

eTc Cruiser

User Manual

Introduction	2
Before You Ride	3
E-Trike Support	3
E-Trike Warranty	3
Handlebar Adjustment and Configuration	7
Left Side Handlebar Controls	9
Right Side Handlebar Controls	10
LCD Display	11
Parking Brake Locks	12
Battery Installation and Charging	13
Charging Instructions	13
Taking the Battery on and off the Trike	14
Operating Instructions	15
Riding Tips	16
Service and Maintenance	16
LCD Error Codes	19





Please use this product according to the instructions. All applicable rules and regulations for operation of an e-bike or bicycle apply to this e-trike. You must obey all road rules and regulations for your local government while operating this pedal assist electric tricycle.

Introduction

Dear customer,

Before using this e-trike please take time to read this manual.

It is the Owner's responsibility to carefully read all the contents of this manual and to comply with all laws pertaining to the safe operation of bicycles and/or electric bicycles in your local jurisdiction. Failure to follow the guidelines in this manual may cause injury or damage to your e-trike and void any warranty.

Please take a moment to record the following information.

Your Trike Details		
Frame Serial Number		
Front Battery Serial Number		
Rear Battery Serial Number		
Date of Purchase		
Order Number		

CAUTION: Fully charge the batteries for first use

September 2023



Before You Ride

Before you head out, it's important to make sure that your trike is ready to ride. Always check your battery, major bolts, especially on the rear axle, plus brakes, quick release bolts for seat and wheels as well as tire pressure.

E-Trike Support

Our e-trikes use standard bike components, so service and maintenance is straight forward. This includes but is not limited to, Shimano Gears, Tektro, Bengal brakes, Kenda Tires, Bafang Motors, Samsung and Panasonic Lithium-Ion Batteries.

General maintenance for the most part is the same as any normal e-bike and most competent bike shops will be able to help you with this.

If you have a warranty question or issue with your trike within the warranty period of purchase, please visit https://etrikescanada.com/pages/customer-help-desk and open a support ticket.

Please note we do not offer telephone support without a support ticket linked to a valid Order ID. Our ticketing system allows for any issues to be documented and tracked.

E-Trike Warranty

While all of our e-trikes go through quality assurance and testing both during manufacture and assembly prior to shipping from Canada, occasionally components may malfunction, break, or not work as intended.

Your e-trike is covered by a 12-month manufacturers warranty which covers major components for defects not caused by riding. These include the battery, motor, LCD, controller, and frame. Unless otherwise specified, ex-demo and showroom models do not come with any warranty.

Standard wear and tear parts like tires, tubes, nuts and bolts, chains, brake cables or hydraulics, bearings, disc brake wear are not covered by warranty.

For full warranty details visit https://etrikescanada.com/pages/terms-conditions



- 1. These electric trikes are not classified as motor vehicles; however, to drive them on the roads, various provinces have differing laws.
- 2. We have worked hard to provide you with a quality product, well designed, and without defects. You too have a part to play with proper care, maintenance, and attention to bicycle safety rules, your e-trike will give you years of enjoyment.
- 3. Do not ride this tricycle until you have read and thoroughly understand the owner's manual. It contains information critical to your safety. If you have questions about the operation of this electric tricycle, consult your authorized dealer. It is extremely important that you follow the safety guidelines contained in this manual to ensure your maximum safety. If you loan your e-trike to anyone, make sure they also know how to operate it safely.
- 4. When using, do not exceed the maximum user weight of 150 kgs (330 lbs.) and please be aware of increased braking distances during inclement weather conditions.
- 5. Do not ride through excessive water or puddles deep enough to submerge the motor, controller, or any electronics as this will cause short circuiting and damage to the electric apparatus. Damage caused by the water is not covered by the warranty.
- 6. The exposed metal contacts on the battery box are both positive and negative; therefore, do not touch at the same time with wet hands.

We recommend service and maintenance by a professional technician at a local bicycle shop. All components on this e-trike are standard brand name 2-wheel bicycle components so service and maintenance are the same as any e-bike.



