# **Owner's Manual**

# WELCOME!

Thank you for purchasing a Velotric product. We are delighted that another person has decided to discover (or rediscover) the joy of riding. Just one thing before your ride: read this owner's manual and ensure that you're ready for a safe and comfortable ride. Please keep this manual for future reference as well.

# DISCLAIMER

- Velopower, Inc. makes no warranty as to the accuracy, sufficiency, or suitability of the information in the owner's manual because of continuous product improvement.
- Velopower, Inc. assumes no responsibility or liability for injuries, losses, or damages, whether direct, indirect, consequential, or incidental, that might arise out of the use of information in the owner's manual.
- Velopower, Inc. is not responsible or liable for the failures, damages, or injuries resulting from repairs attempted by unqualified personnel or improper assembly and operation.
- The illustrations in the owner's manual are for demonstration purposes only. Details may appear slightly different depending on the product revision.
- Velopower, Inc. reserves the right to change the information in the owner's manual without notice.

# **IMPORTANT SAFETY INFORMATION**

The owner's manual provides important operation and maintenance instructions for your Velotric ebike (hereinafter referred to as ebike). Read the owner's manual carefully before riding and save it for future reference. Failure to follow any instructions in the owner's manual may result in electric shock, fire, and/or serious injury.

# SYMBOLS USED

The following symbols are used throughout the owner's manual to highlight important information:

<b>A</b> 1	WARNING	Indicates a potentially dangerous condition that could result in injury or death.
Δ (	CAUTION	Indicates a critical procedure for safe and proper installation and operation.

NOTE Indicates an important step or tip for optimal performance.

# **GENERAL SAFETY INFORMATION**

WARNING – When using this ebike, basic precautions should always be followed, including the following:

- Read all safety precautions carefully before riding.
- Always wear a properly fitted helmet when riding the ebike to reduce the risk of head injury in an accident.
- Keep both hands on the handlebar and the brake levers within reach while riding, so as to be able to respond to any situation immediately. Failing to do so can cause loss of control of the the ebike.
- To reduce the risk of injury, close supervision is necessary when the ebike is used near children.
- DANGER! Failure to properly assemble, operate, and maintain the ebike could result in serious injury or death.
- Ensure that there are no worn or damaged parts that may fail during the ride.
- Keep the ebike out of the reach of children.
- Only charge the battery with an original charger. Keep the battery and charger away from water and open fire.
- Always charge your battery at temperatures between 41°F to 104°F (5°C to 40°C), but preferably at room temperature ranges from 50°F to 86°F (10°C to 30°C).
- The ebike is not intended to be used at ambient temperatures lower than 14°F (-10°C) or higher than 113°F (45°C).
- Always tighten fasteners according to <u>"Recommended Torque Values"</u>. Otherwise, it may cause damage to the ebike or result in injury.
- Failure to properly charge, store, or use the battery may void the warranty and cause a hazardous situation.
- In the event of fire, cover the fire with plenty of sand and call emergency services immediately.
- Do not put your fingers or hands into the wheel or other moving parts while the ebike is in motion.
- Do not use the ebike if the charger's flexible power cord or output cable or any of the electrical cables on the ebike is frayed, has broken insulation, or any other signs of damage.
- Do not tamper with or modify the ebike. Otherwise, it may seriously impair the handling, stability, and other aspects of the ebike, making it unsafe to ride and voiding the warranty.
- Do not dispose of the ebike as household waste. Comply with local, state, and federal laws and regulations and use recycling channels as required.

SAVE THESE INSTRUCTIONS

# **TABLE OF CONTENT**

BEFORE THE FIRST RIDE Standover Height Saddle Position Adjustment Brake Lever Adjustment Stay Within the Weight Limits Riding With a Child Safety Check	07 08 08 09 09 09	
BEFORE EVERY RIDE	11	
General Inspection Brake System Inspection	12 14	
Electrical System Inspection	14	
Recommended Torque Values	16	
ADJUSTING FOR COMFORT AND SAFETY	17	
Adjust the Saddle Height	18 20	
Adjust the Saddle Angle and Horizontal Position Adjust the Brake Lever Positioning	20 21	
Adjust the Stem Angle	22	
OPERATION INSTRUCTION	23	
Remote Diagram	24 25	
Display Interface MENU Setting	25 28	
Start Riding	31	
Charge the Battery	32	
USE CONDITIONS AND WEIGHT LIMITS		
Use Conditions Weight Limits	36 38	
Woight Linits	50	
TROUBLESHOOTING	<b>39</b> 40	
Troubleshooting Error Code	40 42	
STORAGE & MAINTENANCE 43		

Maintenance	44
Storage	46
Cleaning	47
Parking	48
SUPPORT INFO	49
WARRANTY POLICY	51
Limited Warranty Terms	52
This Limited Warranty Does Not Cover	52
TECHNICAL SPECIFICATIONS	55
Electronics	56
Ebike Components	56
Range/Speed/Weights	57

# BEFORE THE FIRST RIDE

Standover Height	08
Saddle Position Adjustment	08
Brake Lever Adjustment	08
Stay Within the Weight Limits	09
Riding With a Child	09
Safety Check	09

# **Standover Height**

When selecting a new ebike, the correct choice of frame size is a very important safety consideration.

Standover height is the basic element of ebike fitness. It is the distance from the ground to the top of the ebike frame at the point where your crotch is when straddling the ebike with both feet flat on the ground.

There should be a clearance of 1 inch to 2 inches (25.4 mm to 50.8 mm) between your crotch and the top tube of the ebike.

If your crotch touches the frame, it indicates that the ebike is too big for you.

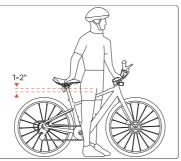
To check for the correct standover height, straddle the ebike while wearing the kind of shoes in which you will be riding, and bounce vigorously on your heels.

# **Saddle Position Adjustment**

Small changes in saddle position can have a substantial effect on performance and comfort. To find the desired saddle position, you need to make only one adjustment at a time. For detailed information, refer to <u>"Adjust the Saddle Height"</u>. If you want to adjust the saddle backward or forward, refer to <u>"Adjust the Saddle Angle and Horizontal Position"</u>.

