

# For riders with a thirst for adventure. Experience the thrill of Mid Motor eBikes with Quest

Feel superhuman as the Quest Mid Motor eBike magnifies your natural abilities while you speed effortlessly along flat roads and power up challenging hills. Travel further and faster than you had ever thought possible.

The Mid Motor eBike has been developed by Quest's Canadian design team to offer an impressive build that deliver outstanding ride quality for those who demand the best and will not accept compromise.

Setup is simple with only three steps to complete once out of the box:







For the full assembly tutorial video scan



Consult your user manual for more bike details and safety instructions

All tutorials and documents are also available to view at:

www.ridequest.ca/mid







# Built with industry leading components and engineered to excel in all conditions.

#### MID STEP THROUGH FRAME

The frame has been engineered to allow for easy access while retaining a lively ride feel and sporty appeal. Motor and battery are strategically situated to lower the center of gravity, maximizing balance and providing enhanced stability and control at high speeds.

#### MID DRIVE MOTOR

Efficient and Powerful near silent Drive System. Natural ride feel with 81Nm Hill Climbing Torque.

Internal micro responsive torque sensors continually adjust and adapt the eBike's performance in synergy with your every pedal stroke. These instantaneous reactions happen so fast and with such precision it will seem the eBike can predict your every move, making it feel like a true enhanced extension of your body delivering an amazingly smooth and natural riding experience.





#### **ERGONOMIC CONTROLS & THUMB THROTTLE**

A press of the thumb is enough to effortlessly move between the 5 levels of Power Assisted Pedalling ensuring you always have the desired assistance and stay in complete control throughout the ride. A unique thumb throttle is within easy reach for a boost of speed to pass safely through traffic or to dominate any sudden gradient on the road.

#### LCD DISPLAY AND CYCLOCOMPUTER

The backlit display with auto brightness provides a clear readout of the eBike's electrical performance as well as integrating cyclocomputer functions: Speedometer, Odometer, Trip Time, PAS Level, Battery Status, Diagnostic Notifications



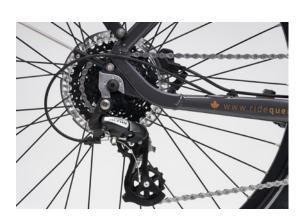












#### **TEKTRO** HYDRAULIC DISC BRAKES

The TEKTRO Hydraulic disc brake system is highly responsive and provides outstanding stopping power in all conditions with a 180mm front / 160mm rear rotor and actuated power cut-off for additional safety - essential when traveling at speed.

#### **SUNTOUR SUSPENSION FORK**

The SUNTOUR NEX suspension fork - designed specifically for eBikes - will flatten bumpy roads and aid in eliminating arm fatigue over long journeys.

#### **SHIMANO** GEARS AND SHIFTERS

Smooth shifting of the 8 speed SHIMANO Altus derailleur comes as standard from the SHIMANO trigger shifters with Rapidfire technology. The 11-34T cassette provides sufficient range whether cruising on flat roads or taking on the most challenging hill climbs.







#### **REMOVABLE BATTERY**

Lightweight and Long-Range 468Wh Lithium Battery. Removable for charging on or off the bike with key lock for security.



#### **REAR CARGO RACK**

Sturdy and spacious enough to carry equipment directly on the rack or attach any standard pannier systems for additional storage when needed.



## **AMBIENT LIGHT DETECTION**

A front sensor detects changes in ambient light and will automatically turn on the front and rear lights in low light conditions (such as entering a tunnel) to ensure you can see and be seen at all times.









#### FULL **SPECIFICATIONS**

FRAMESET

FRAME Quest 6061 Aluminum Alloy 27.5", internal cable routing, Removable in frame battery, 17.5"

COLOR Gunmetal with Gold

FORK SUNTOUR NEX Suspension 700C 50mm travel

**DRIVETRAIN** 

 SHIFTERS
 SHIMANO 8 speed

 CHAINRINGS
 34T with Narrow Wide teeth

 CHAIN
 KMC

REAR DERAILLEUR SHIMANO Altus 8-speed

CASSETTE 11-34T

COMPONENTS

HANDLEBAR Aluminum Alloy back sweep 9°

GRIPS Rubber Ergonomic

STEM Aluminum Alloy, Tool Adjustable
SEAT POST Aluminum Alloy PROMAX
SADDLE SELLE ROYAL Novola

BRAKE LEVERS TEKTRO HD-T275 with actuated power cut-off

BRAKE CALIPERS TEKTRO Hydraulic Disc - HD-M350
ROTORS Front 180mm, Rear 160mm

WHEELS

TIRES CST Venice 27.5" x 2.4" with reflective strips RIMS Double Wall Aluminum Alloy with SHIMANO Hub

**ELECTRIC TECHNOLOGY** 

DISPLAY UNIT LCD Backlit with auto brightness, error detection, Battery status, Lights switch, Ambient light detector,

Main power, Power assist level selector, Speedometer, Odometer, Trip Timer, Walk assist

MOTOR ANANDA M81 36V 350W

BATTERY TYPE 18650 SAMSUNG, Lithium Ion Battery (can be charged mounted on or off the bike, charging time 4 to 6 hours.)

