

Service series 2019



**BOSCH**  
Invented for life

# ALL YOU NEED TO KNOW ABOUT YOUR eBIKE

## FEEL THE FLOW



Bosch eBike Systems | EN  
[bosch-ebike.com](http://bosch-ebike.com)

# Contents

01	Which eBike type am I?	4
02	Choosing the right dealer	8
03	11 questions about the eBike battery	10
	The eBike battery	14
04	Care of eBikes	16
05	Travelling by eBike	18
06	Correct transport of eBikes	20
07	10 reasons for choosing an eBike	22



**Dear eBike user,**

After their eBike purchase, lots of riders ask themselves the same questions: Which eBike model the right one for me? How much energy does my rechargeable battery really use? How do I look after my eBike?

This brochure answers all these questions and provides a wealth of information, as well as tips and tricks to help get the most out of your riding experience. You can also find special articles online at [bosch-ebike.com/tips](https://www.bosch-ebike.com/tips), which will explore different topics in greater detail.

Happy eBike riding!  
Your eBike Systems Team

# 01

## Which eBike type am I?



Whether it's for a trip on the weekend, on the way to work, or while mountain biking: The extra boost from the electric drive makes life easier for cyclists as well as ensuring plenty of fun. Ever more models and versions are available on the market: Today, there is no category of bicycles that has not been 'electrified.'

But which bicycle model is right for me? This is a frequently asked question when it comes to buying an eBike. Purchasing advice is highly recommended. And test rides are a must. However, before visiting a specialist dealer, the following three points should be borne in mind: What are my needs as an eBiker? Where will I be using the bike? And what distances will I typically travel? Decide for yourself...

### ... in accordance with your needs:

#### Novice

For newbies, we recommend a city bike with the Active Line drive unit from Bosch eBike Systems. The mid-drive motor, which provides moderate and well-dosed drive power, has a favourable centre of gravity. The geometry of the city bike allows the cyclist to get on and off with ease. Moreover, the seating position is relaxed and upright. For those who need a more powerful support on upward inclines: The Active Line Plus provides an additional 10Nm of torque.

#### Stylist

Urban Bikes are particularly stylish and elegant. Here, the new Bosch PowerTube battery is often directly integrated in the frame. Here again, the Active Line – or optionally the Active Line Plus – provides "flow" when riding in road traffic. Furthermore, even more eBikes are available in a trendy retro look or nostalgic design.

#### Commuter

There are two options here: A powerful S-Pedelec, preferably equipped with Bosch's Performance Line Speed drive unit, provides additional drive up to a speed of 45 kilometres per hour. Or a foldable compact bike for hassle-free public local transportation or in the car. Recommended equipment for tech enthusiasts: With the Nyon on-board computer, cyclists can see all the relevant information at a glance, as well as using their daily commute to keep fit.

#### Explorer

Trekking bikes offer greater comfort and are the perfect all-rounder for day trips or extensive tours. The seating position

is relaxed and upright. With the versatile Active Line Plus drive version, the cyclist benefits from a natural riding sensation and harmonious, agile acceleration. Featuring a torque of 63Nm, the Performance Line is a finely balanced, powerful alternative.

#### Athlete

The eMountain bike is ideal for individualistic eBiking and that Uphill Flow feel. Riding technique is also an important factor here. The Performance Line CX drive system is perfect for sporty off-road riding. The Nyon on-board computer is a worthwhile purchase for GPS orientation and monitoring personal fitness.

#### Load carrier

Real eCargo bikes have a permissible total weight of up to 200 kilograms. With a maximum torque of up to 63Nm, the Performance Line provides powerful drive at low cadences. Essential for orientation during transport: navigation with Nyon – optionally with 2D or 3D map view.

Active Line is the ideal drive for anyone who wants to be safe and relaxed on the road: The drive unit fits perfectly into the bike frame thanks to its compact design, streamlined weight and low centre of gravity.





The Bosch on-board computer Intuvia

### ... in accordance with your area of use:

#### In the city

You primarily ride on paved roads – going to work, shopping, to the swimming pool or the beer garden? City bikes are perfect for these areas of use. They offer an upright seating position. Trekking bikes are also designed for city riding. Those commuting by train do not have to forgo electric power assistance: For them, 20-inch compact bikes are available with an electric motor. For this type of bike, Bosch offers the Active Line, which is ideal for city traffic and provides gentle and reliable support. It is available for eBikes with derailleur and hub gear system – the

latter can also be optionally equipped with a backpedal function. For additional riding comfort and safety.