# **Brake Lever Adjustment**

The angle of the brake levers can be adjusted for the most comfortable hand position possible. If you have big or small hands or find it difficult to squeeze the brake levers, you can also adjust the distance between the brake lever and the handlebar. For detailed information, refer to <u>"Adjust the Brake Lever Positioning"</u>.



# **Stay Within the Weight Limits**

The ebike and its parts have strength and integrity limitations. Before riding for the first time, it is essential to get to know the weight limit of your ebike. For detailed information, refer to the <u>"Weight Limits"</u> in this owner's manual.

# **Riding With a Child**

Never carry passengers, especially children. Otherwise, it may cause loss of control of the ebike and result in serious injury or death, and void the warranty. Please note that this ebike is not designed for riding by children under the age of 16.

# **Safety Check**

- Ensure that the handlebar cables were routed correctly when the handlebar was installed. Turn the handlebar fully to the left and right and ensure that no cables or wires can be taut.
- Ensure that the pedals are secured with a pedal wrench according to the torque value listed in "Recommended Torque Values".
- Ensure that the cable connectors on the ebike are all plugged in securely and that nothing loosened in shipping.
- Check the brake functions per the directions in the "Brake System Inspection".

It is normal that brakes can rub a little the first few times you ride. Any squeaks or noises will disappear with use.

For more detailed information about safety checks, refer to "Before Every Ride".

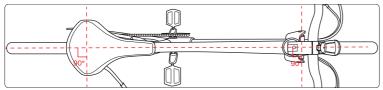
# BEFORE EVERY RIDE

General Inspection	12
Brake System Inspection	14
Electrical System Inspection	15
Recommended Torque Values	16

# **General Inspection**

#### Handlebar

Ensure that the handlebar is at 90° to the front wheel. For more detailed information, refer to <u>"Adjust the Handlebar Angle"</u>.



- Ensure that the handlebar is tightened sufficiently so that it will not twist out of alignment and does not rotate in the stem.
- Ensure that no cables are pulled or caught when you turn the handlebar from side to side.
- Ensure that the handlebar and stem are aligned, correctly adjusted, tightened, and allow proper steering.

#### **Front Fork**

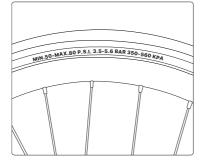
- Ensure that the front fork is not bent or broken.
- Ensure that the front fork is securely tightened.

#### Wheels and Tires

Ensure that tires are holding air and inflated to the recommended PSI indicated on the tire sidewall. Do not overinflate or underinflate tires.

The standard tire pressure on a Velotric T1 ST is 80 PSI, as shown in the illustration on the right.

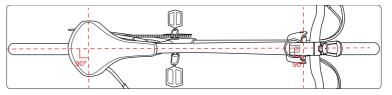
- Ensure tires have good tread, have no bulges or excessive wear, and are free from any other damage.
- Ensure rims run true and have no obvious wobbles, dents, or kinks.
- Check each wheel spoke. If any are loose or broken, seek help from a qualified mechanic.



- Check the axle nuts on the rear wheel to ensure they are correctly tightened.
- Check the security of the front and rear wheel mounting. The wheel security and hardware torque should also be checked on a regular basis. For more detailed information, refer to <u>"Recommended Torque Values"</u>.

#### Saddle and Seatpost

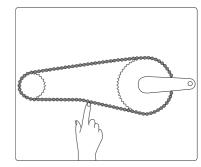
Ensure that the saddle is in line with the center of the frame.



- Check that the seatpost is tightened sufficiently so that the saddle will not twist out of alignment, or move or tilt up and down.
- Ensure that the seatpost is fully inserted over the minimum insertion mark.

#### Chain

- Ensure that the chain has the correct tension and won't fall off the chainring during a ride. If you are unsure about the correct tension, seek help from a qualified mechanic.
- Ensure that the chain has no kinks, rust, broken pins, plates, or rollers.
- Pay special attention if you live in a coastal or dusty area. Ensure that the drivetrain is clean and lubricated with lubricating oil.



#### Pedals

- Ensure that the pedals are securely tightened to the cranks.
- Ensure that the pedals are parallel to the ground and can rotate freely when the ebike is centered.
- Ensure that the pedals and your shoes are clean and free of debris that could affect your grip or interfere with the pedal system.

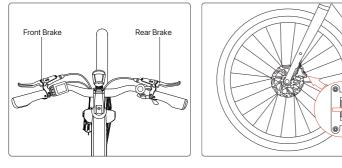
#### Reflectors

- Ensure that all reflectors are properly fitted and not obscured.
- Ensure that front and rear reflectors are secured, clean, and positioned perpendicular to the wheel.

#### Fasteners

Ensure that all fasteners are properly tightened and secured according to <u>"Recommended Torque</u> <u>Values"</u>.

# **Brake System Inspection**



Brakes are essential to safety. Test your brakes for proper functioning before every ride.

- Ensure that the brakes are clean and free of debris that could interfere with the brake system.
- Ensure that brake levers are lubricated and tightly secured to the handlebar.
- Check brake pads and rotors for wear and ensure that they are not overworn.
- Ensure that the brake rotor fits correctly between the brake pads.
- Ensure that the front and rear brakes work properly.
- Test that the brake levers are firm and that the brake and rear light are functioning properly.
- While standing still, ensure that you can apply full braking force without the brake lever touching the handlebar. Otherwise, the brake lever needs to be adjusted. For detailed information, refer to <u>"Adjust the Brake Lever Positioning"</u>.

# **Electrical System Inspection**

## Display

- Ensure that the display is securely tightened.
- Ensure that the display works properly.

# Front Light & Rear Light

- Ensure that the front and rear lights are securely attached and properly positioned.
- Ensure that the front and rear lights are not covered by foreign objects.
- Ensure that the cable of the front and rear lights light is properly connected and secured.
- Ensure that the front light can be switched on or off when pressing the + button for 2 seconds.

