

OCTAGON GUI CUSTOMER – User Manual

SEG Automotive GmbH

Revision History

Revision	Date	Description of changes	Author
1.0	2025-05-08	Initial Release	Ruiz, Pedro Luis (ENG- EB-EU)

Content

1. Introduction.....	3
2. Initial Connection.....	3
3. Interface Structure.....	4
3.1. HW-SW.....	5
3.2. Error Information	5
3.3. Motor Info.....	6
3.4. Calibration.....	6
3.5. Speed Limit.....	8
3.6. Profile Data Setup	9
3.7. Online Data.....	9
3.8. Wheel Size	10
3.9. Walk Mode / Light	10
4. Firmware Update.....	10
5. Technical Support.....	13

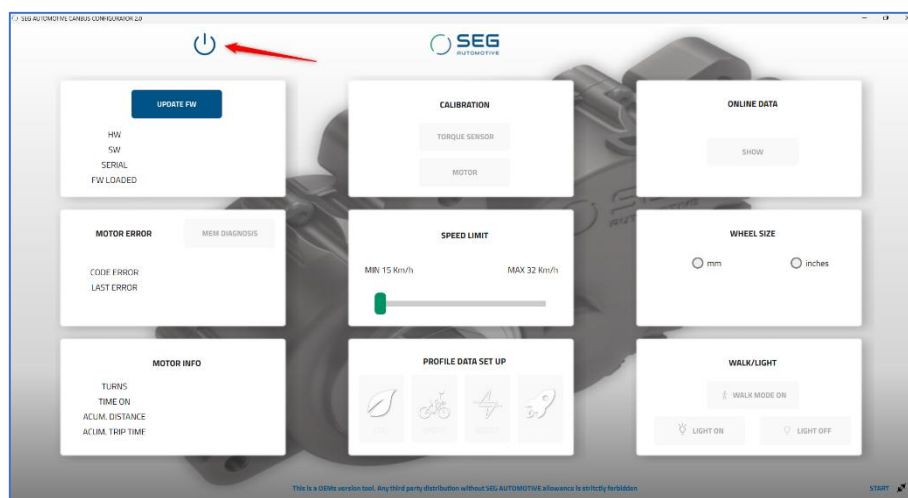
1. Introduction

This manual provides comprehensive instructions for operating the BMM85 Graphical User Interface (GUI), developed by SEG Automotive Germany GmbH.

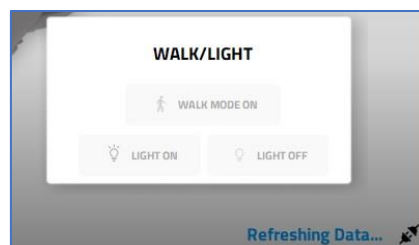
2. Initial Connection

To establish a connection between the GUI and the motor:

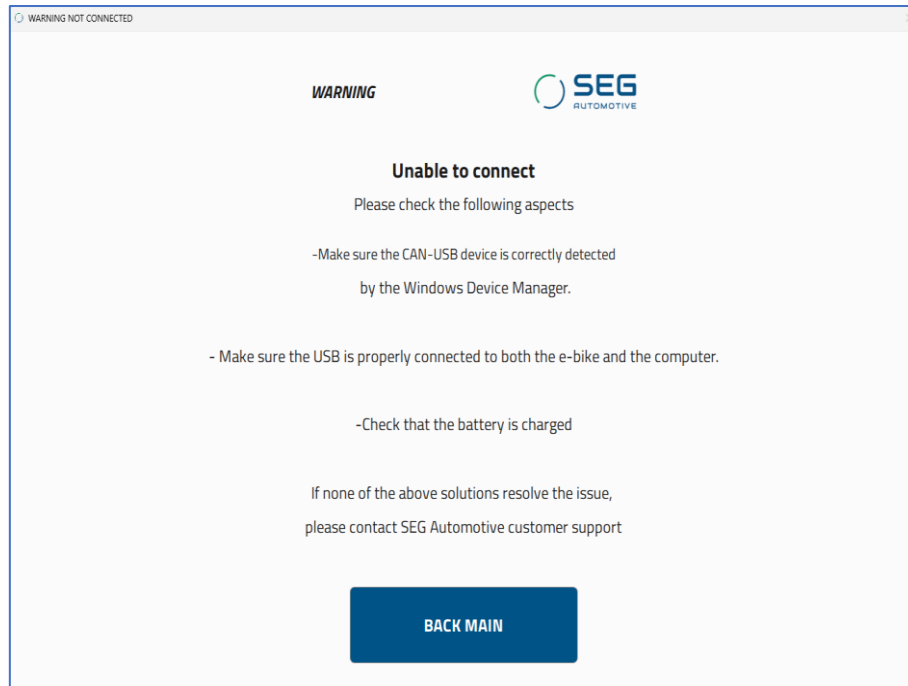
1. Launch the application (installed or portable).
2. Click the **Connect** button.



