

# Treadwell Neo Hydrive

## 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.

## 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:

-  = Apply NGLI-2 Synthetic grease
-  = Suspension grease [Buzzy's Slick Honey™](#) or [R.S.P. Slick Kick](#)
-  = [Loctite® 242](#)
-  = [Loctite® 262](#)
-  = [Loctite® 222](#)
- N·m** = Tightening torque in Newton meters.

## 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

Cycling Sports Group, Inc.  
1 Cannondale Way  
Wilton, CT 06897, USA  
1-800-726-BIKE (2453)

### CSG Europe (Woudenberg)

Cycling Sports Group Europe B.V.  
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.

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## 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

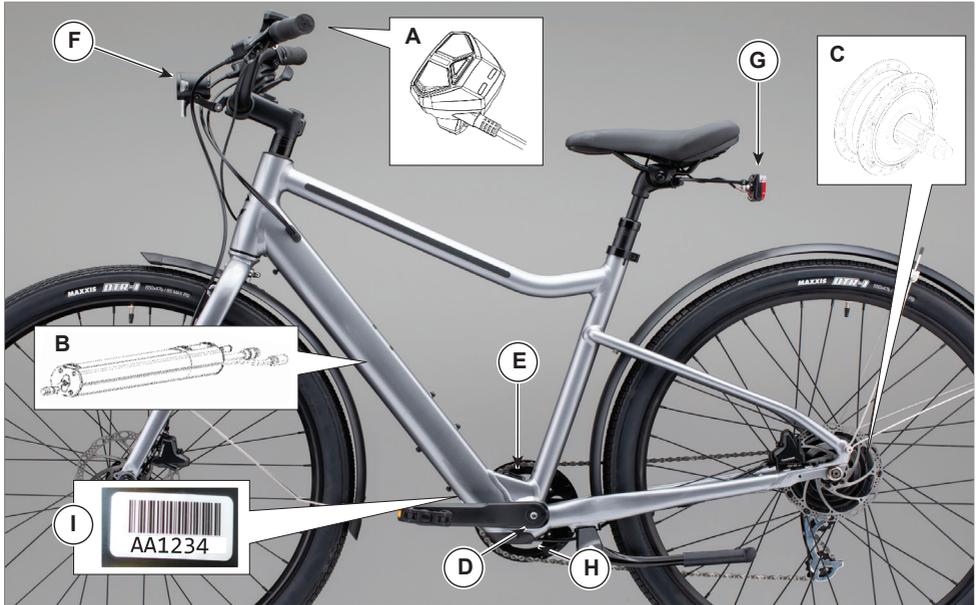
MANUFACTURER’S INSTRUCTIONS - In addition to this supplement, you must read and follow the manufacturer’s instructions for all components of the drive-assist system:

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

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

## Identification

### Drive System Parts



Actual bike appearance will differ.

#### Identification

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

### Serial Number

The serial number is located on downtube. It is a 7-character code. Use this serial number to register your bike.

Record YOUR Serial Number here:

-----

To register your bike: go to the Product Registration section of our website at [www.cannondale.com](http://www.cannondale.com)

## Handlebar Controls



### Identification

- |                           |                      |                          |
|---------------------------|----------------------|--------------------------|
| 1. Handlebar grip         | 4. Handlebar         | 7. Cannondale Three stem |
| 2. Front brake            | 5. Front light       | 8. Rear Brake            |
| 3. Handlebar control unit | 6. SP Connect™ mount | 9. Rear shifter          |

## 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 disengage.

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.

## 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 damaged.

**You 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.

## 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.

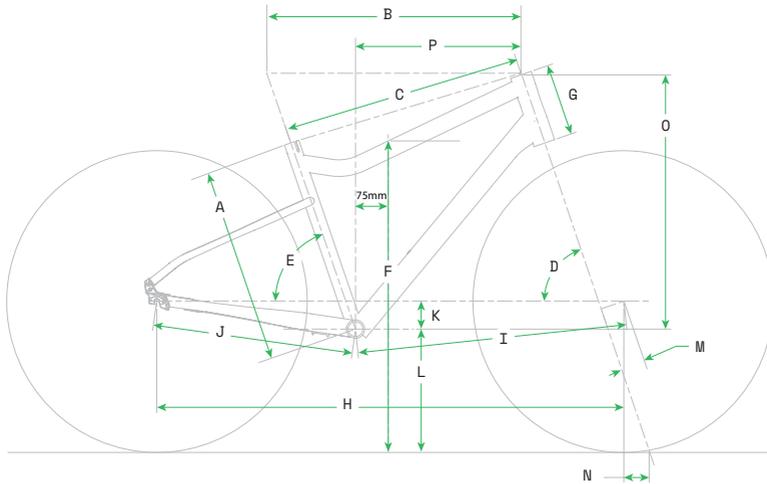
**You must operate with a very high degree of awareness and precaution to only reduce the risk of death or serious injury.**