Safety Precautions

Safeguard your batteries to insure continued high performance. It should be recharged after each use. The normal full-cycle battery life if it is continuously discharged and re-charged is about three years or 600-800 cycles or recharges, after which the storage capacity of the battery will gradually decline. If it is not fully discharged and is recharged regularly, the service life of the battery will be at its optimum. The batteries supplied are top quality Samsung Lithium Batteries specifically designed for this vehicle.



CAUTION! Fully charge the batteries before the first use!

Failure to do this can result in decreased battery performance for the life of the bike. Fully charge the battery each time you use the bike.

- Battery performance is affected by the temperature and is generally more efficient in warmer temperatures. When the temperature drops below 0 C (32 F) the battery current may decrease by up to a third or more. Consequently, the travel range on a full charge in cold environments is much less.
- Frequent braking and starting, riding uphill, traveling against a strong wind, starting
 from a standstill, riding on rough or muddy roads, carrying more than one person
 and/or heavy loads will consume extra battery power and shorten the range. A few tips
 to prolong the battery life during these conditions are as follows:
 - Frequent Braking try to look ahead and coast rather than stop and go frequently. Riding uphill or against a stiff wind – pedal to supplement the battery power.
 - When starting from a standstill use the pedals to help bring you up to speed.
 - When the battery meter indicates the voltage is low, switch to manual power and avoid using the battery so you don't shorten the battery life.
- If the battery is being stored make sure it is in a clean dry space not near any water or heat source, remove the battery from the bicycle and recharge it every month.





CAUTION! Always turn off the power and remove the key from the battery before and during charging to prevent damage to the controller and to the batteries!

This electric tricycle can be used in the light rain and snow, however, it must not be submerged in water or puddles or ridden in excessively rainy weather - the controller, motor and other electrical devices may be short circuited and malfunction as a result. Damage caused by water is NOT covered by the warranty.



DO NOT use chargers or other components that have not been approved and tested by eTrikes Canada. eTrikes Canada is not responsible for damage caused by the use of other products not specifically designed and tested for use with this electric bike. Use if a charger other than the original supplied will void warranty.

Battery Chargers contain sensitive electronics. Improper use, dropping, or sudden jolts can damage the charger and its internal components.



CAUTION! Do NOT use an air compressor to inflate the tires, instead use a hand pump. Tires should not be inflated to more than 25PSI, while the manufacturers rating for the tires is 30PSI this it not recommended as it can cause tires to un-seat from the rim in some circumstances.



Handlebar Adjustment and Configuration



CAUTION! For safety reasons, all bolts must be checked for tightness before every ride!

Failure to do so could result in serious and/or fatal injuries

Tools Required: 5mm Allen-Key

To adjust the tilt position of the bars, pull the lock button down (See Photo A #1) and lift the lever (See Photo A #2) to unlock the handlebar.

Adjust the handlebars to the desired position and push the lever down to lock in place. If the handlebars are still loose when the lever is in its locked position, repeat steps #1 and #2 above and use a 5mm Allen-key to tighten the centre bolt then re-lock the lever (See Photo B #1). Repeat as necessary until the handlebars do not move when locked. Be sure to test everything is tight before riding.



