

# ***Vermont 36V 2019***

*User Manual*



**DAYMAK**

# Safety

When operating the Vermont 36V please make sure you adhere to the following:

Always wear a helmet when riding the Vermont 36V

Always check your mirrors and blind spots when operating the vehicle.

Make sure that your battery power is sufficient before you go out to ride

Obey all laws of the road.

Periodically charge the unit when not in use for long periods of time

If you bring your charger avoid shaking / rattling charger while riding

Do not over charge the battery by leaving the charger in the charging port. Once the battery is fully charged remove the charger immediately.

Do not try to operate the unit while charging.

Do not let anyone under the age of 16 years old operate this vehicle.

Do not make sharp / abrupt turns at high speeds to avoid tipping.

Do not operate under the influence of any use of drugs or alcohol

Do not completely submerge the unit in water

Do not operate in harsh weather conditions.

**For any questions or concerns please call  
1-800-649-9320 or visit [www.daymak.com](http://www.daymak.com)**



# ***About Daymak***

Daymak is one of Canada's largest Alternative Vehicle providers. We design, engineer, manufacture, import and repair everything from recreational dirt bikes, go-karts and electric golf cars to alternative transportation solutions such as e-bikes and gas scooters.

Our electric bicycles represent an energy-efficient and eco-friendly alternative for people who need to get around the city. They greatly increase the practicality of bicycle transportation in urban centres. Costing only a few cents to charge, an e-bike can make city life more convenient and much less expensive.

While there are many new Green technologies that are still in their infancy, electric bicycles have been developing over the last 40 years or more. E-bike technology has been dramatically refined since the introduction of the first custom-conversion bicycles. Today, electric bicycles are a supremely reliable and affordable means of transportation.

Daymak is constantly developing new eco-friendly alternative transportation strategies, led by its own Research and Development department in Toronto, Canada. We are always improving our products. Our innovative in-house engineering and quality testing provide customers with many new kinds of reliable, eco-friendly vehicles, designed to help change the lives of our customers and the world.

Daymak warranties, services, and stocks parts for everything it sells. We support our products.

Please feel free to visit our website. You'll find the latest in cool transportation solutions, support for the products you've purchased and contact information.



# ***Introduction***

## ***E-Bikes***

Riding an electric bicycle is a great way to hop around town conveniently and cheaply. E-Bikes represent a natural progression in the development of urban transportation.

Using only small amounts of electricity, e-bikes have the potential to radically reduce the amount of pollution in our cities. As well, they are very quiet, so they do not add to the high levels of noise pollution which we often take for granted. They are easy, and usually free, to park. They are unobtrusive and highly practical additions to the urban landscape.

E-bikes are also inexpensive. They (currently) require no registration, no insurance, no licence and do not incur parking charges. As well, compared to internal combustion engines, the engines in electric vehicles have fewer moving parts and require far less maintenance.

Your Daymak e-bike is the result of Daymak's years of experience, the highly trained technical skills of our staff and careful, ongoing design work by our engineers. We hope you enjoy using this product and welcome any feedback that you may have.

## ***New Laws***

Most provinces in Canada, most states in the U.S.A, the United Kingdom and many European countries have new laws that permit cyclists to use electric motors to assist the regular operation of bicycles. Please check with your provincial or state government to learn about your local laws. At the back of this manual you will find the some of the common Canadian provincial regulations that govern e-bikes.

## ***Liability***

Daymak does not assume any liability for damages, loss of profits, or claims from third parties due to improper use of this product. Daymak does not assume any liability for damages due to problems with the product resulting from service by a third party that is not certified by Daymak.

The information in this guide may be subject to change without notice. For the latest information available, please contact your local Daymak dealer or visit our website.

We have taken all possible measures to ensure the accuracy and completeness of the information in this guide. However, if you do find anything missing, incomplete or wrong, do not hesitate to contact us.



# Part Diagrams

## Diagram 1: Vermont 36V

This diagram illustrates the various parts of your ebike. Please note that many of these parts are not user-serviceable and should be repaired only by trained professionals. This is especially true of the electrical systems and the mechanical components.