#### Battery

- Ensure that the battery is properly installed and securely tightened.
- Ensure that the battery is well charged before riding.
- Ensure that the battery is stored at an ambient temperature of 50°F to 77°F (10°C to 25°C).
   For more detailed information, refer to <u>"Battery Storage"</u>.

## Cables

- Ensure that all cables are not overly bent and no kinks are present.
- Check and ensure all cable connections are tight, secure and free from debris or moisture.
- Ensure that there is no damage or wear on the cables.
- Ensure that all cables and housings are properly secured to the frame or fork so that they cannot interfere with or get caught on moving parts.

# **Recommended Torque Values**

Always tighten the fasteners to the correct torque. Too much torque can stretch, deform, or break a fastener or the part it attaches to or tightens. Too little torque can allow the part to move and may lead to fatigue and breakage of the fastener or the attached part. Either mistake can lead to a sudden failure of the fastener, causing you to lose control and fall.

Category	Fastener	Tool	Torque Spec. (Nm)
Handlebar	Grip clamp bolts	M3 Allen key	2-4
section	Stem clamp bolts	M5 Allen key	13-14
	Shifter clamp bolt	M5 Allen key	8-12
	Brake lever clamp bolts	M4 Allen key	7-9
	Stem faceplate bolts	M4 Allen key	6-8
	Stem top cap bolt	M4 Allen key	7-9
Brake	Disc brake bolt	M5 Allen key	7-10
	Disc brake adapter bolt	M5 Allen key	7-10
	Brake rotor clamp bolts	T25 screw wrench	5-7
Saddle	Seatpost clamp bolt	M5 Allen key	7-9
	Saddle adjustment bolts	M6 Allen key	12-14
Frame	Rear derailleur mounting bolt	M5 Allen key	8-11
	Derailleur cable clamp nut	M5 Allen key	4-7
	Motor axle nuts	19 mm wrench	40-50
	Kickstand mounting bolts	M5 Allen key	8-12

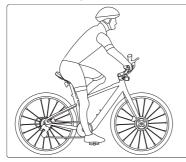
# ADJUSTING FOR COMFORT AND SAFETY

Adjust the Saddle Height	18
Adjust the Saddle Angle and Horizontal Position	20
Adjust the Brake Lever Positioning	21
Adjust the Stem Angle	22

# Adjust the Saddle Height

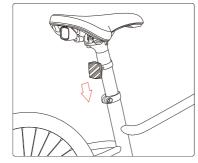
The saddle position can be tested when you sit on the saddle with your heel on the lower pedal. Before performing the adjustment of the saddle position, a saddle height test is needed.

- If your leg is straight and your knee is fully extended, it indicates that the saddle is in an appropriate position.
- If your leg is bent at the knee, it indicates that the saddle should be adjusted up.
- If you cannot reach the pedal, it indicates that the saddle should be adjusted down.



To adjust the saddle position, follow the steps below.

1. Loosen the seat post clamp with an M5 Allen key.

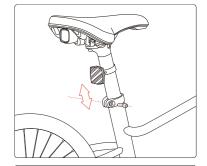


2. Slide the seatpost in or out of the seat tube.

To avoid damage to seatpost or ebike frame, do not position the saddle lower than the minimum insertion line on the seatpost.

If you are uncertain/unsure of/in doubt about the saddle position, seek help from a qualified mechanic.

3. Tighten the seatpost clamp with an M5 Allen key. Ensure that the clamp is firmly tightened.





4. If the saddle position needs a bit more adjusting, repeat steps 1 to 3.

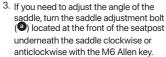
▲ WARNING

- With the seatpost fully compressed and the saddle in the rearmost position, the rear tire may rub the saddle. To avoid this situation, it is recommended to adjust the saddle up and forward.
- After any saddle adjustment, be sure that the saddle adjusting mechanism is properly tightened before riding. A loose seatpost clamp can cause damage to the seatpost, or can cause loss of control accidents.

# Adjust the Saddle Angle and Horizontal Position

The saddle can be moved backward or forward and tilted to adjust the angle to reach the optimal position. Follow the steps below to adjust the saddle angle and horizontal position.

- Loosen the saddle adjustment bolt (b) located at the rear of the seatpost underneath the saddle with the M6 Allen key.
- Move the saddle backward or forward to the appropriate position. Do not exceed the limit markings etched into the saddle rails, which show how far you can safely move the saddle forward and backward.



Once the saddle is titled to the desired angle, tighten the bolt to secure it in place.

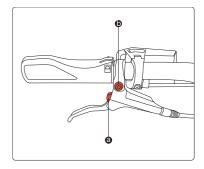
4. Hold the saddle and tighten the saddle adjustment bolt (b) securely.

## ▲ WARNING

Be sure to tighten the bolts according to the torque value listed in <u>"Recommended Torque Values"</u>. Otherwise, it may cause damage to the ebike or result in serious injury.

# **Adjust the Brake Lever Positioning**

Most riders would be comfortable with the default position of the bake levers. However, you may adjust them according to your preference and hand size.



If you have big/small hands or find it difficult to squeeze the brake levers, you can also adjust the distance between the brake lever and the handlebar according to the steps below.

- 1. Locate the barrel adjuster (a).
- Rotate the barrel adjuster with the M2 Allen key (not provided in the tool box) anticlockwise to move the brake lever closer to the handlebar, or rotate the barrel adjuster clockwise to move the brake lever away from the handlebar.

To adjust the angle of the brake lever, follow the steps below.

- 1. Loosen the brake lever clamp bolt () with the M5 Allen key.
- 2. Adjust the angle of the brake lever.
- 3. Retighten the bolt of the brake lever clamp.

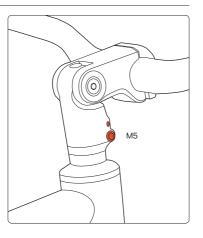
## NOTE

Ensure that the brake lever is parallel to the grip when a full brake is applied and you can hardly pull the lever closer to the grip.

# Adjust the Handlebar Angle

For safety and comfort during riding, it is essential to ensure that the handlebar is perpendicular to the front wheel before each ride. If the handlebar is not aligned vertically to the front wheel, follow the steps below to adjust the handlebar stem.

