Adventure Neo

Owner’s Manual Supplement

WARNING

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:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="symbol" alt="NGLI-2" /></td>
<td>NGLI-2 synthetic grease</td>
<td>Apply NGLI-2 synthetic grease.</td>
</tr>
<tr>
<td><img src="symbol" alt="Medium-strength" /></td>
<td>Medium-strength removable thread lock</td>
<td>Apply Loctite® 242 (blue) or equivalent.</td>
</tr>
</tbody>
</table>
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](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:

<table>
<thead>
<tr>
<th>Drive Unit</th>
<th>Battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display/Control Unit</td>
<td>Charger</td>
</tr>
</tbody>
</table>

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

Parts of Your E-Bike

1. Drive display 4. Charge port
2. Drive unit 5. Key
3. Battery (Powertube) 6. Headlamp
7. Rear Light
8. Rear rack
9. Serial number
10. Wheel Sensor

Actual bike appearance will differ.

Identification

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
**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 with 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.

continued next page
continued from previous page...

**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 speed 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, from cars or from 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.

**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/discharged 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.

**Trailers or Child Carrier or Child Seats**

**WARNING**

DO NOT ATTACH A TRAILER, CHILD CARRIER OR CHILD SEAT TO THIS BICYCLE.

Attachment of a trailer or child seat 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.
**Rear Rack**

**WARNING**

Do not overload a rear rack. Make sure the cargo is secured properly.

Observe the rack maximum weight limit found in the “Specifications” section of this supplement.

Improperly installing a rack, altering your bike to install a rack, or over-loading a bike rack can create dangerous riding conditions.

**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.

**Headtube Mounted Accessories**

This bicycle has integrated mounting points for attaching compatible accessories.

**WARNING**

Do not mount an accessory (e.g., water bottle) to the headtube if said accessory will interfere with handlebar movement and/or controls, with lighting, and/or with reflectors.

Improperly-mounted or incompatible accessories can interfere with your ability to safely operate the bike. Consult with a professional bicycle mechanic before mounting any accessory.
Using the Key

This illustration shows a key (1) inserted in the battery lock mechanism located on the left side of the bike near the headtube.

To access the key hole, use your finger to lift the tethered key cap out of the frame hole.

**Remove battery cover before turning the key. Cover is independent from battery**

A key is used to secure the battery lock mechanism.

The drive system may be activated by this same key. Please consult the drive system owner/operator manuals to determine.

Please record the key serial number for future use and key replacement.

If your keys are ever lost or stolen, or if you would like additional spares, please contact the key manufacturer indicated in the “Specifications” in this manual.

**You can take the drive system display with you for more theft protection.**

---

**Please Note:**

After multiple rides and bike-washes, the battery lock can become dry and difficult to use. To maintain, whenever you lubricate your bike chain, place a few drops of chain oil on the key, insert the key and operate the lock, then remove and wipe the key clean.

**Record YOUR Key Serial Number here:**

---

**NOTICE**

**Don’t ride with the key in the battery lock.**

Always remove the key from the lock after using it. Keys may be stolen or break off accidentally in the lock. Keep your spare key in a safe place.
### TECHNICAL INFORMATION

#### Specifications

#### Drive System

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Adventure EQ 1</td>
</tr>
<tr>
<td>Drive System</td>
<td>BOSCH e-Bike Systems (2021)</td>
</tr>
<tr>
<td>Drive Unit/BOSCH part no.</td>
<td>Performance Line Cruise (20 mph) / 0275.007.071</td>
</tr>
<tr>
<td>Drive Display /BOSCH part no.</td>
<td>Purion / 1270.020.917</td>
</tr>
<tr>
<td>Drive Battery/BOSCH part no.</td>
<td>Powertube 625/ 0275.007.545</td>
</tr>
<tr>
<td>Drive Charger/BOSCH part no.</td>
<td>Compact Charger 2A / 0275.007.915</td>
</tr>
<tr>
<td>BOSCH website</td>
<td><a href="https://www.bosch-ebike.com/">https://www.bosch-ebike.com/</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Adventure EQ 3</td>
</tr>
<tr>
<td>Drive System</td>
<td>BOSCH e-Bike Systems</td>
</tr>
<tr>
<td>Drive Unit/BOSCH part no.</td>
<td>Active Line (20 mph)</td>
</tr>
<tr>
<td>Drive Display /BOSCH part no.</td>
<td>Purion / 1270.020.917</td>
</tr>
<tr>
<td>Drive Battery/BOSCH part no.</td>
<td>Powertube 400/ 0275.007.557</td>
</tr>
<tr>
<td>Drive Charger/BOSCH part no.</td>
<td>Compact Charger 2A / 0275.007.915</td>
</tr>
<tr>
<td>BOSCH website</td>
<td><a href="https://www.bosch-ebike.com/">https://www.bosch-ebike.com/</a></td>
</tr>
</tbody>
</table>