Photo A





Photo A – Handlebar Lock Lever in Open and Unlocked Position



Photo B



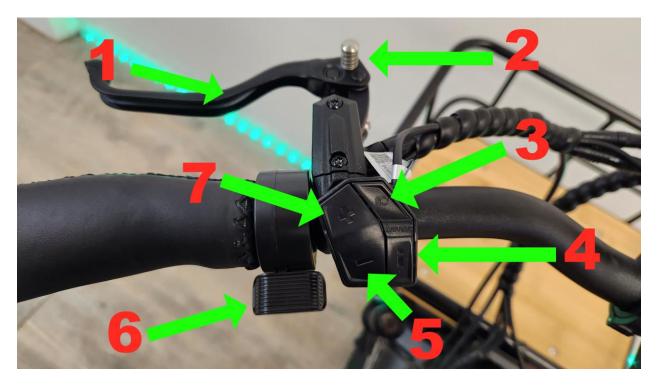


Photo C

Left Side Handlebar Controls

- 1. Front Brake Lever
- 2. Front Brake Lever Lock (squeeze lever, press silver button down and release lever to lock, squeeze lever again to release. Parking Brakes are NOT to be used while riding the trike.
- 3. Lights. When LCD is ON, press and hold to turn lights on, press and hold again to turn off.
- 4. Info button, toggle through different LCD displays.
- 5. Decrease Pedal Assist Levels (1 is lowest power, 5 is highest, current PAS level is shown on the LCD screen (Photo E)
- 6. Thumb Throttle *
- 7. Increase Pedal Assist Levels (1 is lowest power, 5 is highest, current PAS level is shown on the LCD screen (Photo E)

*NOTE: This is a Pedal Assist Trike and is meant to be operated using both pedal power and motor assist. Due to the weight of the trike and rider it is not meant to be operated using only the throttle, especially on challenging terrain, inclines, and hills.



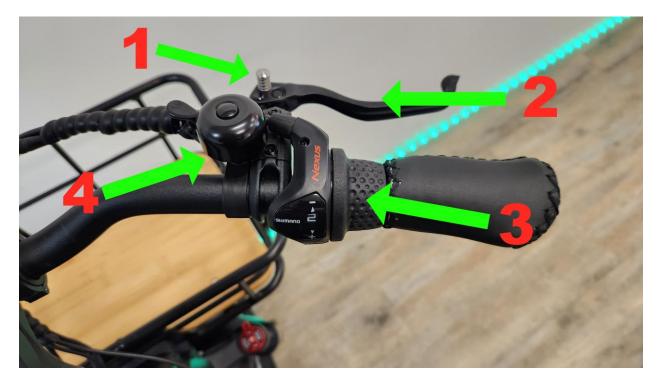


Photo D

Right Side Handlebar Controls

- 1. Rear Brake Lever Lock (squeeze lever, press silver button down and release lever to lock, squeeze lever again to release. Parking Brakes are NOT to be used while riding the trike.
- 2. Rear Brake Lever
- 3. Shimano Nexus Gears twist to increase or decrease the normal bicycle gears. 1 is lowest gear (easiest to pedal), 3 is highest gear (hardest to pedal)
- 4. Bell, flip lever down and quickly release.





Photo E

LCD Display

- 1. Indicator Icons Lights, USB, Service
- 2. Current Speed
- 3. Pedal Assist Level (5 levels, 1 is lowest motor power, 5 is highest motor power)
- 4. Power Button (press and hold to turn on, press and hold again to turn off)
- 5. Battery Charge Level
- 6. Trip Distance (Photo C #4 use the "I" button to cycle through different trip display metrics)





Photo F

Parking Brake Locks

Both brake levers have a parking brake feature allowing you to lock them in place when you are not riding the trike. These do not work when you are riding. Squeeze the brake lever to fully apply the brakes (Photo F #2) and then push the silver button down (Photo F #1). While holding the silver button down release the brake lever to lock. The button should stay in the down position.

To release the parking brakes, squeeze the brake levers again and the button will pop up automatically, releasing the brakes.



Battery Installation and Charging



CAUTION! Do not leave the battery plugged in and charging while unattended or overnight / extended periods. The charger should always be disconnected once the batteries are charged!

Failure to do so could result in damage to the battery and even risk of fire

Charging Instructions

- 1. Out of the box, the battery is only semi-charged. Charge to its full capacity before first use.
- 2. For the first three charges, charge the battery for at least 8 hours,
- 3. Put the charger into charging socket of the battery. Insert the 240v plug end of the plug into a standard wall outlet. The power is on when the indicator lamp of the charger is on. It is charging when the indicator light is red.
- 5. When the light turns from red to green, the battery is fully charged.
- 6. After the green light is on, the charger is in "trickle charge" and will charge slowly and maintain the charge.

The batteries can be removed from the trike and charged indoors, or they can be plugged into the charger will still on the trike.

