English

Compact Neo

Owner's Manual Supplement

WARNING

READ THIS SUPPLEMENT AND YOUR CANNONDALE BICYCLE OWNER'S MANUAL.
Both contain important safety information. Keep both for future reference.

cannondale

Safety Messages

In this supplement, particularly important information is presented in the following ways:

⚠ WARNING

Indicates a hazardous situation which, if not avoided, may result in death or serious injury.

NOTICE

Indicates special precautions that must be taken to avoid damage.

Symbols:

Symbol	Name	Description
	Medium-strength removable thread lock	Apply Loctite® 242 (blue) or equivalent.
N·m	Tightening torque in Newton meters.	

Cannondale Help Center

Our online Help Center contains helpful resources to consult about our bikes.

https://cannondale.zendesk.com/hc/en-us

Cannondale Supplements

This manual is a “supplement” to your Cannondale Bicycle Owner’s Manual.

This supplement provides additional and important model specific safety, maintenance, and technical information. It may be one of several important manuals/supplements for your bike; obtain and read all of them.

Please contact your Authorized Cannondale Dealer immediately if you need a manual or supplement or have a question about your bike. You may also contact us using the appropriate country/region/location information.

You can download Adobe Acrobat PDF versions of any manual/supplement from our website: http://www.cannondale.com.

Contacting Cannondale

Cannondale USA

1 Cannondale Way
Wilton, CT 06897, USA
1-800-726-BIKE (2453)

Cannondale Europe

Geeresteinselaan 57
3931JB Woudenberg
The Netherlands
PH: 00.31.541.200374

International Distributors

Consult our website to identify the appropriate Cannondale Dealer for your region.

CONTENTS

Your Cannondale Dealer

To make sure your bike is serviced and maintained correctly, and that you protect applicable warranties, please coordinate all service and maintenance through your Authorized Cannondale Dealer.

NOTICE

Unauthorized service, maintenance, or repair parts can result in serious damage and void your warranty.

Drive System

⚠ WARNING

MANUFACTURER’S INSTRUCTIONS - In addition to this supplement, you must read and follow the manufacturer’s instructions for all components of the drive-assist system:

Drive Unit	**Battery**
Display/Control Unit	**Charger**

Manufacturers’ instructions contain important operations, service and maintenance information.

Identification

Drive System Parts of Your E-Bike

Identification

A Handlebar control unit
B Internal battery
C Hub motor
D Sensors (BB)
E Charge port
F Front light
G Rear light
H Battery Door
I Serial number

Handlebar Controls

Identification

1. Handlebar grip
2. Front brake
3. Handlebar control unit
4. Handlebar
5. Folding stem
6. Rear Brake
7. Rear shifter

Serial Number

The serial number is located on the bottom bracket. It is a 7-character barcode. See inset.

Frame Serial Number

Bike Registration

To register your bike:
Go to the Product Registration section of our website at www.cannondale.com

General Safety Information

Intended Use

The intended use of all models is
ASTM CONDITION 2,
General Purpose Riding.

What is an E-Bike?

Electric bikes, also known as "E-Bikes," are bicycles equipped with an electric pedal-assist drive system. An E-Bike IS NOT a moped or motorcycle. E-Bikes share components common with pedal-only bikes.

What is a Drive System?

The drive-assist system consists of a drive unit, a battery, a computer control, and various electronic components (harness wires, sensors, and switches). There are many different drive-assist systems for differing uses and bike types. Likewise there are various drive-assist system manufacturers (Shimano, BOSCH, Bafang, Yamaha, etc.).

How does the Drive System work?

It is important to know that when the drive-assist system is turned ON, the drive unit engages to provide power only while you are pedaling.

The amount of power provided by the drive unit depends on your pedaling force and on the assistance mode/level you set with the handlebar control unit. At anytime, if you stop pedaling, the drive-assist will dis-engage.

In all modes/levels, the drive-assist system power reduces progressively and cuts off as the bike reaches the maximum allowable speed. The drive-assist re-engages when speed drops below the maximum allowable speed as long as the pedals are turning.

Whenever the drive-assist system is turned OFF, you can pedal the bike normally. The drive system will not engage.

⚠ WARNING

Understand your bike, its drive-assist system, and the intended use of both. Using your bike the wrong way is dangerous.

Please read your Cannondale Bicycle Owner's Manual for more information about Intended Use and Conditions 1-5.

Servicing

⚠ WARNING

This supplement may include procedures beyond the scope of general mechanical aptitude.

Special tools, skills, and knowledge may be required. Improper mechanical work increases the risk of an accident. Any bicycle accident has risk of serious injury, paralysis, or death.

To minimize risk we strongly recommend that owners always have mechanical work done by an Authorized Cannondale Dealer.

Compliance/Regulation

WARNING

YOU MUST OBEY ALL LOCAL LAWS & REGULATORY REQUIREMENTS - It is your responsibility to identify and to follow all local laws and regulations necessary for legal compliance. Compliance with local regulations is critical to the safety of the rider and of others where the bike is used.

Here are some important specifications related to compliance with local laws:

VEHICLE CLASS - A definition (California, USA) of the different types of E-Bikes, E-Bike labeling, and legal use areas, including any required additional equipment, registration, and applicable rider age restrictions.

VEHICLE CATEGORY - A definition of the European Union of the different types of an E-Bike, who may use them and where they may be used, necessary additional equipment such as lighting and signaling devices, as well as any necessary insurance and licensing.

OBSERVE MINIMUM OPERATOR AGE - Follow any national, state, or local laws for any minimum age restrictions for the operator of the E-Bike.

Ask your local Authorized Cannondale Dealer for more information about operating an electrically-assisted pedal bicycle in your area.

About Racks & Bags

See page 39.

Operation

⚠ WARNING

Always wear an approved bicycle helmet and all other protective gear (e.g., gloves, pads, and cycling shoes).

Importance of practice & rider training - before you ride this bike, practice riding in a safe area free from hazards. Take time to learn the bike's controls and performance. Practice the controls and to gain the experience necessary to avoid the many hazards you will encounter while riding.

Do not ride "hands-off - Keep your hands on the handlebars when riding the bike. If you remove your hands from the handlebar while riding, you can lose control of the bicycle and crash.

Changing the assistance level while riding: Changing the drive-assistance level while riding will increase or decrease the acceleration of the bike. You should anticipate this change in speed and react appropriately depending on the riding conditions such as on slippery trails, tight turns, or unstable or uneven surfaces. Set assistance level to "eco" (lowest assist) or to "off" before descending technical trails (e.g., tight downhill switchbacks).

When not riding: Turn the drive system off to prevent unauthorized use.

Do not ride the e-bike without the battery. Make sure the battery is fully charged before every ride to help ensure adequate battery power for necessary lighting and for the drive system.

Do not remove any lighting or reflectors and do not ride if they do not work.

Do not allow children to operate or to come into contact with the e-bike or its parts.

Only turn the drive system on when you are seated ready to ride.

Accidental activation: Always disconnect the battery from the bike before working on the bicycle. If you transport the bike by car or by airplane, obey local regulations regarding transporting a bicycle with a drive system battery. Accidental activation of the bicycle drive system can result in serious injury.

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Wired system control: If the drive system control device is detached from the mount or if the cables are disconnected or damaged, the drive system will automatically shut off. If this happens, you will have to stop the bike, turn the system off , re-attach the computer to the base, and then turn the system back on to resume operation.

Wireless system control: In wireless control systems, the operation of the drive system is controlled using radio frequencies without physical attachment. Therefore, ON/OFF activation is determined by software programming. Please consult the manufacturer's instructions for information on preventing accidental activation or on restarting the drive system in the event of a recovery from a drive system fault.

Your insurance policies - Your insurance policies (e.g., liability, property, and injury) may not provide coverage for accidents involving the use of this bicycle. To determine if coverage is provided, you should contact your insurance company or agent. Also, make sure your e-bike is insured and registered according to the local laws.

Ride sensibly and safely around others - the application of power by means of the electric motor assist means that riders can reach high speed. Riding faster increases the risks of serious accidents.