#### Manufacturer Manual Links:

<table>
<thead>
<tr>
<th>Item</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRIVE UNIT</td>
<td><a href="https://www.bosch-ebike.com/">2021 BOSCH Performance Line/ Active Line</a></td>
</tr>
<tr>
<td>DISPLAY</td>
<td><a href="https://www.bosch-ebike.com/">2021 BOSCH Purion</a></td>
</tr>
<tr>
<td>BATTERY</td>
<td><a href="https://www.bosch-ebike.com/">2021 Battery</a></td>
</tr>
<tr>
<td>CHARGER</td>
<td><a href="https://www.bosch-ebike.com/">2021 Charger</a></td>
</tr>
</tbody>
</table>
## Technical Information

### Specifications

<table>
<thead>
<tr>
<th>Frame</th>
<th>UPR: 1-1/8 in LWR: 1-1/2 in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head Tube</td>
<td></td>
</tr>
<tr>
<td>Headset</td>
<td>Integrated 1-1/8 in - 1-1/2 in</td>
</tr>
<tr>
<td>Bottom Bracket: Type/Width</td>
<td>Bosch Drive Unit</td>
</tr>
<tr>
<td>Front Derailleur</td>
<td>N/A</td>
</tr>
<tr>
<td>Seat Post: Dia./Binder</td>
<td>31.6 mm / 36.4 mm</td>
</tr>
<tr>
<td>▲ Min. Frame Seat Post Insert</td>
<td>75 mm</td>
</tr>
<tr>
<td>Max. Frame Seat post Insert Depth</td>
<td>S-215mm, M-240 mm, L &amp; XL - 323 mm</td>
</tr>
<tr>
<td>▲ Max. Fork Length (axle to crown)</td>
<td>510 mm</td>
</tr>
<tr>
<td>Max. Water Bottle Mounting Bolt Length</td>
<td>12 mm</td>
</tr>
<tr>
<td>Max. Rear Rack Weight Limit</td>
<td>20kg</td>
</tr>
<tr>
<td>Tire Size x Max. Tire Width</td>
<td>Big Ben Plus Etrto 55-622 (28 X 2.15 Zoll)</td>
</tr>
<tr>
<td>Brakes: Mount Type / Min./Max. Rotor Dia.</td>
<td>Post Mount / 180 mm/203 mm</td>
</tr>
<tr>
<td>Axles: Type/Length</td>
<td>RR: Maxle TA/148×12 mm, 188 mm Overall Length, FR: (Canvas Only): Maxle TA/110×15, 148 mm Overall Length</td>
</tr>
<tr>
<td>▲ Intended Use</td>
<td>ASTM Condition 2, General Purpose Riding</td>
</tr>
<tr>
<td>▲ Max. Weight Limit: Total (Rider+All Equipment)</td>
<td>305 lbs/ 138 kg</td>
</tr>
<tr>
<td>External Drive Battery Compatible</td>
<td>No</td>
</tr>
</tbody>
</table>
## Geometry

Dimensions = centimeter
* = same spec.

<table>
<thead>
<tr>
<th>Item</th>
<th>Frame Size</th>
<th>SM</th>
<th>LG</th>
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</thead>
<tbody>
<tr>
<td>Wheel Size</td>
<td></td>
<td>27.5&quot;</td>
<td>27.5&quot;</td>
</tr>
<tr>
<td>A Seat Tube Length</td>
<td></td>
<td>37.0</td>
<td>46.0</td>
</tr>
<tr>
<td>B Top Tube Horizontal</td>
<td></td>
<td>59.4</td>
<td>63.5</td>
</tr>
<tr>
<td>C Top Tube Actual</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>D Head Tube Angle</td>
<td></td>
<td>70.0°</td>
<td>70.0°</td>
</tr>
<tr>
<td>E Seat Tube Angle Effective</td>
<td></td>
<td>72.0°</td>
<td>72.0°</td>
</tr>
<tr>
<td>F Standover</td>
<td></td>
<td>44.5</td>
<td>45.5</td>
</tr>
<tr>
<td>G Head Tube Length</td>
<td></td>
<td>21.5</td>
<td>23.5</td>
</tr>
<tr>
<td>H Wheelbase</td>
<td></td>
<td>112.4</td>
<td>116.6</td>
</tr>
<tr>
<td>I Front Center</td>
<td></td>
<td>64.4</td>
<td>68.6</td>
</tr>
<tr>
<td>J Chain Stay Length</td>
<td></td>
<td>48.8</td>
<td>48.8</td>
</tr>
<tr>
<td>K Bottom Bracket Drop</td>
<td></td>
<td>6.8</td>
<td>6.8</td>
</tr>
<tr>
<td>L Bottom Bracket Height</td>
<td></td>
<td>28.4</td>
<td>28.4</td>
</tr>
<tr>
<td>M Fork Rake</td>
<td></td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>N Trail</td>
<td></td>
<td>8.3</td>
<td>8.3</td>
</tr>
<tr>
<td>O Stack</td>
<td></td>
<td>68.8</td>
<td>70.7</td>
</tr>
<tr>
<td>P Reach</td>
<td></td>
<td>37.0</td>
<td>40.5</td>
</tr>
</tbody>
</table>
Drive System Display - BOSCH Purion