 VOLTAGE
 36V

 BATTERY Ah
 13Ah

 BATTERY CAPACITY
 468Wh

RANGE Approximately 70 - 90 km, (44 - 56 Miles) \*
POWER ASSIST 5 Levels of power assisted pedalling

THROTTLE Thumb Throttle SENSOR Torque Sensor CLASS Class 2 \*\*

BATTERY CHARGER 110/220 volt Smart Charger CUL

#### ACCESSORIES INCLUDED

SPANNINGA Lights - Front: Galeo / Rear: Duxo Xe (Powered by main battery), Front & Rear Aluminum Alloy Fenders (Black), Rear Cargo Rack, Chain Guard, Water Bottle Boss on Top Tube, Wellgo Pedals, Kickstand, Tool Kit, Battery Charger

#### NOTES

FRAME SIZE Multi adjustable for anyone from 5 ft to over 6 ft

**SEAT HEIGHT (MIN/MAX)** 74.5cm / 190.5cm (29.3" / 35.6")

 BIKE WEIGHT
 22.6kg (49.8 lbs)

 BATTERY WEIGHT
 2.5kg (5.6 lbs)

 WEIGHT CAPACITY
 100 kg (220 lbs)

\*Actual range may vary depending on Ah of battery rider weight and other riding conditions.

\*\*electric bike class regulation:

Class 1 - Pedal assist motor with maximum assisted speed 32km/h (20mph)

Class 2 - Pedal assist motor and throttle with maximum assisted speed 32km/h (20mph)

Class 3 - Throttle and/or pedal assist motor with maximum assisted speed 45km/h (28mph)

all classes allow a maximum motor power of 500W(Canada)

(Specifications & pricing subject to change)









Gunmetal with Gold























## Can I ride my electric bike in the rain?

Sure. Getting caught in the rain isn't a problem (unless you are wearing your fancy new wool sweater, right?). As with any bicycle make sure you take the time to wipe down your eBike before storing to prevent premature aging of the frame. If the battery has become wet remove it from the frame, wipe off any excessive water and place in a non humid area so it can dry naturally. The battery, motor, controller and all electrical components of Quest eBikes are quite capable of dealing with everyday riding conditions with nothing more than the normal care and attention you would expect to shown any good quality bicycle.

## How do I clean an electric bicycle?

With all the love and attention such a beautiful piece of equipment deserves! Hand washing any bicycle will help prolong its life and an electric bicycle is no different. Removing any build up of mud and dirt will ensure a smoother riding experience. Occasional cleaning and lubrication of the mechanical components will keep them looking sparkly and running at optimal performance for many years.

Electric components on a Quest eBike require no special attention but care should be taken not to submerge them in water during cleaning (i.e. a pressure hose should never be used on the eBike - cycling into a swimming pool or taking a bath with your eBike should be avoided).

Remove the battery before cleaning. A rub down with a lightly soapy damp sponge and brushes to remove dirt followed by towel drying is more than sufficient to keep your Quest eBike looking beautiful and in tip top condition.

## How long will my battery last?

With appropriate care we estimate the battery to last 750 full charge cycles before noticeable degradation to a stage where replacing might start to be a consideration. For an average rider this would translate into at least 5 years of use. To ensure the battery has a long and happy life it should be put on charge as soon as possible should it become fully depleted. During long periods of storage the battery should be lightly charged once a month. The full guide to best practice for better battery care is included in every Quest eBike user manual.







# How far can the Quest Mid Motor eBike travel on a single charge?

How long is a piece of string... OK, not a very useful answer. If you want the quick answer approximately 70 - 90km. Now, if you want to know how we got this value read on.

There is no standardized test to validate distance per charge of an electric bicycle so any time you see a range value stated you must remember it is the company selling the bike that determined how to test their own product... you see how this could lead to some conflict of interests?

Range will change considerably from ride to ride due to so many variables that giving a one number answer without explanation is of little help to anyone (except the marketing department, and no-one wants to make their job easy, right?). So, how do we help make things easy for you? Well, looking at the battery capacity is a good starting point. The Watt Hour (Wh) value of an eBikes battery will give a good idea of the battery's capability and is a value that can be directly compared - the higher Wh value the greater the battery capacity. Determining what the bike can achieve with this capacity is where the fun starts.