#### On cycle paths and field tracks

At the weekend, you go on extended bike tours and frequently climb onto the saddle in the holidays as well. You are sporty and like to be outside in nature, but you prefer paved roads and paths? For this type, touring pedelecs are ideal. They feature sporty ergonomics and a luggage rack to comfortably transport provisions or a tent. The Performance Line is directed more towards this type of sporty rider. It's ideal for eBikers who enjoy a powerful drive and who sometimes like to ride a little faster.

#### Mountain trails

You like to ride off-road, away from the beaten track? It's never steep or challenging enough for you? You enjoy testing your boundaries? Then it makes sense to buy a high-quality eMountain bike equipped with a powerful drive such as the Bosch Performance Line CX. With direct response, a maximum torque of 75 Nm and powerful support of up to 300 percent, it counts among the highest performance eBike drive systems on the market. And for improved navigation: the all-in-one Nyon on-board computer – with smartphone connectivity and an optional heart rate monitor.

### ... in accordance with the distances you travel:

#### Up to 20 kilometres

Different rechargeable battery capacities are available for different areas of use. Generally, rechargeable batteries are available for all Bosch product lines – such as the Active Line, Active Line Plus, Performance Line or Performance Line CX – with energy contents of 300 Wh, 400 Wh or 500 Wh. eBikers who generally only travel short distances, such

For off-road riding, it makes sense to buy a high-quality eMountain bike – with a powerful drive system like the Performance Line CX from Bosch.



as a trip to the baker's, to the chemist's or to visit the neighbouring village, can rely on rechargeable batteries with around 300 watt-hours.

#### 20 to 50 kilometres

The distance that a rechargeable battery will last does not only depend on the power of the rechargeable batteries but also on many other factors: support level, riding style, air resistance, rider weight, tyre pressure and, of course, the terrain. For commuters who take the eBike to work on a daily basis, or eBikers who go on lengthy tours and would like to be more flexible, the PowerPacks 400 or 500 are a great addition.

#### More than 50 kilometres

You go on very long or steep tours, during which you cannot recharge for a long time? Or you frequently transport very heavy loads? Then a particularly high powered battery is worthwhile. For all riders who want to travel even higher, further and with heavier loads, Bosch eBike Systems offers the DualBattery: By linking two rechargeable batteries, you can achieve double the range – i.e. up to 1,000 watt-hours (Wh). This means that even distances exceeding 200 kilometres are possible.

### ... in accordance with Internet capability:

#### Analogue

You can focus on the essentials and obtain all the important information at a click of your thumb: The Bosch Purion on-board computer provides maximum efficiency and precision. Intuvia, in turn, ensures easy and intuitive control of your eBike – thanks to a separate control unit. Always ride in the right gear using the gear shift indicator

#### Moreover:

The Bosch 'Range Assistant' makes it possible to determine what level of power is required for the distance being covered. [www.bosch-ebike.com/range](http://www.bosch-ebike.com/range)



Kiox's colour display features a convincingly clean appearance and intuitive operation.

#### Digital

Kiox can be connected via Bluetooth using a chest strap. Otherwise, the Bluetooth low energy interface enables updates to the software to be downloaded onto your on-board computer without requiring a cable connection. More connectivity functions are to follow.

Nyon is more than just an on-board computer. Nyon offers next-generation eBike connectivity in conjunction with the online portal and app. As part of an intelligent system, Nyon eBiker accompanies you from route planning and during the ride, through to analysis of your activities.

# 02

## Choosing the right dealer



Approximately 3.8 million pedelecs are now on German roads, with upward tendency. The range of models on offer is also increasing in variety and differentiation – so much so that purchase advice is almost indispensable to find the eBike that suits you best. But all dealers are not the same, as Bosch consultant René Gottschalk well knows. The expert who trains hundreds of eBike dealers a year, answers questions in this interview, explaining what needs to be borne in mind when you are looking to choose the right dealer.

### What makes a dealer a good dealer?

**René Gottschalk:** To my mind a good cycle shop must first and foremost provide an environment in which the customer immediately feels welcome. In the next step a good choice of products is important. The dealer must stock different manufacturers' products and drive systems. That enables the buyer to try out different models and makes comparison easier. The dealer's motivation and manner are also most important. Does he show an interest, is he candid, does he advise me competently and take my wishes into account? The chemistry between customer and dealer must be right. That is crucial. Trust is a key prerequisite for buying an eBike.