Product description and specifications

Product Features

(1) On/off button for on-board computer
(2) Push assistance button WALK
(3) Fastening screw for on-board computer
(4) Holder for on-board computer
(5) Decrease assistance level button –
(6) Increase assistance level button +
(7) Display
(8) Protective cap for USB port
(9) USB diagnostic port (for servicing purposes only)
(10) Battery compartment cover

On-board computer information

(a) Speedometer
(b) km/h unit indicator
(c) mph unit indicator
(d) Total distance indicator TOTAL
(e) Range indicator RANGE
(f) Service indicator
(g) Battery charge indicator
(h) Lighting indicator
(i) Assistance level indicator/value indicator
(j) Trip distance indicator TRIP

WARNING: This page contains selected information only. Download the complete manufacturer manual, or check for updated content, see https://www.bosch-ebike.com/.
Technical Information
Drive System Display - BOSCH Purion

Technical data

<table>
<thead>
<tr>
<th>On-board computer</th>
<th>Purion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>BUI210</td>
</tr>
<tr>
<td></td>
<td>BUI215</td>
</tr>
</tbody>
</table>

| Batteries A)      | 2 x 3 V CR2016 |
| Operating temperature °F | +23 to +104 |
| Storage temperature °F | +14 to +122 |
| Protection rating B) | IP 54 (dust and splash-proof) |
| Weight, approx. kg | 0.1 |

A) We recommend using batteries offered by Bosch. You can purchase them from your bicycle dealer (article number: 1 270 016 819).

B) When the USB cover is closed

The Bosch eBike system uses FreeRTOS (see http://www.freertos.org).

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

Operation

Symbols and their meaning

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>🟢</td>
<td>Short button press (less than 1 second)</td>
</tr>
<tr>
<td>🟡</td>
<td>Medium button press (between 1 second and 2.5 seconds)</td>
</tr>
<tr>
<td>🟠</td>
<td>Long button press (longer than 2.5 seconds)</td>
</tr>
</tbody>
</table>

Start-up

Requirements

The eBike system can only be activated when the following requirements are met:
- A sufficiently charged battery is inserted (see battery operating instructions).
- The speed sensor is connected properly (see drive unit operating instructions).

Switching the eBike system on/off

The following options are available for switching on the eBike system:
- Press the on/off button (1) of the on-board computer with the eBike battery inserted.
- Press the on/off button of the eBike battery (see battery operating instructions).

The drive is activated as soon as you start pedaling (except for in the push assistance function or with the assistance level OFF). The motor output depends on which assistance level is set on the on-board computer.

As soon as you stop pedaling when in normal operation, or as soon as you have reached a speed of 20/28 mph, the eBike drive unit switches off the assistance. The drive is automatically re-activated as soon you start pedaling again and the speed is below 20/28 mph.

The following options are available for switching off the eBike system:
- Press the on/off button (1) of the on-board computer.
- Switch off the eBike battery using its on/off button (some bicycle manufacturer-specific solutions prevent access to the battery on/off button; see the bicycle manufacturer operating instructions).

The system shuts down after being switched off; this takes approximately three seconds. It cannot be switched back on until shutdown has been completed.

If the eBike is not moved for approx. ten minutes and no button is pressed on the on-board computer, the eBike system switches off automatically in order to save energy.

Note: Always switch off the eBike system when you park the eBike.

Note: If the batteries of the on-board computer are drained, you can still switch on your eBike using the

Bosch eBike Systems
bikes battery. It is, however, recommended that you replace the internal batteries as soon as possible in order to avoid damage.

Energy supply of the on-board computer
The on-board computer is supplied with voltage by two CR2016 button cells.

Changing the batteries

If the on-board computer shows LOW BAT on the display, remove the on-board computer from the handlebars by unscrewing the fastening screw (3) of the on-board computer. Open the battery compartment cover (10) using a suitable coin, remove the used batteries and insert new CR2016 batteries. You can obtain batteries recommended by Bosch from your bicycle dealer.

When inserting the batteries, ensure that the polarity is correct.

Close the battery compartment again and fasten the on-board computer to your eBikes handlebars using the fastening screw (3).

Switching the push assistance on/off
The push assistance aids you when pushing your eBike. The speed of this function depends on the selected gear and can reach a maximum of 3.7 mph. The lower the selected gear, the lower the speed of the push assistance function (at full power).

The push assistance function must only be used when pushing the eBike. There is a risk of injury if the wheels of the eBike are not in contact with the ground while using the push assistance.

To activate the push assistance, briefly press the WALK button on your on-board computer. After activation, press the + button within 3 s and keep it pressed. The eBike drive is switched on.

Note: The push assistance cannot be activated at assistance level OFF.

The push assistance is switched off as soon as one of the following occurs:
- You release the + button;
- the wheels of the eBike are locked (e.g. by applying the brakes or hitting an obstacle);
- the speed exceeds 3.7 mph.

The push assistance function is subject to local regulations; the way it works may therefore differ from the description above. It can also be deactivated.

Setting the assistance level
You can set the level at which the eBike drive assists you while pedaling on the on-board computer. The assistance level can be changed at any time, even while cycling.