- 1. Loosen the stem clamp bolts with the M5 Allen key.
- Adjust the handlebar stem to make the handlebar perpendicular to the front wheel.
- 3. Tighten the two stem clamp bolts.



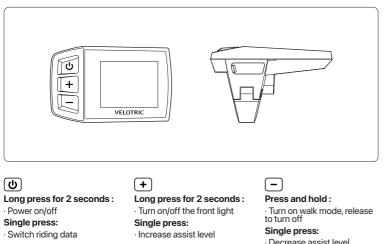
# NOTE

The illustration above is a reference for the bolts position.

# OPERATION INSTRUCTION

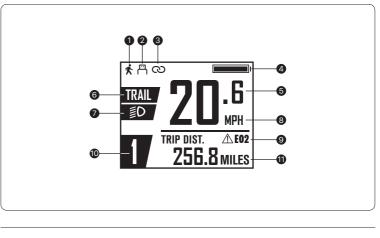
Remote Diagram	24
Display Interface	25
MENU Setting	28
Start Riding	31
Charge the Battery	32

# **Remote Diagram**



· Decrease assist level

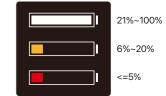
# **Display Interface**





#### **Battery Indicator**

When the battery is fully charged or above 20% capacity, the indicator will display all five segments in white. As the charge decreases, the number of white segments will reduce accordingly. When the battery level drops to between 6% and 20%, the indicator will show only one yellow segment, alerting you to charge soon. If the battery further decreases to 5% or below, the indicator will turn to a single red segment, at which point immediate charging is necessary to prevent the device from powering off.



•

**USB-A Charging Port** 

# Front Light

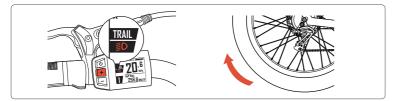
Long press the + button for 2 seconds to turn on/off the front and rear lights.



## Walk Mode

Press and hold the — button to active the Walk Model. Your eBike will travel at a constant speed of 2.9mph.

Release to turn off Walk mode. Interface shown as the diagram:



# **USB Port Charge**

Your eBike can charge your other devices via the USB-A charging port located in the back of the control panel.



# **Phone Connection**

Your eBike can be connected to the Velotric App via Phone Connection.



#### **Riding Data**

Single press the button to cycle through various riding data: -TRIP DIST. & TRIP TIME -AVG SPEED & MAX SPEED -CALORIES & CO<sub>2</sub> SAVED -ODO & TOTAL TIME



#### Error Code

When the eBike electronic control system fails, the display will automatically indicate the error code. For the definition of detailed error codes, please refer to "eBike Error Code" and "Battery Error Code".



NOTE

The error code will disappear when the error is solved.

# **MENU Setting**

When there is no speed in the power on state, long press the + and - button for 2 seconds to enter MENU.

Single press + or - button to select display settings.

-Riding Mode -Speed Limit -Screen Brightness -Auto Power Off

## **Riding Mode**

Your eBike comes equipped with three different riding modes: ECO Mode, TRAIL Mode and BOOST Mode. Each mode will affect how much effort is needed in order to reach the top speed. By default we recommend ECO Mode as it strikes the balance between pedaling effort and electric assist. It is also the most battery-efficient mode.





ECO Mode: Our recommendation for paved roads. The most battery-efficientmode. TRAIL Mode: Penfect for the off-road trails, gravel roads and adventure. BOOST Mode: When you feel need for speed. Eniov but stay safe.

#### How to Switch Riding Mode

1. Single press the 🕑 Button to enter the setting page.

2. Single press the + or - button to switch riding mode (ECO mode, TRAIL mode and BOOST mode). The default value is ECO mode.

3. Single press the 🕑 button to save the setting.



# Speed Limit Setting

1. Single press the 🕑 Button to enter the setting page.

2. Single press the + or - button to adjust speed limit. The range of the maximum speed is 12mph-28mph. The default value is 20mph.

3. Single press the 🕲 button to save the setting.

#### Screen Brightness Setting

1. Single press the 🕑 Button to enter the setting page.

2. Single press the + or - button to adjust screen brightness. The setting options are 1-5 and Auto. 1 is the darkest, 5 is the brightest, "Auto"means the display will detect the brightness automatically. The default value is 5.

3. Single press the 🕑 button to save the setting.

# Auto Power Off Setting

1. Single press the 🕑 Button to enter the setting page.

2. Single press the + or - button to adjust the 'Auto Power Off' time. The setting options are 5, 10, 30, 60 minutes and OFF. The default value is 5 minutes. Your eBike will automatically power off itself after sitting idle for a few minutes. The OFF means the eBike will never power off itself automatically.

3. Single press the 🕑 button to save the setting.

# NOTE

Your eBike won't power off itself automatically if it is in USB Port charging.



-Speed Limit

28 MPH USet



## Find My

You can pair your Velotric ebike with the Find My app on your device. After you successfully add your ebike as one of your Find My items, you'll be able to locate it on a map, play a sound if it's nearby, and enable Lost Mode. For detailed infromation, refer to <u>Velotric T1 ST Quick Start Guide</u>.

# **Unit Setting**

1. Single press the 🕑 Button to enter the setting page.

2. Single press the (+) or (-) button to switch unit. The setting options are mile and km. The default value is mile.

3. Single press the 🕑 button to save the setting.



1. Single press the () Button to enter the setting page.

2. This page will show the firmware version of display, controller, battery.

3. Single press the 🕑 button to exit.

Display	V001
Controller	V001
Battery	<b>V</b> 001
ථ Exit	

-Set Unit

KM

් Set

# **Start Riding**

The Velotirc ebike provides 5 levels of power assistance with easy-to-operate Pedal Assist System (PAS), making it an ideal choice for riding over different terrains.

# ▲ CAUTION

Always wear a helmet when riding to reduce the risk of head injury in an accident. Ensure that your helmet fits you properly and meets the required safety standards.