- |               |                         |
|---------------|-------------------------|
| 1. Throttle   | 7. Tire Pump Valve      |
| 2. Brake      | 8. Battery Power Button |
| 3. Brake Disc | 9. Seat                 |
| 4. Tires      | 10. LED Battery Meter   |
| 5. Pedals     | 11. Chain               |
| 6. Kick Stand | 12. Motor               |
|               | 13. Extra Battery       |

# ***Riding Instructions***

This guide assumes that you already know how to ride a standard bicycle. Before you try to ride an ebike, you should be very familiar with controlling and balancing a normal bicycle.

## ***Caution***

If you do not have cycling experience, an e-bike is too dangerous to ride. Do not begin learning to ride a bicycle using an e-bike.

## ***Important Notes***

- **Ebikes are Fast!** E-bikes are capable of traveling at higher speeds than many bicycle riders are accustomed to. Use caution at all times, especially when travelling in mixed traffic. Always take into account driving and traveling conditions.
- **Obey the Law.** Be sure to follow all provincial and city traffic laws. This includes obeying stop signs, checking carefully when turning, and riding defensively. An e-bike is a motorized vehicle, even though it is classed as a bicycle. You must follow the law.
- **Stay Sober.** Never ride your bicycle while intoxicated. An e-bike is capable of traveling faster than a normal bicycle, and you should always be in control of it.

## ***Items to Carry with the Electric Bike***

It is a good idea to carry the following items with you at all times when you ride your e-bike.

- The charger, to charge the bike in case the battery power runs out
- A lock, to secure your e-bike when you park it
- A helmet, as required by safety laws



## ***Inspecting your Electric Bike***

Always inspect your e-bike before you ride it, to make sure its safety features are operating properly. Many accidents can be avoided with routine inspections. Once you are comfortable with your e-bike, you will be able to detect small changes in the way it feels. If anything changes between uses, make sure to have it properly examined. Also, be sure to listen for changes in the sounds your e-bike makes over time. Any mechanical or power issues may have effects on the sounds the bicycle makes.

## ***Holding the Handlebars***

As with a normal bicycle or gas scooter, place your fingers over the brake levers, using the palms of your hand and your thumbs to wrap around and under the handlegrips. Doing this allows you to activate the brakes easily, by squeezing your hand, in case you have to stop quickly. This is the safe way to control your electric bicycle.

## ***Turning your E-bike On and Off***

To turn on your e-bike, insert the key (if applicable) into the “ignition”, located just below the dash board, and turn the key to the right. When your e-bike is activated, the power indicator will light and the battery charge indicator will jump, showing you how much power your e-bike has. To turn off the e-bike, simply turn the key to the left, and remove the key (if applicable).

### ***Warning***

When you activate the e-bike, the electrical system becomes live. Do not try to affect changes to the E-Bike (such as removing the battery or repairing electrical components) while the E-Bike is activated. Turn the E-Bike off and remove the key before you attempt to access any of the electrical components. Also, the battery carries a significant electric charge and can injure people if not treated properly and with respect.

## ***Accelerating and Decelerating***

The throttle is found on the right-side hand grip on the handlebars. Turn the grip forward (towards you) to accelerate. To decelerate, release the grip (turn it away from you). Don't over-rotate the accelerator, as this could damage the battery and electrical components.

### ***Warning***

Do not activate the accelerator until you are seated on the bicycle and are ready to accelerate. The e-bike can easily escape from your control, possibly injuring you or others, and the e-bike may be damaged by being dropped.



## ***Stopping***

Your e-bike has two sets of brakes, at the front and at the rear. The levers attached to the handlebars, on the left and right, activate the brakes. Pull the levers toward you to activate the brakes.

You can use both brakes to come to a stop more quickly, or you can use one of the brakes to come to a gentle stop, depending on your riding needs at the moment.

When the brakes are activated, the power to the engine is automatically turned off, until you release the brakes. This allows you to stop safely.