### What requirements should a good cycle shop fulfil?

**René Gottschalk:** An essential point is that the dealer's premises must be easy to reach. The sales area should be light and uncluttered. And if you set foot in a shop and promptly feel like leaving, my advice to you is to leave. The customer will immediately sense an inviting atmosphere in a shop where he can look around in peace and quiet yet at the same time receive answers to his questions – these are decisive points.

### What pre-sales service should a good dealer offer the customer?

**René Gottschalk:** Whatever happens, the customer should have an opportunity to test-ride different eBikes. It is important for the prospective customer to gain a feeling for handling properties that differ depending on the model

and the drive system. There are various options. Some dealers have a test course in their back yard while others let the customer borrow the bike for a day or sometimes even an entire weekend. The weekend option has advantages; it enables the bike to be tested extensively and under real conditions. Dealers sometimes charge for this facility, of course.

### What questions matter in the run-up to buying an eBike?

**René Gottschalk:** The most important question is how the customer is planning to use the bike. Does he want to go on tours with or without luggage, to commute to and from work, to go on short excursions at the weekend or to cut a more sporting figure on, say, a mountain bike? On the basis of the answers to these questions the dealer can assess quite well what will be required of the bike. Once the right bike has been found, the dealer must take a good look at how the customer sits on it. An ergonomic

seating posture is a precondition for cycling enjoyment and feeling good on your bike. The dealer should also check precisely that the frame, handlebar and saddle height are right and the suspension fork is set correctly.

### What points must the dealer clarify with the customer before making a sale?

**René Gottschalk:** The dealer must inform the customer comprehensively about the eBike. Before buying, the customer must be aware of what options he has, what the advantages and disadvantages of different models are and which drive system is the right one. Different drive systems are suitable for different needs and uses. Bosch, for example, offers a choice of four different drive systems. In addition, classical criteria can also matter. Some customers set great store by a hub gear and backpedal brake; others prefer derailleur gears. The dealer should also brief the customer on how to best look after the bike and, especially in the case of an eBike, the battery. For this

the Bosch Battery Guide is very helpful. It provides the most important information in a vest pocket format that the customer can take home with him.

### What after-sales service options does a good dealer offer the customer?

**René Gottschalk:** Good dealers offer an initial inspection for the eBike. That means the customer will come back for a check after a few weeks. As a rule, that will be after about four weeks or 300 kilometres. After the initial check the dealer should set the next service date. Using the Bosch DiagnosticTool the dealer can do so without the slightest difficulty. Regular inspections are important to ensure that each customer benefits as much as possible from his eBike. Ideally, the dealer will also offer a collection and return service.

Find your Bosch eBike retailer at:  
[www.bosch-ebike.com/dealers](http://www.bosch-ebike.com/dealers)

### About René Gottschalk

*Gottschalk, 47, has been in contact with bikes of all kinds since childhood because his parents had a cycle shop. From the outset his career always focussed on bicycles too. After working for many years in bicycle retailing and as a sales representative for bicycle manufacturers he spent ten years as a self-employed cycle trade sales representative. René Gottschalk has now been a technical consultant with Bosch eBike Systems for over four years. He trains hundreds of dealers a year on all aspects of Bosch eBike systems, offering course participants helpful and hands-on advice. Personally he has found the eBike to be a frequently used alternative to the car, especially in city traffic.*





# 11

## 11 questions about the eBike battery



The battery is the pedelec's power source. It supplies the motor with the electrical energy that is required to provide power assistance when cycling. So it is hardly surprising that there is frequent discussion and "talking shop" about the eBike's battery in particular. What is the difference between batteries? How far can you go on a fully charged battery? What do you have to remember about storage?

Thomas Raica, head of technical customer application at Bosch eBike Systems, here provides information and advice.

### What is special about lithium-ion batteries?

**Thomas Raica:** Lithium-ion batteries are among the most up-to-date and common pedelec batteries around. Thanks to their high energy density they can store more energy and are relatively light in weight. We rely on lithium-ion technology for all of our Bosch eBike batteries. Bosch batteries weigh about two and a half kilograms and are among the lightest on the market. They also have the highest energy density.

### How long does a battery last?

**Thomas Raica:** Lithium-ion batteries are not only light; they also have a long service life. Bosch batteries are designed for many tours, distances and years of use. The smart electronic Bosch battery

management system protects lithium-ion batteries from too high temperatures, overloading and deep discharging. A precise life span is impossible to forecast, however. The battery's service life will depend mainly on the nature and duration of the stress to which it is subjected.