## Technical Information

### Frame Specifications

Item	Specification
Drive System	Hyena Hydrive
Battery	Hyena BP-B250 Intube Battery 36V/250Wh
Drive-Assist Owner's Manual	<a href="https://www.hyena-ebike.com/">https://www.hyena-ebike.com/</a>
Head Tube	UPR: 1-1/8in , LWR: 1-1/8in
Headset	Semi-integrated, 1 1/8in -1 1/8in
Bottom Bracket: Type/Width	BSA/73mm
Front Derailleur	N/A
Seat Post: Dia./Binder	31.6mm/34.9mm
▲ Min. Seat Post Insert	65mm
▲ Tire Size x Max. Tire Width	650b x 48mm
Brakes: Mount Type / Min./Max. Rotor Dia.	RR: Flat Mount/160mm/160mm FT: Flat Mount/140mm/160mm
Axles: Type/Length	RR: Hydrive Hub Motor Axle, FR: QR 100 x 9mm
▲ Intended Use	ASTM CONDITION 2: General Purpose Riding
▲ Max. Weight Limit: Total (Rider+All Equipment)	305lbs/138kg

## Geometry



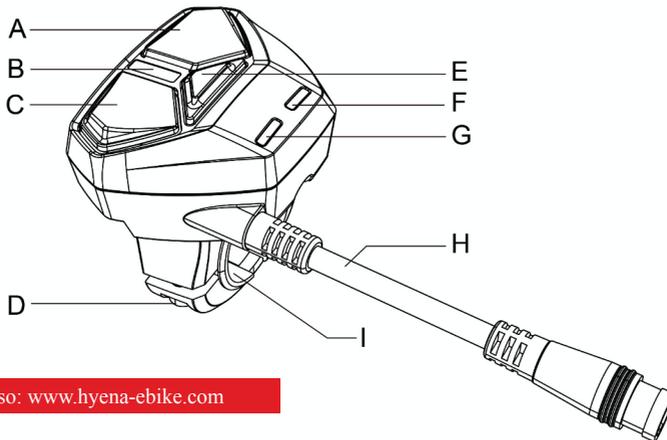
Dimensions = centimeter

Frame		Standard (shown)			Remixte	
Item	Size	SM	MD	LG	SM	LG
A	Seat Tube Length	38.7	45.0	51.3	38.7	45.0
B	Top Tube Horizontal	55.7	57.9	60.0	55.7	57.9
C	Top Tube Actual	NA	NA	NA	NA	NA
D	Head Tube Angle	70.5°	71.0°	71.0°	70.5°	71.0°
E	Seat Tube Angle	71.0°	71.0°	71.0°	71.0°	71.0°
F	Standover	66.5	70.9	74.7	54.5	54.9
G	Head Tube Length	13.5	16.5	19.6	13.5	16.5
H	Wheelbase	105.4	107.1	109.2	105.4	107.1
I	Front Center	60.1	61.8	63.9	60.1	61.8
J	Chain Stay Length	46.0	46.0	46.0	46.0	46.0
K	Bottom Bracket Drop	6.4	6.4	6.4	6.4	6.4
L	Bottom Bracket Height	28.0	28.0	28.0	28.0	28.0
M	Fork Rake	5.5	5.5	5.5	5.5	5.5
N	Trail	6.3	6.0	6.0	6.3	6.0
O	Stack	55.0	58.0	61.0	55.0	58.0
P	Reach	36.8	37.9	39.0	36.8	37.9

## 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](http://www.hyena-ebike.com)

#### Identification

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

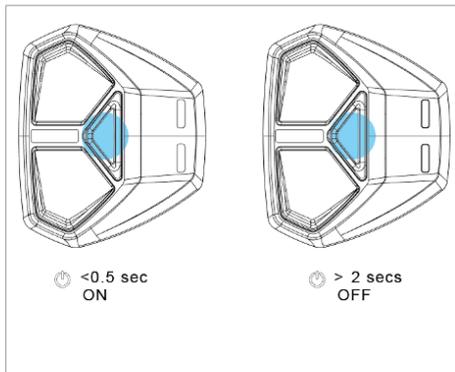
## Operation Instructions

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

Long press the power button to turn on/off.