Note: In some models, the assistance level may be preset and cannot be changed. There may also be fewer assistance levels available than stated here.
The following assistance levels are available as a maximum:

- **OFF:** Motor assistance is switched off. The eBike can just be moved by pedaling, as with a normal bicycle. The push assistance cannot be activated at this assistance level.

- **ECO:** Effective assistance with maximum efficiency, for maximum range

- **TOUR:** Steady assistance, long range for touring

- **SPORT/eMTB:**
  - **SPORT:** Powerful assistance, for mountain biking and for cycling in urban traffic
  - **eMTB:** Optimum assistance whatever the terrain, rapid acceleration when starting from a standstill, improved dynamics, top performance (eMTB is only available in combination with drive units BDU250P CX, BDU365, BDU450 CX and BDU480 CX. This also requires a software update.)

- **TURBO:** Maximum assistance even at high pedaling speeds, for biking sports

To increase the assistance level, briefly press the button + (6) on the on-board computer repeatedly until the required assistance level appears on the indicator (i). To decrease the assistance level briefly press - the button – (5).

If the display is set to TRIP, TOTAL or RANGE, the selected assistance level will only be shown briefly (for approx. one second) on the display when switching over.

**Switching bike lights on/off**

For the model which has the bike lights powered by the eBike system, a medium-length press of the button – will switch on the front and rear lights simultaneously. To switch off the bike lights, press and hold the button +. The lighting symbol (h) is displayed when the light is on. The on-board computer saves the light status and activates this saved status accordingly after a restart.

Switching the bike lights on and off has no effect on the backlight of the display.

**Speed and distance indicators**

The speedometer (a) always displays the current speed. The indicator (i) always displays the last setting as standard. Repeated medium-length presses of the button – will display the trip distance TRIP, the total distance TOTAL and the battery range RANGE one after the other. (Briefly pressing the button – will decrease the assistance level.)

To reset the trip distance TRIP, select the trip distance TRIP and simultaneously press and hold the buttons + and -. The display will initially show RESET. If you continue to press both buttons, the trip distance TRIP will be set to 0.

To reset the battery range RANGE, select the battery range RANGE and simultaneously press and hold the buttons + and -. The display will initially show RESET. If you continue to press both buttons, the trip distance TRIP will be set to 0.

You can switch the displayed values from kilometers to miles by holding down the button – and briefly pressing the on/off button (1).

The versions of the subsystems and their model part numbers can be displayed for servicing purposes, provided the subsystems divulge this information (dependent on the subsystem). With the system switched off, simultaneously press the buttons – and + and then press the on/off button (1).
The USB port is reserved for connecting diagnostic systems. The USB port does not have any other function.

**The USB port must always be completely sealed with the protective cap (8).**

<table>
<thead>
<tr>
<th>Action</th>
<th>Buttons Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch on on-board computer</td>
<td>✈ As required</td>
</tr>
<tr>
<td>Switch off on-board computer</td>
<td>✈ As required</td>
</tr>
<tr>
<td>Increase assistance</td>
<td>+</td>
</tr>
<tr>
<td>Decrease assistance</td>
<td>–</td>
</tr>
<tr>
<td>Display TRIP, TOTAL, RANGE, assistance modes</td>
<td>–</td>
</tr>
<tr>
<td>Switch on bike lights</td>
<td>+</td>
</tr>
<tr>
<td>Switch off bike lights</td>
<td>+</td>
</tr>
<tr>
<td>Reset trip distance</td>
<td>– +</td>
</tr>
<tr>
<td>Activate push assistance</td>
<td>WALK 1. ✈</td>
</tr>
<tr>
<td>Implement push assistance</td>
<td>2. As required</td>
</tr>
<tr>
<td>Switch from kilometers to miles</td>
<td>– 1. Keep pressed</td>
</tr>
<tr>
<td></td>
<td>2. ✈</td>
</tr>
<tr>
<td>Display the versions</td>
<td>– +</td>
</tr>
<tr>
<td></td>
<td>1. Keep pressed</td>
</tr>
<tr>
<td></td>
<td>2. ✈</td>
</tr>
<tr>
<td>Adjust display brightness</td>
<td>– +</td>
</tr>
<tr>
<td></td>
<td>1. Keep pressed</td>
</tr>
<tr>
<td></td>
<td>2. ✈</td>
</tr>
</tbody>
</table>

---

A) The eBike system must be switched off.

B) The information is shown as scrolling text.

C) The display must be switched off.

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**Troubleshooting**

The components of the eBike system are continuously monitored automatically. If a fault is detected, the corresponding fault code will appear on the on-board computer.

The drive may also be switched off automatically depending on what type of fault has occurred. You can continue riding at any time without assistance from the drive, but you should have your eBike checked before completing any more journeys.