CAUTION

- 1. Please ensure the e-trike power switch is off and the key has been removed before charging.
- 2. This charger is recommended for INDOOR use only.
- 3. When charging, please try to place out of reach of children.
- 4. Charger repairs should be carried out by a qualified technician Do Not Attempt to Repair Yourself.
- 5. Do not touch the two electrodes on the battery by hand.
- 6. When the bike is not in use, charging the battery is still recommend at least once every month; for a minimum of two hours each time.
- 7. Do not use non eTrikes Canada tested and recommended chargers this will void your Warranty.
- 8. Only use this charger in a dry, clean, well-ventilated environment out of direct sunlight.
- 9. Do not shake or hit the battery violently.
- 10. Do Not Open the battery casing this will void your Warranty.



Taking the Battery on and off the Trike

This battery installs top first and removes bottom first.



Photo G



Photo H

- 1. Turn the key clockwise to the Unlock position (Photo G #1)
- 2. Turn the lock lever on the battery either direction (Photo G #2)
- 3. Carefully lift the battery bottom first from the frame (Photo H)
- 4. To mount the battery back in the frame, install the top first then push the bottom firmly in place until it locks. Turn the key counterclockwise to the Locked position to securely lock the battery.



NOTE: It is recommended that you remove the keys before riding so that they do not get bumped or lost during riding

Operating Instructions

With the battery charged and installed, follow the steps below to use your trike

LCD User Manual: Please visit our website FAQ page under the Manuals and LCD Error Codes section for a full operation guide for the LCD screen: https://etrikescanada.com/pages/frequently-asked-questions

Powering Up: press and hold the silver power button on the lower middle of the LCD screen until the LCD screen powers up. (Photo E #4)

Set the appropriate PAS level (1-5, Level 1 = Approximately 20% power, Level 2 40%, Level 3 60%, Level 4 80% and Level 5 100%) The higher the PAS level, the more power the motor will put out.

To use the Pedal Assist feature, set the PAS level to at least 1 and start pedaling. The motor will automatically kick in as required.

IMPORTANT: The motor will cut out whenever you stop pedaling, apply the brakes or your speed reaches 32 kmh.

Throttle: The throttle is on the left-hand side of the handlebars. To use, simply press the thumb lever down while seated on the trike. When the lever is pressed the motor will assist you to the maximum speed set in Level 5. Release the thumb lever to disengage the throttle.

Brakes: The left brake lever controls the front disc brake, the right brake lever controls both rear disc brakes. There is also a Parking Brake feature on each lever. When not in use you can lock the brakes to prevent the trike from moving unintentionally.

Changing PAS and Gears

Whenever you change the Pedal Assist levels it is strongly recommended you stop pedaling and release the throttle if in use while the gear changes happen. Failing to do so may cause for a noisy and rough gear transition. Do NOT use the throttle while changing gears or applying the brakes or this may damage the system!

There is an automatic SHUT OFF circuit for the throttle on both brake levers. Every time the brake levers are applied, the power to the motor is shut off.

Maximum Load: The maximum load for this trike is 150 Kg (330 lbs)



Riding Tips

- 1. Before riding, check to make sure the battery is fully charged, that the air pressure in the tires is normal, and make sure the front and back brakes are working properly. Check the tightness of the front and back wheel, handlebar and that the front and rear bench seats are fastened tightly enough.
- 2. When climbing steep hills, a certain amount of pedaling is advisable so as not to drain the battery power too quickly.
- 3. It's a good idea to remove the battery keys when leaving the bike unattended. If leaving unattended for an extended period you should remove the batteries and seat, storing them in a safe place to make your e-trike less appealing for someone to try and steal it.
- 4. We always recommend the wearing of safety helmets whilst riding this e-trike.
- 5. Obey all traffic laws relevant to the operation of bicycles and electric bicycles.
- 6. Only two people at a time are permitted to ride this e-trike.
- 7. This e-trike is for use on public roads, cycle paths, hard packed gravel, and pavement only you should always try to avoid 'Off Roading', uneven and rough terrain.
- 8. Please avoid deep puddles, standing water, loose gravel, dirt, wet grass, or soft ground.
- 9. Always keep both hands on the handlebars.
- 10. DO NOT hang objects on or under the handlebars.
- 11. DO NOT brake suddenly in the rain, snow or on slippery wet surfaces.
- 1. USE extreme caution when near other vehicles. Assume they do not see you and be careful at intersections and when starting from a stopped position.
- 12. Wear bright clothing to help make you visible to other motor vehicles.
- 13. Do not wear loose clothing that can become caught on the bicycle.

