Owner's manual

ELECTRIC BICYCLE

hyena
SMART E-BIKE SYSTEMS

E-bike assist system
20 mph (throttle)
28 mph (pedal assist)

TREK

FX+ 1 Throttle

Electra

Townie Go! Throttle

EN

⚠ IT IS IMPORTANT TO READ THE WARNINGS AND INSTRUCTIONS IN THIS MANUAL BEFORE RIDING YOUR NEW BICYCLE.

WELCOME

WELCOME TO OUR BIKE FAMILY

Thank you for purchasing your new bicycle.
We believe in bicycles. We make high quality bicycles that are built to last.
That is why each bicycle we make comes with a limited warranty.
We wish you many carefree and enjoyable rides with your new bicycle.

However, if you experience any problems with your bicycle, do not hesitate to contact your local retailer. If the problem persists, please call our customer care team for a solution (see **'Contact'** on page 42 for contact information).

TREK Electra

trekbikes.com electrabike.com

IMPORTANT TO READ BEFORE THE FIRST RIDE

Supplemental Product Information

The most important points for you to do

1. **Even if you have ridden a bicycle for years, it is important for every person to read the general "Bicycle Owner's Manual" and the specific "E-bike Owner's Manual" carefully before you ride on the new e-bike.**
   - Both manuals contain detailed information and useful suggestions about your new bicycle.
   - Make sure that you understand the proper use, maintenance, and disposal of the components of the electrical system of your new e-bike.

2. **Think about safety. Your safety and that of other road users is very important.**
   - Check your bicycle for normal operation, loose parts and defects before riding. If you find any problem, visit your authorized Trek or Electra dealer for repairs before riding.
   - Be aware that other road users (cars, trucks, motorcycles) do not expect that an e-bike can ride faster than a normal bicycle. Riding faster also increases the risk of accidents. Distances will close much faster, and braking distances will become longer.
   - Do not ride abusively. Only ride in the use conditions specified for your bicycle. Please refer to the Use conditions table in the general Bicycle Owner's Manual.

3. **The electric system of your new bicycle needs special attention.**
   - Do not clean your e-bike with a high pressure washer. Any electrical system is sensitive to moisture. High pressure water might enter connectors or other parts of the electric system.
   - Do not allow a Li-Ion battery (separately or integrated in the downtube) to suffer any mechanical or physical impacts or make any internal modifications. In an extremely rare case, a battery that has been severely impacted or otherwise mishandled could potentially catch fire. If you suspect damage to your battery, visit your local authorized Trek or Electra dealer immediately for inspection.

4. **Maintain the battery as instructed in this E-bike Owner's Manual.**
   Failure to follow these instructions may result in damage to your battery and may require battery replacement:
   - Only charge the battery with the included charger.
   - Charge the battery indoors or in a garage at room temperature to avoid exposure to rain or wind.
   - When you do not use the e-bike for an extended period of time, charge the battery to 80% to meet the optimum storage condition. Check the charge level again after six months. If the remaining charge of the battery is less than 30%, charge it again to 80%. Once charging the battery is complete, unplug the battery from the charger and unplug the charger from the wall outlet.

- Your e-bike has a built-in Li-Ion battery. Any Li-Ion battery will self-discharge over time. If the battery is left uncharged, then stored without charging, it may discharge to such a low state that the battery can no longer be charged and must be replaced.
- Store the e-bike in a dry, well-ventilated location. Protect the battery against moisture and water.
- The battery can be stored at temperatures between (minimum) -4°F (-20°C) and (maximum, for 1 month) 122°F (+50°C). For a long battery life, however, it is best to store the battery at room temperature of approximately 68°F (20°C).
  Refer to paragraph '**4.2. Technical data of the battery**' on page 8 for details.

5. **Be careful when transporting an e-bike.**
   - An e-bike is heavier than a normal bicycle. If transporting on a vehicle, be aware of the maximum load capacity of the vehicle's roof, towing hitch and/or the bicycle carrier. Refer to the manuals of the vehicle and bicycle carrier for details.
   - Always respect local laws about transportation of an e-bike.
     Because Li-Ion batteries of this size and power are considered 'Dangerous goods, class 9' when transporting, regulations may restrict the transport of separate Li-Ion batteries in some places. Before booking your trip, make sure to check ahead with your airline or carrier if it is allowed to travel with your complete e-bike.

6. **Obey local regulations.**
   In most countries the regulations for the use of an e-bike are the same as those for a standard bicycle. However, there may be local differences such as where you can ride, minimum rider age, or required equipment and registration.
   It is the rider's responsibility to know the local regulations that apply to an e-bike and to obey them.

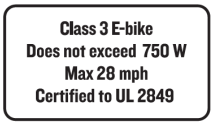
7. **Visit your authorized Trek or Electra dealer on a regular basis for maintenance of your new bicycle.**
   Your dealer has the right knowledge and equipment to maintain your e-bike.
   If you have questions about your new e-bike, ask your local authorized dealer.

Limited warranty
Your bicycle is covered by a Limited Warranty.
Please visit our website for details.

Classification

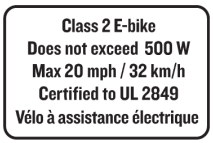
Do not ride in a manner not specified for your e-bike. This e-bike features both pedal assistance and a throttle. The laws for e-bikes, including throttle use, minimum age to operate, and laws for carrying passengers and cargo, vary by location.
It is your responsibility to know and follow the laws where you ride.

NOTE: A classification sticker on the e-bike shows the Classification of your e-bike.



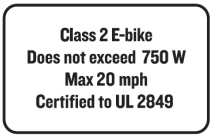
United States - Class 3

In the Unites States (except California), this e-bike can reach a maximum speed of up to 28 mph (45 km/h) under assistance while pedaling. Using the throttle alone, it can reach a maximum speed of 20 mph (32 km/h).



Canada — U.S.-designated Class 2

In Canada, this e-bike can reach a maximum speed of up to 20 mph (32 km/h) under assistance while pedaling or while using the throttle.



California — U.S.-designated Class 2

In California, this e-bike can reach a maximum speed of up to 20 mph (32 km/h) under assistance while pedaling or while using the throttle.

NOTE: If you move to or from differing markets, you can visit a local authorized Trek or Electra dealer in your new market to have the e-bike software and labeling updated to reflect the requirements in your new location.

Refer to our website for the latest revision and translations of this manual:

TREK

trekbikes.com/us/en_US/manuals

Electra

electra.trekbikes.com/us/en_US/electra-manuals

hyena
SMART E-BIKE SYSTEMS

Owner's Manual

Exclusive e-bike assist system
Trek FX+ 1 Throttle
Electra Townie Go! Throttle

Max. 20 mph (with throttle use) / max. 28 mph (pedal assisted)

Original Instruction

Version 241126

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Welcome ii
Important to read before the first ride iii
1. Introduction 1
1.1. Important notices 1
1.2. Safety instructions 2
1.3. Riding safety 2
2. Assist system Overview 4
2.1. Overview of the complete e-bike 4
2.2. Technical data of the complete e-bike 5
3. Drive Unit Instructions 6
3.1. Motor safety instructions 6
3.2. Technical data of the hub motor 6
4. Battery Handling Instructions 7
4.1. Battery safety instructions 7
4.2. Technical data of the battery 8
5. E-Bike Operation - HMI Vivid Compact 9
5.1. HMI overview 9
5.2. Technical data of the HMI 9
5.3. App Connection for additional settings and features 10
5.4. Turning the e-bike ON/OFF 12
5.5. Auto power-off 13
5.6. Unlocking the e-bike (eLock) 14
5.7. Select an assist level 15
5.8. Throttle operation 16
5.9. Battery level indicator 17
5.10. Switch sub info 19
5.11. Walk assistance 20
5.12. Turning the lights ON/OFF 21
5.13. Turn signal operation 21
5.14. Settings menu 22
5.15. Adjust screen brightness 22
5.16. Switch display units 23
5.17. Clock settings 23
5.18. Error alert 24
6. Charging Instructions 25
6.1. Charging safety instructions 25
6.2. Technical data of the charger 29
6.3. Mounting the charger to a wall (optional) 30
6.4. Charging the battery 30

7. Storage and Transportation Instructions 33
7.1. Storage 33
7.2. Charging the battery before and during storage 33
7.3. E-Bike transportation 33
8. Troubleshooting 34
8.1. System issues 34
8.2. Battery & charging issues 35
8.3. Error code table 36
8.4. Other issues 37
9. Cleaning 38
10. Disposal 39
11. Wireless compliance 40
Contact 42

1. INTRODUCTION

Thank you for choosing your new e-bike with the Hyena assist system.

We sincerely hope that you will enjoy your ride.
Please read all the safety warnings and instructions carefully before your first ride.

- This user's manual is primarily intended for the owner or rider to operate the product.
- Save this user's manual for future reference.

> ⚠ **WARNING**
> Improper use of an e-bike may result in serious injury or death. Improper use may also result in damage to components or your e-bike, and will void your warranty.
> Read, understand, and follow all of the instructions in this manual.

1.1. Important notices

- Read and observe the safety warnings and directions in all the e-bike operating instructions.
- Users who are not professionally trained in bicycle assembly should not attempt to install, disassemble, or modify components themselves.
- If you have any concerns about the operation of the e-bike assist system or its components, or if you suspect damage to the battery, visit your nearest authorized Trek or Electra dealer.
- Do not remove any safety warning labels or instructions from any e-bike assist system component.