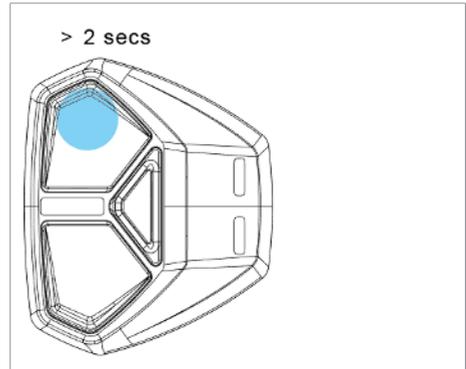


Note: Always switch off the e-Bike system when you park the e-Bike or before removing the battery.

## Turn on/off light

Long press up button to turn on/off light.

When e-bike equipped with front/rear lights.



## Changing the level of drive assistance

Short press up/down button to adjust the support level while pedaling.

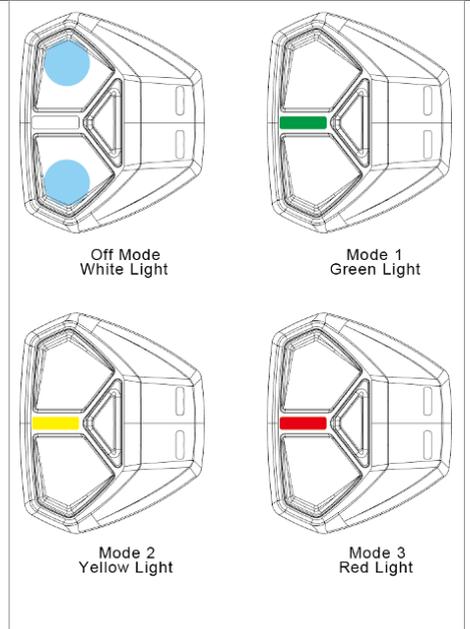
-Defaults to OFF mode.

-Press up/down button to adjust.

-Automatic memory of the previous setting.

### Note

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



## 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

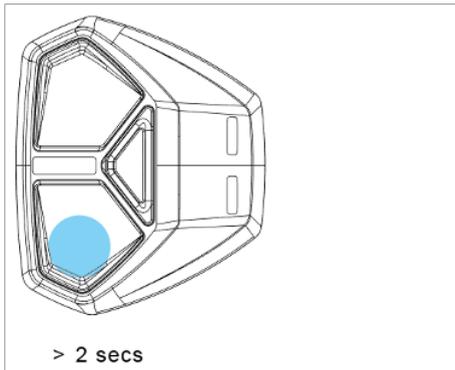
## Walk assistance mode

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

### Note

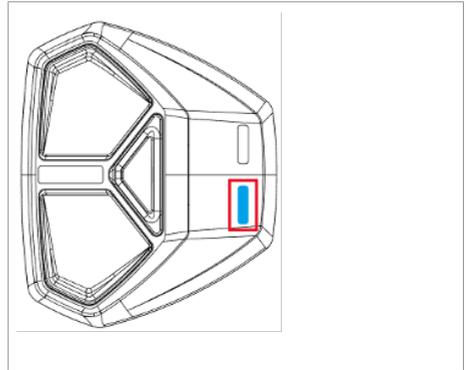
The walk assistance function must only be used when pushing the e-Bike. Make sure you are ready and stand steady before activating the walk assistance.

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



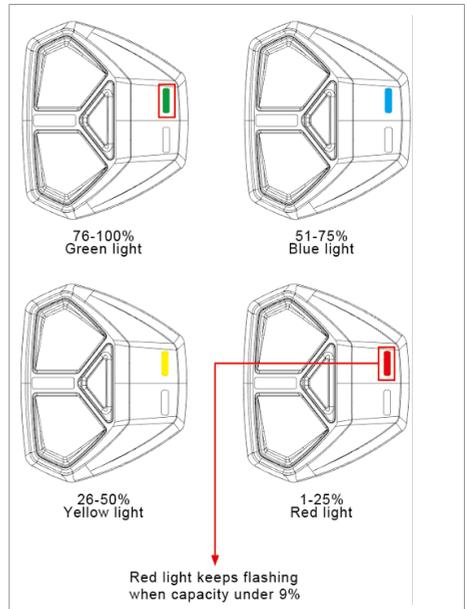
## Bluetooth connection

Blue lights flash 3 times when Bluetooth is connected or disconnected.