> **Only have repairs performed by a certified bicycle dealer.**

<table>
<thead>
<tr>
<th>Code</th>
<th>Cause</th>
<th>Corrective measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>410</td>
<td>One or more buttons on the on-board computer are jammed.</td>
<td>Check whether dust and dirt, for example, are causing the buttons to stick. Clean the buttons if this is the case.</td>
</tr>
<tr>
<td>414</td>
<td>Operating unit connection problem</td>
<td>Have all the connections checked</td>
</tr>
<tr>
<td>418</td>
<td>One or more buttons on the operating unit are jammed.</td>
<td>Check whether dust and dirt, for example, are causing the buttons to stick. Clean the buttons if this is the case.</td>
</tr>
<tr>
<td>419</td>
<td>Configuration error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>422</td>
<td>Drive unit connection problem</td>
<td>Have all the connections checked</td>
</tr>
<tr>
<td>423</td>
<td>eBike battery connection problem</td>
<td>Have all the connections checked</td>
</tr>
<tr>
<td>424</td>
<td>Communication error between components</td>
<td>Have all the connections checked</td>
</tr>
<tr>
<td>426</td>
<td>Internal timeout error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer. If this error occurs, it is not possible to view or adjust the tire circumference in the basic settings menu.</td>
</tr>
<tr>
<td>430</td>
<td>On-board computer internal battery drained</td>
<td>Charge the on-board computer (in the holder or via the USB port)</td>
</tr>
<tr>
<td>431</td>
<td>Software version error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>440</td>
<td>Internal fault in the drive unit</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>450</td>
<td>Internal software error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>460</td>
<td>USB port fault</td>
<td>Remove the cable from the USB port of the on-board computer. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>490</td>
<td>Internal fault in the on-board computer</td>
<td>Have the on-board computer checked</td>
</tr>
<tr>
<td>Code</td>
<td>Cause</td>
<td>Corrective measures</td>
</tr>
<tr>
<td>------</td>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>602</td>
<td>Internal battery fault</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>603</td>
<td>Internal battery fault</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>605</td>
<td>Battery temperature error</td>
<td>The battery is outside the tolerable temperature range. Switch the eBike system off to let the battery cool down or warm up to the tolerable temperature range. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>606</td>
<td>External battery fault</td>
<td>Check the wiring. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>610</td>
<td>Battery voltage fault</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>620</td>
<td>Charger fault</td>
<td>Replace the charger. Contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>640</td>
<td>Internal battery fault</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>655</td>
<td>Multiple battery faults</td>
<td>Switch the eBike system off. Take the battery out and put it back in. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>656</td>
<td>Software version error</td>
<td>Contact your Bosch eBike dealer and ask them to update the software.</td>
</tr>
<tr>
<td>7xx</td>
<td>Gearbox fault</td>
<td>Please read the operating manual provided by the gearbox manufacturer.</td>
</tr>
<tr>
<td>Display is blank</td>
<td>Internal fault in the on-board computer</td>
<td>Switch your eBike system off and on again to restart.</td>
</tr>
</tbody>
</table>
Product features PowerTube

All representations of bike components are schematic and can deviate from your eBike.

- (3) Operation/state of charge indicator
- (4) On/off button
- (5) Key for the battery lock
- (6) Battery lock
- (11) Charger
- (12) Socket for charging connector
- (13) Charging socket cover
- (14) PowerTube safety restraint
- (15) PowerTube battery
- (16) PowerTube safety hook

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Intended Use

The Bosch eBike batteries are intended exclusively to provide the power supply for your eBike drive unit and must not be used for any other purpose.

Technical data

<table>
<thead>
<tr>
<th>Li-ion battery</th>
<th>PowerPack 400</th>
<th>PowerPack 500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>BBS266(^A)</td>
<td>BBS276(^A)</td>
</tr>
<tr>
<td></td>
<td>BBR266(^B)</td>
<td>BBR276(^B)</td>
</tr>
<tr>
<td>Rack-mounted battery</td>
<td>0 275 007 525/526</td>
<td>0 275 007 535/536</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>V=</td>
<td>36</td>
</tr>
<tr>
<td>Nominal capacity</td>
<td>Ah</td>
<td>11</td>
</tr>
<tr>
<td>Energy</td>
<td>Wh</td>
<td>400</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>°F</td>
<td>+23 to +104</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>°F</td>
<td>+50 to +104</td>
</tr>
<tr>
<td>Permitted charging temperature range</td>
<td>°F</td>
<td>+32 to +104</td>
</tr>
<tr>
<td>Weight, approx.</td>
<td>lb</td>
<td>5.5(^A)/5.7(^B)</td>
</tr>
<tr>
<td>Protection rating</td>
<td>IP 54</td>
<td>IP 54</td>
</tr>
</tbody>
</table>

\(^A\) Standard battery

\(^B\) Rack-mounted battery

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

This device is in compliance with CAN ICES-3(B)/NM B-3(B).