3. Data refresh process will begin, visible in the lower-right corner of the interface. This process takes approximately 3 seconds.



4. If the connection to the motor cannot be established, an error screen will be displayed.



3. Interface Structure

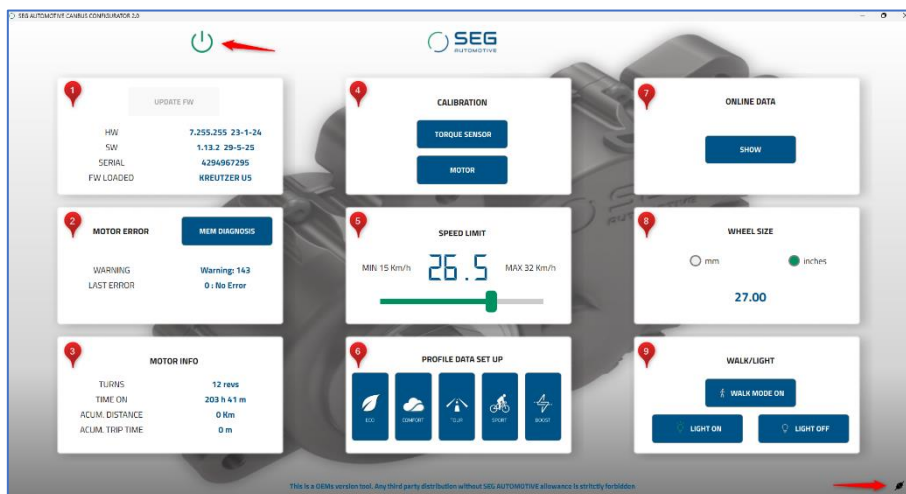
The GUI is organized into nine distinct functional modules:

1. **HW-SW**
2. **ERROR INFORMATION**
3. **MOTOR INFO**
4. **CALIBRATION**
5. **SPEED LIMIT**
6. **PROFILE DATA SETUP**
7. **ONLINE DATA**
8. **WHEEL SIZE**
9. **WALK MODE / LIGHT**

Upon successful connection:

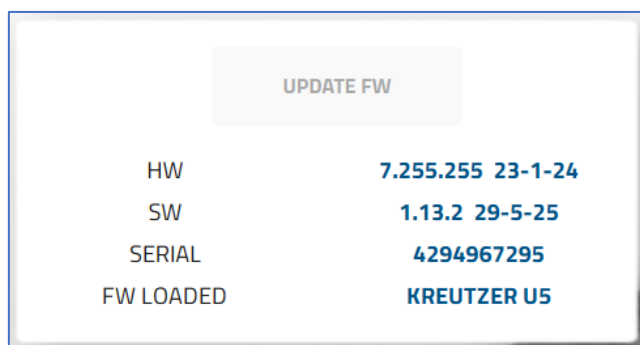
- The interface color scheme will change.
- Motor-specific values will populate the GUI.
- The **Connect** button will turn green.

- The status icon in the lower-right corner will indicate "Connected."



3.1. HW-SW

This section displays information related to the hardware (HW), software (SW), the unique serial number of the motor and the firmware manufacturer loaded.