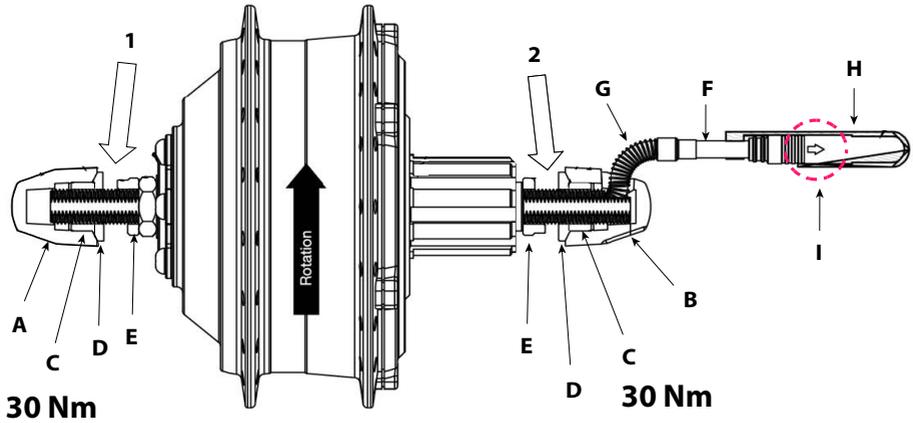
## Battery indicator

The icon shows the battery's state of chart.



## 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](http://www.hyena-ebike.com)



### Identification

- |                          |                       |                                      |
|--------------------------|-----------------------|--------------------------------------|
| 1. Left dropout of bike  | A End cap, left side  | H Cable connector                    |
| 2. Right dropout of bike | B End cap, right side | I Connectors alignment arrow marking |
|                          | C Nut                 |                                      |
|                          | D Flat washer         |                                      |
|                          | E Locking washer      |                                      |
|                          | F Cable wire          |                                      |
|                          | G Spring cable shield |                                      |

## Hub Motor Specifications

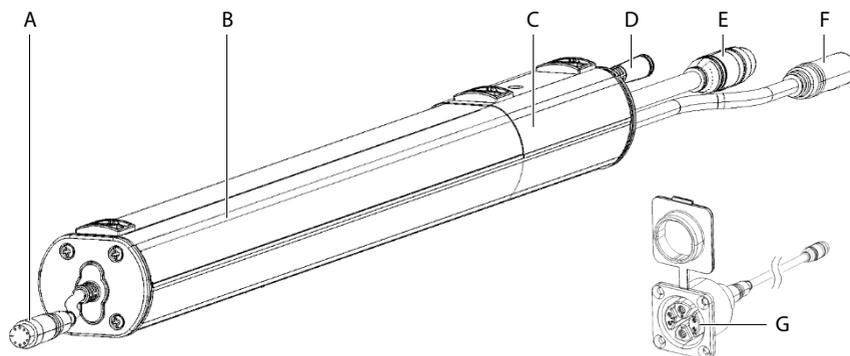
Function		
Rated power	250 W	
Rated voltage	36 V	
Wheel size	26~28 inch	
Max. speed	25 km/hr	
Max. torque	40 Nm	
Max. RPM	230 ± 5% RPM	w/o loading
Max. current @ max. RPM	≤ 1.7 A	w/o loading
Max. noise @ max. RPM	< 60 dB	w/o loading
Max. efficiency	≥ 80 %	
Weight	2.9 Kg	
Waterproof level	IPX4	
Hall sensor	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](http://www.hyena-ebike.com)