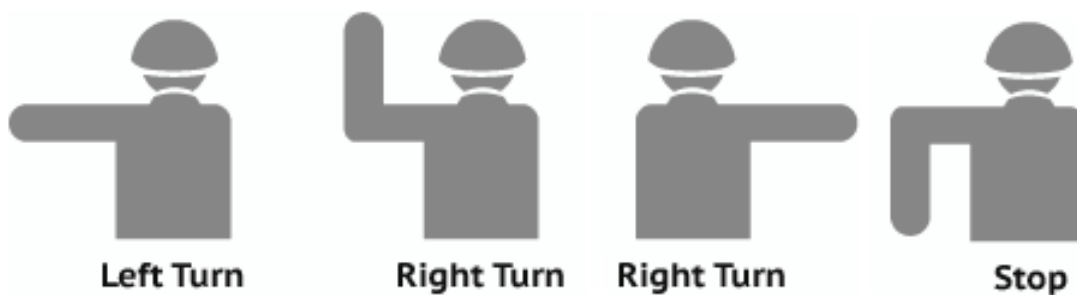
## ***Safety Tips***

- When you are traveling in wet weather, water may cause your brakes to function less efficiently because it reduces friction between the brake pads and the wheels. Take care to slow down and give yourself more room to stop or slow if necessary.
- It is a good idea to have your brakes and brake pads checked regularly. The brake pads will eventually wear down through friction, and after significant use will have to be replaced.

## ***Signalling***

### ***Hand Signals***

We recommend using your hand signals when you are turning.



### ***Lights***

The headlight and taillight are useful features when you are riding at night or in dark areas. They radically improve your safety in mixed traffic. The lights on your e-bike consume some electricity. Keeping them on may reduce the maximum distance you can travel on one charge by about 5 %.





## ***Pedaling***

This e-bike is designed to be a motor-assisted bicycle. You can use the motor by itself, but ideally, you can work with the motor by pedaling. This increases the distance you can travel on your e-bike, because it assists the motor and reduces the amount of electricity you draw from the battery.

## ***Riding in Wet Weather***

Your e-bike is designed to function in wet conditions, such as when it is raining. However, because the motor is on the rear wheel, it is easy to slip when moving at high speeds. If it is very wet, be sure to avoid high speeds.

When you are traveling in wet weather, water may cause your brakes to function less effectively because it reduces friction between the brake pads and the wheels. Take care to slow down and give yourself more room to stop or slow if necessary.

## ***The Motor and Water***

Your e-bike is not designed to be immersed in water. Always ensure that the water level does not go above the middle of the tire, to prevent water from getting inside the motor.

Water in the motor can cause short-circuits and may damage the electrical systems in your e-bike.

## ***Riding in Cold Weather***

Your e-bike is designed to operate year-round. However, in very cold conditions or when there is a lot of snow or slush on the ground, it is possible for the motor in the e-bike to get 10 degrees Celsius, the battery will not work as well as it would in warmer temperatures. While Lithium-Ion batteries perform better than Lead-Acid batteries in temperature extremes, both will experience reduced performance in cold temperatures.

Also, riding the e-bike in cold temperatures may require you to replace the battery sooner rather than later.



## ***Maximum Load***

Do not exceed the maximum load capabilities of your e-bike. You can find the exact loading capacity listed in the technical specifications in this guide.

If you exceed the maximum load, the performance of the bike will suffer.

Exceeding the maximum load of your e-bike could cause damage to the shocks, to the mechanism and, ultimately, even to the frame. It could also cause your motor to work too aggressively, and it may burn out.

## ***Long-Term Storage of your E-bike***

If you are storing your bike for a long period, disconnect the battery. This is a safer way to store the electric bicycle, as it prevents accidental activation of the e-bike and makes it impossible to activate it even with the key.

Please see the section titled "Your Battery" for instructions on battery maintenance while your e-bike is being stored.



# *The Battery*

This section details what you need to know about the battery that powers your e-bike. Always remember to treat your e-bike's electrical systems with respect.

## *Battery Power*

The battery has a charge indicator. When the e-bike is activated, the needle will jump and indicate the currently available battery power.

If the power has dropped significantly, you should charge your e-bike.

## *Distance and Power*

Your battery has the capacity to carry you anywhere from 35 to 60 km before it must be recharged. The ability of your battery to power your bicycle depends on many variables. These variables include the weight of the rider, the prevailing wind resistance, the rider's driving habits, the presence of steep hills and inclines, and other issues such as proper air pressure in the tires.