► About Safety Symbols

- This manual includes many "**WARNING(S)**", "**CAUTION**", and "**NOTE(S)**" labels; these labels refer to the safe methods to use, maintain, store, and check your e-bike.
- When a safety warning symbol is marked with "**WARNING(S)**" text, failure to comply with the instructions may result in dangerous situations, severe injuries, or even death.
- When a safety warning symbol is marked with "**CAUTION**" text, it means failure to comply with the instructions may result in minor or moderate injury, damage to the bicycle, or the voiding of your warranty.

► About Images

- The e-bike images in this manual may differ visually from your Hyena system-equipped e-bike. All information provided in this manual is still applicable to your e-bike.

1.2. Safety instructions

Instructions Pertaining To A Risk Of Fire, Electric Shock, Or Personal Injury

⚠ WARNINGS

When using e-bikes, basic precautions should always be followed, including the following:

- Read all the instructions before operating the e-bike assist system.
- Always turn OFF the e-bike assist system when not in use and/or when working on it.
- Close supervision is necessary to reduce the risk of injury when the e-bike is used near children.
- Do not put fingers or hands into any e-bike component or touch the cable terminal with bare hands.
- Do not use the e-bike if any flexible power cord or output cable is frayed, has worn insulation, or shows any other signs of damage.
- Always check the charger, cables, and power cord for any damage before charging the battery.
- Only charge the battery using the original Trek/Electra charger delivered with your e-bike.
- Do not immerse or submerge the e-bike, the battery, or any of the electrical components in water. Exposure to water of these components might lead to a potential fire hazard.
- Do not place the e-bike or any e-bike assist system component (like the charger) near hot, flammable objects or materials.
- The e-bike assist system parts are not intended to be used at ambient temperatures below 14°F (-10°C) or above temperatures of 104°F (40°C).
- Defective e-bike assist system parts may only be replaced with identical, genuine e-bike parts supplied by Hyena, Trek, or Electra.
- A defective charger may only be replaced with the identical, original charger supplied by Trek/Electra.
- Do not modify your e-bike assist system or fit any other equipment to increase the power or maximum speed of your e-bike assist system.

1.3. Riding safety

- Make sure you are familiar with your new e-bike before riding it on public roadways or paths.
- The e-bike assist system provides electrical pedal or throttle assistance. It will help you to cycle easily. Based on your riding speed and the amount of pedaling force, the e-bike assist system will support your efforts throughout your journey.
- When riding an e-bike, make sure that you are thoroughly familiar with the starting-off characteristics of the e-bike before riding it on public roadways or paths.
- When you start riding, be prepared for the e-bike assist system to immediately provide assistance. Do not start on the fastest setting right away. Start on the low assist setting for your first few rides, and ride in a location free of obstacles and the need to turn.
- Keep your focus on the terrain ahead. Do not get distracted by the display (HMI) or personal electronics while riding. Doing this may increase the risk of being involved in an accident.
- The e-bike will ride like a regular, non-electric powered bicycle in any of the following situations: e-bike assist system is powered OFF, the assist level is set at "0", or the battery is depleted.

- Your e-bike is designed to only provide assistance up to the limits set by the regulations where you purchased your e-bike. However, it is still the rider's responsibility to ensure the e-bike is operated within the laws where it is ridden (e.g. local speed limits may be less than the maximum speed of your e-bike).

⚠ WARNINGS

Accidental activation of the assist system could cause the e-bike to accelerate unexpectedly, resulting in injury or death of the rider or bystanders.

This hazard can be avoided by understanding the following:

- When the assist system is switched ON and an assist level greater than 0 is selected, assistance is activated as soon as you start to pedal or depress the throttle button.
- Do not step on the pedal or rest your feet on the pedals until you are ready to ride. Likewise, do not rest hand or fingers on the throttle until you are ready to ride.
- You should be seated on the e-bike, with at least one of the brakes engaged, prior to stepping on the pedal or depressing the throttle. When you are ready to go, release the brake and start pedaling / depress throttle.

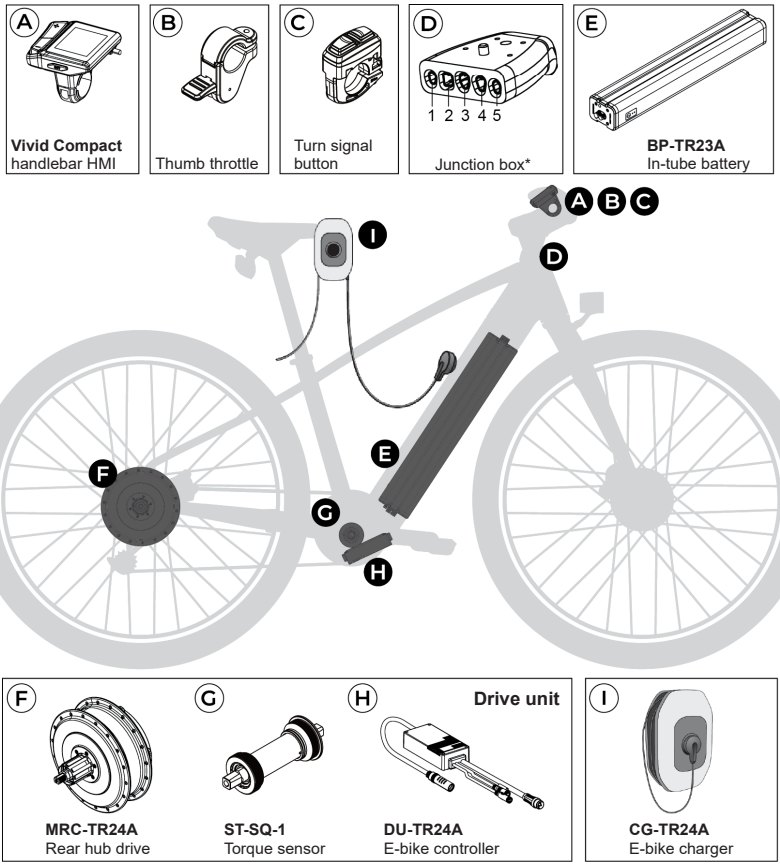
2. ASSIST SYSTEM OVERVIEW

Your e-bike features the Hyena e-bike (GEN 3) assist system, designed to enhance your riding experience.

2.1. Overview of the complete e-bike

This system includes a drive unit, battery, and control & display unit, offering:

- A silent, powerful motor performance for a seamless riding experience.
- Advanced sensing technology and bionic computing, delivering precise, natural-feeling pedal or throttle assistance.
- A user-friendly and ergonomic HMI (control & display interface), providing clear information about your e-bike's status.



*Junction box connections and connector color:

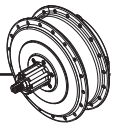
1 Brake switch right (red)	3 HMI (green)	5 Brake switch left (red)
2 Turn signal (blue)	4 Throttle (yellow)	

2.2. Technical data of the complete e-bike

Item	Specification
Trek model	FX+ 1 Throttle
Electra model	Townie Go! Throttle
Operating temperature	14°F to 104°F (-10°C to 40°C)
Storage temperature	1 month: -4°F to 122°F (-20°C to 50°C) 3 months: -4°F to 104°F (-20°C to 40°C) 1 year: -4°F to 68°F (-20°C to 20°C)
Protection rating	HMI, battery: IPX5 Rear hub drive: IP54

Refer to paragraph '**6.2. Technical data of the charger**' on page 29 for Technical data of the battery charger.

3. DRIVE UNIT INSTRUCTIONS



Your e-bike is equipped with a 500 Watt rear-wheel electric motor, which forms the hub of the rear wheel and also provides the electric riding assistance.

⚠ CAUTION
Do not dismantle the hub motor. The hub motor should only be repaired or maintained by a certified mechanic, using genuine hub motor spare parts from Hyena.

3.1. Motor safety instructions

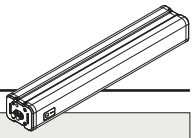
- Do not allow the motor to suffer mechanical or physical impacts or make internal modifications.
- The motor is built with components that are sealed against dust and splashed water and can safely operate in rain and other adverse weather conditions.
  However, do not deliberately immerse the rear wheel in water or clean it with pressurized water. After washing or rain exposure, ensure your e-bike has the opportunity to fully dry. Prolonged and persistent exposure to water may result in damage to the system and risk to the user.

⚠ WARNINGS
- Do not change or modify any components that are part of the bicycle drivetrain. Changing components could cause damage or overload the hub motor, and may lead to serious injury or death.
- Do not obstruct pedals, cranks, or wheels when the e-bike assist system is on, causing the motor to block. Wrong operations could cause damage or overload the hub motor, and may lead to serious injury or death.
- The motor can heat up during long uphill runs. After riding, do not touch the metal housing of the hub motor with your bare hands or legs.

3.2. Technical data of the hub motor

Item	Specification
Product model	MRC-TR24A
Rated voltage	48 V
Rated power	500 W
Max. torque at drive	60 Nm
Operating temperature	Refer to paragraph '**2.2. Technical data of the complete e-bike**' on page 5.
Storage temperature	
Protection rating	IP54
Weight (approx.)	8.8 lbs (4 kg)

4. BATTERY HANDLING INSTRUCTIONS



⚠ CAUTION

This e-bike assist system is powered by an in-tube Lithium-Ion (Li-Ion) battery. Always read and adhere to the instruction manual before handling or charging the battery or using the e-bike.

⚠ WARNINGS

- If the frame at the location of the in-tube battery or the charger port shows any signs of damage, do not use the bicycle and immediately bring it to your nearest authorized Trek or Electra dealer for inspection.
- If the downtube has signs of visible damage, stop riding the e-bike immediately. Riding the e-bike with a damaged in-tube battery could result in a fire or explosion, which may cause severe injury or death.