Watch out for other vehicles, cyclists, pedestrians, and animals where you ride. Always operate under control and at a safe speed. Others may not be aware of you. It is your responsibility to anticipate and to react to avoid accidents.

E-bikes are heavier than ordinary bikes - always park the bike in a suitable safe area away from children, cars or animals that may come into contact with it. Park the bike so that it cannot fall over and possibly result in injuries.

Do not ride into or attempt to ride through water or to submerge any part of the bike. If you ride through water you can lose control of the bike or the drive-assist system can become disabled or damage.

Y**ou can be severely injured, paralyzed, or killed in an accident if you ignore these warnings.**

Batteries & Chargers

⚠ WARNING

REPLACEMENT - Only use the battery pack and charger indicated in the Specifications section of this supplement. Do not use other batteries or chargers. Do not use the charger to charge other batteries.

PREVENT DAMAGE - Do not drop the battery or charger. Do not open, disassemble, or modify the battery or charger. There are no user-serviceable parts inside.

Keep the battery out of intense sunlight and away from heat. Excessive heat will damage the battery.

Keep battery away from paper clips, coins, keys, nails, screws, or other small metal items to prevent shorting exposed battery contacts. Shorting battery contacts can cause severe burns, fire, or an explosion.

STORAGE & TRANSPORTATION - When the battery is not in use in the bicycle, its transportation is subject to hazardous materials regulation. Special packaging and labeling requirements may exist. Contact local authorities for specific requirements. Never transport a damaged battery. Insulate battery contacts before packaging. Package the battery inside a shipping container to prevent damage. The battery must be removed before flying and may be subject to special handling by the air carrier.

CHARGING - Bring the battery and charger indoors and allow to reach room temperature before charging. Make sure charger and A/C outlet are the same voltage.

Locate both charger and battery indoors in a clean, dry area with good ventilation to charge. Make sure the area is free from combustibles to avoid fire from sparks or from over-heating. Keep charger ventilation openings unobstructed. Do not cover the charger or the battery.

Disconnect the battery from the charger unit when fully charged. Do not leave a fully-charged battery connected to the charger. Unplug the charger from the wall outlet when not in use.

Maintain the battery and the charger as directed by the manufacturer's instructions.

DISPOSAL- Battery pack and charger contain regulated materials and must be disposed/discarded in accordance with national and/or with local laws. Do not discard the battery/charger into fire, into water, or into ordinary household waste/garbage. Instead, take to a waste facility/recycler.

FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN ELECTRICAL FIRES, EXPLOSIONS, SEVERE BURNS, OR ELECTROCUTION.

No Modification

WARNING

DO NOT MODIFY THIS BICYCLE/DRIVE SYSTEM IN ANY WAY FOR ANY REASON. Doing so can result in severe damage, in faulty or in dangerous operating conditions, or in violation of local laws.

Dealers and Owners MUST NOT change, alter, or modify in any way the original components of the bicycle or drive-assist system (e.g., the specified sizing of the gear ratios, i.e., the front chainrings and rear cogs).

Attempts to "hot-rod" or to "improve" the speed of the bike are dangerous to the rider. Use only specified Cannondale and/or manufacturer drive-assist service and replacement parts.

Side Stand

WARNING

Do not sit on the bicycle with the stand down. Kickstand is not designed to support the weight of a person.

Make sure kickstand is up before riding.

To prevent toppling over, park your bike on a level surface; lower the stand.

Commuting

WARNING

EQUIPMENT - Any bicycle, including an E-Bike must be properly equipped for commuting including any legally-required lights, signals, and registrations. Ask your Authorized Cannondale Retailer if commuting is within the scope of your bike's intended use and if your bike is properly equipped for commuting.

DANGERS - Operating an E-bike as a commuting vehicle is no less dangerous than operating an ordinary pedal bike or automobile. E-Bikes are certainly not designed to protect you in a crash. Do not assume the bike or its drive capability will protect you or keep you from being involved in a serious accident.

NIGHT RIDING- Riding at night on an E-Bike or on a pedal-only bike is very hazardous.

Read the topic "Riding at Night" in your Cannondale Bicycle Owner's Manual for more information on the many hazards of riding at night.

You must operate with a very high degree of awareness and precaution to only reduce the risk of death or serious injury.

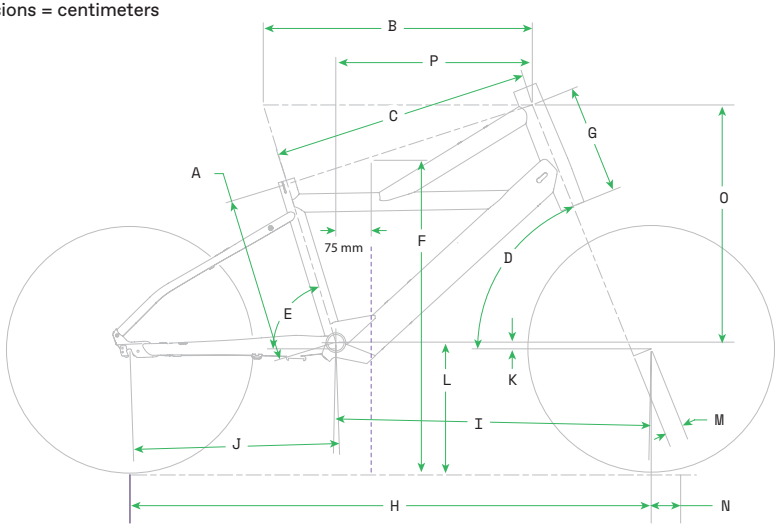
Technical Information

Frame Specifications

Item	Specification
Compact Neo	Collection 2022
Drive System	Hyena
Battery	Hyena BP-B250 Intube Battery 36V/250Wh
Drive-Assist Owner's Manuals https://www.hyena-ebike.com/	
Head Tube	UPR: 1-1/8in, LWR: 1-1/8in
Headset	Semi-Integrated 1-1/8in-1-1/8in FSA No.10
	ZS44 Top ZS44 Bottom
Bottom Bracket: Type/Width	BSA/73mm
Front Derailleur	Braze-on
Seat Post: Dia./Binder	31.6mm/34.9mm
⚠ Min. Seat Post Insert	100mm
Max. Seat Post Insert	320mm
Tire Size x Max. Tire Width	20×2.35in (measured)
Brakes: Mount Type / Min./Max. Rotor Dia.	FT: Flat Mount/160mm/160mm
	RR: Flat Mount/160mm/160mm
Axles: Type/Length	FT: QR/100×9mm
	RR: Hyena Hub Motor Axle
Fork Offset	38mm
⚠ Intended Use	ASTM CONDITION 2: General Purpose Riding
⚠ Max. Weight Limit: Total (Rider+All Equipment)	305lbs/138kg

Geometry

Dimensions = centimeters

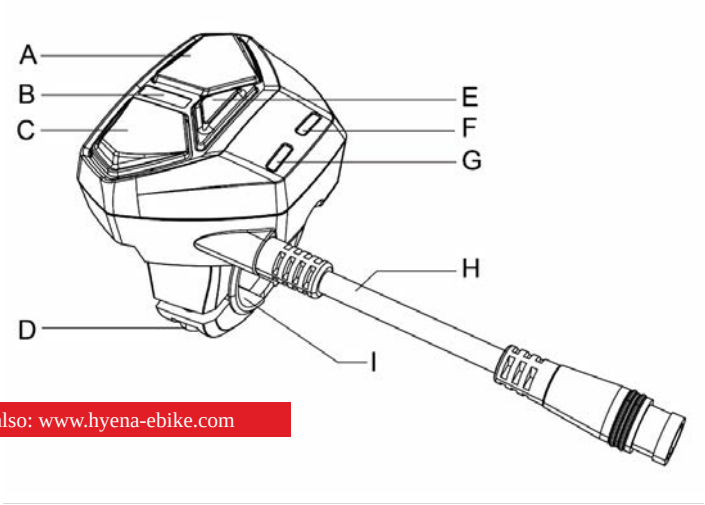


	Size	OS
∅	Wheel Size	20 in
A	Seat Tube Length	35.3
B	Top Tube Horizontal	55.5
C	Top Tube Actual	53.2
D	Head Tube Angle	68.0°
E	Seat Tube Angle Effective	73.0°
F	Standover	59.0
G	Head Tube Length	26.6
H	Wheelbase	108.5
I	Front Center	65.6
J	Chain Stay Length	43.0
K	Bottom Bracket Drop	-1.9
L	Bottom Bracket Height	28.0
M	Fork Rake	3.8
N	Trail	6.4
O	Stack	53.0
P	Reach	39.3
	Head Tube Height	34.2

Drive System

Handlebar Control Unit

The Hyena LED Multi (HMI - Human machine interface) features compact size, 3 multi-color LED indicators, and a flexible mounting position on the handlebars (both left and right-hand side). The control unit supports app and service tool connection via Bluetooth.