#### How the Pedal Assist System Works

You can engage the PAS while pedaling, and it will call up assistance from the motor to help propel the ebike forward. If you stop pedaling, the motor will stop supplying power as a backup.

#### Assist Level

The power output of each assist level is shown in the table below. You can adapt the power output according to your riding needs.

Assist Level	Assist Mode	Description
PAS 0	-	No power output.
PAS 1	ECO	Minimal power output for maximum battery efficiency.
PAS 2	Tour	Low power output for riding long distances.
PAS 3	Normal	Medium power output for city commuting.
PAS 4	Sport	Strong power output for active riding.
PAS 5	Turbo	Maximum power output for extreme riding.

#### Select Appropriate Assist Level

After powering on the ebike, the assist level is set to "0" by default. At this point, there is no power assistance while pedaling. Once you begin riding, press and release the "+" or "-" button or the "Power" button on the control panel to select the appropriate assist level. The top speed for each level is 20 mph, above which the motor will no longer provide power assistance.

#### CAUTION

Always use the lowest assist level until you are comfortable with the ebike and feel confident in controlling the power.

# **Charge the Battery**

Before charging the battery, ensure that you read and understand all safety-related precautions listed below.

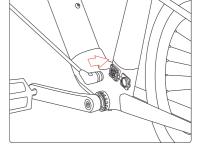
- Always charge your battery with the charger supplied by Velotric.
- Ensure that the battery and charger are undamaged before charging. If the battery or charger looks damaged or was involved in a fall or crash (even without obvious signs of damage from outward appearances), contact us through <u>help@velotricbike.com</u> for more information.
- Charge your battery in a temperature controlled, dry, and safe environment ideally at room temperature, 50°F to 86°F (10°C to 30°C). Always charge between 41°F to 104°F (5°C to 40°C) because charging outside this range can cause permanent damage to the battery, as evidenced by a decrease in capacity and a shortening of its service life.
- Use the charger in a safe place away from children, direct sunlight, dirt, debris, liquids, tripping hazards (including electrical cords), or any materials that could ignite in the unlikely event of a charger or battery malfunction. Position the charger and battery where they're safe and not at risk of falls or other impacts.
- Your battery and charger generate heat while charging, but they're designed to be air-cooled. While charging, keep them uncovered on a flat, stable, hard surface. Your charger should face upward with its indicator visible when in use.
- Store the charger unplugged in a safe place away from children, direct sunlight, etc. Ensure that the charger plugs do not come in contact with liquids, dirt, debris, or metal objects, which can damage the plug and interfere with future operations.

#### **Charging Procedure**

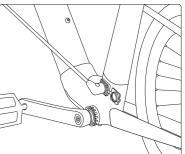
Anytime you charge your battery, check the charger and the electrical cable for signs of damage. Then follow the steps below.

- 1. Press and hold the "Power" button for 2 seconds to turn off the ebike.
- Inspect the charger and the electrical cable for damage. If everything looks fine, proceed with the rest of the steps. Otherwise, contact us at <u>help@velotricbike.com</u> for more technical support.

 Open the rubber cover on the charging port located on the left side of the frame's bottom bracket near the pedal arm.

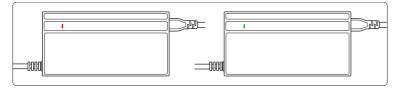


2. Connect the DC output plug from the charger to the charging port.



- 3. Plug the charger into a power outlet to initiate the charging. It may take about 6 hours for an empty battery (battery level 0%) to be fully charged. You can check the charging status through the indicator on the charger, as well as the display will enter the charging state and display the charging level. For more information, refer to <u>"Charger Indicator Status"</u>.
- 4. Once fully charged, unplug the charger from the outlet, then the charging port.

#### **Charger Indicator Status**



Color	Indicator Status	Description
Red	Solid on 🗕	The battery is charging
Green	Solid on 🗕	The battery is fully charged or the charger is not connected to the charging port

NOTE

While charging, the charger indicator turns solid red from green and turns solid green when the battery is fully charged.

# USE CONDITIONS AND WEIGHT LIMITS

Use Conditions Weight Limits 36 38

# **Use Conditions**

Always travel at speeds appropriate for the terrain, conditions, and your experience level.

# Path Riding

Strictly abide by laws and regulations concerning shared-use paths and facilities. Keep your speed reasonable and below path speed limits, and pass carefully and kindly. Use your voice and/ or bell to signal your presence to others, especially when passing.

# **Road Riding**

When riding on streets, obey the same road laws as all other road vehicles as well as local rules governing bike or ebike usage.

Sharing the road with other vehicles presents many hazards. To reduce the possibility of accidents, take the safety precautions below.

- Be sure to wear a helmet on every ride.
- Yield to pedestrians and other vehicles.
- Obey the rules of the road. Stop at stop signs and lights.
- Keep a safe distance from other riders or vehicles.
- Expect the unexpected such as car doors opening or cars backing out of driveways.
- Ride in control at all times. Proceed at a safe speed that permits you to react quickly to unexpected circumstances.
- Ride predictably, in a straight line, and with the flow of traffic. Never ride against traffic.
- Be ready to brake. Keep your hands on or near the brake levers so as to stop quickly.
- Use correct hand signals to indicate turning, and do so well in advance of turning.
- Increase your visibility according to the safety precautions in <u>"Low-visibility Conditions"</u>.

## **Off-road Riding**

Off-road riding is very different from riding an ebike on the road. It involves many variables such as constantly changing traction, obstacles, changes in line of sight, uphill, downhill, soft surfaces, dry surfaces, and wet surfaces. The variable conditions and hazards of off-road riding require focus, concentration, strength, fitness, and learning to read the trail. Ensure that you have the appropriate skills when riding off-road and wear appropriate safety gear. Do not ride alone in remote areas.

Taking a rider weighing 176.4 lbs (80 kg) riding off-road at an ambient temperature of 77°F (25°C) as an example. When engaging the PAS to propel the ebike forward, the ebike can ride uphill with a maximum incline of 8° to 10°.

# NOTE

The maximum slope range available for the ebike may vary slightly depending on the weight of the rider and the ambient temperature, and is subject to the actual situation.

