

gearsensor.com

Basic installation manual

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1. Note

1.1. About this manual

The „gearsensor.com“ is a brand name of all shift sensors developed and made by Agentura REPRO spol. s r.o. in the Czech Republic, Europe.

The manual of Agentura REPRO spol. s r.o. provides information about the gearsensor.com installation. Be sure to read this manual thoroughly before installation and follow it for correct usage.

In case of questions during installation which are not mentioned in this manual, please contact Agentura REPRO spol. s r.o. directly.

The manual contains most of the introduction to the product, while it is not guaranteed that all application information is included. The customer may receive additional instruction files during the usage of the product. If there is a difference between this manual and mentioned additional instructions, please refer to the latest version.

This manual is determined only to the electric bike producers or their dealers / service centers, not final customers!

1.2. Copyright

All gearsensor.com products are under the protection of the copyright as patents, trademarks, etc.. It is prohibited by law for any product dismantling and imitation behavior in the purpose of obtaining commercial interests. The ownership and the retrospective rights will be reserved by Agentura REPRO spol. s r.o.. The copyright of this manual is also owned by Agentura REPRO spol. s r.o..

1.3. Important information for manufacturers and vendors

Please follow the instructions given in this manual. It is important to always adhere entire safety and recommended installation / maintenance procedures as well as precautions described in this manual.

All instructions in this manual refer only to products of the gearsensor.com brand manufactured by Agentura REPRO spol. s r.o..

Agentura REPRO spol. s r.o. is not responsible for any damage caused by not following the instructions.

Modifying any part of the gearsensor.com is forbidden!

If any part of the gearsensor.com is adjusted compared to the standard product or the housing is opened the warranty is over. Agentura REPRO spol. s r.o. is not responsible for any damage caused by this actions and bears no legal responsibility for it.

The product is designed to be waterproof to withstand weather riding conditions. However, do not deliberately put it into the water.

Do not use a high-pressure water spray for cleaning any part of the gearsensor.com.

Doing any actions with parts connected to electric system of electric bike without unplugged battery may result in electric shock.

1.4. Manufacturer

Agentura REPRO spol. s r.o.
Šedivská 739
Letohrad, 561 51
the Czech Republic

2. Introduction of the gearsensor.com product

2.1. General description

The „gearsensor.com“ is a brand name of all shift sensors developed and made by Agentura REPRO spol. s r.o. in the Czech Republic, Europe.

These shift sensors are fixed on a shifting cable, detect a gear change activated by user and provide immediate motor power reduction for a necessary period of time to achieve smooth and easy shifting process as on a normal bicycle. Because of the shift sensor function there is no pressure on the chain or any part of the shifting system which also extends lifetime of these parts.

2.2. Laser marking

Each product is marked with the type, year of production, week of production and a specific production batch number as you can see below:

laser marking description



real production numbers



2.3. Certifications

The gearsensor.com, sensors produced by Agentura REPRO spol. s r.o., are RoHS compliant.

Based on information provided by the suppliers, these products do not contain the substances restricted by the RoHS legislation at levels exceeding the maximum concentration values.

Products sold under the gearsensor.com brand are also fully CE and EMC certified.

3. The gearsensor.com installation procedure

Do not open the gearsensor.com housing for assembly.

If the sensor is to be used with a Shimano Optislick shifting cable, this must be specified in the official order as it is a non-standard production.

3.1. Position selection

The gearsensor.com position on a shifting cable / electric bicycle is chosen by the customer, in principle it can be mounted anywhere on the shifting cable with respect to the following instructions:

- cable length of the gearsensor.com must be long enough to easily connect it to the motor harness,
- the gearsensor.com must be placed on a straight or minimally bent part of the shifting cable,
- do not place the gearsensor.com on a position that can be directly splashed by water or mud (for example from wheels / tires),
- when preparing the cable routing, avoid places that could damage the electric cable of the gearsensor.com.

The shifting cable routing solutions can be found at: <https://gearsensor.com/photos>.

Shifting cable adapter is a small plastic product which allows to the customers to place the gearsensor.com directly next to the shifter on a handlebar or a cable stopper.



3.2. Preparation of the outer casing

There are two recommended procedures depending on the electric bicycle status, production of a new bicycle and already produced / in use.

Production of a new bicycle

Measure the specific length of the shifting cable and its outer casing based on the required position of the gearsensor.com on the electric bicycle. Add cap ends to both sides of the outer casing which will fit to the gearsensor.com.

Already produced bicycle

Cut 50 mm of the original outer casing in place where you want to install the gearsensor.com. Add cap ends to both new sides of the outer casing which will fit to the gearsensor.com.

Note: the shifting cable always passes through the gearsensor.com, so the outer casing must be shortened by approximate 50 mm as the protection of the shifting cable is replaced here by the gearsensor.com housing.

3.3. The shifting cable routing through the housing

Take the shifting cable with prepared outer casing mentioned above and pull it through the gearsensor.com housing from any of its side.

Note: There may be a little resistance inside the housing due to the mechanical components.



When the shifting cable is pulled through the housing, fix position of the gearsensor.com by outer casing equipped with cap ends, as on the picture below.



When the gearsensor.com is fixed properly, connect its electronic cable to the motor harness according to the following chapter.

4. The functionality test

If the gearsensor.com products are installed and connected with the motor harness according to the information in this manual, the LED will flash 3 times when the electric bicycle is turned on. The LED flashes once when the user activates the shifting process.