### How can you influence the service life?

**Thomas Raica:** To get the longest service life out of a battery eBikers need only to follow a few simple rules in respect of protection, transport and storage. They include storing the battery in a dry environment and protecting it from direct sunlight at a room temperature of around 15° to 20°C. The ideal charging level for a battery is between 30% and 60%. Ideally, the battery should be recharged at room temperature. When transporting an eBike it is important to remove the battery from the bike and store it safely in the car.

### Proper storage



**Location**  
sun-proof and dry



**Temperature**  
15 – 20°C



**Charge level**  
30 – 60%



**Transport**  
separate from eBike

### Suitable chargers



#### Compact Charger

▶ 40% less volume than the Standard Charger

#### Standard Charger

▶ Compact design and quick charging time

#### Fast Charger

▶ Currently the fastest charger on the market

### How long does it take to charge a battery?

**Thomas Raica:** The charging time depends on the battery's capacity. Using the standard charger the PowerPack 300 takes about an hour to half-charge, the PowerPack 400 about an hour and a half and the PowerPack 500/PowerTube 500 around two hours. A totally flat PowerPack 300 takes two and a half hours to fully recharge, a PowerPack 400 three and a half and a PowerPack 500/PowerTube 500 four and a half hours.

### How far can you travel on one battery? And which factors affect the battery's range?

**Thomas Raica:** For many eBikers these are crucial questions to which there are,

however, no generally valid answers. The answer can differ enormously – from less than 20 to well over 100 kilometres on a full battery charge. Many different factors affect the range. They include the assistance level, cycling behaviour, air resistance, the cyclist's weight, tyre pressure and, of course, the terrain. What are the ground conditions? Am I cycling on a paved road, a farm track or a forest trail? Does my route include ascents or consist solely of flat and open country? All of these factors influence the battery range. If you are planning a tour, a visit to [www.bosch-ebike.com](http://www.bosch-ebike.com) is highly recommended. The website includes a range assistant that takes the different factors into account and gives you an idea of how far you

can expect to travel in the conditions that you specify.

### What precautions should be taken in winter?

**Thomas Raica:** A general rule is that cold weather reduces battery performance. That is why, in winter at below-zero temperatures, it is advisable to wait until just before you set out before attaching to your eBike a battery that has been charged and stored at room temperature. If you will not be going to use the eBike for quite a while – in winter, for example – the battery should be stored in an environment that is dry and cool at about 30% to 60% of its charge capacity.

### How are batteries best charged?

**Thomas Raica:** Batteries with their lithium-ion cells can be charged for as short a period as you like irrespective of their charge status. The integrated battery management system, combined with a Bosch charger, protects the battery from overload when charging. Interrupting the charging process does the battery no harm. An important point to bear in mind is that eBike batteries should only be charged with the right charger because irreparable damage might otherwise result and warranty or guarantee claims might become invalid.

**Even after 500 full charges the battery will still retain a high capacity.**

### How often can a battery be recharged?

**Thomas Raica:** Even after 500 full charges the battery will still retain a high capacity. 60 to 70% of the original capacity will then still be available. In an ADAC test carried out in autumn 2015 a Bosch eBike battery was fully discharged and recharged 1,515 times before it retained only 30% of its original capacity and was no longer of any real use. This means that the battery would have been sufficient for up to 57,000 kilometres – or one and a half times round the globe.

### Where can batteries be repaired?

**Thomas Raica:** High-quality lithium-ion batteries like the Bosch PowerPacks are complex, finely-tuned systems the repair of which requires special expertise and elaborate production facilities. That is why a defective battery must in nearly all cases be replaced. We recommend the following procedure. First, let the dealer check whether the battery really is defective and has, for instance, a fault in its electronics. That is something the dealer can check using the battery management system and the DiagnosticTool. If the battery is defective, the dealer will dispose of it with due regard for the safety regulations.

### How do you dispose of an old battery?

**Thomas Raica:** The dealer will ensure that a Bosch battery is disposed of in an environmentally sound way free of charge. Disposal is handled by Germany's GRS battery recycling system. Valuable materials are returned to the raw material cycle, thereby conserving resources.