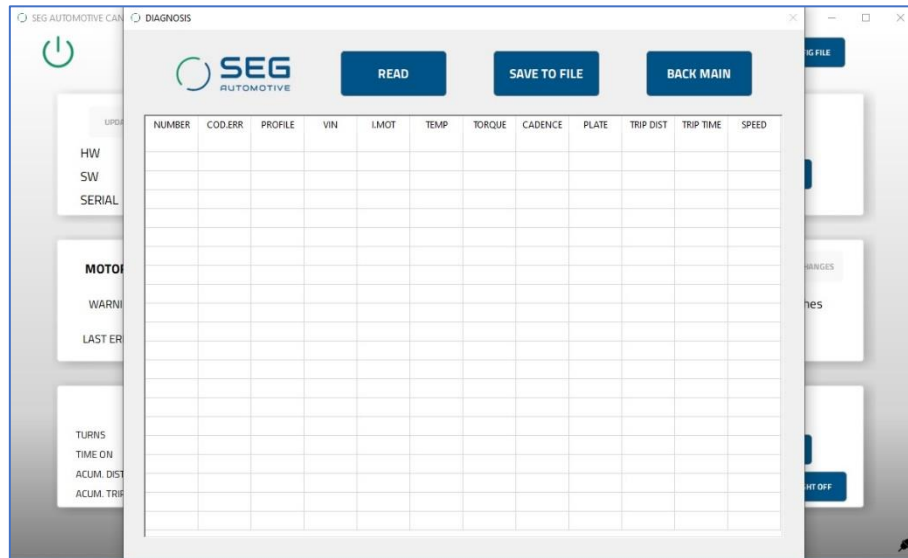
🔧 Firmware updates are covered in a dedicated section later in this manual.

3.2. Error Information

This module displays current engine errors and warnings.

- To retrieve stored error logs, click **READ DATA**.
- If no errors are present, a message will indicate that the memory is clear.

- If errors are found and need to be saved:
 - Click **SAVE TO FILE**.
 - Choose the destination folder for the error log file.



3.3. Motor Info

This section provides cumulative operational data from the motor:

TURNS: Total number of motor revolutions.

TIME ON: Total time the electronics have been powered.

ACUM. DISTANCE: Total distance the motor has assisted.

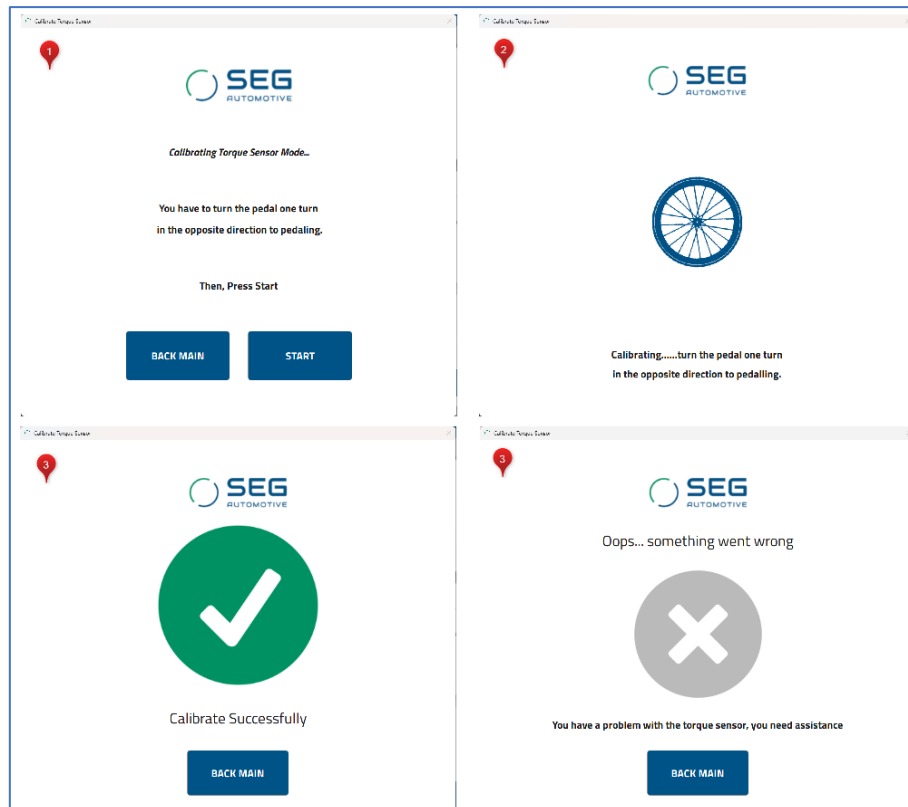
ACUM. TRIP TIME: Total duration of motor-assisted trips.