Service and Maintenance

All our trikes us standard, brand name two-wheel bicycle components. Service and maintenance are the same as any traditional 2-wheel ebike and can be done by any competent bicycle shop.

We carry spare parts for all major components in the event anything needs replacing.

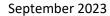
We do not offer telephone support. If you have an issue with your trike that can not be investigated by your local bike shop please visit our website and open a Support Ticket to ensure your issue is documented and addressed in a timely fashion: https://etrikescanada.com/pages/customer-help-desk

• Wheels: Wheels should be centred in the fork or dropouts. If you hear any irregular noise from the wheels or brakes, the wheels should be checked and repaired. Regularly check the spokes of the wheels for tightness and rim alignment. The wheels should rotate smoothly without wobbling from side to side. Check the bearing play of the hubs by lifting the bicycle and spinning



the wheel. It should continue to spin for several turns after you stop spinning. To check the play of the hubs, try to move the rim from side to side between the forks. No substantial play should exist. If you detect play or if the wheel is difficult to turn, the bearings must be adjusted or replaced. Please contact a local bicycle dealer, to have the hub bearings adjusted for new bearings.

- **Rims**: The rims should be smooth and without cracks, breaks or bulges.
- **Spokes**: Check the tension of the spokes regularly. About the same tension should be on all the spokes. If there is some minor loosening of the spokes, you may tighten the nipples, but it is recommended that you take it to a bicycle shop. If there are loose spokes or if the rim has side play of more than 4mm, immediately have the wheel trued by a bicycle engineer. Riding with loose spokes may cause the wheel to fail!
- Tires: Inflate your tires to the pressure embossed on the sidewall before use of your new e-trike. It is recommended that the tire pressure for your Electric Trike be at least 25 psi. When filling your tires do NOT use an air compressor, instead use a manual tire pump. Filling too quickly or over-inflating may cause the tires to release from the rim. If this happens, let out some air, push the tire back onto the rim and fill slowly. Every time you ride, make sure the tires are inflated according to the pressure on the sidewall. Improper tire pressure will make riding more difficult, cause excessive ware, and premature failure of the tire. The tire should be properly seated in the rim and the fitting of the tire bead and rim bead should be checked. If the tube is pinched between the rim and the tire, it will fail when inflated. Make sure that the tire is not cracked or worn unevenly. Check for bulges. Check and make sure that the valve stem is straight in the rim. Irregular tires should be replaced immediately.
- Handlebar and Display: We have created the handlebar display so that you can easily see it
 while riding, you can change the position of the LCD to suit your needs by loosening the
 mounting arms and tilting it to the desired position before re-tightening the bolts. Loose or
 damaged grips on your handlebars are dangerous! If your grip comes off, you could lose control
 of your bicycle.
- Brakes: Riding with brakes that are worn or damaged, or with worn cables, low hydraulic
 pressure or wheels in poor condition may result in losing control of your e-trike. Wet and cold
 weather hinders the brake performance. You need more distance to safely stop in the rain or in
 a wet or icy conditions. Before each ride, check to make sure your brake cables are free of
 obstacles, and are working properly before operating your vehicles. This trike uses mineral oil
 hydraulic disc brakes, this oil will need replacing over time and should be checked regularly
 before riding.





- **Batteries**: There is a locking key to lock your battery onto the trike frame to discourage theft. Do attempt to open any of these batteries in any way or you will void their warranty and increase the risk of fire or explosion.
- Lubricating the front axle, rear-axle once every three months. Oil the trike chain and check hydraulic brake fluid at least once every month.