### Identification

A HMI connector  
B Battery pack  
C Driver and BMS

D Sensor connector  
E Charger connector  
F Motor connector

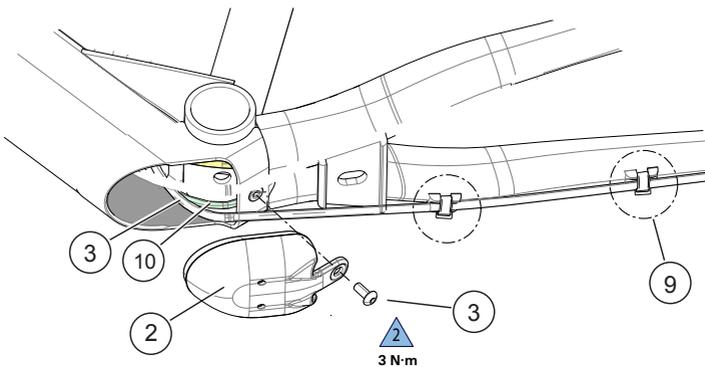
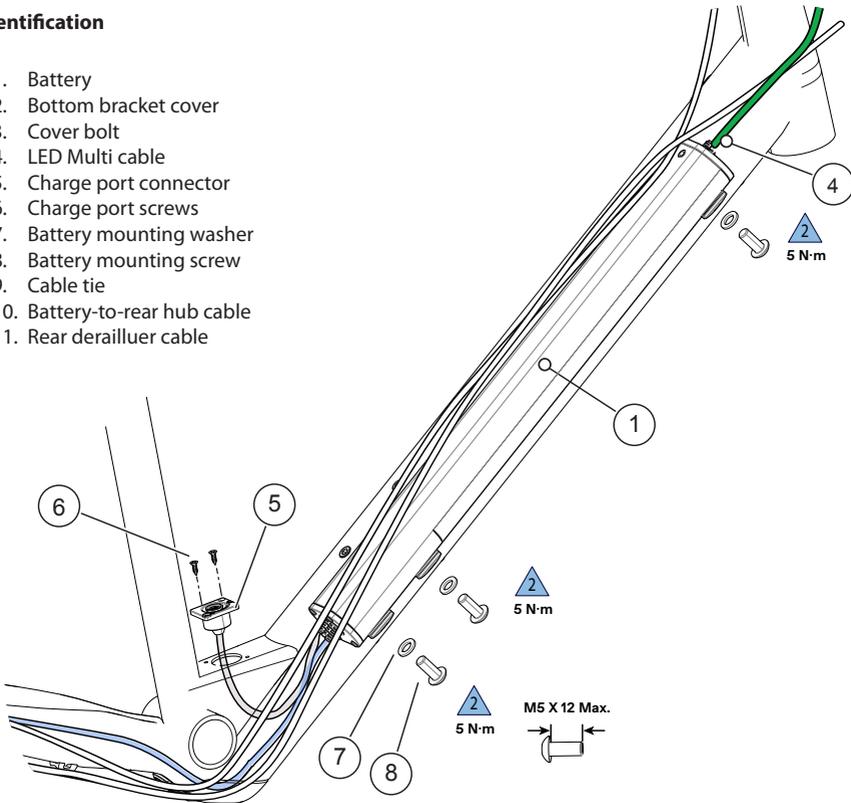
G Charging port adapter

### 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
11. Rear derailleurs cable



## 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 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.

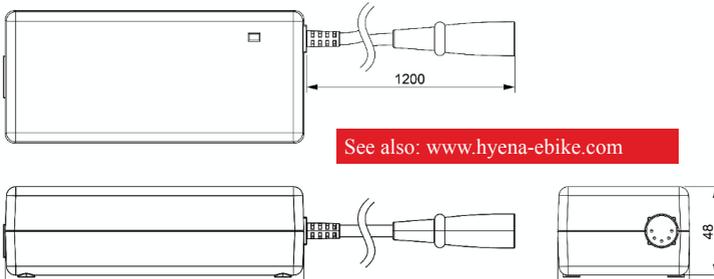
## Replacement Battery Installation

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 and any optional lighting to the battery.
9. Test for proper operation of the drive system before riding.

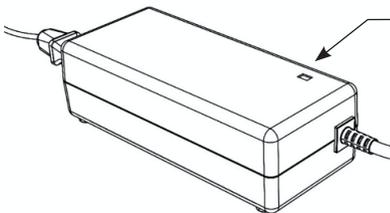
## Charger 2A

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	Green light stays on
Be charging	Red light stays on
Fully charged	Green light stays on
Over-current protection	Red and green light flash
Short-circuit protection	Red and green light flash
Reverse connect protection	Green light flashes
Timing off (output shut down after $12 \pm 0.5$ hours)	Green light stays on

## Charging the internal downtube battery

- Plug the charger's plug 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.
- **If the battery has become completely empty, charge it as soon as possible. If the battery is left uncharged, it may cause the battery to deteriorate and to become unusable.**
- **CAUTION** - Charge the battery in an area with a smoke detector or make sure someone is taking care of 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 they 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.