See also: www.hyena-ebike.com

Identification

A Up & Increase support level button
B Support level indicator
C Down & Decrease support level button
D Fastening Screw
E Power on/off button
F Battery status indicator
G Bluetooth / Error indicator
H Cable
I Rubber ring

Operation Instructions

Caution - The e-Bike system can only be activated when the following requirements are met:

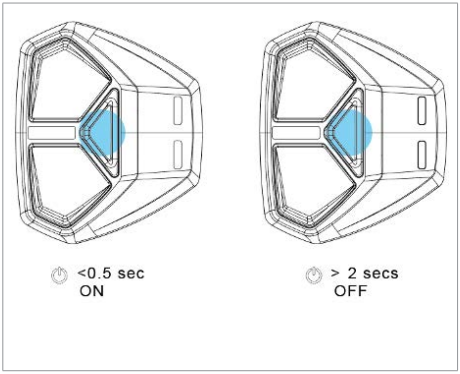
-A sufficiently charged battery is attached.

-The e-system is connected properly.

Turn on/off the e-bike system

To turn on: press and hold the power button for half a second.

To turn off: press and hold the power button for 2+ seconds.

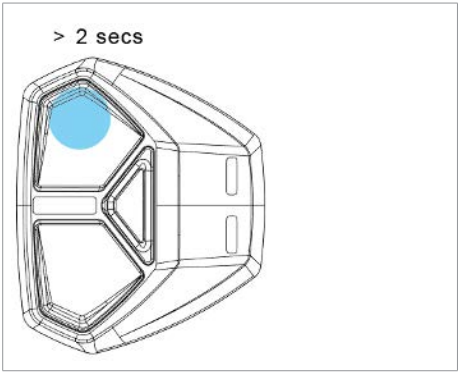


Note: Always switch off the e-Bike system when you park the e-Bike or before removing the battery.

Turn on/off light

To turn on: press and hold the power button for half a second.

To turn off: press and hold the power button for 2+ seconds.



Changing the level of drive assistance

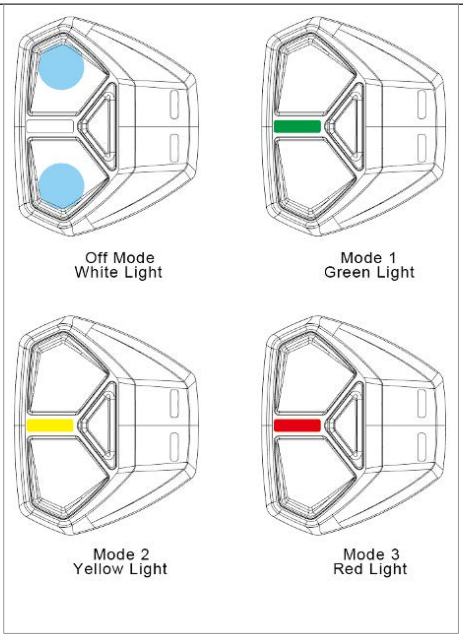
To adjust the assistance level, press the up or down buttons while pedaling. Press the up button to increase, press the down button to decrease.

The system defaults to the OFF mode.

When restarting, the system will automatically remember and start with the previous assistance level.

Note

- The system is activated as soon as you start pedaling.
- The e-Bike drive output only supports a speed up to 25 km/h (20 mph US).
- As soon as you have reached 25 km/h (20 mph US), the drive assist switches OFF the assistance, then automatically reactivates when your speed is below 25 km/h (20 mph US).



Assist Support Modes

Mode	Level of drive assist	LED color	Assistance range (distance)	Battery Demand (time until next recharge)
OFF	none	white	--	--
1	Low	green	Longest	Lowest
2	Medium	yellow	↕	↕
3	Highest	red	Shortest	Highest

Walk assistance mode

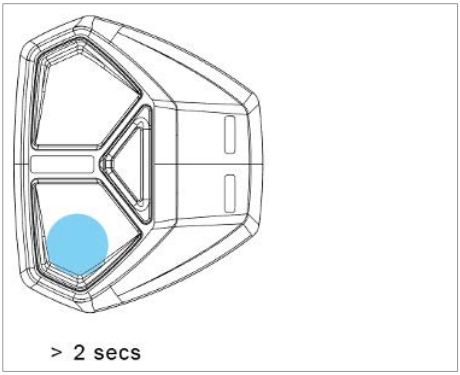
To activate the walk assist mode, press and hold the down button for 2+ seconds.

Once walk mode is on, hold the up button to engage the drive system. Release the button to cancel the walk assistance.

Note

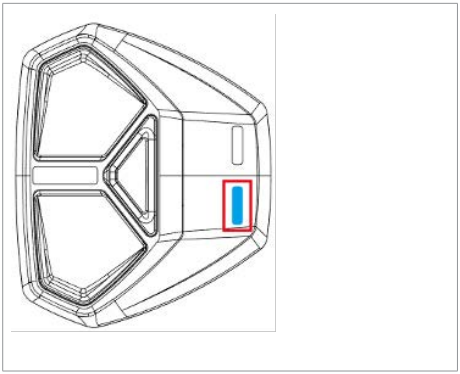
The walk assistance function must only be used when pushing the e-Bike. Make sure you are ready and stand steady before activating the walk assistance.

Do not activate the walk assistance when you ride on the e-bike or if the wheels are not in contact with the ground.



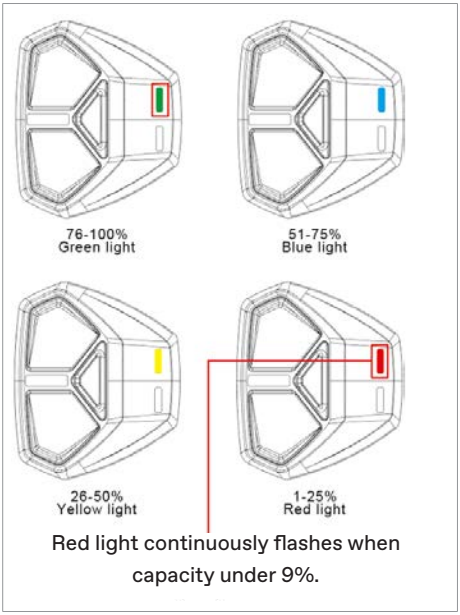
Bluetooth connection

“The blue LED indicator will flash 3 times when Bluetooth is connected or disconnected.



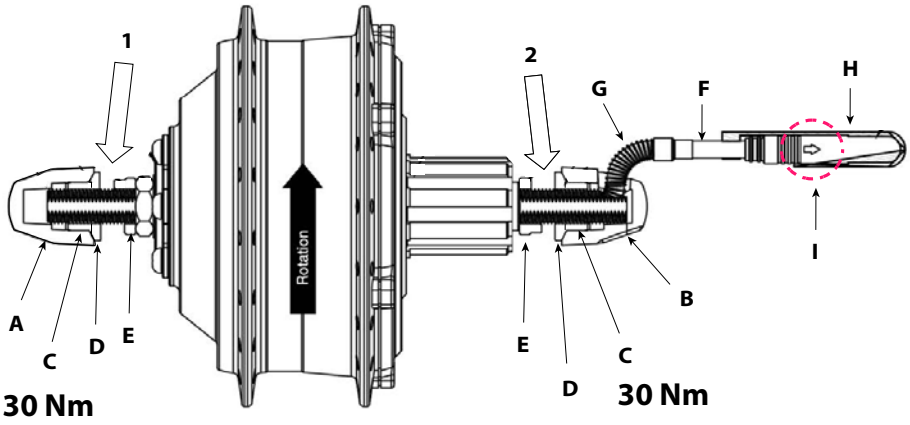
Battery indicator

The battery status LED indicator shows the battery’s state of charge.