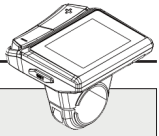
4.1. Battery safety instructions

- Do not immerse or submerge the e-bike, the battery, or any of the electrical components in water. Exposure to water of these components might lead to a potential fire hazard. If you suspect water damage to your e-bike or battery, visit your local authorized Trek or Electra dealer immediately for inspection.
- The battery needs to be handled with care. Severe physical impacts or other mechanical damage to the battery can result in malfunction and hazards to the user.
- The battery should not be opened or modified in any way. The battery is not user repairable.
- If the battery fluid leaks out due to damage or improper usage, avoid touching the leaked battery fluid. If you come in contact with battery fluid, wash your hands immediately with soap and water. If you get battery fluid in your eye, immediately flush your eye with water and seek assistance from a physician.
- While this e-bike can be used in rain, prolonged exposure to high moisture and humidity can result in damage to the battery and other components. The e-bike should therefore always be stored in a dry, well-ventilated area.
- To avoid short circuits between the battery contacts or the contacts of the charge port, it is important to keep metallic objects from coming in contact with these features. Care should be taken with keys, coins, and other metal objects when handling the battery or charger, as well as when charging the e-bike.

4.2. Technical data of the battery

Item	Specification
Product model	BP-TR23A
Capacity	10.66 Ah
Energy	520 Wh
Nominal voltage	48 VDC
Operating temperature	14°F to 104°F (-10°C to 40°C)
Storage temperature	1 month: -4°F to 122°F (-20°C to 50°C) 3 months: -4°F to 104°F (-20°C to 40°C) 1 year: -4°F to 68°F (-20°C to 20°C)
Permitted charging temperature range	32°F to 104°F (0°C to 40°C)
Charging time (approx.)	5.5 hours (empty to full)
Protection rating	IPX5
Weight (approx.)	6.5 lbs (2.95 kg)

5. E-BIKE OPERATION - HMI VIVID COMPACT



⚠ CAUTION

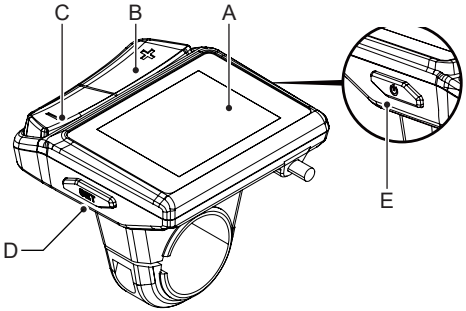
Before you ride:

- Regardless of your experience level, you must read this User Manual's chapter '**1. Introduction**' on page 1 and carry out all essential safety checks.
- The e-bike assist system can only be activated when the battery is sufficiently charged.

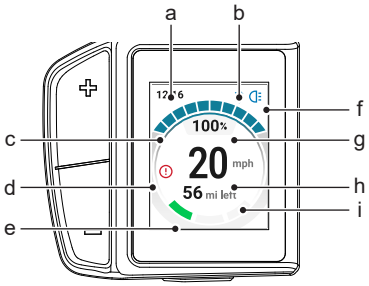
5.1. HMI overview

Control the e-bike with the Vivid Compact HMI (Trek/Electra version), including switching ON/OFF, selecting the assist level, turning the lights ON/OFF, and using the walk assistance function.

**HMI = Human Machine Interface (Controller)*



A. Display screen
B. UP button (Increase assist level and switching ON/OFF lights)
C. DOWN button (Decrease assist level and activate walk assist mode)
D. SETTING button
E. POWER ON/OFF button



a. Current time
b. Connection indicator
c. Battery level (graphic)
d. Error indicator
e. Assist level
f. Lights indicator
g. Battery level (%)
h. Current speed
i. Range/Odometer

5.2. Technical data of the HMI

Item	Specification
Product model HMI	Vivid Compact (Trek/Electra version)
Operating temperature	Refer to paragraph '**2.2. Technical data of the complete e-bike**' on page 5.
Storage temperature	
Protection rating	IPX5
Weight (approx.)	< 0.13 lbs (< 0.06 kg)

5.3. App Connection for additional settings and features

You can connect your e-bike to the Trek Central app via Bluetooth to access additional system settings and features. Both apps are available for download on the Google Play Store (Android) or Apple Store (iOS).

NOTE:
The Trek Central app requires Android 11.0 or later, or iOS 16.0 or later.

⚠ WARNINGS

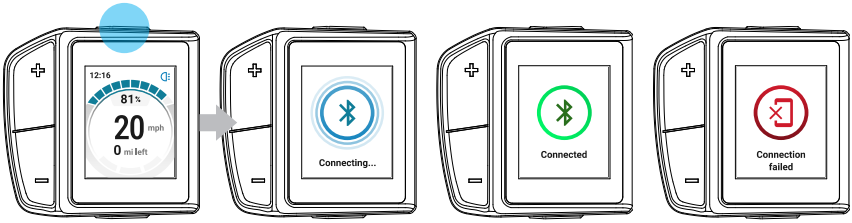
Safety instructions for using Bluetooth:

- Do not use Bluetooth technology in areas where the use of electronic devices with radio technologies is prohibited, such as hospitals or medical facilities.
  Otherwise, medical devices such as pacemakers may be disturbed by the radio waves and patients may be endangered.
- People with medical devices such as pacemakers or defibrillators should check with the respective manufacturers in advance that the function of the medical devices is not affected by the Bluetooth technology.
- Do not use Bluetooth technology near devices with automatic control, such as automatic doors or fire alarms. Otherwise, the radio waves may affect the devices and cause an accident due to possible malfunction or accidental operation.

The Trek Central app seamlessly connects with your e-bike to customize motor behavior, track your activities, get real-time range calculations, and use navigation features to figure out where you're going. You'll also get service reminders, and more.

With the system powered ON, Bluetooth connectivity is enabled.

- To initiate the connection, follow the app instructions. Select the bike ID in the "Bikes Found" list, this will automatically kickoff the connection process.
  The connection status will be displayed on the screen.



Double-press to connect | Pairing | Connected | Connecting Failed

- When the e-bike successfully connects to the app, the Bluetooth icon in the top-right corner will appear. If Bluetooth disconnects, the icon will disappear.

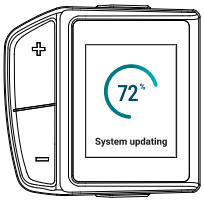


Bluetooth disconnected

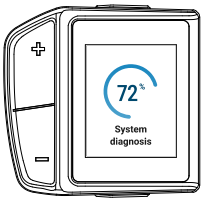


Bluetooth connected

- During updates or system diagnostics performed through the app, the corresponding status will also be displayed on the screen.



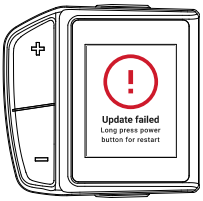
Updating



Diagnosis



Update success



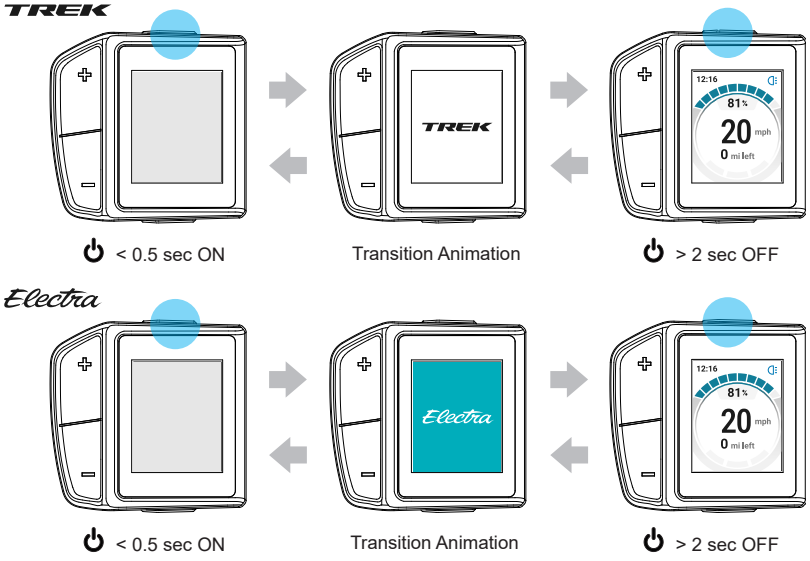
Update Failed

NOTE:
For Bluetooth and/or App issues requiring professional assistance, please contact your nearest authorized Trek or Electra dealer if the issue cannot be identified or resolved by yourself.

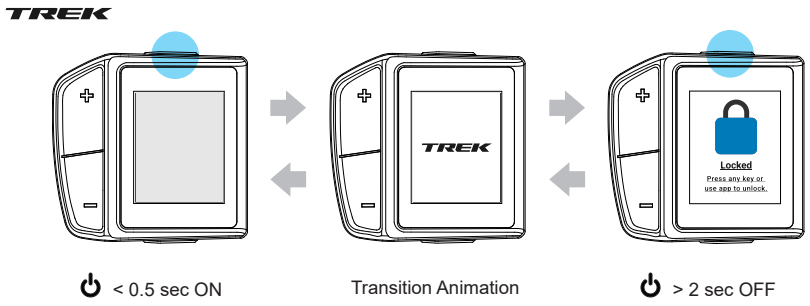
5.4. Turning the e-bike ON/OFF

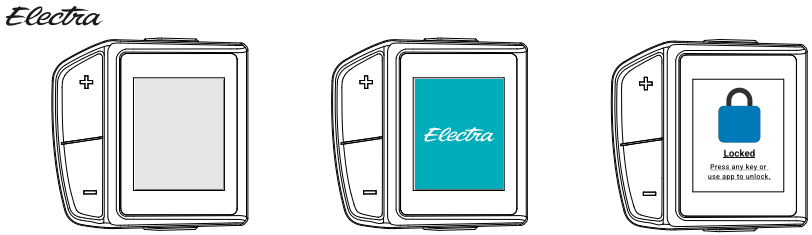
- Single press the POWER button to switch it ON.
- Long press the POWER button to switch it OFF.