3.4. Calibration

The **Calibration** module includes two independent procedures: motor calibration and torque sensor calibration. Both must be executed after loading default configuration data.

Torque Sensor Calibration

- Click **TORQUE SENSOR** to open the calibration interface.
- Press **START** to begin the calibration process.
- Follow the on-screen instructions: rotate the pedal approximately one full turn in the reverse direction.

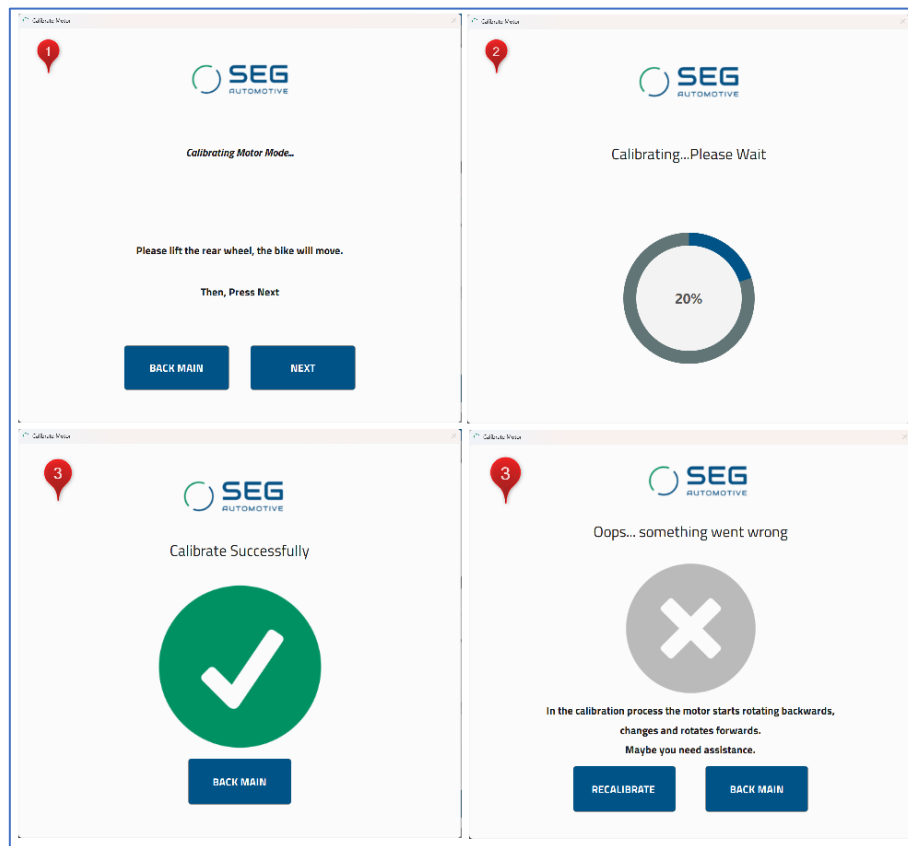


- Upon completion, the result will be displayed. If calibration fails, it may be retried. Persistent failure may indicate a sensor malfunction.

Motor Calibration

- Click **MOTOR** to access the motor calibration screen.
- A prompt will instruct you to lift the rear wheel, as it will rotate during calibration.