Drive Motor

The Hyena MRC-A250 rear hub motor provides power for the e-bike. It is not user servicable.



See also: www.hyena-ebike.com

Identification

1. Left dropout of bike
2. Right dropout of bike

A End cap, left side
B End cap, right side
C Nut
D Flat washer
E Locking washer
F Cable wire
G Spring cable shield

H Cable connector
I Connectors alignment arrow marking

Hub Motor Specifications

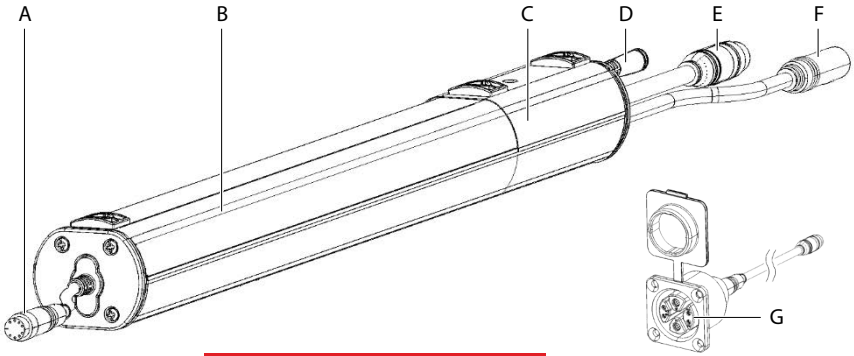
Function		
Rated power	250 W	
Rated voltage	36 V	
Wheel size	26~28 inch	
Max. speed	25 km/hr	
Max. torque	40 Nm	
Max. RPM	230 ± 5% RPM	w/o loading
Max. current @ max. RPM	≤ 1.7 A	w/o loading
Max. noise @ max. RPM	< 60 dB	w/o loading
Max. efficiency	≥ 80 %	
Weight	2.9 Kg	
Waterproof level	IPX4	
Hall sensor	Yes	
Speed sensor	Yes	1 Magnet
Temperature sensor	N/A	

Mounting Parameter	
Mounting position	Rear Wheel
Outer dimension	141 mm
Shaft length	197 mm
O.L.D (over-locknut dimension)	138.5 mm
Axle type	12 mm
Spoke hole	36 H
Spoke hole type	13G
Brake type	Disc brake BCD 44 mm 6 bolts
Freewheel type	Cassette 8~10 speed
Cable outlet	Drive side
Cable length	200 mm
Standard connector	JL-F-Z910AG

Battery BP-B250

BP-B250 is an internally-mounted downtube battery. The battery is not user-servicable.

Parts Description



See also: www.hyena-ebike.com

Identification

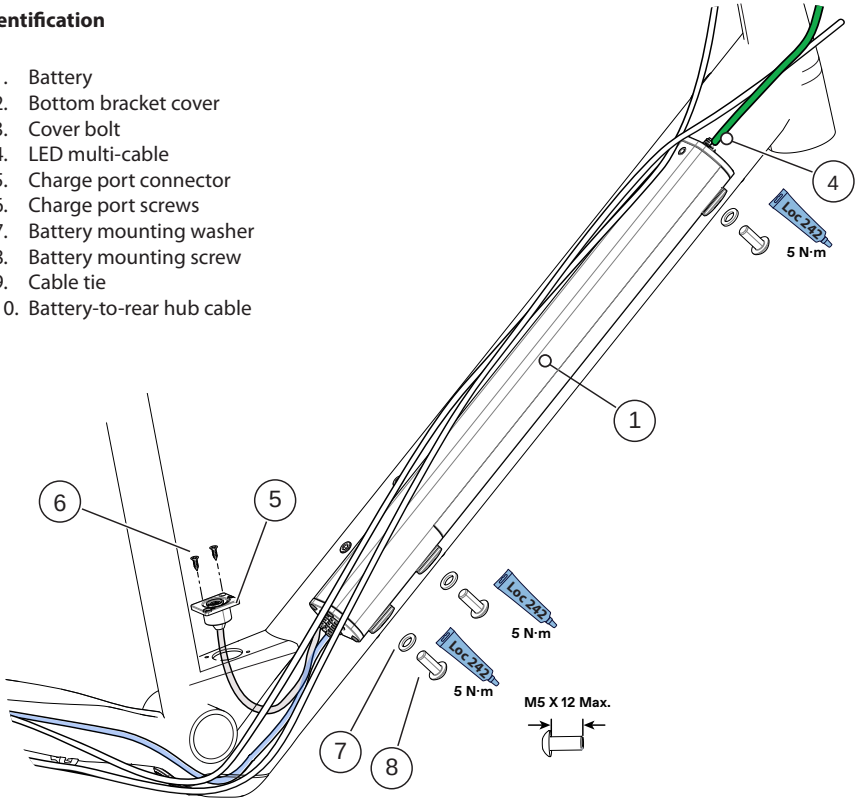
A HMI connector
B Battery pack
C Driver and BMS
D Sensor connector
E Charger connector
F Motor connector
G Charging port adapter

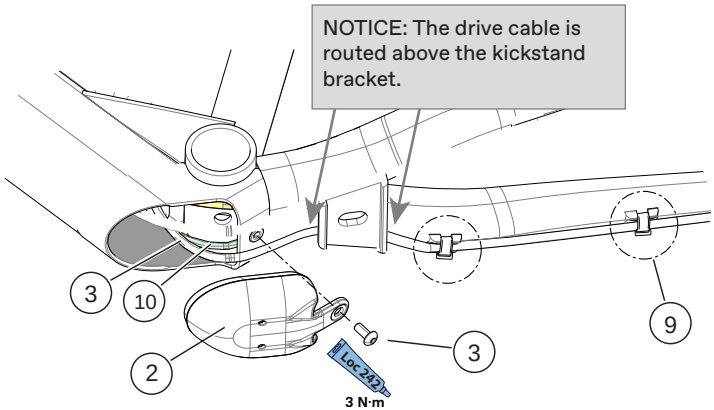
Specifications

Function		
Rated voltage	36V	
Rated capacity	6.9Ah	
Energy content	248.4Wh	
Cut off voltage	< 28.0V±0.3V	
Charging mode	CC-CV (constant voltage with limited current)	
Charge voltage	42.0V±0.3V	
Charge Current	≤ 4A±0.2A: Support 2A & 3A Hyena charger	
Continuous Discharge Current	16A	
Weight	1.74 kg	
Waterproof level	IPX5	

Identification

1. Battery
2. Bottom bracket cover
3. Cover bolt
4. LED multi-cable
5. Charge port connector
6. Charge port screws
7. Battery mounting washer
8. Battery mounting screw
9. Cable tie
10. Battery-to-rear hub cable





Battery Removal

⚠ WARNING

To prevent injury or damage to the unit, The following procedures should only be performed by a trained e-bike mechanic.

Disconnect the rear hub to prevent injury in the event of accidental activation of the drive system.

1. Disconnect the LED Multi-to-battery cable connector .
2. On right chainstay, disconnect the rear hub cable from the battery. Remove cable ties securing cable to frame.
3. Disconnect the LED Multi-to-battery connector (2).
4. Remove the bottom bracket cover screw and cover.
5. Remove the screws and lift up the charge port. Disconnect the charge port-to-battery cable.
6. Disconnect the torque/cadence sensor-to-battery connector.
7. Remove the three bolts and washers on the underside of the downtube to release the internal battery.
8. Slide the internal battery down and out of the bottom bracket opening.