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### Technical Information
Drive System Battery - BOSCH

#### English – 10

<table>
<thead>
<tr>
<th>Li-ion battery</th>
<th>PowerTube 400</th>
<th>PowerTube 500</th>
<th>PowerTube 625</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>BBP287 horizontal BBP288 vertical</td>
<td>BBP285 horizontal BBP286 vertical</td>
<td>BBP295 horizontal BBP296 vertical</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>V= 36</td>
<td>V= 36</td>
<td>V= 36</td>
</tr>
<tr>
<td>Nominal capacity</td>
<td>Ah 11</td>
<td>Ah 13.4</td>
<td>Ah 16.7</td>
</tr>
<tr>
<td>Energy</td>
<td>Wh 400</td>
<td>Wh 500</td>
<td>Wh 625</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>°F +23 to +104</td>
<td>+23 to +104</td>
<td>+23 to +104</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>°F +50 to +104</td>
<td>+50 to +104</td>
<td>+50 to +104</td>
</tr>
<tr>
<td>Permitted charging temperature range</td>
<td>°F +32 to +104</td>
<td>+32 to +104</td>
<td>+32 to +104</td>
</tr>
<tr>
<td>Weight, approx.</td>
<td>lb 6.4</td>
<td>lb 6.4</td>
<td>lb 7.7</td>
</tr>
<tr>
<td>Protection rating</td>
<td>IP 54</td>
<td>IP 54</td>
<td>IP 54</td>
</tr>
</tbody>
</table>

This device is in compliance with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
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---

### Fitting

- **Ensure the battery is placed on clean surfaces only.** Avoid getting dirt, e.g. sand or soil, in the charging socket and contacts in particular.

### Testing the battery before using it for the first time

Test the battery before charging it for the first time or using it in your eBike. To do this, press the on/off button (4) to switch the battery on. If none of the LEDs on the battery charge indicator (3) light up, the battery may be damaged. If at least one (but not all) of the LEDs on the battery charge indicator (3) lights up, the battery will need to be fully charged before using it for the first time.

- **Do not charge or use batteries if they are damaged.** Contact an authorized bicycle dealer.

### Charging the battery

- **A Bosch eBike battery must only be charged using an original Bosch eBike charger.**

**Note:** The battery is supplied partially charged. To ensure full battery capacity, fully charge the battery in the charger before using it for the first time.

To charge the battery, read and follow the instructions in the operating manual for the charger.

The battery can be charged at any state of charge. Interrupting the charging process does not damage the battery.

The battery has a temperature monitoring function which only allows it to be charged within a temperature range of 32 °F to 104 °F. If the temperature of the battery is outside this charging range, three of the LEDs on the battery charge indicator (3) will flash. Disconnect the battery from the charger and let it acclimatize.

---

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CAUTION

Do not connect the battery pack to the charger until it has reached the allowable charging temperature.

Battery charge indicator

The five green LEDs on the battery charge indicator (3) indicate the battery's state of charge when the battery is switched on. Each LED represents approximately 20% of the charging capacity. When the battery is fully charged, all five LEDs will be lit.

The battery's state of charge when switched on is also shown on the display of the on-board computer. Read and follow the instructions in the operating manuals for the drive unit and on-board computer.

If the battery capacity is less than 5%, all the LEDs on the battery charge indicator (3) on the battery will go out. The display function of the on-board computer, however, will carry on working.

Once charging is complete, disconnect the battery from the charger and the charger from the mains.

Using two batteries for one eBike (optional)

The manufacturer can also equip an eBike with two batteries. In this case, one of the charging sockets will not be accessible or it will have been sealed with a sealing cap by the bicycle manufacturer. Only charge the batteries via the charging socket that is accessible.

Never open charging sockets that have been sealed by the manufacturer. Charging batteries via a charging socket that used to be sealed may cause irreparable damage.

If you want to use an eBike that is designed for two batteries with only one battery, cover the contacts of the unused socket using the cover (10) provided. Otherwise there is a risk that the exposed contacts will cause a short circuit (see figures A and B).

Charging with Two Battery Packs Inserted

If two battery packs are mounted on one eBike, both battery packs can be charged using the unsealed connection. To begin with, both batteries are charged one after the other until they reach approx. 80-90% capacity, then they are both charged at the same time until full (the LEDs on both batteries flash).

When the bike is in operation, power is drawn from both batteries on an alternating basis.

If you take the battery packs out of the holders, you can charge each battery pack individually.

Charging with one battery fitted

If only one battery is fitted, you can only charge the battery that has the accessible charging socket on the bike. You can only charge the battery with the sealed charging socket if you take the battery out of the holder.
**Removing the PowerTube battery**

1. To remove the PowerTube battery (15), open the lock (6) using the key (5). The battery will be unlocked and fall into the safety restraint (14).
2. Press on the safety restraint from above. The battery will be unlocked completely and fall into your hand. Pull the battery out of the frame.

**Note:** As a result of varying designs, the PowerTube battery may need to be inserted and removed using a different method. In this case, consult the bicycle documentation provided by your bicycle manufacturer.

**Inserting the PowerTube battery**

1. To insert the PowerTube battery (15), place it so that its contacts are in the lower holder of the frame.
2. Push the battery upwards until it is held by the safety restraint (14).
3. Hold the lock open with the key and press the battery upwards until you hear it click into place. Check that the battery is secure in all directions.
4. Always secure the battery by closing the lock (6) – otherwise the lock may open and the battery may fall out of the holder.