### About Thomas Raica

*Raica, a 50-year-old mechanical engineer, has been with Bosch for 24 years. As head of Technical Customer Application department at Bosch eBike Systems his responsibilities include maintaining relations with bicycle manufacturers and collaboration with customers in the field of development. To take it easy from his innovative career environment, Raica, a father of two, is a vintage car lover after work. In his spare time he is also a keen mountain biker and enjoys swimming.*

## Batteries overview

### PowerPack 300/400/500

No matter what you have planned, Bosch has exactly the right rechargeable battery to match your needs. PowerPacks 300, 400 and 500 offer excellent mileage, a long lifespan, low weight, ergonomic design and easy handling. Frame batteries are constructed so that the PowerPack sits close to the centre of your eBike, which provides greater stability. The rack batteries can be used on bikes with a low step-through. Regardless of where the battery is mounted, it can be easily removed and charged at the nearest power socket.

### PowerTube 500

With the PowerTube 500, Bosch sets new standards and presents a pared-down, timeless look coupled with sophisticated technology. Thanks to compact dimensions and minimalist design, the lithium-ion batteries, which can be integrated into the bike frame, open up new options for bicycle manufacturers as they can be installed either vertically or horizontally. The battery is concealed and perfectly protected by the frame. A convenient function means that the battery pops 2cm out of the frame when unlocked, making it easier to handle. Recesses in the top surface are suitable for attaching bottle holders or design trims. The surface impresses with its classy, black anodised aluminium finish.

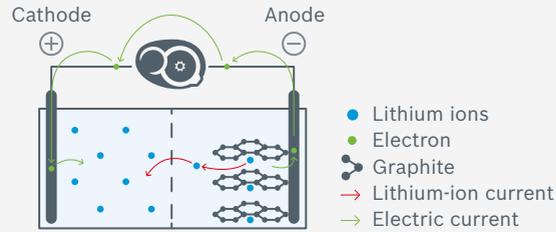
### DualBattery

Just keep on riding: DualBattery is the perfect solution for tour bikers, long-distance commuters and cargo bikers or eMountain bikers. The combination of two Bosch batteries delivers up to 1,000 Watt hours and can be installed from any battery combination from the manufacturer. DualBattery is also possible in combination with PowerTube. The system switches intelligently between the two batteries both during charging and discharging. DualBattery is suitable for long distances and heavy loads.



# The eBike battery

The battery is the energy source for pedelecs: it provides the electric motor with the electric power needed for support whilst riding. How do lithium-ion batteries actually work? Where are they used? How powerful is an eBike battery? Our infographic has all the answers.



## How a lithium-ion battery works

The electrons migrate from the negative anode via the drive unit to the positive cathode **during use**. This is balanced by the lithium ions. The reverse process takes place when the battery is charged.



## Energy content

An eBike battery is as powerful as **75 iPhone batteries.**

A Bosch eBike battery contains **40 lithium-ion cells** and, depending on its specification, provides between 300Wh and 500Wh of energy.



## Energy consumption

The energy required to fully recharge an **eBike battery** is the same as it takes to boil **five litres of water.**



## Lithium-ion battery applications



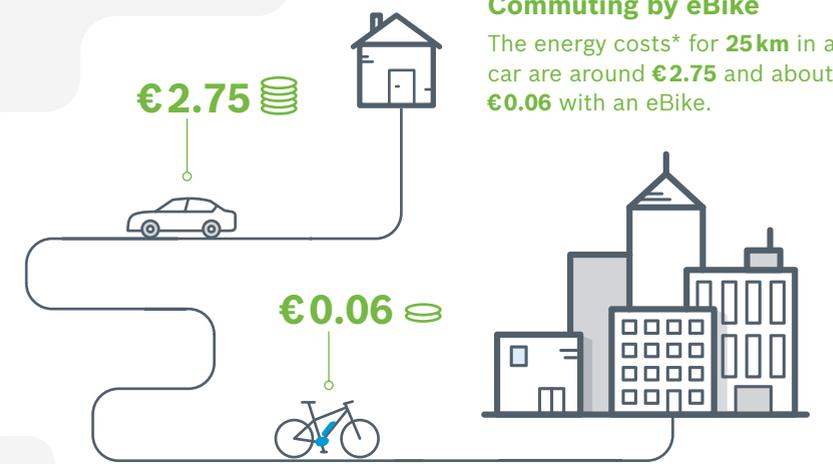
## Weight

Bosch batteries are amongst the **lightest eBike batteries on the market** and weigh approx. only **2.5kg.**

The intelligent **Bosch battery management system** controls the battery's recharging and discharging functions and protects the cells from overload.