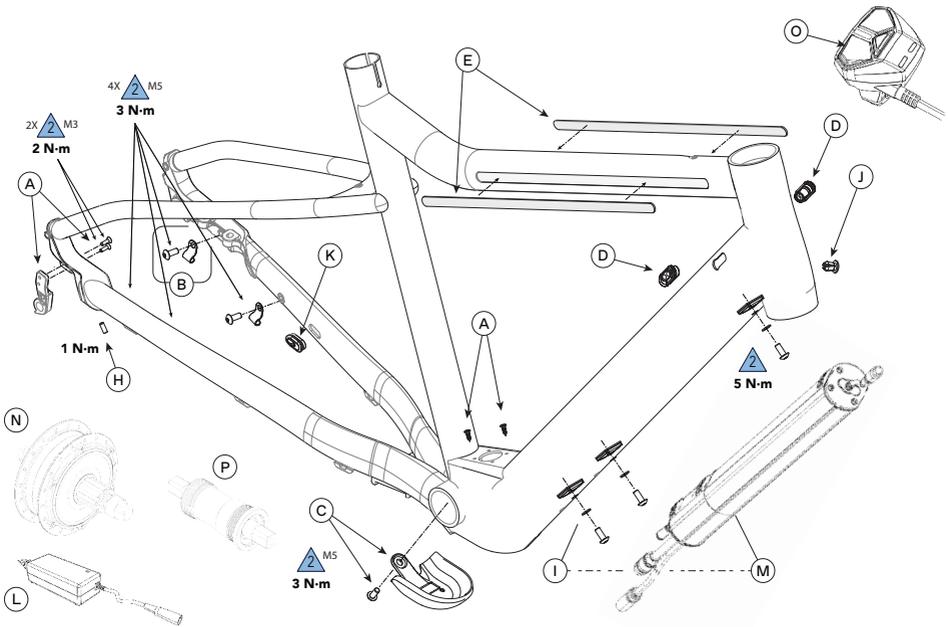
- When charging, do not place any items 50 cm around the battery and make sure the battery and the charger are on a fireproof surface.

- 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.

## Replacement Parts



Frame		
ID	Part Number	Description
A	K33050	Derailleur Hanger BT ST SS 077
B	K32240	NDS EBM Cable Clips (QTY 2)
C	K34030	Alloy Frame Battery Door
D	K32000	Shift/Brake Keyhole Grommets
E	K34000	Top Tube Scuff Guard
H	K33080	Dropout Bolts M4x10mm (QTY 2)
J	K34090	DT Light Cable Grommet
K	KP312/	Open Oval Grommet x10 (QTY 10)
I	K76040	Battery Mounting Hardware
--	K13000	Front Rack w/ Bamboo Tray
--	K14040	Herrmans H-Trace E-Bike Rear Light
--	K21000	Cruise Control Handlebar 740 x 31.8mm
--	K83038	Ratchet Lever Maxle 100x125mm

Drive System (HyDrive)		
ID	Part Number	Description
	K74031	BP-B250 36V2A Charger EU
L	K74021	BP-B250 36V2A Charger US
	K74041	BP-250 36V2A Charger UK
M	K71031	BP-B250 Battery 36v 250Wh
N	K8749165	Disc RR Wh MRC-250 36h 650 complete wheel/assembled
--	K8750165	Disc FR Wh 100x9 32h 650 (complete wheel/assembled)
O	K73031	HMI Console (LED Multi)
--	K75111	Light Cable 1000mm
Q	K77011	Torque Sensor BSA BB 73/122.5
--	K92021	Diagnostic Dongle (Dealer only)
	K71052	Hyena BP-250 Battery Charging Port

## 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 and mounted securely. 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, making 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.

### WARNING

**Perform a pre-ride-check before and after each ride.** Frequent checks are necessary to identify and correct problems that can lead to an accident. Do not ride your bike if it does not operate normally or has broken, damaged, or missing parts. Have any damage inspected and repaired by your Cannondale Dealer before riding again.

**You can be severely injured, paralyzed, or killed in an accident if you ignore this warning.**

## 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.





[www.cannondale.com](http://www.cannondale.com)

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Treadwell Neo Hydrive OMS

138250 Rev. 2 (11/21)

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