Riding with the assist system turned OFF, or with assist level 0 selected (with the system switched ON) is like riding a normal, non-electric powered bicycle. The ON/OFF animation display varies depending on whether you are using a Trek e-bike or an Electra e-bike.



By default setting, the system powers ON without a lock.
If the eLock is enabled through the Trek Central app (refer to paragraph '**5.3. App Connection for additional settings and features**' on page 10), a different power-ON screen will be displayed. To unlock the e-bike system, refer to paragraph '**5.6. Unlocking the e-bike (eLock)**' on page 14.



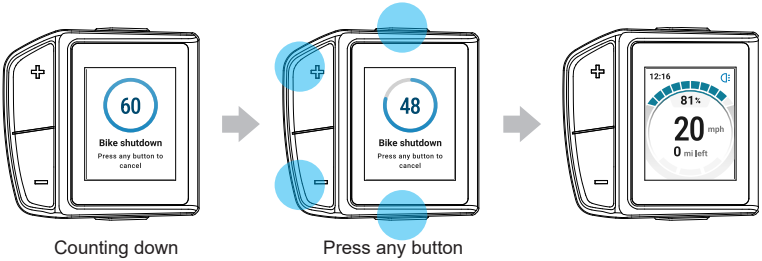


< 0.5 sec ON | Transition Animation | > 2 sec OFF

NOTE: Always switch OFF the e-bike assist system after riding or when parking the e-bike.

5.5. Auto power-off

If the e-bike is not used and no buttons are pressed, the system will automatically turn OFF after 6 minutes to conserve power. In the 6th minute of idle mode, a 60-second countdown will appear on the screen, notifying you of the impending shutdown.
You can press any button to cancel the idle state.

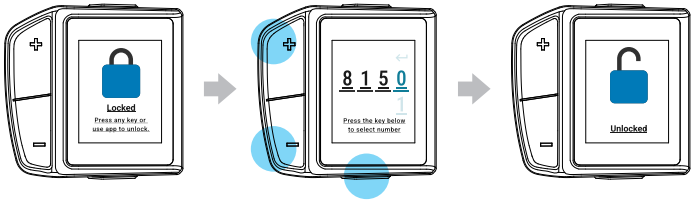


Counting down | Press any button

5.6. Unlocking the e-bike (eLock)

If the eLock has been enabled via the Trek Central app (refer to paragraph **'5.3. App Connection for additional settings and features'** on page 10), please follow these instructions to unlock it:

1. Press the UP/DOWN buttons to select each digit of the 4-digit passcode.
2. Press the SETTINGS button to confirm each selection and proceed to the next digit. After the final digit is entered, the system will attempt to unlock.



⚠ CAUTION

If the passcode is entered incorrectly three times, the system will remain locked. You will need to wait for the system to reset before attempting to enter the code again.

NOTE

- If the eLock is not deactivated, the Ride Assist system will remain unavailable.
- With the locked or code entry shown, but nothing entered, the e-bike will automatically turn off after 1 minute.
- Always switch OFF the e-bike system after riding or when parking the e-bike.

5.7. Select an assist level

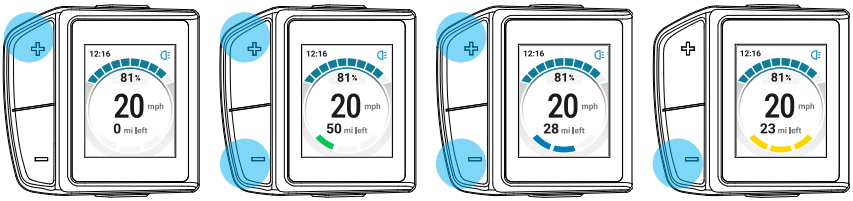
This e-bike allows you to use the throttle mode (upto 20 mph (32 kmh)) or pedal assistance (upto 20 or 28 mph (32 to 45 kmh)). To select your desired assistance level, single press the UP/DOWN button: Level 0 (OFF), level 1 (ECO), level 2 (MID), or maximum level 3 (HIGH).

⚠ WARNING

It is strongly advised to ride away in a straight line with a low assist level selected and gradually increase the assist level while riding. Never select assistance level 2 or 3 while maneuvering or riding away in a sharp corner. It is important to begin at a LOW assist level to familiarize yourself with the e-bike's handling. Starting in faster modes may result in unexpected acceleration due to the motor's power, which can be difficult to control for new riders, resulting in a loss of balance.

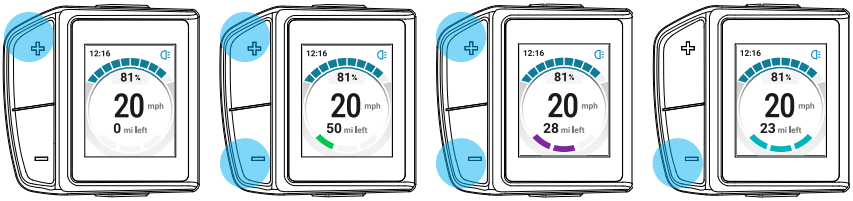
The assist level indicator display color differs based on whether you are using the Trek e-bike or the Electra e-bike.

TREK



Level 0 - OFF | Level 1 - ECO | Level 2 - MID | Level 3 - HIGH

Electra



Level 0 - OFF | Level 1 - ECO | Level 2 - MID | Level 3 - HIGH

NOTES:

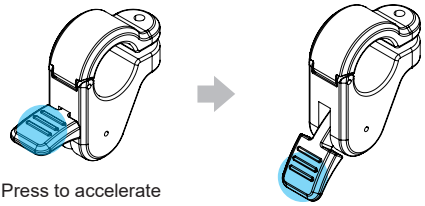
- When the e-bike is ON, and an assist level is selected, the e-bike assist system is activated as soon as you start pedaling or use the throttle.The selected assist level affects how much support the assist system delivers based on your throttle or pedaling input.
- Generally, higher assist levels provide more support while pedaling, resulting in faster acceleration, and easier climbing but shortens range. Lower assist levels provide less support, but result in longer battery life, extended range, and better control in limited-traction situations.
- If your e-bike is equipped with gears, proper selection of gearing for the conditions, this will also extend the range of your e-bike.

5.8. Throttle operation

Your e-bike is equipped with a throttle located on the left side of the handlebar, next to the HMI. This allows you to control the motor and move the e-bike forward without pedaling.

⚠ WARNING

Using the throttle while stationary may result in sudden forward movement.
Ensure you are stable and in control before activating the throttle.



Press to accelerate

The throttle responds proportionally to the amount of pressure applied, providing smooth and precise control over your speed.

⚠ CAUTION

- Prolonged use of the throttle may cause the motor and battery to overheat.
  Allow the system to cool down after extended use.
- Be prepared to use the brakes in emergencies.
  Do not rely solely on the throttle for speed control.

NOTES:

- Excessive reliance on the throttle can drain the battery more quickly.
  To maximize range, combine throttle use with pedal assist.
- In OFF mode, both the pedal assist and throttle are disabled.
  To activate the throttle, you must set the assist level to Level 1, Level 2, or Level 3.
- With the e-bike assist system switched ON, the motor will turn on when you begin pedaling or use the throttle. When you are pedaling, you will not need to use the throttle.
  You can, however, increase your speed by using the throttle. Once the throttle is active, the pedal assist will stop operating to have the throttle take over.
- The e-bike drive output adheres to local regulations for maximum speed, depending of the Classification of your e-bike.
  For details, please refer to paragraph **'Classification'** on page v.
  When using the throttle, the maximum assist speed is 20 mph.
  When using pedal assist, the maximum assist speed increases to 20 or 28 mph.
  Once you exceed these speed limits, the e-bike assist system suspends the pedal or throttle assistance but will automatically reactivate when your speed falls below the respective threshold.

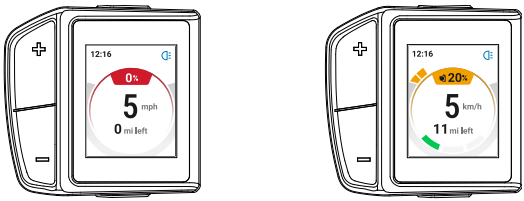
5.9. Battery level indicator

The battery level indicator at the top of the screen displays the current charge percentage, with each bar representing approximately 10% of the total battery charge capacity. The number in the center above the indicator provides a precise percentage of the remaining charge.



100% - 21% 20% - 11% 10% - 1%

- When the battery charge level drops to 20%, the indicator turns yellow; at 10%, it turns red.
- For optimal battery health and longer life, we recommend charging the battery when the battery level drops to 20%. This simple step helps keep the battery in top condition.
- When the battery charge level is below 10%, please charge the battery immediately.



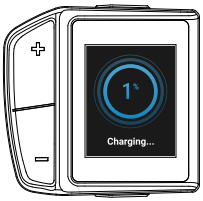
0% battery Extended Life Mode

- **0% battery:** At 0% battery charge level, the motor stops providing pedal or throttle assistance, and the assist level indicator disappears from the screen, meaning assist levels cannot be adjusted.

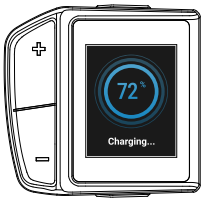
> **NOTE:** With the assist system ON, a small amount of power is reserved to keep your lights operational, even when the motor no longer provides support. Lights can be powered for up to 2 hours once assistance stops, but this is dependent on a number of factors, including power consumption of fitted lights, ambient temperature, and health of battery.