## *Saving Power*

If you are traveling long distances, you can save a lot of electricity by using better driving habits:

- **Coasting:** When going downhill or over long, flat road surfaces, try using your e-bike's momentum and allow it to coast, without drawing power from the motor.
- **Stopping and Starting:** Try to avoid stop and go movements. The motor draws more power when starting from a full stop.
- **Weight:** Remove unnecessary weight from the bike. This reduces the amount of power the motor must draw.
- **Air Pressure:** Make sure your tires have the proper air pressure. Proper pressure reduces drag on the tires and radically increases the efficiency of any vehicle.
- **Head and Tail Lights:** Turn off the lights to conserve power, if it is safe to do so. The lights will reduce the distance you can travel by about 5%.
- **Peddaling:** When accelerating from a full stop, you might want to try pedaling to help acceleration



# Charging your E-Bike

Charging your e-bike is a simple process. You require the following:

- The charger that came with your e-bike.
- A 110V household electrical outlet.

## **Charger Warning**

Only use the chargers that were supplied with your e-bike. Using chargers that do not have specifications identical to those which came with the e-bike could irreparably damage your e-bike's battery and electrical systems, and may cause injury.

To charge your e-bike, follow these steps:

- 1.** Turn off the e-bike and remove any key from the "ignition." (when applicable)
- 2.** Plug the female end of the charger cable into the charging slot on the e-bike.  
This is found on the outside casing of the e-bike, in front of and just underneath the seat.
- 3.** Plug the male end of the charger power cable into your wall socket. This should be a 110v household electricity supply. You can also use a portable generator, if necessary, but make sure it provides 110V current.
- 4.** Allow the e-bike's battery to charge for the appropriate amount of time (4-12 hours).
- 5.** Disconnect the charger when the LED light on the charger is green. The batteries have been fully charged.

If your charger's LED status light does not change from red to green over an extended period of time, for perhaps more than 14 hours, and the battery is very hot, the battery or charger may need replacing. Stop charging and bring both to your Daymak dealer immediately. Do not charge the battery.



## ***Battery Care***

Follow these suggestions to maintain your battery's optimal performance. If you do not follow these suggestions, your battery may lose its ability to maintain a charge and might have to be replaced sooner than would otherwise be necessary.

- **Charge it:** Charge your battery immediately after riding it.
- **Full Charge:** Do not allow the battery to run down completely and lie in storage without a charge. This significantly reduces the battery's lifespan and may cause damage.
- **Keep it Charged:** When being stored, charge the battery occasionally to make sure its power supply does not run down. Charging it once every 21 days should be sufficient.
- **Storage Conditions:** Store the battery on a flat, cool, dry surface. Do not allow the battery temperature to drop below 10 degrees Celsius for extended periods of time.

## ***Cold Weather and your Battery***

Below 10 degrees Celsius, the battery will not work as well as it would in warmer temperatures. While Lithium-Ion batteries perform better than Lead-Acid batteries in temperature extremes, both will experience reduced performance in cold temperatures.

Also, repeatedly riding the e-bike in cold temperatures may cause your battery to have to be replaced sooner.

## ***Replacement and Disposal***

A lithium-ion battery will last approximately 1000 charges. When the battery has to be replaced, you will notice that your battery cannot carry as much of a charge as it could initially.

Contact your local Daymak dealer to purchase a new battery.

When replacing your battery, dispose of it at a proper municipal battery recycling facility. If none is available, please contact your local Daymak dealer.



# Operation



## Right Handlebar

On the right handle bar your handle will be separated into two parts. To engage the motor automatically without pedalling. Turn the the throttle towards you circled on the left to engage the motor.

# Brakes



These are your brake levers, located on either handle bar. Your left brake lever engages your rear brake and your right brake lever engages your front brake.

**\*\*Please note\*\* Always engage your rear brakes first before applying your front brake to avoid flipping.**

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# Battery

Your battery is what powers your bike and needs to be charged periodically after riding.

1) Power Button - Press this button to power on your bike. Once this button is pressed in you will be able to use the throttle

2) Battery Meter - Once the power is on, this LED light will glow showing the amount of power you have left.