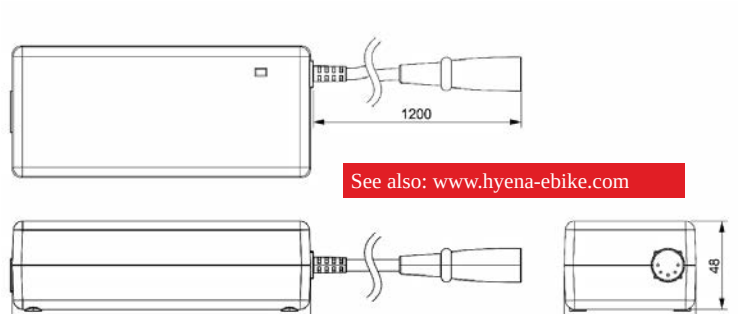
Replacement Battery Installation

1. Affix the adhesive tape (6) to the new battery at the mounting points on the lower surface of the battery. Affix the flat side of the spacers (7) to the battery adhesive tape over the mounting holes.
2. Insert the top of the battery into the downtube. Make sure other cables and housing inside the downtube are positioned on the top of the battery inside the downtube. Align the holes in the battery with the holes in the frame and install the washers and bolts. Apply Loctite 242 (blue) to the bolt threads and tighten to the specified torque.
3. Reconnect the battery to the charge port connector, insert charge port into frame opening and and re-install the mounting screws (12). Tighten securely.
4. Reconnect the rear hub cable and secure it with new cable ties to the right chainstay.
5. Reconnect the torque/cadence sensor cable to the battery.
6. Reinstall the bottom bracket cover and tighten the cover bolt to the specified torque.
7. Charge the battery as directed.
8. Reconnect the LED Multi cable and any optional lighting to the battery.
9. Test for proper operation of the drive system before riding.

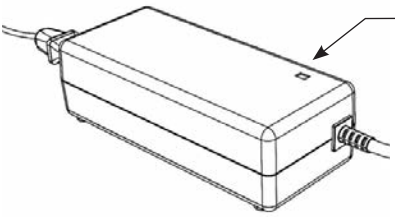
Charger 2A

Please read the instructions and the warning labels on the charger carefully before using the battery charger.

Part Dimension



Functional light instructions



The functional light shows charging status while using the charger to ensure safety.

Status	Indicator
Stand by	Solid green light
Charging	Solid red light
Fully charged	Solid green light
Over-current protection	Alternate red/green flashing
Short-circuit protection	Alternate red/green flashing
Reverse connect protection	Flashing green
Timing off (output shut down after 12 ± 0.5 hours)	Solid green light

Charging the internal downtube battery

• Plug the charger into an outlet (100-240V), using the appropriate plug for the country's standards.

• Uncover the charging socket on the battery, then connect the charging plug with the charging socket on the battery.

• When charging is complete, disconnect the charging plug from the battery socket.

• Unplug the charger from the wall socket.

• Make sure to close the charging port cap after charging. If foreign matter such as dirt or dust adheres to the charging port, there is a risk that the charging plug will not fit into the charging port.

• The type of socket for the charge connector might be different for different types of batteries. Please follow the battery charging instruction.

• Be sure to follow the battery charging instructions. Use only the specified charger and charging plug.

• **CAUTION** - Charge the battery in an area with a smoke detector or make sure someone is observing the battery during the charging process.

• **CAUTION** - Do not place the battery charger at locations that are easily accessible to children.

Charge port cover closed

Charge port cover open

Important Warnings & Cautions Regarding Using the Charger

WARNING

• **WARNING** - Only charge the battery by following all safety descriptions. Please read and follow the instructions for using the battery charger.

• All Hyena Chargers only use genuine Hyena batteries and battery packs or battery packs approved for use with your e-bike by the manufacturer. Purchase only from reliable sources.

• Use of un-certified battery packs may result in death or severe injuries.

• Charging is restricted to certified Hyena lithium battery packs. The battery pack voltage must comply with the charger output voltage; otherwise, it might result in risks of explosions or fires.

• **CAUTION** - Charge the battery indoors to avoid exposure to rain or wind. Do not use outdoors or in environments with high humidity.

WARNING

• WARNING - Be sure to hold the electrical power plug steady when connecting or disconnecting from the electrical outlet. Do not disconnect by pulling on the electrical cord. Failure to do so may cause a fire or electric shock.

• If the following symptoms are observed, stop using the device and contact the place of purchase. A fire or electric shock may be caused:

- If heat or acrid-smelling smoke is coming out from the power plug.

- If there is a bad connection inside the power plug.

• Do not place the battery charger on the floor or on other dusty places when using it.

• Place the battery charger on a stable surface such as a table when using it.

• Do not place any objects on top of the battery charger or its cable. Do not place a cover on it either.

• Do not apply excessive tension to the cables and charging plugs.

• Do not touch the metallic parts of the device or the power plug on the AC adapter or other parts when the charger is wet. Electric shocks may occur.

• Use only a 100-240 V AC electrical outlet. Do not overload the electrical outlet with appliances beyond its rated capacity.

• If the electrical outlet is overloaded by connecting too many appliances using adapters, overheating resulting in fire may occur.

• Do not use the battery charger with commercially-available electrical transformers designed for overseas use (travel converters). They may damage the battery charger.

WARNING

• Do not damage the power cord or power plug. (Do not damage, process, forcibly bend, twist or pull them, bring them near hot objects, place heavy objects on them, or bundle them tightly together.)

If the power cord or power plug are used while damaged, fire, electric shocks, or short-circuits may occur.

• When charging the battery while it is installed on the bicycle, do not move the bicycle. The battery charger's power plug may come loose and not be fully inserted into the electrical outlet, resulting in a risk of fire.

• When charging the battery while it is mounted on the bicycle, be careful not to trip over the charger cord. This may lead to injury or cause the bicycle to fall over, damaging the components.

• **CAUTION** - According to ECP, when the battery is in over-charged/over-discharged conditions, the battery will automatically disconnect the circuit for safety protection.

• Check your battery pack before using it for the first time. First, you must turn on the battery pack; if the charging LED did not light up, it means that this battery pack might be damaged.

• Make sure to charge the battery pack fully before using it for the first time.

• Do not try to use or to charge damaged battery packs.

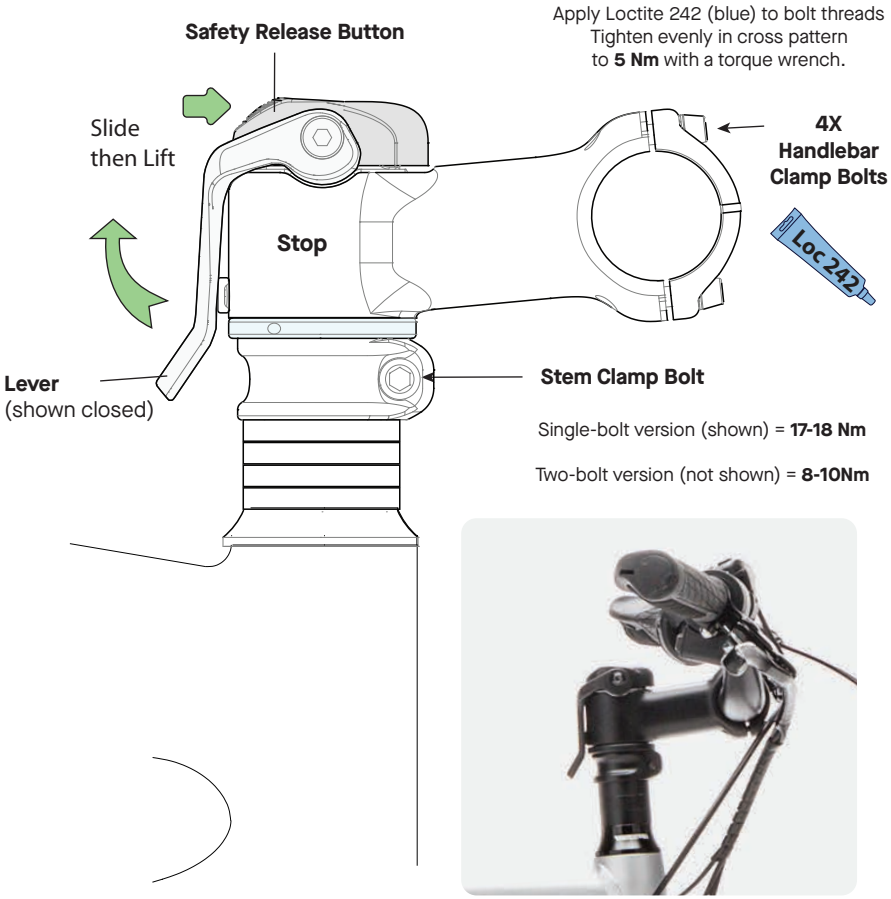
• When charging, do not place any items 50 cm around the battery and make sure the battery and the charger are on a fireproof surface.

