



Robert Bosch GmbH
Bosch eBike Systems

Postfach 1342
72703 Reutlingen
Germany

email: bosch-ebike@bosch.com
www.bosch-ebike.com

*The images and models contained
in this brochure are examples only.
Information correct as of August 11, 2010.
Design and color subject to change prior
to start of production.*

Always the best support.

Bosch eBike Systems: innovative and reliable.

 **BOSCH**
Invented for life

Our engineers have
stepped up a gear.

The concept.

With the Bosch eBike System, a tail wind is no longer a matter of chance – now you can have one whenever you want.

This innovative high-tech drive doesn't relieve you of the job of pedaling, but it does give you a leg up. Depending on the support level selected, the electronics adapt flexibly to what the cyclist is doing and instantly adjust the amount of support the motor has to deliver.

Cycling with Bosch isn't just extremely comfortable – it's also extremely simple. Starting from the system's intuitive

operation all the way through to the fast, smooth service.

The only people that haven't had an easy time of it are our developers. They have pulled out all the stops to ensure that the Bosch eBike System makes the grade: top-quality, reliable, tested, and cleverly designed. In short: riding e-bikes has never been so attractive.

Nearly as quiet as your legs:
our powerful motor.

The technology.

Say goodbye to bicycles with gasoline-powered auxiliary engines.



The Bosch eBike System's powerful Drive Unit signals the arrival of technological expertise in the two-wheel world. The high-performance drive not only adapts to the rider's needs quietly – it also does so extremely quickly. After accelerating to 25 kph in just a few seconds, the motor automatically shuts off. This means that an e-bike equipped with this system still qualifies as a bicycle under German law. In Germany, therefore, it can be ridden on bike paths, and there is no legal requirement for license plates or insurance.

If the Drive Unit is to adapt perfectly to the strain on the cyclist, it has to determine how much auxiliary power is needed. For this purpose, three sensors measure

speed, pedaling frequency, and torque. These allow the optimum amount of mechanical support to be computed. For example, if a head wind comes up, the e-biker must pedal harder to maintain the same speed. The pedal-force sensor reacts to this, and extra power from the motor makes up for the additional strain. This technology wastes no power, making the Bosch Drive Unit extremely efficient.

Elegantly designed, the drive can be integrated without any need to modify the wheel base extensively. Since the Bosch design positions the Drive Unit in the middle of the frame, the bike has a low center of gravity, and thus more stability.

Technology | 2

A fruitful
partnership.

The components.

Bosch electrical engineering – now also for bicycles.



Bosch pioneered the use of lithium-ion technology in power tools, and has successfully marketed tools featuring this technology for many years now. The same tried and tested technology is now available in our Battery Pack, which features high energy density and extends an e-bike's range. For the rest, the Battery Pack is undemanding – not just in terms of weight and charging time: the power charger can charge the battery completely in just two-and-a-half hours.

Available soon, the HMI Advanced will also have a USB interface that can charge cell phones or iPods®. This small universal device will also control the multiple drive modes. Up to four modes will be available: Eco (electricity-saving), Tour (standard), Sport (dynamic), and Speed (continuous). Each of these modes can be controlled separately to provide 0 %, 50 %, 100 %, or 150 % power support. The HMI Advanced can also be used to control the walk-assist function.



The clever copilot sits on the handlebars – the HMI (human machine interface). With its many functions, the HMI by far outstrips conventional bicycle computers. As well as showing battery status and support modes, the HMI also displays speed and distance traveled.

A pleasant journey every time –
and good service, too.

The service.

Just in case: the Bosch service concept.

A controller area network (CAN) means that the individual components are always in contact with each other, so the Bosch eBike System monitors itself during operation. For example, the function of the Battery Pack is checked to avert risks such as overheating. Using a diagnostic unit, a USB cable, and a laptop, the data collected can then easily be read out at the independent bicycle dealers. Errors can be diagnosed quickly and replacement parts ordered through the service hotline.

And not just the technology is up to date – so are the people who deal with it. Bosch has a systematic training concept that keeps OEMs up to date. In turn, they pass on that knowledge to the independent bicycle dealers.

With its service concept, Bosch guarantees fast, qualified assistance starting in nearly every European country, ensuring that the process of ordering replacement parts runs smoothly.

The Bosch eBike System isn't just about support for the rider – it's about support for the dealer as well.

Service | 4