3) Charge Port 1st Battery - This is where you charge your battery. Lift up the cap to reveal the charge port. To fully charge the bike you must charge the extra battery as well. (see next page)



The Vermont 36V comes with an additional carry on battery pack that helps extend the range of the bike.

To install it, thread the straps of the battery pack through the seat as seen on the right.

Connect it to the main battery pack by unscrewing the power cable that was there originally and screwing the one from the pack in its place.



# Battery

The Vermont 36V has two battery charging ports.

**Each battery charges separately. For maximum range charge both the triangular battery and battery pouch to full before riding.**

To charge the pouch look for the charging port on the top of the pouch as seen on the right and lift the cap that is covering it.

Then plug your charger into that plug and plug the charger into the wall.



# Kickstands

## Side Kick Stand

This is your basic kickstand and should be used for quick stops only. Your bike is not secure from falling when it is on this kick stand.

Do not operate this machine with the kickstand down as it may catch on something and damage the machine.





# ***Technical Data***

This section provides you with the technical specifications for your e-bike.

## ***The Motor and Wheel Assembly***

The Vermont 36V has a 250 Watt magnetic DC brushless motor on the rear wheel hub. This type of motor has excellent low-end torque and high efficiency when working within its range. Note that while the motor is very quiet, it does produce some noise. Also attached to the rear hub are speed reduction gear and the speed free clutch.

## ***The Controller***

Daymak pioneered the development of intelligent component control in e-bikes. The Daymak Drive technology developed by Daymak is the brain of your e-bike. It allows your e-bike to achieve faster acceleration, to climb steeper hills, and to save energy.

The electronic controller is located under the seat assembly. This controller efficiently regulates the speed and electronic functions of the bicycle. It allows for stepless speed adjustment, shuts off the motor when the brakes are activated, has low voltage threshold.

## ***The Brakes***

The brakes on your e-bike are disc brakes, like those found on gas scooters and motorcycles. They generally provide for very fine stopping and control. This is a very tested and well-designed technology, but even so, the brakes will require servicing from time to time, and may have to be adjusted for tension.

Unlike normal friction-grip bicycle brakes, which clamp down from the outside, the drum brakes clamp from the inside. When the brakes are activated, tension increases and the clamps engage. This is a very effective and reliable way to stop a vehicle.

The brakes are contained within a sealed unit, and are very finely adjusted and fitted.

## ***The Chain and Pedals***

The pedals are connected to the rear wheel. Along with the chain, they provide a human-powered "drive train". This is an important part of your e-bike.



# ***Maintenance and Troubleshooting***

This section outlines problems you may have and solutions you may be able to use.

Many of the parts in this product are not user-serviceable and should be repaired by trained professionals. This is especially true of the electrical systems and the mechanical components. Alteration of these components voids the warranty.

## ***Tire Pressure***

Maintain the air pressure in your tires at the appropriate level. If the air pressure is too low, your e-bike's performance will suffer and it will become damaged more easily.

Cold weather and lower temperatures will cause the air pressure in your tires to drop, and warmer weather will cause it to increase, even if there are no leaks in the tire tube. To replace the air in your tires, follow this procedure:

1. Identify the required pressure by examining the text along the side of the tire rim. This text should indicate the recommended pressure for your tire.
2. Locate the air valve on the inner surface of the tire rim.
3. Remove the valve cap and place in a secure location.
4. Place the nozzle end of an air pump (hand-power or mechanical) over the valve.
5. Pump up the air in the tire, being careful not to let the pressure go above the level prescribed on the side of the tire wall.
6. Remove the pump nozzle from the air valve without allowing much air to escape from the tire.
7. Replace the valve cap on the air valve.

Maintaining the proper air pressure will allow you to travel much further on a single charge, because the motor will not have to work as hard to move the e-bike.

## ***Replacing Flat Tires***

Replacing flat tire tubes is a more complicated and labour-intensive process with e-bikes than it is with regular bicycles. It requires proper tools, more skill and more patience. The front wheel is easier to service when changing a flat tire than the rear wheel, as the rear wheel is connected to the hub motor and other mechanical parts.

Unless you are very familiar with the mechanical components of the rear motor, attempting to change a flat rear tire may cause serious problems. Please contact your Daymak dealer for specific instructions on how to remove your wheel and tires safely, and how to replace the tubes.