#### Hot or Cold Conditions

Riding, parking, or storing the ebike in excessively hot or cold conditions can cause damage to the display and other components. Do not park or store the ebike in direct sunlight for extended periods. For more information on safe and recommended temperature ranges for your battery, refer to <u>"Battery"</u>.

## Low-visibility Conditions

Riding at night/dawn/dusk or in other low-visibility conditions such as fog, rain, mist and snow is dangerous. It is harder for a rider to read signs and identify and respond to hazards, and also harder for others to see and avoid you, increasing the risk of accidents, serious injury or death. Slippery and uneven surfaces will compound the risk. Avoid these conditions when possible.

Should you have to ride in low-visibility conditions, taking the safety precautions below can reduce the risk to some extent.

- Ride slow.
- Stay alert. Ride defensively and expect the unexpected.
- Avoid dark areas and areas of heavy or fast-moving traffic.
- Wear reflective or light-colored clothing to get the attention of approaching motorists, pedestrians, and other traffic.
- If possible, ride on familiar routes.
- Ensure that the front and rear lights are functioning correctly and unobstructed.
- Ensure that the front and rear reflectors are correctly positioned and securely mounted, and are not blocked by any foreign objects.

## **Extreme Riding**

Extreme riding is extremely dangerous. It increases the risk of injury or death and the severity of injuries. This type of riding can only be performed by professionals with many years of training and experience. Velotric strongly recommends against inappropriate and dangerous use of our products.

# WARNING

Even with state-of-the-art safety gear, you could be seriously injured, paralyzed or killed when jumping, stunt riding, riding downhill at speed or in competition. To be free from such risks, do not engage in this type of riding.

### Wet Weather Riding

Wet weather impairs traction, braking, and visibility, both for the cyclist and for other vehicles sharing the road. The risk of an accident is significantly increased in wet conditions. In wet weather, extra care is required when riding the ebike.

## ▲ WARNING

Riding in wet conditions involves slippery hands, feet, and riding surfaces, which greatly increases your risk of accidents, serious injury, or death. Low-visibility conditions such as night, dusk, dawn, fog, mist, rain, or snow will compound the risk of injury or death.

If you must ride in wet conditions, taking the safety precautions below can reduce the risk to some extent.

- Stay alert. Ride defensively and expect the unexpected.
- Ride slower to better control the ebike in slippery conditions.
- Brake earlier as it will take longer to slow down than in dry conditions.
- Increase your visibility according to the safety precautions in <u>"Low-visibility Conditions"</u>.

# **Weight Limits**

The total maximum weight limit or payload capacity of the ebike, including the weight of the ebike, rider, clothing, cargo, accessories, and so on, is 330lbs (150 kg).

#### ▲ WARNING

Never exceed the weight limit of your ebike. Overloading may void the warranty and cause the ebike or ebike parts failure or loss of control, and result in serious injury or death.

# TROUBLESHOOTING

Troubleshooting	40
Error Code	42

# Troubleshooting

roblem	Most Common Solutions
bike does not work (No power):	
Insufficient battery power	Charge the battery
Faulty connections	Clean and repair the connectors
Improper turn on sequence	Turn on the ebike with proper sequence
Battery non-functional	Contact us through help@velotricbike.com

#### Ebike rocks back and forth:

Wobble fork	Adjust the fork
Gap between stem and stem spacer	Close up the gap
Gap between lower end of head tube & front fork	Close up the gap

#### Irregular acceleration and/or reduced top speed:

Insufficient battery power	Charge the battery or contact us through
	help@velotricbike.com

#### Motor does not respond when the ebike is powered on:

Insufficient battery power	Charge the battery
Brakes are applied	Disengage the brakes
Loose wiring	Reconnect or replace the wiring
Loose or damaged motor plug wire	Secure or replace the motor plug wire
Motor damaged	Replace the motor
Controller damaged	Replace the controller
PAS sensor damaged	Replace PAS the sensor

#### Reduced range:

Low tire pressure	Inflate tires to PSI stamped on sidewall
Low battery	Charge the battery

Driving with too many hills, headwind, braking, or excessive load	Assist with pedals or adjust route
Battery discharged for long period without regular charges	Recharge the battery. If range decline persists, contact us through <i>help@velotricbike.com</i>
Brakes rubbing	Adjust the brakes
Faulty, damaged, or aged battery	Replace the battery

#### Battery will not charge:

Charger not well connected	Adjust the connections
Charger damaged	Replace the charger
Battery damaged	Replace the battery
Wiring damaged	Replace the wiring
Battery non-functional	Replace the battery
Battery overdischarged	Replace the battery
Ambient temperature below 41°F (5°C) or above 104°F (40°C)	Keep the battery in an environment with an ambient temperature of 50°F to 77°F (10°C to 25°C) for at least 1 hour

#### Wheel or motor makes strange noises:

Loose motor cable connection	Reconnect the cable
Damaged wheel spokes or rim	Repair or replace the wheel spokes or rim
Damaged motor wiring	Replace the motor

#### Charger indicator flashes red while charging:

Charging abnormality	Unplug the charger and contact us through
	help@velotricbike.com

#### Front/rear light cannot be illuminated:

Damaged light	Replace the light
Damaged controller	Replace the controller
Damaged Remote	Replace the Remote (PAS control panel)

OR you can contact us through <u>help@velotric.bike.com</u> and we will get you back as soon as possible.

# **Error Code**

Your Velotric eBike is equipped with an error detection system integrated into the display and controller. In the case of an electronic control system fault, an error code should display. If your ebike has an error code displayed at any time, it is recommended that you cease operation and contact us through help@velotricbike.com immediately. You can also scan the QR code to find more information about the error code.

Note The error code will disappear when the error is solved.



# STORAGE & MAINTENANCE

Maintenance	44
Storage	46
Cleaning	47
Parking	48

# Maintenance

Regular maintenance is important to your safety and the longevity of your ebike. Any part of a poorly maintained ebike can break or malfunction leading to an accident. Velotric strongly recommends that you follow a regular maintenance schedule based on normal use. If you ride your ebike more than the time indicated, perform maintenance more frequently than recommended. If a part malfunctions, check and service it immediately, or seek help from a qualified mechanic. If a part has worn or damaged, replace it before the next time you ride the ebike.