⚠ WARNING
It is strongly advised to ride away in a straight line with a low assist level selected and gradually increase the assist level while riding. Never select assistance level 2 or 3 while maneuvering or riding away in a sharp corner. It is important to begin at a LOW assist level to familiarize yourself with the e-bike's handling. Starting in faster modes may result in unexpected acceleration due to the motor's power, which can be difficult to control for new riders, resulting in a loss of balance.

- **Extended Life Mode:** 'ELM' is a mode designed to extend your e-bike battery's lifespan by optimizing power usage. You can enable it via the Trek Central app where an icon appears ( ) next to the battery level percentage when active. In ELM, the system adjusts energy output to reduce battery strain and improve efficiency.
  For more details, please refer to paragraph '**5.3. App Connection for additional settings and features**' on page 10.



Charging (1%)

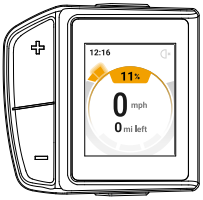


Charging (72%)

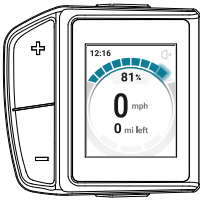


Charging completed

- **Screen Saver Mode (Charging Mode):** When your e-bike is connected to a power source for charging, the screen switches to a dimmed screen saver mode, displaying the current battery level in the center.



Charging (11%)



Charging (81%)

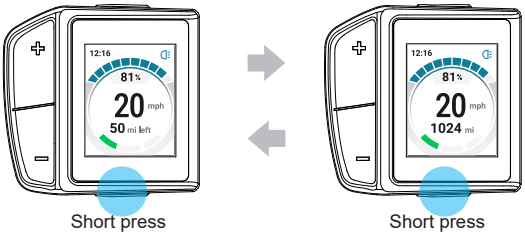
- **Charging Display:** If any interaction is made while in screen saver mode, the screen will return to the standard display. During charging, the battery level indicator bar will show a blinking segment for the charging progress.

NOTES:

- Once charging is complete, the system will automatically power OFF after 6 minutes.
- The assist system has built-in safety measures to prevent the e-bike from being active while charging. This means that whenever the e-bike is connected to the charger, the assist system remains OFF. It is not possible to select an assistance level (it stays at level 0, OFF mode), and the throttle is also disabled.
- When the charger is connected to the e-bike, the system automatically reboots and enters charging mode.

5.10. Switch sub info

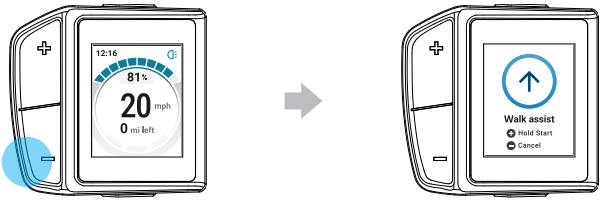
The center of the screen always shows your current speed. Below it, you can choose to display either the odometer or the remaining range. To switch between these options, simply short press the SET button.



5.11. Walk assistance

Walk assist helps you to push your e-bike, especially uphill, at a speed of (maximum) 4 mph. It can only be enabled when the system is powered ON, the walk assist mode is activated and you are actively pushing the e-bike yourself.

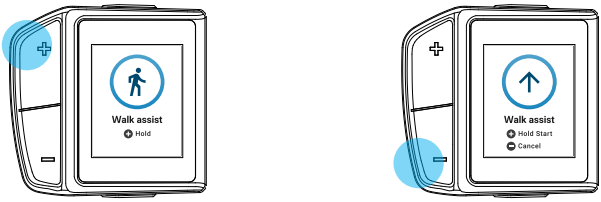
- To activated the walk assist mode, press and hold the DOWN button on the HMI for two seconds. Once activated, the display will show "Walk Assist" along with an arrow icon.



> 2 secs to activate

Activated

- Press and hold the UP button to start the walk assist.
  As long as you are holding the UP button, your e-bike will be propelled forward at a slow speed (maximum 4 mph).
- Release the UP button to stop the walk assist immediately.



Press and hold to push the e-bike

< 0.5 secs to deactivate

- Press the DOWN button briefly to exit the walk assist mode.
- Additionally, if no buttons are pressed within 10 seconds, the walk assist mode will automatically deactivate for safety.

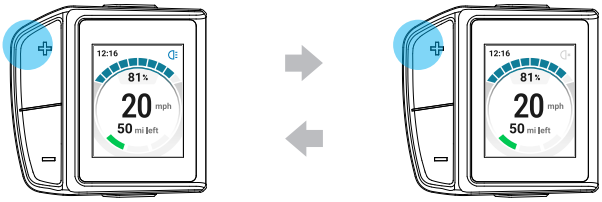
⚠ CAUTION

- The walk assistance function may only be used when pushing the e-bike; make sure you are ready and stand steady before activating the walk assistance.
  When the walk assistance is activated by pressing and holding the UP button, the rear wheel will begin to rotate immediately.
- Do not activate the walk assistance when you ride on the e-bike or if the wheels are not in contact with the ground.

5.12. Turning the lights ON/OFF

With the system powered ON, press and hold the UP button to turn the lights ON or OFF (The default setting is "ON").

- The light icon in the top-right corner of the screen indicates whether the lights are currently ON or OFF.
- Even when the display shows 0% battery charge, the system reserves a small amount of power to keep the lights operational for up to two hours, ensuring visibility and safety in low-battery conditions.



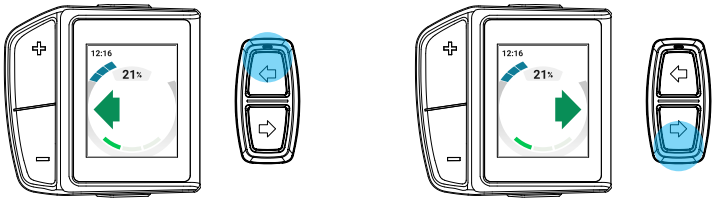
Long press > 2 Secs Long press > 2 Secs

NOTE: Be aware the lighting might not work due to a fully depleted battery.

5.13. Turn signal operation

Your e-bike is equipped with turn signals to enhance your safety when other road users are present. The control button is located on the right side of the handlebar.

- When a turn signal is activated, the corresponding arrow will appear on the screen, indicating the selected direction.
- The blinkers have two settings:
  1. Short press the turn signal button (left or right): the signal flashed five times and turns OFF automatically.
  2. Press and hold the turn signal button for continuous blinking.



Short press Short press

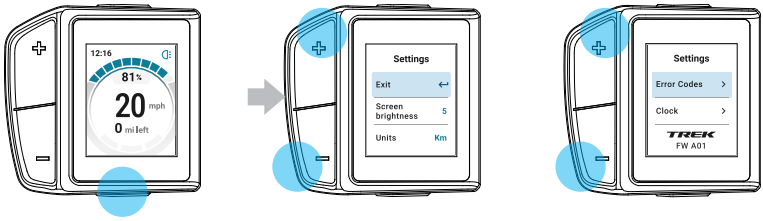
NOTE:
Please use the turn signals responsibly and ensure compliance with local traffic regulations.

5.14. Settings menu

From the main screen, press and hold the SET button to access the Settings menu.
Use the UP/DOWN buttons to navigate through the menu options, and press SET to enter or confirm a selection.

NOTE: The e-bike must be stationary to enter the settings screen.

Here's an overview of each option:



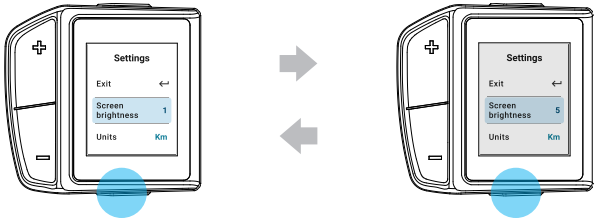
Long press > 2 Secs | Short press | Short press

Item	Description
Exit	Returns you to the previous menu layer. If on the main menu, returns to the main screen.
Screen Brightness	Adjusts the display brightness for better visibility.
Units	Switches distance and speed units between metric (km) and imperial (mi) systems.
Error Code	Displays current active error codes to help identify issues with the e-bike assist system.
Clock	Sets the time shown on the HMI.

At the bottom of the menu, the current firmware version of your HMI is displayed, along with an indicator for whether it is the Trek or Electra version.

5.15. Adjust screen brightness

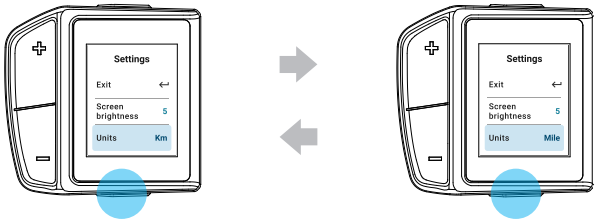
- Long press the SET button to enter the Settings menu, then select 'Screen Brightness'.
- Short press the SET button to cycle through brightness levels. The screen rotates through 5 levels, with Level 1 being the brightest and Level 5 the dimmest.
- After selecting your preferred brightness, select 'Exit' to return to the main screen.



Short press | Short press

5.16. Switch display units

- Long press the SET button to enter the Settings menu, then navigate to 'Units'.
- Short press the SET button to toggle between metric (km) and imperial (mi) units.
- Once you've selected your preferred units, select 'Exit' to return to the main screen.