## Recycling

eBike batteries will be taken back by the dealers free of charge and sent for **recycling.**



All of the valuable materials will be **recycled.**



That's why it's important to bring **used and faulty batteries** back to the dealer



## Service life

An eBike battery can take you a distance equivalent to up to **1½ times around the world** in its service life.

\*Petrol price: €1.35; Green energy: €0.30/kWh

Sources: ADAC battery test; Apple Inc.; Federal Environment Agency; Lithium-ion battery handbook

# 04

## Care of eBikes



Cleaning is essential. This applies following some eBike trips, especially in autumn and winter. But what is the correct way to care for an eBike? What preparations should be made? And what needs to be considered in winter, in particular? The expert Bosch advisor Harald Sterzl provides the answers.

### What's the best way to care for my eBike?

**Harald Sterzl:** That depends on how dirty it is. Water is never wrong, provided it doesn't come from a steam cleaner. It is simply a no-go to work on the components of an eBike with high pressure, as water can penetrate into the bearings of the motor, hubs or rear frame.

### Which cleaning agent can I use?

**Harald Sterzl:** Bike shampoos and care products from specialist stores are highly recommended as they do not attack plastics and seals. Even soap solution or washing-up liquid can be used. They should however not be too aggressive or strongly degreasing.

### How regularly would you recommend cleaning an eBike?

**Harald Sterzl:** Ideally after every eBike trip so that the dirt does not become engrained. Therefore as often as possible or necessary. Corrosion prevention must also be taken into account, e.g., after trips at the North Sea or Baltic coast.

### And what preparations should I make before washing?

**Harald Sterzl:** Always remove the battery and, if possible, the displays. Permanently mounted displays such as our Purion or remote keys which control the eBike system should be covered with a cloth or film.

### What should I do if water runs into the battery mount?

**Harald Sterzl:** The mount is designed in such a way that water can drain off and the contacts can dry. To ensure that this happens, the mount and plug area should be kept clean. The contacts are provided with a coating which protects the surface against corrosion and wear. Terminal



Ideally, pedelecs are cleaned after every trip so that the dirt cannot become engrained. Therefore as often as possible or necessary.

greases or technical vaseline may also be used if necessary.

### Must I lubricate the chain of an eBike more often than that of a bike without electric ride support?

**Harald Sterzl:** That depends entirely on use. Basically neither more nor less often. A chain is especially stressed when riding off-road or if gears are not shifted smoothly enough.

### Where should I lubricate the chain – at the front sprocket or at the rear?

**Harald Sterzl:** Neither of these. When applying lube, care must be taken that the brake discs are not contaminated or the sprocket gummed up. It is therefore best to spray where the chain runs freely. It is best to remove excess lube with a rag or soft cloth.

### How should I care for my eBike during the winter if it is not used for some weeks or months?

**Harald Sterzl:** It should be clean and lightly lubricated, the chain and exposed aluminium parts treated with suitable care products. Battery and display should be removed and stored in a dry place at room temperature, ideally between zero and 20 degrees. It is important for the battery to have a residual charging capacity of between 30 and 60 percent.

### What if I also use the eBike in winter?

**Harald Sterzl:** Simply remove the salt from spray water or snow after riding and allow to dry well. Don't worry, eBikes are very robust.



## 5 tips for proper eBike care:

1. Remove battery and displays before cleaning or cover with a cloth or film, if necessary.
2. Use bike shampoo, brush and soft sponge and never a steam cleaner or high-pressure cleaner.
3. When lubricating the drive chain, ensure that no lube gets onto the disc brake.
4. Clean the eBike regularly and do not wait until coarse dirt has become engrained.
5. Perform a short function check after washing: Is the battery correctly engaged? Does the drive work correctly? Does the system respond correctly to buttons being pressed?

### Harald Sterzl

*Harald Sterzl has five years of experience in specialised bicycle retail; he worked for an international bicycle manufacturer for 12 years, most recently as service manager and has been a technical representative for Bosch eBike Systems for four years.*



# 05

## Travelling by eBike



Combining relaxation with exercise – that’s what many people consider to be the perfect holiday. And travelling with one’s eBike – in particular – is becoming more and more popular. Bosch eBike Systems has now compiled a number of important tips. The conclusion: with careful preparation, cyclists can look forward to a highly successful trip with their eBikes.