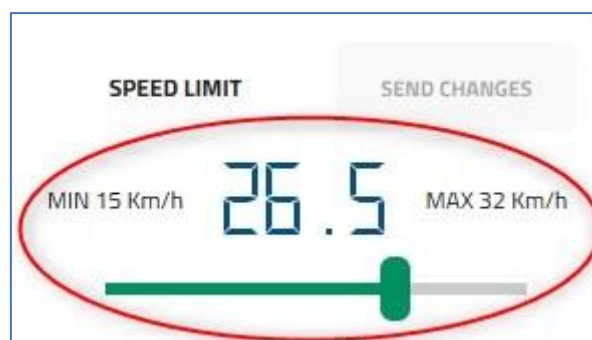
- Press **NEXT** to initiate the process.



- The result will be shown upon completion. If unsuccessful, retry the process. Continued failure may suggest a motor fault.

3.5. Speed Limit

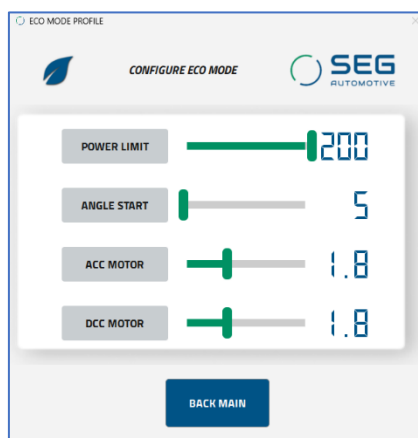
The interface shows the speed limit of the motor in Km/h



3.6. Profile Data Setup

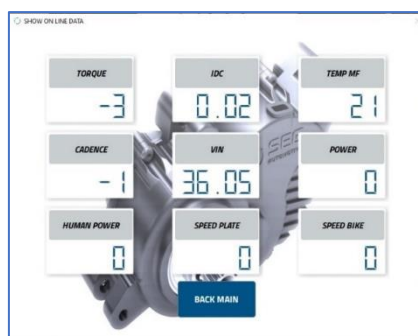
This section shows the multiple bicycle profiles. Each profile can be accessed by clicking its respective icon.

- Four parameters per profile.
- To go home, click **Back Main**.



3.7. Online Data

Click **SHOW** to display real-time engine parameters. This feature provides live monitoring of various operational metrics.



3.8. Wheel Size

The interface shows the wheel size in inches and mm.



3.9. Walk Mode / Light

This module allows testing of the **Walk Mode** and **Light** functions.

- **Walk Mode:** The bicycle will move while the button is held down. Releasing the button stops the motion.
- **Light:** Press **LIGHT ON** to activate and **LIGHT OFF** to deactivate.

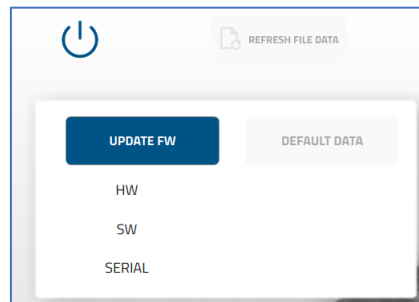


4. Firmware Update

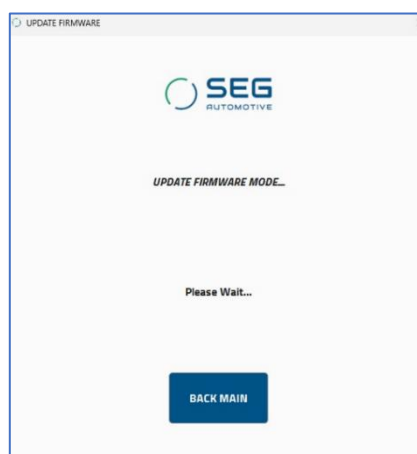
To update the motor firmware:

1. Ensure the GUI is **disconnected** from the motor.

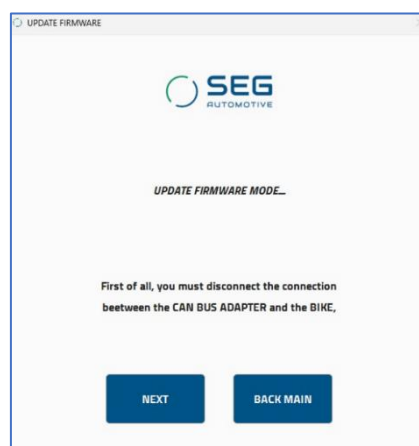
2. Click **UPDATE FW** and select the desired .hex file.