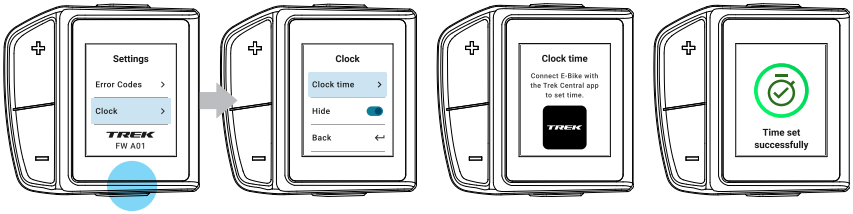


Short press Short press

5.17. Clock settings

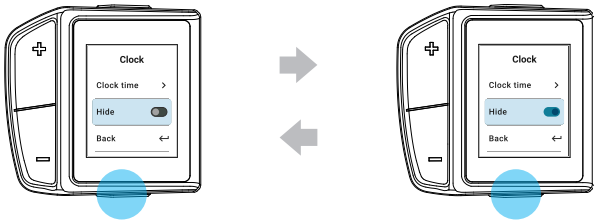
Long press the SET button to enter the Settings menu, then navigate to Clock.
In the Clock settings, you can either connect to the app to synchronize the correct time or toggle the display of the time in the top-left corner of the main screen:

- Connect your e-bike to the Trek Central app or Hyean Rider Assistance app.
  For details, please refer to paragraph '**5.3. App Connection for additional settings and features**' on page 10.
- In the 'Clock' settings, select 'Clock time' and short press the SET button to enter.
- The system will automatically calibrate the time based on your current time zone using the app. If your e-bike is not connected to the app, a connection prompt will appear on the screen.



Short press Short press Time calibrated

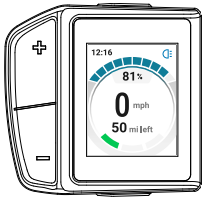
- In the Clock settings, select 'Hide'.
- Short press the SET button to toggle whether the time is displayed on the main screen.



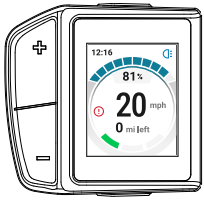
Short press Short press

5.18. Error alert

If the e-bike assist system encounters an error, an exclamation mark icon will appear on the left side of the screen, indicating a system issue. This is often accompanied by a loss of assist power. You should immediately stop riding when this occurs.



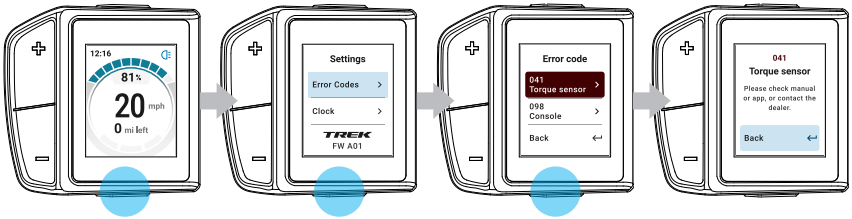
Normal



Error occurs

To check the error details on the HMI:

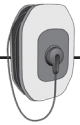
- Press and hold the SET button to enter the Settings menu.
- Use the UP/DOWN buttons to navigate to the Error Codes, then press SET to select it.
- The current system error will be displayed on the screen.
- Press SET again to view quick troubleshooting steps for the error.



Long press > 2 Secs | Short press | Short press | Check details

Some errors can be resolved with simple actions, such as restarting the e-bike.
Please refer to chapter '**8. Troubleshooting**' on page 34 of this manual for more details and handling instructions.
For other system errors requiring professional assistance, please contact your nearest authorized Trek or Electra dealer if the issue cannot be identified or resolved by yourself.

6. CHARGING INSTRUCTIONS



Your e-bike is equipped with a magnetic charge plug on the frame, designed for easy connection to charge the integrated battery.

6.1. Charging safety instructions

NOTE:
Ensure your battery is fully charged before first use of the e-bike. Doing so will provide the maximum capacity and lifetime for your battery.

⚠ WARNINGS

- This e-bike uses a lithium-ion battery. This type of battery can pose serious risks to persons and property if not used and handled properly, including serious injury or death due to a risk of fire or explosion.
- To limit these risks, it is essential that all e-bike users read, understand and practice all of the following instructions. These instructions should be kept in a secure place for future reference; do not discard.

► User guidance on safe charging

- Before you connect the charger to the e-bike, make sure there is no water, metal, or other conductive debris/contaminants on the charging contacts.
  - Failure to do so could result in a short-circuit or arcing, which could damage the charger and will result in the charger entering ‘safety mode’.
  - See chapter '**9. Cleaning**' on page 38 for further information on cleaning, and see chapter '**8. Troubleshooting**' on page 34 for information on how to reset a charger from ‘safety mode’.
- The included charger is only intended for use indoors, and charging should only be done in locations which are dry, well-ventilated, and do not exhibit high humidity when using this charger. It is also strongly recommended that any location used for charging has a functioning smoke alarm system.
- Ambient temperature must always be monitored carefully when charging.
  - Charging at temperatures higher or lower than the approved charging range (32°F to 104°F (0°C to 40°C)) can damage the battery and result in hazardous battery failure during later use.
  - The battery and charger are fitted with electronic protections to prevent charging the battery outside of the approved temperature range, but ultimately it is the user’s responsibility to ensure charging does not occur outside of approved ranges.
- The e-bike/battery should not be charged in locations with potentially explosive atmospheres.
  - Areas used for fueling or storage of fuel, chemical storage, and areas with a high concentration of combustible dust are just a few examples of areas which could exhibit explosive atmospheres.
  - Obey any signs or warnings posted in the area.

- Do not leave the battery/e-bike unattended while charging, especially overnight.
  - Additionally, remove the charger from the battery/e-bike, as soon as charging is complete; do not leave the charging cord connected to the e-bike or the charger plugged into the wall outlet when not charging.
  - While the battery and charger have electronic protections against overcharging, these risks are best reduced by physically ensuring that the charger is disconnected from the e-bike and electrical supply when not actively charging.
- Charging should only be done in areas that do not block exits, hallways, or any route used for egress in an emergency.
- Ensure the e-bike and charger are stable and secure before charging, and do not move the e-bike or charger during the charging cycle to avoid damage to the system.
  - The AC plug of the battery charger may come loose from the electrical outlet, resulting in a fire risk.
  - If there are signs of physical damage to the charger, the battery, the location on the e-bikes frame where battery is stored/mounted, the charge port, or any of the cables, immediately stop using the e-bike and contact your authorized Trek or Electra dealer for assistance.
- The time it takes to fully charge the battery may increase over time, but should never take longer than 24 hours.
  - Regardless of how old, or number of cycles your battery has, unexpectedly long charge times may be an indication of a damaged or malfunctioning battery. Immediately stop using the e-bike and contact your authorized Trek or Electra dealer for assistance.

► User guidance on the safe use of the battery charger

⚠ WARNINGS
- Only use the original Trek/Electra battery charger supplied with your e-bike to charge the built-in battery. Bypassing the battery charger or the use of a non-approved or counterfeit battery charger can lead to death or serious injury.
- Before you use the battery charger, always check the cables and plug for damage. Stop using the charger if you discover any damage. Damaged chargers, cables and plugs increase the risk of electric shock.

- Do not open the charger, it contains no replaceable parts.
- Operate battery charger on a safe location.
  - Do not place the battery charger on the floor, in a flammable environment or in e.g. dusty places when using it.
  - Mount the battery charger to a wall (optional) or place the battery charger on a stable, fireproof surface when using it.
  - The charger can get hot during use. This can lead to burns if touched, or in rare cases, fire if flammable materials are around. Always use caution when handling during/after charging, and ensure that there are no flammable or easily ignited materials touching or close to the charger. If in doubt, let charger sit for 15 minutes before handling or moving.

- Prevent the charger from getting wet. If the charger is wet, do not touch any parts of the charger, electric shocks may occur.
- Do not cover or place any objects on top of the battery charger or its cables.

- Ensure that the charger is plugged directly into the wall outlet and not used with power strips, extension cords, or travel converters.
- Keep the e-bike and battery charger away from animals, children, and persons with physical, sensory or mental limitations.
  - Unless supervised or instructed on proper/responsible use, children or people who lack the necessary experience or understanding to operate the e-bike and charger safely should not be left unattended with the e-bike and charger. There is a significant risk of operating errors, personal injuries and/or damage to e-bike, charger or property.

► User guidance on the safe use of the wall outlet and power cord

- Handle the battery charger, charge plug/cable and power cables with care.
  - Do not damage, process, forcibly bend, twist, pull at the power cord or power plug, nor bring them near hot objects, place heavy objects on them, bundle them tightly together or carry the charger by the cables. If they are used while damaged, fire, electric shocks, or short circuits may occur.
- When charging, be aware of the location of the charger cable.
  - Tripping over, or getting caught by hanging cables can result in a fall, leading to personal injury, potential strangulation for children or pets, or cause the e-bike to fall over. Always wrap or otherwise manage the cords when not in use.
- Use only a 100 VAC to 240 VAC electrical outlet.
  - Be carefull not to overload the electrical outlet with appliances beyond its rated capacity. Overheating may result in a fire if the electrical outlet is overloaded.
  - Do not use an extension power cord or plug into a power strip. Doing so may overload the outlet.

► User guidance for detecting defects and handling them

- Disconnect the charger from the wall outlet and e-bike and contact your nearest authorized Trek or Electra dealer if the following symptoms are observed.
  - If heat or smoke is coming from the AC plug.
  - If the AC plug or charger plug is visually damaged.
  - If the indicator on the charger still does not illuminate with the charger connected to the wall outlet.
  - If the red indicator on the charger flashes during the charging process, it indicates a charging error has occurred.
  - If you suspect any other malfunction.