**Always check that the battery pack is locked in place.** To do this, pull on the battery pack (after the key has been removed). Always remove the key (5) from the lock (6) after locking it. This prevents both the key from falling out and the battery from being removed by unauthorized third parties when the eBike is not in use.
Operation

Start-up

- Use only original Bosch batteries that the manufacturer has approved for your eBike. Using other batteries can lead to injuries and pose a fire hazard. Bosch accepts no liability or warranty claims if other batteries are used.

Switching on/off

Switching on the battery is one way to switch on the eBike system. Read and follow the instructions in the operating manuals for the drive unit and on-board computer.

Before switching on the battery, i.e. the eBike system, make sure that the lock (6) is closed.

To switch on the battery, press the on/off button (4). Do not use sharp or pointed objects to press the button. The LEDs on the indicator (3) will light up, indicating the battery’s state of charge at the same time.

- Always check that the battery pack is locked in place. To do this, pull on the battery pack (after the key has been removed).

Note: If the battery capacity is less than 5%, none of the LEDs on the battery charge indicator (3) will light up. The only way to see if the eBike system is switched on is via the on-board computer.

To switch off the battery, press the on/off button (4) again. The LEDs on the indicator (3) go out. This will also switch the eBike system off.

If no power is drawn from the eBike drive for about 10 minutes (e.g. because the eBike is not moving) and no button is pressed on the on-board computer or the operating unit of the eBike, the eBike system, and therefore also the battery, will switch off automatically to save energy.

The battery is protected against deep discharge, overloading, overheating and short-circuiting by the "Electronic Cell Protection (ECP)". In the event of danger, a protective circuit switches the battery off automatically.

If a fault is detected in the battery, two of the LEDs on the battery charge indicator (3) will flash. Contact an authorized bicycle dealer if this happens.

Behavior in the event of a fault

The Bosch eBike battery must not be opened, even for repairs. There is a risk that the Bosch eBike battery could catch fire, e.g. due to a short circuit. This risk arises if a Bosch eBike battery which has already been opened is reused at a later point in time.

Therefore, do not repair the Bosch eBike battery in the event of a fault, but have it replaced with an original Bosch eBike battery by your specialist retailer.

Transport

- Always remove the battery pack from the bicycle before transporting the bicycle on a vehicle bike rack. Failure to remove the battery pack when using a vehicle bike rack can lead to death or serious injury. The battery may detach during transport and cause an accident to following vehicles.

- Always use an approved and compatible bicycle rack when transporting your eBike. The Bosch drive system adds weight to the bicycle. Refer to your bicycle rack manual to be sure your eBike is compatible. Overloading a bike rack can result in death or serious injury.

- Use proper lifting techniques as electric bikes are generally heavier than bicycles.

Ship batteries only when the housing is undamaged. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging. Inform your parcel service that the

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## Troubleshooting

<table>
<thead>
<tr>
<th>Cause</th>
<th>Corrective measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two LEDs flash on the battery.</td>
<td>Battery defective</td>
</tr>
<tr>
<td>Three LEDs flash on the battery.</td>
<td>Battery too warm or too cold</td>
</tr>
<tr>
<td>No LEDs flashing (one or more LEDs will remain permanently lit depending on the state of charge of the eBike battery).</td>
<td>The charger is not charging.</td>
</tr>
</tbody>
</table>

### Charging not possible (no indicator on battery)

<table>
<thead>
<tr>
<th>Cause</th>
<th>Corrective measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check all connections.</td>
<td>Connector not attached properly</td>
</tr>
<tr>
<td>Carefully clean the battery contacts.</td>
<td>Battery contacts dirty</td>
</tr>
<tr>
<td>Check the mains voltage, have the charger checked over by a bike dealership.</td>
<td>Socket outlet, cable or charger defective</td>
</tr>
<tr>
<td>Contact an authorized bike dealership.</td>
<td>Battery defective</td>
</tr>
</tbody>
</table>
Adventure Neo Powertube Battery

The drive system battery (2) is housed within the bicycle downtube.

The battery can be charged via the charge port (8) or removed for charging.

**To remove the battery:**

1. Secure the bike upright to prevent it from falling over.
2. Make sure the bike drive system is OFF.
3. Slide the cover latch (10) down with your finger to release and lift off the battery cover from the frame.
4. Lift out the key cover from the frame and insert the key (5) into the key slot.
5. Turn and hold the key counter-clockwise to permit the release of the battery.
6. Press in on the battery release tab (7) located on the upper part of the battery.
7. Once pressed, the battery will be allowed to tilt out from the upper battery connector mount.

**To install the battery:**

1. Secure the bike upright to prevent it from falling over.
2. Insert the lower portion to the battery so that the battery socket engages with the lower frame connector (4).
3. Turn the key clockwise to re-engage the upper locking mechanism (6).
4. Remove the key.
5. Insert the battery cover tabs into the slot, lower the cover over the frame opening, while holding the latch.
6. Release the latch to secure the cover.

**NOTICE**

Do not ride the bike without the battery cover installed. Dirt, water and other contaminants can enter frame and/or damage the battery.