LCD Error Codes

Code	Description	Troubleshooting	
04	Throttle fault	 Check the connector and cable of the throttle for damage and that they are correctly connected. Disconnect and re-connect the throttle. If it still does not work replace throttle. 	
05	The throttle is not back in its correct position	Check the connector from the throttle is correctly connected. If this does not solve the problem, replace the throttle.	
07	Overvoltage protection	 Remove and re-insert the battery to see if it resolves the problem. Using the BESST tool update the controller. Change the battery to resolve the problem. 	
08	Error with the hall sensor signal inside the motor	 Check all connectors from the motor are correctly connected. If the problem still occurs, please change the motor. 	
09	Error with the Engine phase's	Please change the motor	
10	The temperature inside the engine has reached its maximum protection value	 Turn off the system and allow the Pedelec to cool down. If the problem still occurs, please change the motor. 	
11	The temperature sensor inside the motor has an error	Please change the motor	
12	Error with the current sensor in the controller.	Please change the controller	
13	Error with the temperature sensor inside of the battery	 Check all connectors from the battery are correctly connected to the motor. If the problem still occurs, please change the Battery. 	



	1		
14	The protection temperature inside the controller has reached its maximum protection value		Allow the Pedelec to cool down and restart the system. If the problem still occurs, please change the controller.
15	Error with the temperature sensor inside the controller		Allow the Pedelec to cool down and restart the system. If the problem still occurs, please change the controller.
21	Speed Sensor Error	 3. 4. 5. 	Restart the system. Check that the magnet attached to the spoke is aligned with the speed sensor and that the distance is between 10 mm and 20 mm. Check that the speed sensor connector is connected correctly. Connect the Pedelec to BESST, to see if there is a signal from the speed sensor. Using the BESST Tool- update the controller to see if it resolves the problem. Change the speed sensor to see if this eliminates the problem. If the problem still occurs, please change the controller.
25	Torque Signal Error		Check that all connections are connected correctly. Please connect the Pedelec to the BESST system to see if torque can be read by the BESST tool. Using the BESST Tool update the controller to see if it resolves the problem, if not please change the torque sensor.



26	Speed Signal of the Torque Sensor has an error	 Check that all connections are connected correctly. Please connect the Pedelec to the BESST system to see if speed signal can be read by the BESST tool. Change the Display to see if the problem is solved. Using the BESST Tool update the controller to see if it resolves the problem, if not please change the torque sensor. 	
27	Overcurrent from controller	Using the BESST tool update the controller. If the problem still occurs, please change the controller.	
30	Communication problem	 Check all connections on the Pedelec are correctly connected. Using the BESST Tool run a diagnostics test, to see if it can pinpoint the problem. Change the display to see if the problem is solved. Change the EB-BUS cable to see if it resolves the problem. Using the BESST tool, re-update the controller software. If the problem still occurs, please change the controller. 	
33	Brake signal has an error (if brake sensors are installed)	 Check all connectors are correctly connected on the brakes. Change the brakes to see if the problem is solved. If problem continues, please change the controller. 	
35	Detection circuit for 15V has an error	Using the BESST tool, update the controller to see if this resolves the problem. If not, please change the controller.	
36	Detection circuit on the keypad has an error	Using the BESST tool, update the controller to see if this resolves the problem. If not, please change the controller.	



37	WDT circuit is faulty	Using the BESST tool, update the controller to see if this resolves the problem. If not, please change the controller.
41	Total voltage from battery is too high	Please change the battery
42	Total voltage from the battery is too low	Please change the battery
43	Total power from the battery is too high	Please change the battery
44	Voltage of a single battery cell is too high	Please change the battery
45	Temperature from the battery is too high	Please let the Pedelec cool down. If the problem still occurs, please change the battery
46	The temperature of the battery is too low	Please bring the battery to room temperature. If the problem still occurs, please change the battery
47	SOC of the battery is too high	Please change the battery
48	SOC of the battery is too low	Please change the battery
61	Switching detection defect	 Check the gear shifter is not jammed. Please change the gear shifter
62	Electronic derailleur cannot release	Please change the derailleur
71	Electronic lock is jammed	 Using the BESST tool update the Display to see if it resolves the problem. Change the display if the problem still occurs, please change the electronic lock.
81	Bluetooth module has an error	Using the BESST tool, re-update the software onto the LCD display to see if this resolves the problem. If not please change the LCD display