► User guidance about the battery life

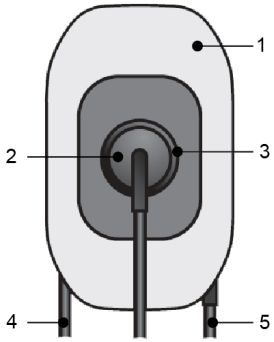
- The built-in battery is a consumable item.
  - The life of the battery will vary depending on factors such as the storage method, the usage conditions, the surrounding environment, and the characteristics of the individual battery pack.
  - The battery will gradually lose its capacity after repeated use and after time has passed, due to natural decay.
  - If the length of time or the riding distance that the battery can be used becomes extremely short, it has probably reached the end of its life.
  - If the battery is left uncharged, and then stored without charging, it may discharge to such a low state (‘deep-discharge’) that the battery can no longer be charged and must be replaced.
  - When the battery reached its end-of-service-life, you can purchase a new battery. You can't install the built-in battery yourself.
    Visit your nearest authorized Trek or Electra dealer.

6.2. Technical data of the charger

Item	Specification
Product Model	CG-TR24A
Trek model	UMEC #UC1481A-03G / Trek PN 5330974
Electra model	UMEC #UC1481A-02G / Electra PN 5317629
Rated Input voltage	100 VAC to 240 VAC
Input frequency range	50 Hz to 60 Hz
Rated Input Current	2.5 A
Maximum Rated Output Voltage	55 VDC*
Maximum Rated Output Current	2.7 A
Charging time (approx.)	5.5 hours (empty to full)
Operating temperature	32°F to 104°F (0°C to 40°C)
The following requirements have been applied to this product:	• Safety – UL 62368-1 • US EMC – FCC Part 15 • Canada EMC – ICES-003
Permitted charging temperature range	32°F to 104°F (0°C to 40°C)
Storage temperature	14°F to 158°F (-10°C to 70°C)
Maximum altitude during operation	6561 ft (2000 m) above sea level
Protection rating**	IPX2 (Indoor use only)*
Weight (approximate)	1.76 lb (800 g)
Dimensions	4.6" x 6.89" x 2.4" (116.9 mm x 175 mm x 61.2 mm)
AC cable length (approximate)	4.9 ft (1500 mm)

*Suitable to charge the Trek/Electra battery with a nominal voltage of 48 VDC.

**Protected against vertically falling water drops when enclosure tilted up to 15º.



1	Trek/Electra charger
2	Charger plug
3	Charge level indicator (LEDS) on charger
4	Charging connector cable (AC)
5	Charger plug connector cable

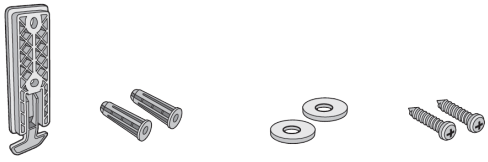
The Trek/Electra battery charger for the GEN 3 Hyena e-bike assist system

⚠ WARNING

The charger is for indoor use only.
Do not expose the battery charger to rain or wet conditions.
Failure to keep the charger dry could result in electric shock or fire.

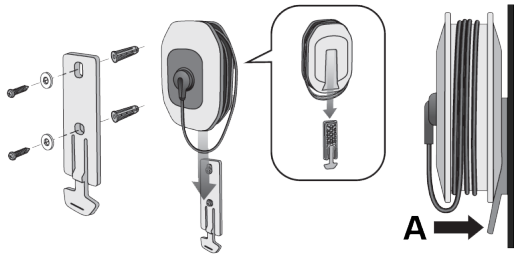
6.3. Mounting the charger to a wall (optional)

► Installation



Mount Anchors Washers Fasteners

1. Use the fasteners provided to firmly attach the mount to an indoor wall.
   - The charger mounting height must be less than 2 meters.
   - Use the anchors if attaching to a drywall.
2. Slide the charger on to the mount from the top until you feel a click.
3. To remove, press the lower tab toward the wall and slide the charger up and off the mount.



Charger installation on a wall

Press' A' to release the charger from the wall mount

⚠ WARNING
When the charger is wall-mounted, there may be a risk of choking for children. Keep the charger, power cable, and charger cable away from children to avoid risk of injury or death.

6.4. Charging the battery

► Before charging

Refer to paragraph '**6.1. Charging safety instructions**' on page 25 for safety instructions.

NOTE:
The battery is equipped with a Battery Management System (BMS), designed to protect from deep-discharge, but recharge the fully discharged battery as soon as possible.
To maintain the best possible battery performance and lifespan, Trek/Electra recommends regularly recharging your battery to at least 80% of the total capacity.

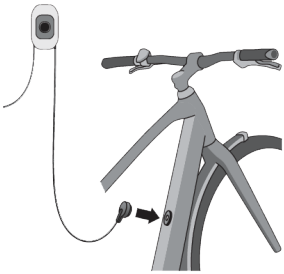
► Charging procedure

- The battery can always be charged, regardless of what state of charge (SOC) it is in.
- The charging can be interrupted at any moment. Interrupting the charging process will not damage the battery.
- Please perform charging in environments between 32°F to 104°F (0°C to 40°C).

NOTES:

- Charging process is only possible when the temperature of the e-bike battery is within the permitted charging temperature range.
- The e-bike will automatically turn OFF while charging.
- Before charging the e-bike, make sure there is no water, metal, or any contaminants on the charging head. This can disrupt the electrical connection and may trigger a fault. The charger will go into safety mode if contaminants or metal are detected during charging. Refer to chapter '**8. Troubleshooting**' on page 34 if this happens.

1. Ensure to clean the charge plug and charge port.
2. Connect the charging plug to the charging port on the battery.
   Place the magnetic plug on the charge port on the bike frame. The plug snaps into place and can rotate in any direction.



The charge port on the e-bike

3. Plug the AC plug of the charger into an outlet (100 VAC to 240 VAC). The charging process begins as soon as the charger is connected to the e-bike and wall outlet.
   The indicator on the charger will illuminate while charging.
4. During the charging process, both the charge level indicator on the front of the charger and on the HMI display will show the charge level.



0-9% charge | 50-59% charge | 90-100% charge

The charge level indicator on the charger.

The charge time from empty to full charge is approx.5.5 hours.

5. Once the charge is complete, the charge level indicator shows a full charge.
   The charging process is terminated.
6. After charging, disconnect the AC plug from the outlet and the charging plug from the battery.

► **Charging error**

If the charge level indicator flashes red during the charging process, a charging error has occurred.

To solve the issue, follow these steps:

1. Disconnect the charger from the charge plug on the e-bike.
2. Unplug the charger from the wall outlet.
3. Inspect the charging surfaces for water or debris and clean if necessary.
4. Reconnect the charger to the wall outlet and confirm no error code is displayed.
5. Plug the e-bike back in using the magnetic connector.
6. If the error code persists, contact your local Trek or Electra dealer.

NOTE: The charger will not reset the error code unless you disconnect the wall outlet.

7. STORAGE AND TRANSPORTATION INSTRUCTIONS

7.1. Storage

- Having the battery permanently connected to the charger during storage is not recommended.
- Store the e-bike with the intube-battery in the following locations: in a dry, well-ventilated room with a smoke alarm, away from combustible or easily flammable objects, and away from heat sources.
- Store the e-bike with intube-battery in a fireproof location and without contact with water, heat sources, or dust. Protect the battery against moisture and water.
- Do not store the e-bike with intube-battery at ambient temperatures less than -4°F (-20°C) or above ambient temperatures of 122°F (50°C), for maximum 1 month.
  However, storing the e-bike at a room temperature of approximately 68°F (20°C) is advantageous for long battery life. Refer to paragraph **'2.2. Technical data of the complete e-bike'** on page 5 for details.
- Protect your e-bike from UV damage, if it is stored for prolonged periods of time in direct sunlight.

7.2. Charging the battery before and during storage

- When you are not using the e-bike for an extended period, charge the battery to 80% to meet the optimum storage condition.
- Recheck the charge status after six months; if the battery's remaining charge is less than 30%, charge it to 80%.

NOTE: A battery slowly self-discharges over time, even when being stored.
If the battery is stored at a low state of charge (10%), or is stored for long periods of time without being re-charged, it can go into a 'deep-discharge' state.
'Deep-discharge' can reduce capacity and permanently damage the battery to the point of requiring replacement.

7.3. E-Bike transportation

- Do not place the e-bike in the car boot (trunk) for more than one day.
  Protect the e-bike from damage by sunlight.
- An e-bike is heavier than a normal bike. If transporting on a vehicle, be aware of the maximum load capacity of the vehicle's roof, towing hook (hitch) and/or of the applied bike carrier. Also make sure to use proper precautions and techniques when lifting heavy objects.
- Always respect local laws regarding the transportation of e-bikes.
- The e-bike, with an intube-battery, is subject to legislation on transporting dangerous goods. As a result, private users can only transport undamaged batteries by road without complying with additional requirements.
- Restrictions apply to most airlines and some courier companies. But, if you intend to ship or travel with your complete e-bike (with intube-battery), the regulations are less strict. Check ahead with your airline or carrier before booking your trip to ensure you can travel with your complete e-bike.

8. TROUBLESHOOTING

When your e-bike has issues, you can check the following instructions for basic troubleshooting. If the problem cannot be identified or solved, please contact your nearest authorized Trek or Electra dealer.