• Do not leave batteries in the charger for more than 24 hours. If the charging cannot complete in 24 hours, contact your local bicycle dealer for assistance.

The battery pack can be charged under any power mode; interrupting the charging process will not damage the battery pack.

• **CAUTION** - The battery packs are partially charged before they were shipped; to ensure that the battery has full and sufficient power, please charge your battery pack fully before using it for the first time.

Folding Stem



Changing Handlebar Position

1. Using your thumb, slide the safety release button (1) forward and lift the lever up (2).

Figure Opening stem Lever

Figure Stem lever open

> **⚠ CAUTION**
>
> **Lifting the lever without pushing forward the safety release button can damage or break the button.**

2. Rotate the handlebar 90 degrees into riding or storage position.

Riding position - The handlebar is perpendicular to the frame and locked in place with the lever down.

Storage position - The handlebar turned parallel to the bike frame on either side and then locked in place with the lever down. This position reduces the space needed to park, store, and/or transport the bike.

3. Close the lever (2). Push it down until the lever arm touches the stem stop (a).

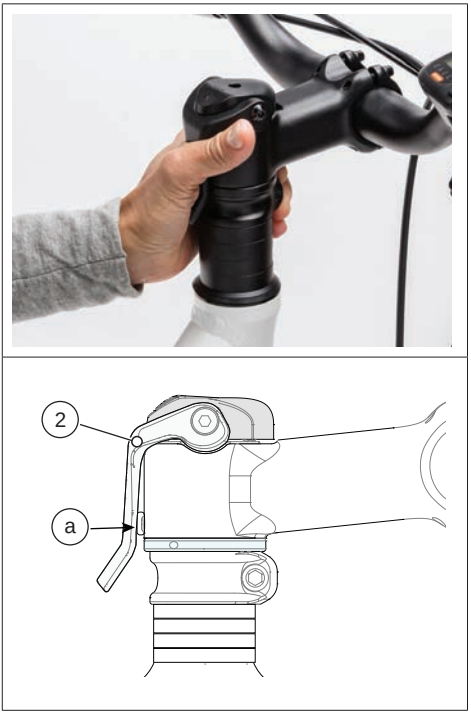


Figure Lever closed correctly

4. Stand in front of the bike. Place your feet on both sides of the wheel and hands on the handlebar. Try to move the handlebar while holding the wheel. The handlebar must not move while the wheel is held fixed. If it does, something is wrong. Do not ride the bike until the conditions are corrected, see next WARNING.

   See also “Adjusting Folding Stem Lever Tension.”

⚠ WARNING

The stem lever is closed correctly when:

- A strong resistance is felt to the force of your hand when closing the lever.
- An impression of the lever is left in the palm of your hand after removing your hand from the closed lever.
- The handlebar does not have any play or side-to -side movement.

The stem lever is too loose and stem tension must be adjusted if:

- A strong resistance to the force of your hand is not felt when closing (locking) the stem lever.
- Closing the lever does not leave an impression of the lever in your palm.
- After the lever is closed you can still rock the handlebar side-to-side or the handlebars have a loose feeling. The stem tension (play) must be adjusted. See “Adjusting Stem Tension”

Never ride with an open or loose lever. Make sure the lever is closed. If you ride with an open or loose lever you may lose steering control of the bicycle. Failure to properly and fully close the lever could lead to an accident with risk of serious injury, paralysis or death.

Adjusting Folding Stem Lever Tension

The stem's tension adjust ring changes stem lever tension and stem play. It must be tensioned correctly. Some wear will occur normally over time as the stem lever is used. We suggest that stem tension be inspected frequently, more so if you use change position of your stem often. The stem tension adjustment should be performed by a professional bicycle mechanic. Show the mechanic these instructions.

To adjust:

1. Secure the bike upright.
2. If it is not already, rotate the stem so that it is in the riding position. See "Setting the Adjustable Stem Position."
3. Press the safety release button forward, and lift the lever up.
4. Use a 2 mm hex key to loosen the set screw.
5. Insert a 3 mm tool into the small hole in the tension adjustment ring. Use the tool to rotate the tensions adjustment ring.

   Rotate tension adjustment ring clockwise "+" to increases tension.

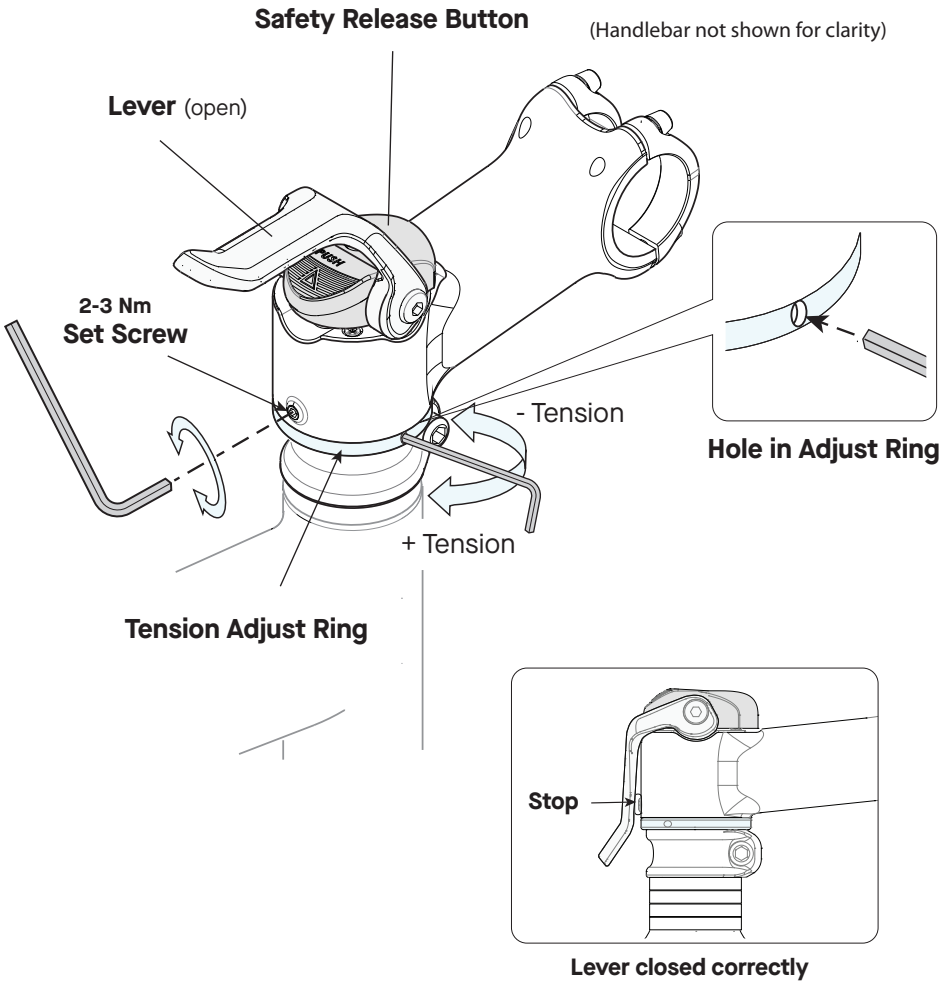
   Rotate tension adjustment ring counter-clockwise "-" to decrease tension.

   Make small changes in tension and then close the lever to check the change in lever tension. If may be necessary to change the tension several times until the correct tension is set.

   When the correct lever tension is set when:

   (1) - Closing the lever makes an impression of the lever in the palm of your hand .

