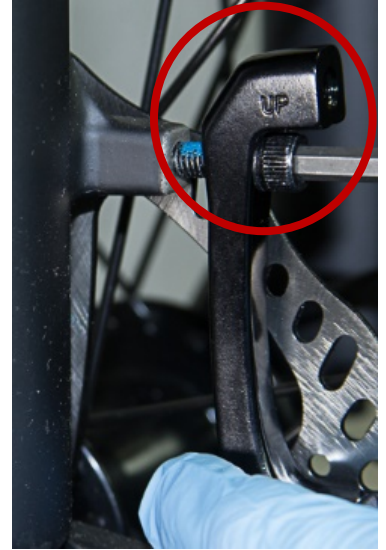
5- Attach the front brake caliper.

- a. Loosen the bolts attaching the Brake Caliper to the Disc Brake Adapter.



- b. Separate the Caliper from the Disc Brake Adapter as shown in the photo above.

c. Align and bolt on the Disc Brake Adapter to the fork. The adapter is directional, look for the "UP" scribed on the adapter and ensure the "UP" is towards the sky. Bolt the Disc Brake Adapter to the Fork, be careful not to cross thread the bolts! The thread locker will add a little resistance, but overall the bolts should thread in easily.



d. Align the caliper with the disc rotor, placing the caliper with the rotor between the brake pads.

e. Mount the Caliper to the Disk Brake Adapter. Once the bolts are tight, loosen ¼ to ½ turn so the Caliper is slightly loose on the adapter to allow for easier alignment.

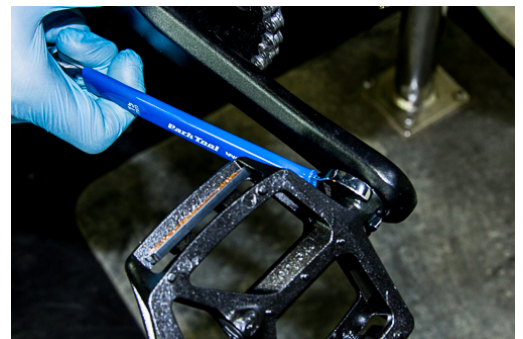
i. If the brake lever was squeezed, or the pistons have squeezed the brake pads together, use a Brake Pad Spreader to push the pistons back to their open position (Hydraulic Brakes Only). If you don't have a spreader, you can carefully use a clean flat head screwdriver.



f. With the Brake Caliper slightly loose, squeeze the front brake lever to engage the pistons and squeeze the rotor with the pads; keep it squeezed while tightening the Brake Caliper bolts. Release the brake lever and spin the wheel to ensure the rotor is centered within the pads. You can make fine adjustments to the inside pad position with a 5mm Allen key on the side of the brake caliper.

6- Attach the pedals

- The pedals are left and right side specific. The end near the threads will have an L or R on them, indicating Left and Right.
- Put a small dab of grease on the threads of each pedal before inserting into the crank.
- The right side is threaded normally, and the left is reverse threaded. This must be screwed in opposite to the right (to the left). The greased pedal should thread on smoothly, DO NOT CROSSTHREAD!



7- Pump tires to desired pressure


- a. The range for the tires is from 5psi to 30psi.
 - i. 5psi is the lowest the tire is rated for.
 - ii. 5-15psi is for very soft sand or snow.
 - iii. 15-25psi is the recommended range for most off-road riding, depending on your preferences and the specific terrain you are travelling.
 - iv. 25-30psi is for pavement or hard, smooth surfaces.
 - v. Lower pressures can provide more traction, however increase the risk of punctures, and decrease the range of the motor. Higher pressures can decrease the possibility of a puncture, but also can decrease grip on softer and varied terrain.
 - vi. We recommend using a 2psi difference between the Front tire and Rear Tire (+2psi in the Rear tire) to maximize traction in the front and stability in the rear. Example: 15psi Front, 17psi Rear)
- b. If you are in an area with a lot of thorns we recommend adding a tube/tire sealant.

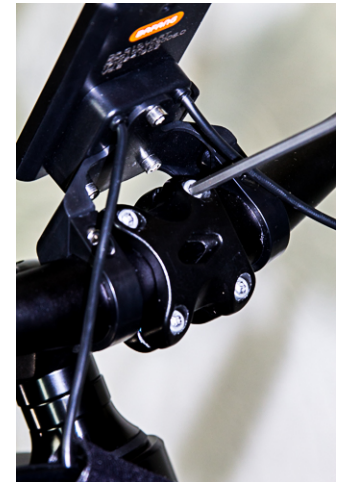


8- Align the Handlebars and Brake Levers.