8.1. System issues

- **System cannot be turned ON**
  - Check the battery charge status: If the battery charge is low, or is even fully discharged, please recharge the battery with the certified charger delivered with your e-bike.
  - Check if the HMI cable connector is connected correctly at the junction box. Refer to chapter **'2. Assist system Overview'** on page 4**.** If the HMI connection is properly connected, but the e-bike can still not be turned ON, please visit your nearest authorized Trek or Electra dealer for further inspection.
  - Disconnect the charge cable if still connected. With the charge cable connected, the assist system, including the throttle, will stay switched OFF from a safety perspective.

- **No assistance power**
  - Charge level: check the charge level; when the battery charge drops to 0%, the pedal or throttle assistance will stop.
  - Check the selected assist level on the HMI: you will only experience the pedal or throttle assistance with assist level 1 to 3.
  - Pedal the e-bike: the e-bike only provides pedal assistance when you keep pedaling. Pedal assistance will be shut down immediately when you stop pedaling.
  - Press the throttle slightly to get assistance without pedaling. You need to either use the throttle or the pedals to get assistance.
  - System overheats: are you riding up long inclines in the heat or putting a weight overload on your e-bike for long periods of time? The motor can be louder under high load conditions. Please turn OFF the system, then take your e-bike to a well-ventilated area and let it cool down for at least 10 minutes.
  - Speed limitation: the e-bike drive output only supports a maximum speed as demanded by local regulations; as soon as you have reached the speed limit, the e-bike assist system suspends the pedal or throttle assistance, then automatically reactivates when your speed is below the speed limit.

- **The lights do not illuminate**
  - Check the charge level of the battery, and charge it if necessary. When the battery charge drops to 0%, enough power remains to operate the lights for up to two hours. However, if you continue using the lights until the battery is fully depleted, they will no longer function.
  - Check if all the connectors of the light wires are connected correctly. If you are not sure, contact your nearest authorized Trek or Electra dealer.

8.2. Battery & charging issues

- **The battery quickly loses its charge**
  - The battery may be near the end of its service life due to natural decay. Contact your nearest authorized Trek or Electra dealer for further service.
  - The battery capacity may be affected by ambient temperature, especially in cold weather.

- **The battery cannot be charged**
  - Check if the connection terminals of the charger plug and the charge port are clean; if not, wipe them clean with a dry cloth.
  - The battery is outside the permitted charging temperature range of 32°F to 104°F (0°C to 40°C), due to high ambient temperatures or because the battery was rapidly discharged.
  - Securely connect the charging plug to the battery charging port and charge again. If the battery still does not charge, consult your nearest authorized Trek or Electra dealer.

- **The indicator on the charger does not illuminate or is flashing red**
  - If the lights on the charger aren't working, but the HMI shows that charging is occurring with the charger connected to the e-bike and the wall outlet, then the indicator lights on the charger are most likely defective, and the charger must be replaced.
  - If the charger flashes red while charging (contamination error code), the charger indicates that it is in 'safety mode". The charger went into safety mode because contaminants or metal are detected during charging.

    To solve the issue you must restart the charger:
    1. Disconnect the charger from the bike port.
    2. Unplug the charger from the wall outlet.
    3. Inspect charging surfaces for water or debris and clean if necessary.
    4. Reconnect charger to wall outlet and confirm no error code is displayed.
    5. Plug the bike back in using the magnetic connector.
    6. If error code persists, ccontact your nearest authorized Trek or Electra dealer.

    NOTE:
    The charger will not reset the error code unless you disconnect from the wall outlet.

- **The charge indicator on the HMI display doesn't show the charge status**
  - If the battery charges correctly, the charge indicator on the HMI should show the current charge status. If not, check if the HMI connector at the junction box is connected correctly. Refer to chapter '**2. Assist system Overview**' on page 4.
  - If issue persists, ccontact your nearest authorized Trek or Electra dealer.

8.3. Error code table

Error codes are shown on the display screen when a system error is detected.
You can check the recommended action below for basic troubleshooting.
Contact your nearest authorized Trek or Electra dealer for service if the error still exists.

Code	Category	Error Details	Troubleshooting
16	Torque sensor	Torque Sensor Signal Error	Contact your nearest authorized Trek or Electra dealer
17		Torque Sensor Signal Error	
32	Motor	Motor Signal Error	Check the motor cable connection
33		Motor Signal Error	
40		Motor Overheat	Stop riding for 10 minutes
48	Speed sensor	Speed Sensor Error	Contact your nearest authorized Trek or Electra dealer
49		Cadence Sensor Error	
50	Chain	Drivetrain Error	Check the chain status
64	Battery	Battery Overvoltage	Contact your nearest authorized Trek or Electra dealer
65		Battery Undervoltage	Charge the battery
66		Low Capacity	
67		Empty Capacity	
68		Charging Temperature Error	Move the e-bike to an area with proper temperature
69		Battery Cell Overvoltage	Contact your nearest authorized Trek or Electra dealer
70		Battery Cell Undervoltage	
71		Battery Overcharge	
72		Battery Short Circuit	
73		Battery Overdischarge	
74		Discharging Temperature Error	Move the e-bike to an area with proper temperature
75		Battery Cell Balancing Error	Contact your nearest authorized Trek or Electra dealer
80	Controller	Controller Overheat	Stop riding for 10 minutes
81		Battery Communication Failure	Contact your nearest authorized Trek or Electra dealer
82		Locked Rotor (Pedal Assist)	Reboot the e-bike assist system
83		Locked Rotor (Walk Assist)	
84		Controller Communication Failure	Contact your nearest authorized Trek or Electra dealer
85		Controller FET Error (U)	
86		Controller FET Error (U)	
87		Controller FET Error (V)	
88		Controller FET Error (V)	
89		Controller FET Error (W)	
90		Controller FET Error (W)	
91		Controller FET Circuit Error	

Code	Category	Error Details	Troubleshooting
92	Controller, *continued*	Controller FET Overcurrent (FW)	Reboot the e-bike assist system
93		Controller FET Overcurrent (HW)	
94		Controller Protection Unit Error	Stop riding for 10 minutes
98	Other	HMI Button Blocked	Contact your nearest authorized Trek or Electra dealer
99		HMI Button Communication Error	
100		Display Panel Malfunction	
101		USB Charge Port Error	
112		Front Light Malfunction	Check the light cable connection
114		Bluetooth Error	Contact your nearest authorized Trek or Electra dealer
116		Rear Light Malfunction	Check the light cable connection
117		Light Short Circuit	

8.4. Other issues

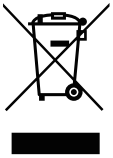
Contact your nearest authorized Trek or Electra dealer if your e-bike does not work correctly due to mechanical problems, assist system issues, or any other situation that cannot be identified or solved.

9. CLEANING

- When cleaning, disconnect the power plug from the electrical outlet and the charging plug from the battery. If this is not observed, an electric shock may occur.
- Do not immerse or submerge the e-bike, the battery, or any of the electrical components in water. Exposing these components to water might lead to a potential fire hazard.
- Do not clean any assist system component with pressurized water.
- Only clean the product with a water-dampened soft cloth.
- Do not clean any assist system component with any detergent or organic solvent.
- The system is designed to operate in rain and other adverse weather conditions. Damage due to pressure washing or other heavy cleanings may void the warranty.

10. DISPOSAL

- The e-bike assist system drive unit, including the motor, controller, battery, sensor, HMI, wiring, accessories, and packaging, should be disposed of in an environmentally correct manner according to local rules.
- Do not dispose of e-bikes and their components with household waste.



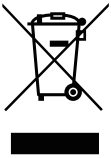
Information on Waste Disposal for Consumers of Electrical & Electronic Equipment

This mark on a product and/or accompanying documents indicates that when it is to be disposed of, it must be treated as Waste Electrical & Electronic Equipment (WEEE).

Any WEEE marked waste products must not be mixed with general household waste, but kept separate for the treatment, recovery and recycling of the materials used.

For proper treatment, recovery and recycling; please take all WEEE marked waste to your Local Authority Civic waste site, where it will be accepted free of charge.

If all consumers dispose of Waste Electrical & Electronic Equipment correctly, they will be helping to save valuable resources and preventing any potential negative effects upon human health and the environment, of any hazardous materials that the waste may contain.



Please recycle your spent batteries

In the US and Canada, you can find out where to do this at call2recycle: https://www.call2recycle.org

This symbol on the product(s) and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery, and recycling outside the US, please take this product(s) to designated collection points.

Alternatively, in some countries you may be able to return your products to your local bike shop upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

SAVE THESE INSTRUCTIONS

11. WIRELESS COMPLIANCE

CANADA

HMI (CC-TR24A) – contains FCC ID: SH6MDBT42
HMI (CC-03) – contains FCC ID: SH6MDBT42

This device contains license-exempt transmitter(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s).
Operation is subject to the following two conditions:
(1) This device may not cause interference,
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

RF Exposure Statement:

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and a human body.

FCC

HMI (CC-TR24A) – IC ID: 8017A-MDBT42
HMI (CC-03) – IC ID: 8017A-MDBT42

This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

NOTES:

- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.
- These limits are designed to provide reasonable protection against harmful interference in a residential installation.
- This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
- If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - ○ Reorient or relocate the receiving antenna.
  - ○ Increase the separation between the equipment and receiver.
  - ○ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - ○ Consult earest authorized Trek or Electra or an experienced radio/TV technician for help.
- Changes or modifications made to this equipment not expressly approved by Trek or Electra may void the FCC authorization to operate this equipment.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and a human body.

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Limited warranty

Your bicycle is covered by a Limited Warranty.
Please visit our website for details.

For Service and Warranty, please contact your local authorized Trek or Electra dealer.
Refer to our website (Support) for the latest revision of this manual.

New features, as described in the latest manual, may not be applicable on your e-bike.

PN 5341598 - EN Rev.3, September 2026
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Part nr. 5341598 - EN Rev. 3 (GEN 3)