**WARNING**

Periodically check to make sure the battery is securely mounted inside the frame.

Check the battery after any fall or impact. Check for loose or damaged parts.

Use only the specified battery. Do not modify the battery or other parts.

If you take the battery out, replace and secure the battery cover on the frame.

If damage is found, do not ride the bike. Have any damaged part replaced with a new one. Contact your Cannondale Dealer.
Remove battery cover before turning the key. Cover is independent from battery.

Identification

1. Battery Cover
2. Battery
3. Battery Connector
4. Frame Battery Connector
5. Key
6. Battery Latch
7. Battery Release Tab
8. Charge Port
9. Cover Handle
10. Battery Cover Latch
Battery Charging Port

The Powertube battery charging port is located on the left side of the bicycle at the headtube. The charging port enables the battery to be charged while installed in the bicycle.

To connect the charger cable to the port connector:

1. Place the bike and charger in a secure area where both will remain undisturbed while the battery is charging.

2. Lift up the battery port cover (1).

3. Attach the specified charging cable (3) to the charge socket (2).

4. When charged, disconnect charger cable from the charge socket and replace cover. Make sure cover is seated fully into the frame opening.

5. Disconnect the charger from its source of power.

⚠️ WARNING

Follow the drive system manufacturer’s instructions for charging and for handling of the battery.

Incorrect charging or handling can result in a fire or in an explosion, resulting in serious injury or death.

Do not insert anything other than the specified charging connector into the charging socket.
Drive System Charger 2A - BOSCH

Product Description and Specifications

Product Features

(1) Charger
(2) Device socket
(3) Device connector
(4) Charger safety instructions
(5) Charging connector

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switched off. The charging process is terminated. The state of charge can be displayed for three seconds by pressing the on/off button (10) on the eBike battery. Disconnect the charger from the mains and the battery from the charger. When the battery is disconnected from the charger, the battery is automatically switched off.

**Note:** If you have charged the battery on the bike, carefully close the charging socket (6) with the cover (7) after charging, so that no dirt or water can get in. If the charger is not disconnected from the battery after charging, the charger will switch itself back on after a few hours, check the state of charge of the battery and begin the charging process again if necessary.

**Maintenance/cleaning**

- **WARNING**
  - Do not open any of the components. Service should only be carried out at an authorized Bosch eBike dealer. Failure to follow above warning can cause death or serious injury. Refer to your bicycle manual or component manual for all non-Bosch drive system components.
  - Do not charge or use your eBike in any area with a potentially explosive atmosphere, such as at a fueling area, or in areas where the air contains chemicals or particles (such as grain, dust, or metal powders). Obey all signs and instructions.
  - Do not submerge your eBike components in water, or wash with pressurized hose. Your Bosch drive unit is designed to be water tight to rain water or non-pressure hose washing.
  - Do not paint any components of the Bosch drive system as they may cause premature failure of the component.

**After-sales service and advice on using products**

If you have any questions about the eBike system and its components, contact an authorized bicycle dealer. For contact details of authorized bike dealerships, please visit www.bosch-ebike.com. Please contact an authorized bicycle dealer if the battery is no longer working.

**WARNING:** This page contains selected information only. Download the complete manufacturer manual, or check for updated content, see [https://www.bosch-ebike.com/](https://www.bosch-ebike.com/).
Cable Routing Overview

Identification
- RD - Rear derailleur
- WS - Wheel sensor
- RB - Rear brake
- HL - Headlamp
- DP - Dropper Seatpost
- RL - Rear light
- DC - Drive system cable

Please Note:
Do not attempt to work on the cable routing yourself. Due to the complex nature of the parts and the level of disassembly required to gain access, have any repairs or replacements of the battery, cables or hose parts identified here, performed by an authorized Cannondale e-bike service center.
## Replacement Parts

**ID**  | **Part Number**  | **Description**  
---|---|---
A | KP284/028 | Derailleur Hanger QR ST SS  
B | K32111 | Adventure Neo Grommets  
C | K34140 | Key Hole Cover w/ Leash  
D | K34159 | Charge Port Cover V2  
E | K34101 | Battery Cover Top Exit  
F | K34111 | Gen 3 Battery Gap Cover  
G | K76041 | Adventure Neo HT Bottle Cage Spacer Kit  
H | K34221 | Neo Urban Motor Cover  
I | K76051 | Adventure Neo Chainguard Mount  
- | K13031 | Adventure Neo Rear Rack  
- | K11151 | Adventure Neo Front Fender  
- | K11161 | Adventure Neo Rear Fender  

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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, 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.

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. It is 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 in to 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 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, 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.
Cleaning

When cleaning your bike, use a damp sponge or a soft brush with only a mild soap and water solution. Rinse the sponge often. Do not spray water directly on controls or on drive system components.

**NOTICE**

Do not use a pressure washer or dry with compressed air. This will force contaminants into sealed areas or into electrical connections/components, promoting corrosion and resulting in immediate damage or in accelerated wear.

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**WARNING**

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.
Use NOTES pages to write/record important information about your bike:
(e.g. maintenance history, dealer contact information, settings, etc.)