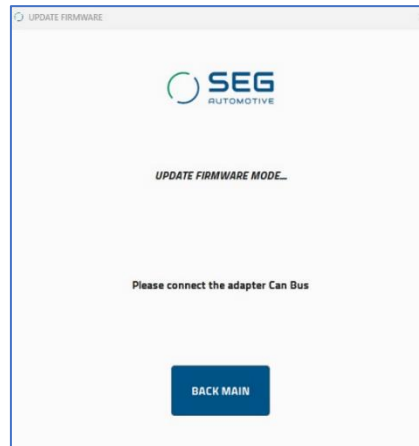
3. Disconnect the USB from the motor and click **NEXT**.



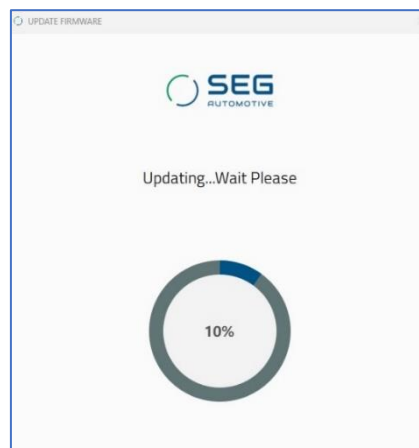
4. Wait for the application to prepare the update



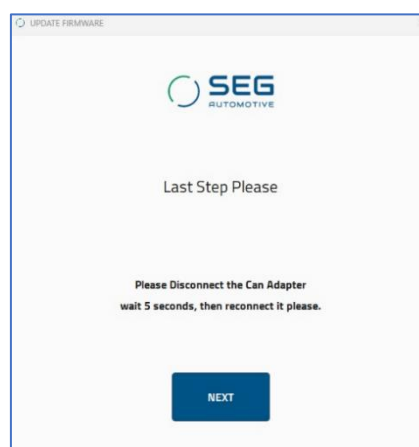
5. Connect the CAN Bus adapter to the motor and the interface automatically will be changed to the next step.



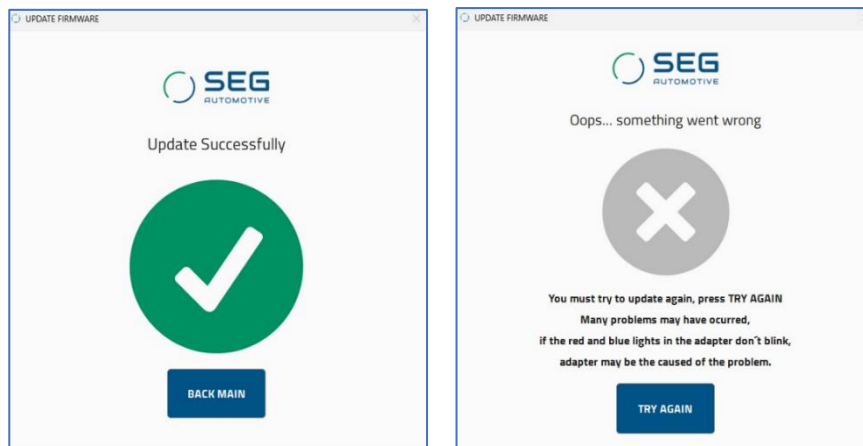
6. A progress bar will indicate the firmware upload.



7. After completion, disconnect the CAN Bus adapter for 5 seconds to allow the motor to reboot.



If an error occurs, the process can be restarted from the beginning.



5. Technical Support

For assistance, contact our support team:

✉ ebike-support@seg-automotive.com