- a. Once the wheels are installed and tires inflated, the bike can be set on the floor.
- b. With the bike on the floor, align the handlebars to the correct angle. To adjust, ensure the handlebars are centered left to right, then roll them forward and/or backwards to get the angle correct. The up-sweep and back-sweep of the handlebars is designed to adjust the bars for comfort. The handlebars are properly aligned when the handlebar grips are parallel to the ground. A rotational difference of +/- 15 degrees is acceptable for comfort.
- c. Align your brake levers to a position of comfort. You should be able to reach the brake levers with either One or Two Fingers (Index or Index and Middle fingers)
- d. Using your 5mm Allen key or Torque Wrench, tighten all stem bolts to 7nm (Newton Meters).



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- 9- Check all bolts for tightness, including:
 - a. Stem (handlebar and steer-tube bolts at 6nm)
 - b. Wheel axles
 - c. Crankarms
 - d. Chainring
 - e. Kickstand
 - f. Accessories



CHAPTER 2 - HOW TO CHARGE AND POWER ON

- 1- Battery
 - a. The battery will be mostly charged when you receive it. It is better to use it first to drain it down and then charge it. This is also the case if you haven't used the bike for a few months.
 - b. To charge the battery, remove the rubber plug from LEFT side of the bike. Plug the charger into the power outlet and wait until the light on the charging unit is illuminated. Plug the other end of the cord into the bike. The light will change to green when it's charged.
 - c. Allow approximately 4-8 hours to fully charge (depending on model and power).
 - d. The battery does not have to be installed in the bike to charge
 - i. Remove the battery from the bike by inserting the key, turning it 90 degrees and pulling firmly on the handle.
 - ii. For LT Models, Turn key and pull battery towards you, at a 45 degree angle from the bike.



- iii. The charger will get hot, so make sure to keep it away from all flammable materials and surfaces.
 - iv. During normal use you can charge it after every ride regardless of battery level, there is no battery memory and therefore consistent charging won't damage the battery.
 - v. The charging unit will automatically stop charging once the battery is full for safety.
 - vi. Always charge in dry, ventilated conditions away from sunlight, ideally 50-80 degrees Fahrenheit.
 - vii. Only use the original charger, DO NOT use any aftermarket chargers or charging accessories.
- e. For long term battery storage, it is best to leave the battery at about 20% (1/4 lights). Always store the battery in a cool place (colder than 65°F). For best results, do not store for longer than 4 months without cycling the battery; use it to de-charge, then re-charge to 20%.

2- Powering the Unit On

- a. Make sure the battery is fully inserted and locked into the bike.
- b. Get on the bike, ready to ride.
- c. Turn the battery on (I) using the power switch on the Left side of the bike.
 - i. For LT Models, there is no switch on the battery
- d. Press and hold the power button on the keypad for a couple seconds until the display turns on.
 - i. On the Hub Drive models (Ranger, Rover) Press and hold the M button until the display turns on.



- e. When the power comes on the power level will be set to 1, and therefore engaged for throttle or pedal assistance.
- f. Use the + or – key on the keypad to change your pedal assist power level from 0-5 (0 is the lowest assistance, 5 is maximum assistance)
- g. To turn off, press and hold the power button again for a couple seconds. You can also turn the bike off at the battery (0).

3- Display Screen (Analyst) MID DRIVE MOTORS

a. Five Button Keypad

- i. Power Button – Turns power and display on and off
- ii. (+) Increases power
- iii. (-) Decreases power
- iv. Light button – changes level of backlight
- v. (i) button – scrolls through information screens on the Analyst Display.



b. The Analyst displays the following information:

- i. Current speed
- ii. Total distance
- iii. Trip distance
- iv. Battery level
- v. Power level
- vi. Watts output
- vii. USB charging

c. Use the (i) button to scroll through the different screens on the Analyst Display.