Read and understand the recommendations and the recommended service schedule below.

#### Basics

- Always store the ebike in a clean dry place to avoid rust and damage to the battery.
- If storing your battery for long periods, follow the recommendations in "Battery Storage".
- Clean the frame of the ebike with a damp cloth and mild non-corrosive cleaner. For more detailed information, refer to "Cleaning".
- Do not submerge the ebike in water as the electrical system may be damaged. Be sure to store the ebike under shelter and avoid leaving it out in the rain. For more detailed information, refer to "Storage".

# WARNING

- Water damage and corrosion are not covered under warranty.
- Ensure that the tires of the ebike are always inflated to a pressure within the recommended range printed on the tire sidewall.
- Ensure that all components of the ebike are in good working condition before each ride. For more detailed information, refer to <u>"Before Every</u> Ride".
- Service the ebike at regular intervals. For more detailed information, refer to <u>"Recommended Service Schedule"</u>.

# ▲ CAUTION

- Storage at temperatures above 77°F (25°C) can decrease battery health and overall lifespan.
  - Improper storage and/or long-term neglect of the battery can cause decreased capacity and defects and may void the battery warranty.
- Do not open the battery housing. Otherwise, it can result in damage to the battery or cause serious injury and/or death, and voids the warranty.

#### **Recommended Service Schedule**

#### Weekly

- Inspect Inspect the fasteners for proper torque.
  - Inspect the drivetrain for proper alignment and function (including chain, cassette, chainset, and derailleur).
  - Inspect the wheel trueness and inspect for quiet wheel operation on (without spoke noise).
  - Inspect the condition of frame and its welds for damage.
  - Inspect and test the brake pads.
  - Inspect the tire pressure.
- Service Clean the frame with damp cloth and mild soap as needed.
  - Clean and lubricate the chain.
  - Turn barrel adjuster(s) to tighten derailleur/brake cables if needed.
- Replace Replace any worn or damaged components.

#### Monthly

- Inspect Inspect the brake pad alignment and brake cable tension.
  - Inspect shifting.
  - Inspect the chain stretch.
  - Inspect the brake and shifter cables for corrosion or fraying.
  - Inspect the rims and check spoke tension.
  - Tighten any attached accessories (i.e. fenders, racks, reflectors) that may interfere with spokes or the drivetrain.
- Service Lubricate the front fork and brakes.
  - Clean and lubricate the drivetrain.
  - Clean brake and shift the cables.
  - True and tension wheels if any loose spokes are identified.
- Replace Replace the brake and shift cables if necessary.
  - Replace the brake pads if necessary.

#### Every 6 Months

- Inspect Inspect the drivetrain (chain, chainset, cassette, and derailleur).
  Inspect all the cables and housings.
- Service Standard tuneup by a qualified mechanic is recommended. Grease the bottom bracket.
- Replace Replace the brake pads if worn.
  - Replace the tires if worn.
  - Replace the cables and housings if necessary.

# Storage

## **General Storage**

- Keep the ebike stored in a clean, dry, and ventilated environment with an ambient temperature of 50°F to 77°F (10°C to 25°C).
- Keep the ebike stored indoors protected from direct sunlight, high temperature, and water.
- Ensure that the ebike is properly locked up to reduce risk of theft.

# ▲ CAUTION

- Snow, rain, road salts, and acids can cause certain parts of the ebike to corrode or deteriorate.
- Ultraviolet light from the sun can fade the paint and can cause rubber or plastic parts to become porous or to crack.
- Exposure to excessively high or low temperatures during storage can cause temporary malfunctions or even permanent defects.
- Storing your ebike in direct sunlight can cause damage to the display.
- Water damage and corrosion are not covered under warranty.

# Winter Storage

When winter weather strikes and temperatures plummet, you need to take a few extra precautions to ensure that your ebike is properly protected from the elements.

To keep your ebike and battery safe during the winter, keep in mind:

#### Velotric batteries have Low Temperature Protection Mode.

When the ambient temperature is below  $32^{\circ}F$  (0°C), your Velotric ebike battery will go into Low Temperature Protection Mode, and the battery will no longer charge. This keeps your battery safe even in below-freezing temperatures.

To exit Low Temperature Protection Mode, keep your ebike in a warm environment for at least 1 hour. This mode will be off when the battery temperature reaches  $50^{\circ}F$  ( $10^{\circ}C$ ).

## **Battery Storage**

The ebike battery is the most sensitive component of an ebike and requires additional caution when it comes to storage. Follow the instructions below to maintain the health and longevity of the battery.

- Keep the battery away from water, corrosive materials, and heat sources.
- Do not store the battery with the charger connected or on the ebike.
- Keep the battery stored in a clean, dry, and ventilated environment with an ambient temperature of 50°F to 77°F (10°C to 25°C).
- Keep the battery out of the reach of children and animals.
- Do not lean on, stack anything on top of, or hang anything from the battery.

- Do not expose the battery or battery charger to harsh chemicals or vapors.
- ▲ WARNING
  - Overheating of the battery could result in electrical fires or explosions. Always store the battery and charger in a well-ventilated area at moderate temperatures.
- Check regularly and keep the battery charged at a capacity of 60% to 80% during long-term storage.
- Recharge the battery when its capacity has dropped below 60%.
- With dielectric oil applied to the connector ends to repel moisture, the risk of corrosion decreases.
- Do not expose the battery or the charger to shocks such as falling.

# Cleaning

- Wipe any dirty painted or plastic parts with a soft, damp cloth and neutral cleaners. Carefully dry the parts with a clean, soft, and dry cloth after cleaning.
- Wipe the surface of the display with a soft cloth dampened with clean water. Do not use any cleaners or spray liquids on the surface of the display.
- CAUTION
- Do not wash your ebike with water, as water may enter the electrical system, resulting in personal injury or malfunction of the ebike.
- Do not grease or use a greasy cloth to wipe down the electrical connectors, brake pads, wheels, tires, or plastic parts.
- Do not use a pressure washer as this can force water into the electrical components.
- Do not use harsh cleaners to wash the components, which may cause materials to deteriorate, change color, distort, scratch, and so on.