It may be easier – and safer - to have the tubes replaced by your Daymak dealer.



## ***The Motor***

Do not service the motor yourself. Bring the e-bike to your Daymak dealer for service. The motor in your e-bike is a highly complex and fine-tuned mechanism. Repairing it requires significant expertise.

We suggest maintenance every 100 running hours or so.

## ***The Chain***

Ensure that the chain on your e-bike is well-oiled and lubricated. It is an important part of your e-bike. As with any bicycle, it needs to be maintained if it is to function.

## ***Shock Absorbers and Comfort***

If your riding experience feels bumpier than usual, and you suspect that your shock absorbers are experiencing difficulties, check the air pressure in your tires. If the air pressure is too low, this may be the reason you feel less comfortable. It may have nothing to do with your shock absorbers.

If the problem persists, take your e-bike to your Daymak dealer for servicing.

## ***Bringing in your E-bike for Service***

Do not attempt to service the electronic or mechanical parts of your e-bike unless you are absolutely sure of what you are doing and have a solid understanding of electrical and mechanical equipment.

If your e-bike is not performing properly, disconnect the circuit breaker and bring the e-bike to your local Daymak dealer.

Do not store the e-bike without disconnecting the circuit breaker.

## ***Liability***

Daymak will not be held responsible for damage or injuries resulting from errors resulting from improperly serviced parts.



## ***Ebike Maintenance***

### ***Cleaning***

Cleaning is extremely important this will ensure your e-bike will serve you for a long time. In the long run, it will save you money and a lot of time waiting for the bike to be repaired. You should clean your ebike weekly.

Do not use aggressive power jets or water sprays when washing the ebike and keep water off the battery as much as you can. Clean gently but thoroughly and make sure that all the outer casing of the electric parts are dry and clean.

Remove any dirt, debris, sand, mud, grit, grime that got caught on the bike and dry it off. While cleaning, it is a good opportunity to look closely for a worn, loose, cracked, rust, teared or damaged parts. Buckled paint can also be a hint for some parts that need closer inspection.

### ***Lubricating***

It is also recommended to lubricate the chain, levers, derailleur, cables, etc. A clean, lubricated e-bike tends to be faster, smoother and quieter. It's like having a little extra push for free.

Apply the lubricant to the different parts and let it sit a few minutes and then wipe off the excess lubricant with a rag. After a while, clean the different parts with a degreaser to remove any excess dirt that has been collected.

### ***Weather***

Don't leave the bike out in the rain or snow.

Store it somewhere dry and out of direct sunlight. Overheating the batteries, for example, can cause problems.

Do not open up casings, chargers, etc as you are unlikely to be able to reseal them effectively afterward, making them more susceptible to water damage and other extreme weather conditions.

Batteries should be removed from the ebike if not used and charged once a month regardless of usage.



## Schedule

The frequency of maintenance depends on how much you ride and under which conditions. Recreational riders need far less maintenance than off-road riders. The harder you ride, the more you have to take care of your bike if you want it to last. There are various time intervals for proper maintenance. Quick maintenance should be done before & after every ride.

### **Every time before you ride. (60 Second Check)**

Check tire pressure, brakes, lights, bolts, battery gauge. Do not ride the ebike unless everything is proper. <https://youtu.be/6mGpLqeW0zM>

### **30 Days (Every Month)**

Completely clean the bike, including the dust on the motor and under the seat. Check for any abnormal wear and tear or alignment problems.

### **90 Days (Every 3 Months)**

Inspect frame and for paint cracks or bulges that may indicate frame or part damage; pay particular attention to all frame joints. Check wear and tear on tires. Check range of battery.

### **180 Days (Every 6 Months)**

Inspect all components of the ebike. Check that connections are nice and tight. Look inside where your controller is and clean in detail. Check all plugs. Go over every bolt and nut in your ebike.

### **360 Days (Every 12 months)**

Bring ebike for complete tune-up. Varying on the ebike the ebike shop should complete a battery discharge, tires should be changed depending on wear and tear. All connections should be checked for rust and looseness. All components should be checked including charge, ignition gauges.



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***Thank you for choosing Daymak***