### Fully charged

There are handy chargers for people on the move, such as the Bosch Compact Charger. The charger weighs a mere 600 grams or so and fits perfectly into the saddle bag or day pack. With a two amp charging current the Compact Charger keeps the battery fully charged even on longer tours.

**Bosch batteries should always be kept securely inside the car during transportation.**

### Tips for transport

eBike enthusiasts are advised to use a rear-mounted carrier system to transport their cycles. However, Bosch batteries should always be kept securely inside the car during transportation.

Important note for long-distance journeys: eBike batteries are classified as hazardous freight and in most cases may not be taken on board aircraft. Possible alternatives include advance shipment by sea or air.

### Better safe than sorry

Effective protection against theft: U-locks have a solid reputation and tests have shown them to be among the most secure locks.

### A head start

In-mould helmets provide reliable protection. The foam interior liner of the helmet is “blown in” while the hard exterior shell is still in the manufacturing mould. The purchaser should look out for the test seal: DIN EN 1078 (CE).

### No problems in wet weather

Before going on a cycling vacation, it’s advisable to buy a waterproof jacket and waterproof trousers – or a large cape. This ensures good protection in light rainfall and there is no need to stop cycling.



### Always on the right road

Losing one’s way can be very frustrating. So eBikers are advised to take along a reliable guide: with Nyon, Bosch eBike Systems’ eBike onboard computer, routes can easily be planned well in advance. During the trip Nyon not only navigates, it also gathers fitness data reliably.



eBike on-board computer Nyon

### First aid for the bike

Repair kit, pump, spare tube, rag and the necessary tools in a mini-kit are all essentials for every trip.

### Just in case

Some “musts” for every eBiker: plasters, bandages, disinfectant and disposable gloves, which are also practical for repair work. Plus, depending on the region and the time of year: sun lotion, mosquito repellent and a cooling gel.



## Correct transport of eBikes

A journey, a trip or a move is planned – and you need to bring the eBike with you? Depending on the means of transport, different regulations apply. Bosch eBike Systems has compiled the most important information and some tips for you in the following post.



### 1 By Car

If you would like to transport your eBike as a private user by car and there is limited space, you can also use a bike rack, just as with a conventional bike. A few points must however be noted: eBikes are somewhat heavier, and their frames are often larger than conventional bike frames without electric support. A rear rack mounted to the tow-bar fixture helps with the loading. Consider the maximum load on coupling, since it varies between 50 and 100 kilos. In principle, the following applies: “If the eBike is being transported with a bike rack, remove the battery first and place it in a safe location inside the car. The same applies to removable on-board

computers. This helps to avoid damage to the components. Regarding the Drive Unit, it is recommended to add waterproof protective covers for the trip. You can buy them from your dealer,” says Tamara Winograd, Head of Marketing and Communication at Bosch eBike Systems.



### 2 Shipping

If the eBike is being transported by commercial users or third parties (for example by air cargo or shipping company), special packaging and labelling requirements apply, which must be followed. The transportation company will provide more information on this. Batteries may



only be shipped by private people when they have no damage to them. Open contacts should be covered and the battery should be packaged in a way that prevents it from moving around. When you want to make sure that the battery is being transported correctly, refer to competent dealers who provide suitable packaging.



### 3 By Train

In trains with a bike compartment, pedelecs (up to 25km/h) may mostly be transported without any hassle. Just buy a bike ticket, fix the pedelec in the compartment safely and take a seat in the passenger wagon. For longer trips in IC and EC trains, you need a space reservation for the eBike. You cannot take bikes on ICE trains. For speed pedelecs, special regulations apply. For instance, Deutsche Bahn excludes their transportation.

“If you want to take your eBike in a train, keep in mind that the way to the platform is not everywhere possible without obstacles. Thus, plan more time for the boarding and changing of trains. If you are not near your bike during the ride on the train, it is recommended to remove the on-board computer and battery and to store the components safely at your seat,” says Winograd.



### 4 Local public transport

For local public transport, like on the S-Bahn, you may take your bike if you bought a bike ticket. Regional locking times may exceptionally occur. The transport organisations will provide more information on this.



### 5 Travelling with the long-distance bus

For a surplus fee, usually you may take bikes on long-distance buses. However, space is limited. Thus: make sure to book early. On the other hand, pedelecs are not transported by all bus lines. Before starting your journey, get information from your long-distance bus provider.