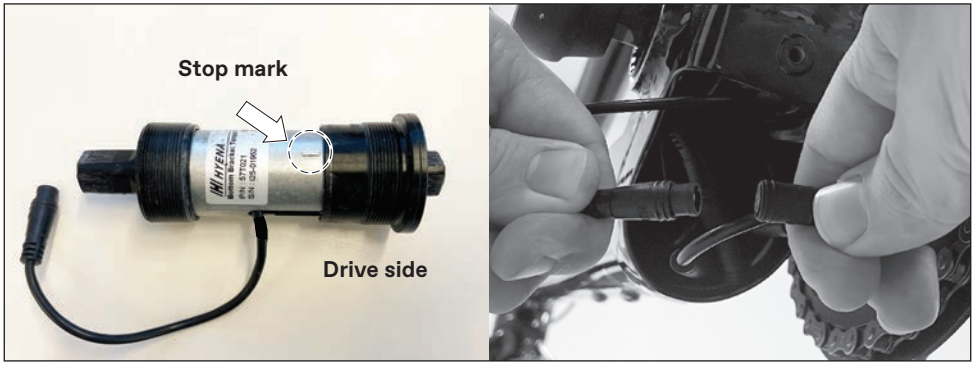
   (2) - No play is present in the stem/handlebar. The stem/handlebar does not rock side-to-side or feel loose."
6. With the correct lever tension set, and the lever in the "up" position, tighten the set screw with the 2 mm hex key. This set screw holds the tension adjustment ring in place.
7. Close the lever.



WARNING

Never ride with an open or loose lever. Make sure the lever is closed. If you ride with an open or loose lever you may lose steering control of the bicycle. Failure to properly and fully close the lever could lead to an accident with risk of serious injury, paralysis or death.

Bottom Bracket Torque Sensor



The Hyena ST-SQ-1A Cannondale Part number: K77011 bottom bracket/torque sensor is located inside the frame bottom bracket shell. This part like other drive system components should only be serviced by a professional bicycle mechanic.

When service is required, it is important to understand that the stop mark is located on the drive side of the bicycle. Also the torque sensor cable must be disconnected before removing the spindle from the frame.

⚠ WARNING

TO PREVENT MALFUNCTION OR RIDER INJURY:

The stop mark of the Hyena spindle (Cannondale Part# K77011) must be located on the drive side.

NOTICE

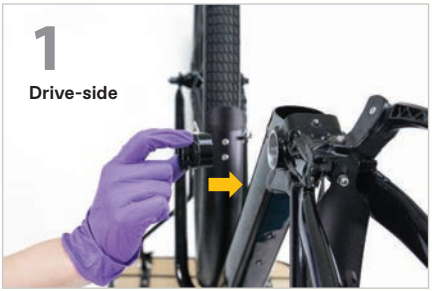
TO PREVENT SPINDLE DAMAGE:

1. Disconnect the cable BEFORE removing the spindle. Failure to disconnect the torque sensor cable before removal will result in breaking the cable.

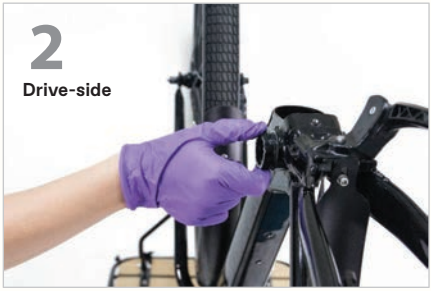
2 DO NOT remove the drive side BB cup BEFORE removing the spindle. The spindle should be removed from the non-drive side.

Damage resulting from incorrect service procedure is not covered under limited warranty.

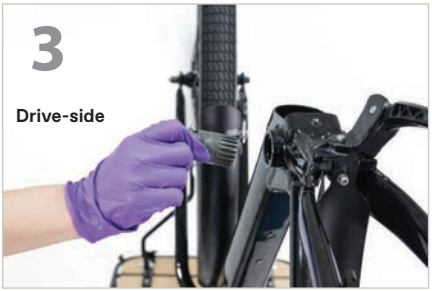
Torque Sensor Installation



Insert the right drive side side bottom bracket bearing cup. Park Tool BBT-22 (20 spline).



Tighten the bottom bracket bearing cup counterclockwise.



Tighten the bottom bracket bearing cup with bottom bracket tool.

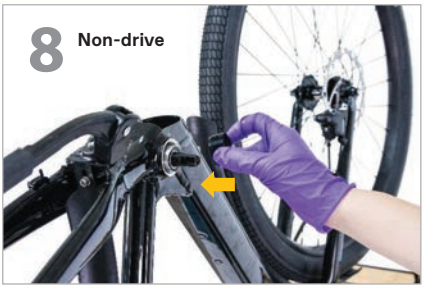
Maximum tightening torque 35 Nm.

Insert the sensor from the left side (non-drive side). **NOTE: Please pay attention to the direction of the "Stop Marking" as shown.**

Meanwhile, pull out the cable from the bottom hole of bottom bracket.

Torque Sensor Installation

Push the sensor until it if fully inserted.



Insert the bottom bracket bearing cup from left side.

Tighten the bottom bracket bearing cup clockwise.

Tighten the bottom bracket bearing cup with bottom bracket tool.

Maximum tightening torque 35 Nm.

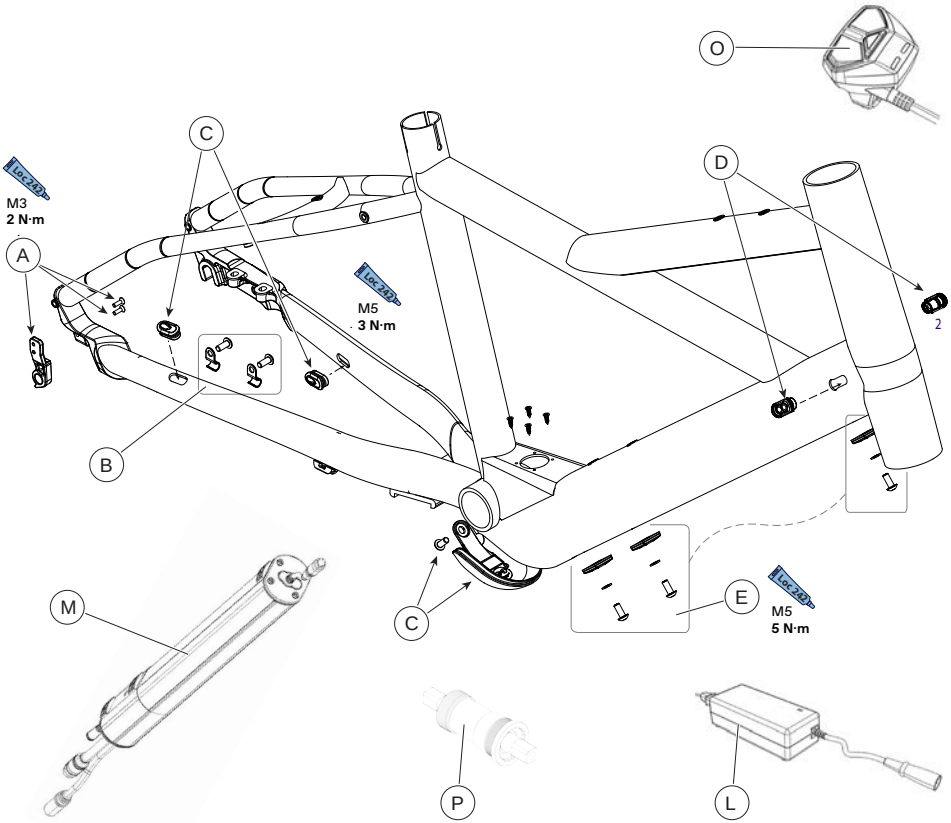
Replacement Parts

Service Kits

Frame		
ID	Kit #	Kit Description
A	K33050	Derailleur Hanger BT ST SS 077
B	K32240	E-Road Chainstay Cable Clips
C	K34030	Alloy Frame Battery Door
D	K32000	Shift/Brake Keyhole Grommets
E	K76040	X35 Battery/Charge Mounting Hardware
F	K32048	Shift And Brake Grommets
--	K13092	Compact Neo Rear Rack
--	K11052	Compact Neo Fender 20in. FT+RR
--	K14040	Herrmans H-Trace E-Bike Rear Light
--	K14010	Herrmans FL-14 H-Black MR4 Front Light
--	K76121	Herrmans Stem Bracket Light Mount
--	K8702220	HyDrive Disc RR Wh MRC-250 36h 20 (Rear wheel assembled, includes drive hub)
--	K8703220	HyDrive Disc FT Wh 100×9 32h 20
--	K28041	Quick Park Stem +7 Deg 31.8 Clamp 80mm
--	K28001	Quick Park Top Cap Lever w/ Spring
--	KA051/	Seatpost Alloy 31.6 × 520mm BLK