4- Display Screen (Analyst) HUB DRIVE MOTORS

a. Five Button Keypad

- i. Power Button (M)– Turns power and display on and off
- ii. (^) Increases power
- iii. (v) Decreases power

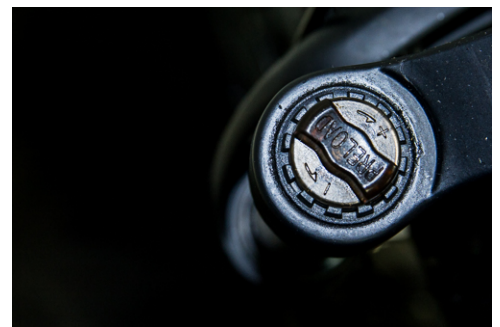


- b. The Analyst displays the following information:
 - i. Current speed
 - ii. Total distance
 - iii. Battery level
 - iv. Power level
 - v. Watts output



5- How to Adjust the Front Suspension Fork (If Equipped)

- a. The Red dial is to lock out the fork. Turn toward lock symbol to lock the suspension travel. Turn the opposite direction to activate the spring and allow the suspension to travel.
- b. On Coil Sprung Forks, the Left side Black knob adjusts the preload on the spring. The preload adjustment will change the characteristics of the spring, more tension (tighter) will stiffen the initial travel, while less tension will allow for more supple initial stroke of the spring.
- c. Air Forks have a cap covering a Schrader Valve to adjust the pressure in the Air Spring. Use a Shock Pump to adjust the air spring pressure.



6- Riding Tips to Maximize Your Battery

- a. To increase battery life and reduce wear on the components, follow these tips:
 - i. Use the pedals as often as possible, especially when starting. DO NOT simply rely on the throttle for power.
 - ii. Start in a low gear and low power. This means looking ahead, and possibly shifting to a lower gear before coming to a stop, so you are in the right gear to resume riding again.
 - iii. Use low gears for climbing steep hills. Avoid putting unnecessary torque into the transmission.
 - iv. Minimize starts and stops by looking ahead and planning the route.
 - v. Use higher tire pressure
 - vi. Bicycle "break in":
 - In the first 20 miles or so the cables and system components will settle and therefore may need to be adjusted. If you are unfamiliar with adjusting the derailleur or mechanical brakes, go to our Video Assembly Page or bring it to your local bike shop.




CHAPTER 3 – SAFE OPERATION, MAINTENANCE AND INSPECTION

- 1- Before First Ride (After Initial Build and Inspection):
 - a. Adjust seat to comfortable height.
 - b. Adjust the saddle rails fore/aft positioning for comfort.
 - c. Adjust the handlebar, shifter and brake lever position to your liking.
 - d. Read Chapter 2 of this manual to become familiar with the components and how the motor and analyst work.
 - e. Squeeze brake levers and test the braking power with the bike in a stand, or just walking alongside the bike. DO NOT attempt to ride the bike if the brakes are not adjusted properly.

- 2- Before Every Ride:
 - a. Check tire pressure and tread wear. Check the sidewalls for damage.
 - b. Check the brakes, ensure brakes have adequate power and appropriate amount of brake pad remaining.
 - c. Check that wheels are straight and turning freely. Ensure spokes are consistently tight.
 - d. Check the Chain tension and lube the chain to reduce friction and increase shifting precision.
 - e. Check that the handlebars and stem are secure; and tighten all stem bolts to 7nm.

- 3- After every ride:
 - a. Wipe down frame with soap and water. DO NOT use a power washer or high-pressure hose, this could damage the motor and electrical components.
 - b. Mud and dirt can be washed away with a low-pressure hose, avoiding direct flow with the electrical components and motor assembly.

- 4- Monthly Maintenance:
 - a. Check frame for any damage.
 - i. Look for any dents, cracks or chips to the frame. Although some may only be cosmetic, a small crack in the frame can be a serious safety hazard. DO NOT ride the bike if you identify any cracks in the frame.
 - b. Check for loose spokes.
 - i. Squeeze the spokes together to check the spoke tension. Spokes should flex slightly and return to their original position. See your local bike shop for wheel truing and spoke replacements if necessary. Tighten any loose spokes with a spoke wrench.
 - c. Check forks for damage and air pressure (if applicable).
 - i. The fork legs should move freely. Check the seals where the stanchions enter the lower legs of the forks. These seals can wear over time, and if not kept clean can damage the fork stanchions as well.
 - d. Check cassette and chainring for wear/damage.

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- i. Ensure the chain flows freely around the front chainring and each gear in the rear. Inspect the teeth in the front chainring as well as each individual cog in the rear. It is typical for grease and dirt to build up along the sides of the chainring, cassette cogs, and pulley wheels on the rear derailleur.
 - ii. Use a bicycle degreaser or chain cleaner and a brush to clean and degrease the chain and drivetrain components. Re-Lube with bicycle specific chain lube, and wipe off excess.