### 6 Flights

The air transportation organisation IATA has forbidden the transportation of eBike batteries on passenger planes. If you still want to have your pedelec after a flight at your destination, you can send it by cargo aircraft. In order to do so, the battery has to be packaged separately as dangerous good and be certified for the transport. Though, some carriers allow transportation of eBikes without batteries on passenger planes. In this case, you can mostly rent an eBike battery at a local dealer. For avoiding hassle, it would make sense to check your destination for any pedelec rental stations nearby. This will allow you to enjoy riding an eBike even when on holiday.



# 07

## 10 reasons for choosing an eBike



eBiking is proving very popular. For young or old, for urban or sporty use, the eBike's electric power boost makes cycling more relaxing, you travel longer distances and you reach your destination feeling fresher. What began as a niche movement has become a trend. There are approximately 3.8 million pedelecs on German roads. Opting for an eBike is well worthwhile. To find out why that is so and how the eBike is connecting people more than it separates them, read on.

### 1 The environment benefits

Pedelec users go easy on the environment, especially if they use their eBike on a daily basis. Half of all car journeys are five kilometres or less, and according to the Environmental Protection Agency the CO<sub>2</sub> emissions of a car are around 40 times higher than those of a bicycle with a battery-powered motor. So by using an eBike rather than a car for short distances you are protecting the environment – and also travelling quietly and economically.

### 2 Gone are the days of headwinds

Who would not on occasion have appreciated a little assistance cycling on steep ascents in a full-on headwind? An invisible "hand" to give you a gentle push and make starting on an uphill

stretch or cycling on a steep ascent almost effortless. Making mountains no longer daunting and headwinds neither here nor there. The eBike makes it possible.

### 3 Keeps you fit, makes you mobile

Are eBikes just for those who want to take it easy? Not at all! Despite the power assistance eBikers still have to hit the pedals to get moving. And it is up to you to decide how much power assistance you want or need. Studies have found that eBikers get on their bikes more often and cover much longer distances than conventional cyclists. So now is the time to get on a bike with power assistance regardless whether for comfort or for sporting use.

### 4 Perfect for commuting

Would you like to keep fit on your commute? Then the eBike is for you. It is a sporting option.

A glance at the statistics reveals that there are 30 million commuters in Germany and that nearly 25 million of them travel less than 25 km to work. Indeed, nearly every other German commuter travels less than 10 km to work. eBikes are ideal for distances of this kind.

### 5 Easement, exercise, extra boost

Thanks to the even, adjustable assistance provided by the eBike drive system an eBike is ideal for training or for getting back into cycling after an injury. Furthermore, the drive system prevents too heavy a burden on knees or thigh muscles. That eases pressure on joints, tendons and ligaments. Would you like to be fit and healthy and to improve your wellbeing? An eBike is a step in the right direction.

**Would you like to be fit and healthy and to improve your wellbeing? An eBike is a step in the right direction.**

### 6 Wheely good advice

Could you do without discussions and complaints? No arguments, please? The mood can turn fast when people with unequal physical conditions and expectations set out on a cycling tour together. That is when

a little motor can work wonders. Its power assistance offsets differences in performance and brings people closer together again – with the result that the tour is an experience everyone is happy to repeat.

### 7 Easy on the wallet

eBikes are much less expensive than cars to buy and to maintain. Fuel costs, insurance premiums, car tax or parking charges? Zero. The cost of fuel alone for a gasoline-powered car is currently around €12 per 100 km. 100 km on a pedelec costs around €0.25. Now that is a genuine saving. Plans already?

### 8 Fun factor

eBikes make cycling less work and more fun. With power assistance the eBiker can sail past many other road users freely and easily. The pedelec is often the fastest mode of transport available in urban traffic over distances of up to and including 5 km – and over distances of up to 10 km eBikers can easily keep up with car drivers.

**The power assistance offsets differences in performance and brings people closer together again.**

### eBike makes riding worthwhile



### 9 Pure mobility

Intermodal traffic? Not the slightest problem with an eBike. eBike to the railroad station, take the train and then either use public transportation or rent a pedelec to your destination. With an eBike you are fast and flexible. You can cover distances more easily and increase the radius of distances you can travel. Power assistance gives you a real boost in the city. eBikers leave tailbacks behind them and don't need to worry about finding somewhere to park either.

### 10 Something for everybody

The market is constantly coming up with new models and versions. Pedelecs capable of speeds of up to either 25 km/h or 45 km/h. eBikes are available for urban or cross-country use, for leisure tours or for summiteers with sporting ambitions. There is a wide range from which to choose and the right eBike for every kind of person. You really are spoiled for choice.

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