Drive System (HyDrive)		
ID	Part Number	Description
L	K74031	BP-B250 36V2A Charger EU
	K74021	BP-B250 36V2A Charger US
	K74041	BP-250 36V2A Charger UK
M	K71031	BP-B250 Battery 36v 250Wh
O	K73031	HMI Console (LED Multi)
--	K75111	Light Cable 1000mm
P	K77011	Torque Sensor BSA BB 73/122.5
--	K71052	Hyena BP-250 Battery Charging Port

"--" - Item not pictured


O
C
D
Loc-Tite
M3
2 N·m
A
Loc-Tite
M5
3 N·m
2
B
M
C
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Loc-Tite
M5
5 N·m
P
L

E-Bike Maintenance

Before and After Each Ride:

- Clean and visually inspect the entire bike for cracks or damage. See “Inspect for Safety” in your Cannondale Bicycle Owner’s Manual.
- Make sure the battery is fully charged. Follow the drive system charging instructions. Battery charge discharge capacity will decline with usage. Have the older battery replaced when it fails to charge within the time indicated and/or to provide power reliably.
- Test the drive-assist system, make sure the drive system functions normally.
- If your e-bike model was equipped with a lighting system (e.g., brake lights, headlights, taillights, and/or number plate illumination), ensure each light functions properly.
- Check for proper function of the front and rear brakes. Brake pad and rotor wear is typically greater on e-bikes than on pedal-only bikes, requiring more-frequent inspection and replacement.
- Check tire pressures and the condition of the wheels. Ensure the tires are not damaged and do not have excessive wear. Ensure no wheel parts are broken or missing and that the wheels are firmly attached to the bike via secured skewers/axles.
- Confirm the drive chain is in good condition, is clean, and is well lubricated. Chain wear is typically greater on e-bikes than on pedal-only bikes, requiring more-frequent inspection and replacement. Ensure the gears operate normally throughout the entire range.
- Inspect the condition of the electrical cables, ensuring no kinks or abrasive wear. Check that cables near the dropouts are assembled properly to avoid contact with the brake rotors.

PROFESSIONAL BICYCLE MECHANIC	HOW OFTEN
Inspect and service the drive system and related components as defined by the drive manufacturer.	Minimum, annual.

⚠ WARNING

Any part of a poorly maintained bike can break or malfunction leading to an accident where you can be killed, severely injured or paralyzed.

Frequent checks are necessary to identify the problems that can lead to an accident.
See “Inspect For Safety” in your Cannondale Bicycle Owners Manual.

Cleaning Your Bike

When cleaning your bike:

USE ONLY A MILD SOAP AND WATER SOLUTION. Clean water and a common dish washing liquid will work best.

COVER SENSITIVE AREAS WITH A CLEAN PLASTIC BAG. Secured temporarily with a rubber band or masking tape, a bag can prevent water damage to various bike components (bearings, electrical controls, connections and sensors, seals, fork / shock adjustment features).

SPRAY OFF BEFORE WIPING. To preserve the appearance of paint, finish, and decals, use a low pressure water hose to first spray off heavy soils and dirt.

CLOSE ALL COVERS.

NOTICE

DO NOT power wash or spray water under high pressure to clean. Power washing will force contaminants into parts where they will promote corrosion, immediately damage, or result in accelerated wear.

DO NOT use compressed air to dry.

DO NOT use abrasive or harsh chemical cleaner/solvents which can damage the finish or attack and destroy both the outside and internal parts.

When rinsing, avoid directing the spray directly at shock/fork adjusters or bearings.

⚠ WARNING

Do not clean the bicycle while connected to the charger. Move the bicycle to an area away from sources of electrical energy or electric appliances.

Keep water away from the electrical components.

Make sure the bike is secured upright and cannot fall over accidentally while you are cleaning it. Don't rely on the kickstand. Use a bicycle wheel-stand or work-stand to hold the bike upright while you are cleaning it.

Maintaining Your Bike

1. Read your **Cannondale Bicycle Owner's Manual** for information on the owner's responsibility for routine inspection and maintenance of your bike.

   Consult with your Authorized Cannondale Dealer to create a complete maintenance program for your riding style, components, and conditions of use.

   Follow the maintenance recommendations given by the component manufacturers for the various parts of your bike.

2. Recommended after the first 150 km, bring your bike to your Authorized Cannondale Dealer for an initial check-up. It should include checks of the drive-assist system, drive chain condition, proper shifting, accessories, wheels and tire condition, brakes, etc. This visit will help you establish a schedule for repeated visits appropriate for how and where you ride.

3. Every 1000 km, bring your bike into your Authorized Cannondale Dealer for a regular detailed inspection, adjustment, and replacement of wear items across the entire bike. E-bikes can wear out wheels, tires, drive chains, and brakes faster.

Maintaining Your Bike's Drive System

NOTICE

Drive-assist system components must only be serviced at an authorized service center. This will ensure the quality and safety of the drive-assist system.

Never attempt to open or to remove drive system parts from the frame or to work on them yourself. Other components of the drive system (e.g. drive chain, front chain ring, rear cassette, rear derailleur, and crank arm) must be serviced by an Authorized Cannondale Dealer.

Replacement parts must be identical to the original Cannondale specification for the bike. Failure to replace components with original specification can result in serious overload or in other damage to the drive unit.

Unauthorized opening or servicing of the drive unit will void the warranty.

About Racks & Bags

⚠ WARNING

LOADING LIMIT (TOTAL): Loading limit for a front or rear rack is marked on the rack. Do not overload the rack. Do not carry a passenger. A rack is not a seat.

UNDERSTAND THAT ADDING RACKS WILL AFFECT HOW YOUR BIKE HANDLES; YOU MUST COMPENSATE. A loaded rack bag will affect the handling (e.g., steering, stability, braking, acceleration, etc.) of your bike. You must learn to compensate for the handling effects of the loaded items. If you use multiple racks and or cycling bags, distribute all weight across racks evenly.

DO NOT MODIFY: The rack or bike frame must not be cut, drilled, or modified in any way.

PERIODIC INSPECTION REQUIRED: The rack and frame mounting points must be periodically inspected for damage as part of your routine bicycle maintenance.

SECURE RACK/BAG CONTENTS: You must make sure that all items placed on the rack or in a bags are secure and cannot be thrown out or shifted while riding. You must prevent any parts of the contents, the straps, or the tie-downs used to secure the rack contents including those of the bag from interfering with your ability to steer the bicycle or to use any of its controls. REMOVE ALL items in the rack, and bags on the bike should be removed when the bicycle is placed on an automobile rack. Make sure the strap ends/hooks are secured at the frame or rack tie-down points. Make sure nothing such as loaded item or straps or ties used to secure the load can come loose and entangled in the wheel.

YOU CAN BE SEVERELY INJURED, PARALYZED, OR KILLED IN AN ACCIDENT IF YOU IGNORE THESE WARNINGS.

Trailer, Child Carriers or Child Seats

⚠ WARNING

Do not attach a trailer, a child carrier or a child seat to this bicycle or its front/rear racks. Attachment of a trailer, a child to this bicycle can result in a serious accident leading to serious injury or death. Please read “Child Carriers” in your Cannondale Bicycle Owner’s Manual Now.

Notes

www.cannondale.com

2023 Compact Neo OMS
151990 Rev1 (03/23)

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