# Parking

The ebike is heavier than bicycles without motor support and improper parking may result in tipover, serious injury or death. Follow the instructions below when parking the ebike.

- Park in accordance with local rules and regulations, especially in a public place.
- Park indoors whenever possible. If you have to park outdoors, do not leave the ebike unsheltered in rainy or wet conditions for an extended period of time and move the ebike to a dry place soon afterwards until it dries out. When any ebike is exposed to wet conditions, a more frequent maintenance schedule is needed to prevent rust and corrosion and to ensure all systems work safely.
- Avoid parking or storing your ebike in direct sunlight, which can cause damage to the display.
- Do not park or store your ebike in excessive heat, such as inside a parked car on a hot day. Always store your ebike within this temperature range: -4°F to 140°F (-20°C to 60°C).
- Park the ebike where an electric socket is available, if possible.
- Keep the ebike parked in a safe area away from children, animals, and vehicles.
- Keep the ebike parked on a level surface so it won't tip over.
- Keep the ebike away from water, corrosive materials, and heat sources.

# **SUPPORT INFO**

For additional support, contact the Velotric technical support team through <u>help@velotricbike.com</u>. Please include the following information when contacting Velotric.

- Owner name
- Contact information
- Order number
- Purchase channel
- Product model
- Frame number (bottom bracket)
- Brief description of the issue

# WARRANTY POLICY

Limited Warranty Terms	52
This Limited Warranty Does Not Cover	52

# **Limited Warranty Terms**

All Velopower, Inc. ebikes (the "ebike"), and their individual Covered Components (as defined herein), are protected against all manufacturing defects in material or workmanship for two (2) year after receipt of the ebike by the customer (the "Warranty Period"). This Limited Warranty is only applicable to United States ebike purchases (purchases in Canada and the European Union shall be subject to their respective warranty terms) and in accordance with the following terms:

- Only the first owner(original purchaser) of an ebike purchased from Velopower, Inc.'s online or physical storefront is covered by this Limited Warranty. Please note that bikes purchased from authorized dealers are covered by the warranty provided by the respective dealer. The Warranty Period begins upon your receipt of the ebike and shall end immediately upon the end of the Warranty Period or any sale or transfer of the ebike to another person, and under no circumstances shall the Limited Warranty apply to any subsequent owner or other transferee of the ebike.
- The Limited Warranty is expressly limited to the replacement of a defective lithium ion battery, frame, forks, battery, motor, motor controller, display, throttle, brake, front light, rear light and charger (each a "Covered Component").
- The Covered Components are warranted defect-free in materials and/or workmanship during their respective Warranty Periods as detailed in the official website's Warranty Policy.

# **This Limited Warranty Does Not Cover**

- Normal wear and tear of any Covered Component (as mentioned above).
- Consumables or normal wear and tear parts (including without limitation tires, tubes, brake pads, cables and housing, grips, chain and spokes).
- Any damage or defects to Covered Components resulting from failure to follow instructions in the ebike owner's manual, acts of God, accident, misuse, neglect, abuse, commercial use, alterations, modification, improper assembly, installation of parts or accessories not originally intended or compatible with the ebike as sold, operator error, water damage, extreme riding, stunt riding, or improper maintenance.
- For the avoidance of doubt, Velopower, Inc. will not be liable and/or responsible for any damage caused by use, speed unlock, hardware or software modifications, failure or loss caused by any unauthorized service or use of unauthorized parts.
- The Battery is not warranted from damage resulting from power surges, use of an improper charger, improper maintenance or other such misuse, normal wear or water damage.
- Any products sold by Velopower, Inc. that is not an ebike.

Damage to a Covered Component during shipping is not covered by this Limited Warranty. DETERMINING WHETHER DAMAGE OR DEFECT TO AN EBIKE OR COVERED COMPONENT IS PROTECTED BY THIS LIMITED WARRANTY SHALL BE IN THE SOLE DISCRETION OF VELOPOWER, INC.

# TECHNICAL SPECIFICATIONS

Electronics	56
Ebike Components	56
Range/Speed/Weights	57

# Electronics

Model	Velotric T1 ST	
Battery	BTVN6003 36V 9.8Ah 352.8Wh Li-ion Battery	
Charger	BC266420200 42V 2A	
Controller	36V 15A FOC Control	
Display	1.8" Full color , High brightness, Bluetooth, Adjustable angle	
Hub Motor	36V 350W BLDC motor Max Torque: 45 Nm	
Front Light	6V 3W Velotric LED front light 45 lux	
Rear Light	Brake highlight	
Pedal Assist	5 Pedal Assist Levels	
Wiring	IPX6	

# **Ebike Components**

Model	Velotric T1 ST	
Brake Calipers	Hydraulic disc brakes	
Brake Levers	Aluminum alloy, with adjustable reach	
Tires	700C x 40C, puncture-resistant liner	
Brake Rotors	160 mm front and rear	
Chain	KMC-Z8.3	
Derailleur	Shimano RD-M310, 8-speed	
Fender	N/O	
Fork	6061 Aluminum alloy	
Frame	6061 Aluminum alloy	
Freewheel	8-speed, 11-32T	
Gearing	1 x 8-speed	
Grips	Velotric ergonomic comfort grips	
Handlebar	Aluminum alloy, 31.8 mm, 660 mm wide	
Stem	Adjustable, Aluminum Alloy,	
Seatpost	Aluminum Alloy, φ30.9mm, 350mm	
Pedals	PP pedals	

# Range/Speed/Weights

Model	Velotric T1 ST
Pedal Assist Range	52 miles
Max. Speed for Pedal Assisted	20 mph
Max. Load	330 lbs
Weights	(S) 37 lbs, (M)39 lbs

# VELOTRIC

# Contact

Website: www.velotricbike.com

E-mail: help@velotricbike.com