

# FMC230 Trip/Odometer settings

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## Trip Settings



*Trip* section offers user to configure the *Trip* feature. *Trip* starts when Ignition according *Ignition source* is ON and Movement according *Movement source* is ON and also 'Start Speed' is exceeded. *Start Speed* defines the minimum GPS speed in order to detect *Trip* start.

*Ignition OFF Timeout* is the timeout value to detect *Trip* end once the Ignition (configured ignition source) is off.

I/O Trip Odometer must be enabled to use *Distance counting mode* feature. When it is set to **Continuous**, *Trip* distance is going to be counted continuously (from *Trip* start to *Trip* end) and written to I/O *Trip Odometer* value field. When *Trip* is over and the next *Trip* begins, *Trip Odometer* value is reset to zero.

When *Mode* is set to **Between Records**, the distance is going to be counted between every record made. This value is written to I/O *Trip Odometer* value field and is reset to zero every new record until the *Trip* ends. If later all Odometer values are summed up manually, the distance driven during the whole duration of the *Trip* can be obtained.



## Advanced Trip Settings

**Advanced Trip Settings**

Eco Score allowed events

Remember iButton

Advanced trip settings allow configuring a number of *Eco Score allowed Events* per 100 km and enabling/disabling iButton remembering functionality.

I/O Eco score must be enabled to get the value onto the server. Eco score is dependent on overspeeding, Eco/Green driving (harsh acceleration, braking, cornering), excessive idling and high RPM events (latter one requires OBD BT dongle). If less of parameters/scenarios are activated - it is easier to have higher Eco score. ECO scoring is differentiated by separate Trips.

There are six Eco evaluation events:

- Harsh acceleration.
- Harsh braking.
- Harsh cornering.
- Over-speeding (will only count events with value 1 (start) and ignore value 0 (end)).
- Excessive Idling (will only count events with value 1 (start) and ignore value 0 (end)).
- High RPM.

Eco score value can range from 10 (excellent) to 0.00 (very bad):

- Excellent 8.00 - 10
- Good 6.00 - 7.99
- Not Good 4.00 - 5.99
- Bad 2.00 - 3.99
- Very Bad 0 - 1.99

### **How Eco score is rated:**

- Eallowed - ECO Score Allowed Events
- d - trip distance traveled in KM
- Egen - Total generated events

### **ECO score calculation example:**

Example 1

Example 2

When Total events < 1, we ignore the formula and then Eco Score is equal to 10.

✘ If *Eco Score Allowed Events* value is configured as 0, then Eco score can have only two values: 0 (when total events > 0) or 10 (when total events = 0).

✘ Score is updated every 1 km driven or every 5 minutes of *Trip* duration.

✘ Do not forget to activate "Eco score" in I/O section.

✘ If RPM is enabled under OBD and LVCAN - events will be doubled.

**Remember iButton functionality.** If *Remember iButton* and *Trip* parameters are enabled, ignition is on and iButton is attached then FMC230 remembers iButton ID. iButton ID is saved and sent to the server with every record. If new iButton is attached during the *Trip*, FMC230 remembers new iButton ID. FMC230 forgets iButton ID after ignition is off and ignition timeout is reached.

## Odometer



*Calculation Source* allows to choose Odometer calculation source between **GNSS**, **OBD**.  
*Odometer Value* sets the starting total odometer value.