5- General Safety Tips

- a. The user assumes the responsibility for the risk of injury or death as a result of riding or using QuietKat products. It is the responsibility of the user to know and obey all local laws, rules, and regulations regarding the use of electric assisted bicycles.
- b. Always wear an appropriate helmet when riding. QuietKat recommends the use of a DOT (Department of Transportation) rated helmet at all times.
- c. Your bike is designed for use by persons 16 years of age and older. Always follow local laws and regulations regarding age restrictions and the use of electric bicycles.
- d. Riders must have the physical coordination, reaction time and mental capacity to ride and manage traffic, road conditions, sudden situations, as well as respect and obey the local laws governing bicycle and electric bicycle use.
- e. If you have an impairment or disability, consult your physician before riding any bicycle.
- f. Avoid baggy or loose clothing while operating your QuietKat.
- g. Turn off battery before performing any repairs or maintenance. Any turning of the cranks will cause the motor to engage, which could result in injury.
- h. ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.


CHAPTER 4 – WARNINGS

1- Adult Supervision Required

- a. QuietKat is designed for riders 16 years of age or older. Adult supervision is required for any operator under the age of 18.
- b. Never allow a child to alter the settings or to ride without adult supervision.
- c. Begin in a safe area and become familiar with all aspects of the bike before heading out on a ride.
- d. ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.

2- Follow Safe Riding Practices

- a. The QuietKat is designed for ONE (1) rider only.
- b. Long hair, loose clothing or loose items worn by the rider must be secured to prevent interference with moving parts or the surroundings.

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- c. Do not exceed the weight limit. Heavier riders may significantly reduce performance and / or render the vehicle unstable and/or exceed the capability of the brakes and other control devices. Exceeding the weight limit may cause structural damage not covered by the warranty.
 - d. Do not touch any moving parts.
 - e. Be aware, some parts such as brake rotors can become extremely hot during use. Avoid contact with these components until properly cooled.
 - f. Do not ride at night or under low visibility conditions without proper lighting and safety practices. Follow all local laws regarding the use of electric bicycles at night.
 - g. Do not submerge this vehicle in water.
 - h. Do not ride on steep or uneven surfaces.
 - i. Do not ride faster than the conditions permit, or beyond your ability.
 - j. The rider should be securely seated on the unit ready to ride before turning the power on.
 - k. ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.

3- Wear Protective Equipment

- a. Off-road riding presents many hazards such as loose dirt, obstacles and varied conditions. Always wear a helmet.
- b. Other personal safety items highly recommended are gloves, wrist, elbow, knee/shin and eye protection. Failure to use appropriate safety equipment can increase the risk of injury.
- c. ALWAYS OBEY ALL LAWS, RULES AND/OR REGULATIONS REGARDING THE USE OF ELECTRIC ASSISTED BICYCLES.

4- Proper Maintenance Is Required

- a. Failure to maintain your QuietKat and keep your bike in proper operating condition can lead to an accident resulting in injury, death, and/or property damage.

CHAPTER 5 - WARRANTY INFORMATION

Every QuietKat comes with a Lifetime Limited Warranty against manufacturing defects in materials and workmanship on its frame, and a One-Year Limited Warranty on the battery, controller and motor assembly. This warranty only applies to the original registered owner of the QuietKat and is not transferable. Original purchase receipt or invoice is required for all warranty claims.

The limited warranty does not apply to normal wear and tear, malfunctions or failures due to abuse, neglect, improper use or repair, improper maintenance, alteration, modification, or other improper use.

The limited warranty does not apply to damage sustained in a crash.

The one-year warranty on QuietKat's lithium ion batteries does not include damage from a power surge, use of improper charger, improper maintenance or other such misuse, normal wear or water damage.





If a component is deemed to be defective or damaged without user error or other improper use, QuietKat will assist in replacing the frame or specific part in question. This includes any parts damaged in shipping. We will not replace any part deemed to be damaged by the user in a crash.

In the case of repair or parts replacement under warranty, we will work with the owner to find a local certified bicycle repair shop to make the necessary fix. QuietKat will also cover the associated repair labor fees that are directly associated with the specific warranty situation. The owner may also return the unit to QuietKat to make the needed repairs, but will be responsible for the shipping costs.



Accept no compromises, choose only quality biking & cycling.