

we start  
the work in  
assembling

# ebikemotion®

ebikemotion® OEM Production APP  
we support you, to create a reliable product

Create a reliable product needs to control all stages of it, both in its manufacturing process and the assembly on the bike and before placing the e-bike on the market. Electronic components include software that can vary throughout its life with new versions that include improvements and changes.

To solve these needs have created within the platform ebikemotion® the OEM production APP, a simple Windows application through which workers in factory can verify that everything is installed properly and may associate the serial number of the e-bike to ebikemotion® components. Thus automatically we know the date of manufacture and control much better the life of the product installed.

With one simple computer and diagnosis interface you will create new e-bikes in our platform keeping full control of the final product and always updated.

## Target Applications:

- Control of production dates of e-bikes
- Automatic updating of new firmware releases during the production process
- Self auto diagnosis of the assembling

One simple connection to a computer in Factory you will keep updated the e-bike to the last software version and register all components creation your e-bike database in our system

ebikemotion® API

### HEADQUARTERS

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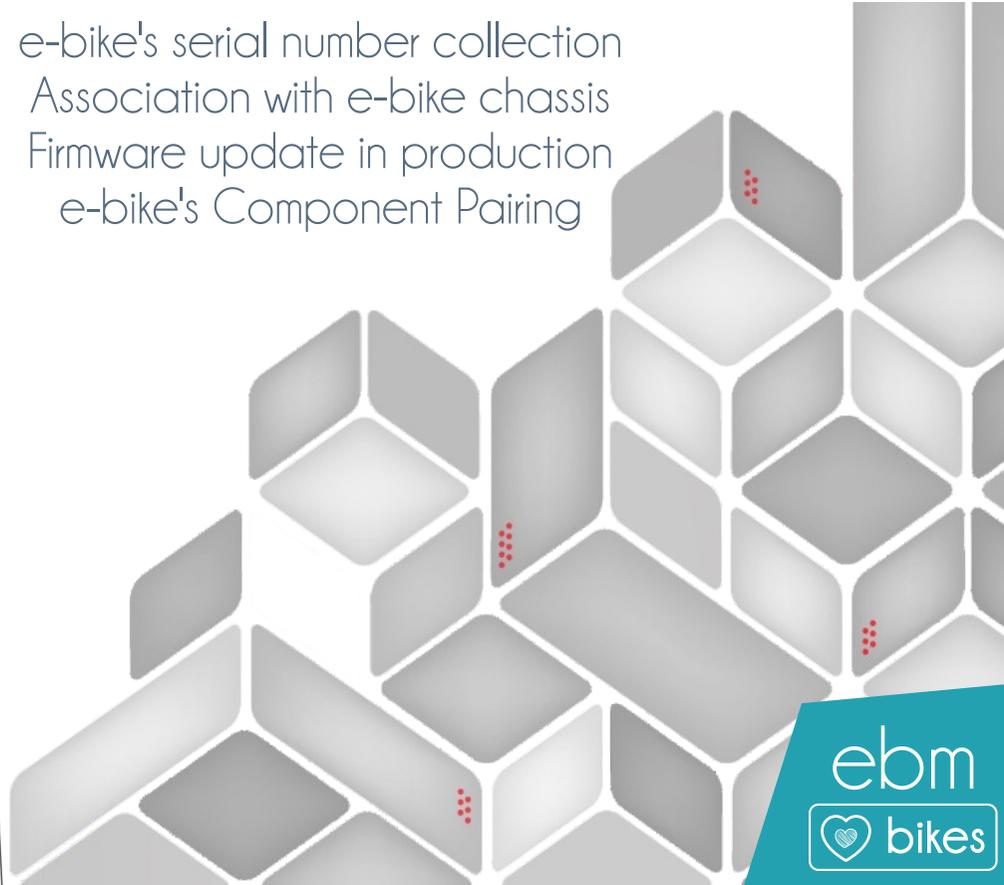
### RESEARCH CENTERS

- BISITE R+D Group  
(University of Salamanca)
- GND (NAGARES)  
(Valencia - Spain)
- STAGEMOTION SL  
(Palencia - Spain)

### PRODUCTION CENTER

- NAGARES S.A.  
(Motilla del Palancar - Spain)
- GRUPELEC (NAGARES)  
(Valladolid - Spain)

e-bike's serial number collection  
Association with e-bike chassis  
Firmware update in production  
e-bike's Component Pairing



## Product Features and Specifications

### Model System

The APP will show the e-bike models available for the OEM to create a new bike on factory. The assembler just need to select a model and the APP will automatically read the serial numbers of the components and will ask for the chassis number of the e-bike to put all of them in combination.

### Status System for Delivery

When one e-bike is assembled the ebikemotion® components are moved to any special mode that we named TRANSPORT MODE. Any e-bike in transport will not work. By this way we protect any e-bike during the delivery or even in the Dealer Shop. The e-bike will need to be moved to DEMO or SOLD to finally operate archiving at the same time information about who and when.

### Windows Compatibility

To operate with the OEM production APP you will only need one simple PC with Windows® 7 or Professional installed connected to Internet. The worker that is assembling the e-bike will use special diagnostic CAN BUS interface connected to any CAN port of the e-bike bus. For not auto loaded serial numbers is possible to load by a commercial bar code scanner.

### Firmware Update

The APP downloads the last version available of firmware to a local database and compare with the firmware of each component. If is needed system will update the firmware automatically advising to the assembler. Also system will add all special coding for the components installed in the model definition

### Control & check of conectivity

Our components always makes a self-controlled auto diagnosis to review if there is something wrong with any part of if there any wire not connected. The OEM production APP will show to the assembler if the e-bike is ready to be sold or where is the error. The final step of the process is to include automatically the date of production.

### Date Control

To know the day that the e-bike was manufactured we archive automatically dates when the components where installed and activated in the e-bike. We complete for each part the serial number with the chassis number of the e-bike, time and information of the worker that assembled the e-bike.