A well made bike with industry standard components will produce less mechanical resistance and be more efficient than one built with cheap components. Better components and build provide greater range if all else is equal. But, no two journeys or riders are exactly the same. Simple variables such as the weight of bike + rider + cargo will effect the attainable range (don't even get me started on the aerodynamic position of the rider and the wind resistance of their clothing!). Likewise riding into a strong wind will require you or the bike to work much harder than when the wind is behind you. Pushing full throttle up a mountain will use up considerably more power than coasting down the other side.

At Quest we like to bring our bikes to real Canadian locations and research performance in a diverse range of real life conditions. OK... we like to take the bikes out period, and would look for any excuse to spend all day riding. But this isn't just for our enjoyment. Our fun translates directly into a bunch of real time data to work from when we evaluate our eBike's distance per charge.

With a Mid Motor eBike it is also worth considering that the mechanical gearing available on the bike, when used efficiently, can also help extend the range attainable from a single charge. Being in the most appropriate gear for the terrain, conditions of the road, and speed of travel can drastically lighten the workload required from the motor and is a very simple - and sometimes overlooked - way to get even more from a Mid Motor eBike.







# What is the difference between a Mid Motor eBike and a Hub Motor eBike?

There are many good reasons why both Mid Motor and Hub Motor drive systems are popular eBike options. Knowing the differences and advantages of each drive system will help ensure you ride the eBike that is most enjoyable for your specific use.

#### A Hub Motor with cadence sensors:

- Will accelerate the eBike to a constant speed (determined by the PAS level selected) and sustain that speed for as long as the pedals are in rotation. This is an ideal setup to attain a controlled, regulated and consistent ride. How much or how little effort to exert while riding can be changed with a tap of the finger (e.g. cruise into work without breaking a sweat, change settings for more of a workout on the way home).
- Is less reliant on the use of the bicycle gears for best performance, so a casual rider may prefer the freedom and simplicity of a more forgiving system. The gears can be used to adjust the required cadence (speed of rotation) of the riders legs to the most comfortable level at any given time.
- Is a less complex technology that has been around for longer than Mid Motor technology and due to this is generally less expensive.
- Excels as a cost effective eBike option for every day use a true car replacement option.

#### A Mid Motor with torque sensors:

- Will constantly assess and respond to the force applied by the rider during each pedal stroke and provide proportionate extra 'leg power' directly at the crank for an experience that feels natural and instantly intuitive even with the amplified results. The amount of effort put in by the rider directly effects the eBikes assistance.
- Works best when the rider is prepared to 'read the road' and ride appropriately. Understand good riding practice and correct gear use will maximize efficiency to take full advantage of this system's benefits.
- Is a newer technically advanced system with more complexity making it generally more expensive.
- Can provide a genuinely natural ride quality that will seem familiar and comfortable to any dedicated cyclist.

Riders who intend to use an eBike primarily as a form of transport, to commute, perform local errands or for light leisure riding and general fun with friends may prefer the lower cost, practicality and ease of use a Hub Motor system has to offer. For the rider who already has experience on a bicycle and enjoys an engaging ride (as a sports/leisure activity, a personal challenge, or as a break in their daily routine) the Mid Motor system may be preferential as it maintains their exhilarating personal experience while amplifying the output to feel superhuman or tackle, and overcome, previous limitations.







# Do I need to be a mechanical genius or electrical engineer to assemble my Quest eBike?

NO - Quest eBikes come with all electrical components fully assembled and calibrated. All mechanical assembly has also been completed with the exception of the 3 final steps.

Put simply this means the only assembly required after taking your new eBike out of the box is aligning the handlebar, placing the front wheel on the fork and attaching the pedals. If you have ever owned any bicycle (electric assist or fully mechanical) these steps should be simple to complete.

A full assembly video at https://vimeo.com/ridequest/assembly-mid is available for visual reference, while a user manual and the tools required to complete assembly are provided with the eBike.

(If you feel the need for professional assistance any local bicycle store should be capable of completing the assembly regardless of prior experience with electric bicycles. The mechanical elements of the Quest eBike function in exactly the same way as any fully mechanical bicycle so these final assembly steps will have been repeated hundreds of times by any good bicycle mechanic.)

## What else should I know before riding an eBike?

There are general regulations that any eBike must conform to when ridden on public roads in Canada. The Quest Mid Motor eBike meets all the requirements under section 2(1) of the Canada Motor Vehicle Safety Regulations for power assisted bicycles and falls into the 'Class 2' category for electric bicycles - pedal assist motor and throttle with maximum assisted speed of 32km/h (20mph). Maximum motor power for any street legal eBike in Canada is 500W. The Quest Mid Motor eBike has a motor that complies with this requirement.

Provincial regulations may vary regarding minimum age of rider, speed, power, etc. Please check your provincial requirements before riding any eBike on public roads.

Quest support is available to answer any other questions you may have and can be contacted through email at support@ridequest.ca or on the toll free line 1.866.996.6686 from 9am to 5pm Monday - Friday.

Always wear a helmet when riding an eBike.







## ELECTRIC MOBILITY

