# Installation instructions

FMB125 + CAN
Tracker


Applies to services:

Fleet Manager Fleet

Treesat

## WARNINGS

Please read this manual before proceeding with the installation. All connection activities should be performed with extreme caution. For safety reasons, the module should be installed by qualified specialists.

## DESCRIPTION

The set consists of small electronic devices and web applications. The communication module together with the CAN bus is mounted in the vehicle and connected to the power supply.

The communication module monitors the GPS position in real time with GNSS and GSM connectivity, collects device coordinates and other useful data and sends them via the GSM network to the server. Communication with the server and the application via the mobile network means that the user receives a number of functions, e.g. a theft alarm with a map or an accident detection system informing about a possible collision. The map and navigation will also help you find a vehicle left in a parking lot or in a foreign city.

Thanks to the CAN device used to manage the fleet of vehicles, the owner receives a lot of useful information, i.e. fuel quantity, fuel consumption, mileage and speed of the vehicle, information about the engine and opening and closing doors, etc.

Detailed functionalities that can be used by the User by installing FMB125+CAN in the vehicle can be found at treesat.io.

The device is ideal for applications where location acquisition of distant objects is required. It can be used by companies with a car fleet, car rental companies, taxi companies, and ordinary users using their own passenger cars.

## INSTALLATION INFORMATION LIST

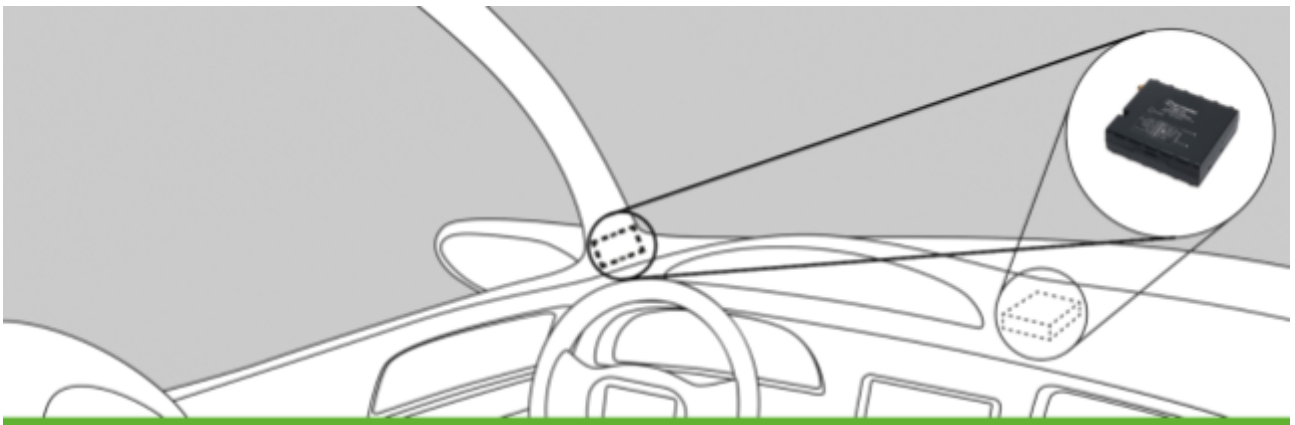
Before installation, it is necessary to provide information to the e-mail address Pomoc@treesat.io in order to remotely configure the devices by the Treesat Support Department: **car brand and model, engine version, engine capacity, vehicle year, device serial number**. In addition, in the case of trucks, the Support Department needs information on **the emission standard (Euro 5 or Euro 6).**

## STARTING FLEET MANAGER

1. Provide Treesat with a list of installation information for device configuration by the Treesat Support Department.
2. Using the manual, install the device in the vehicle.
3. Log in to the Web application – you will receive login details by e-mail.
4. The device has been added to your account by Treesat. Create a vehicle in the system and assign the number of the mounted device. Your devices are in the drop-down list.

## MOUNTING THE DEVICE IN THE VEHICLE

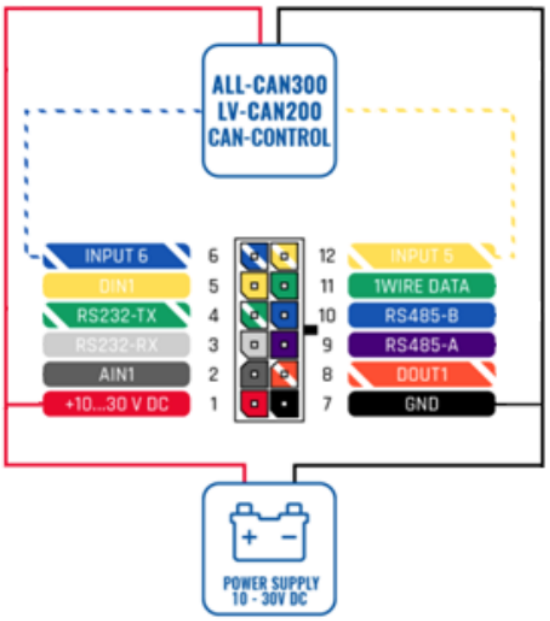
When mounting the device in a vehicle, remember to avoid sensitive places that may suppress the GSM and GPS signal. The best place to mount the device is its installation under elements made of plastic, e.g.: upholstery, post, etc. The recommended, exemplary location of the device is shown in the figure below. The above information also applies to the GNSS antenna that is screwed to the device.



We mount the device flat, with the barcode up!

## CONNECTION AND WIRE DESCRIPTION

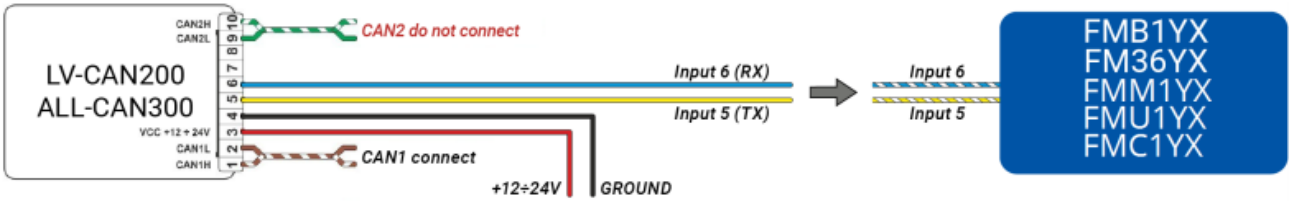
| Color | Destiny | Installation tips |
|---|---|---|
| Red | Powering the device | Connect to a permanent power supply |
| Black | Device weight | Connect to ground |
| Yellow and blue | CAN device | Connect to Teltonika CAN module (e.g. ALL-CAN300) |



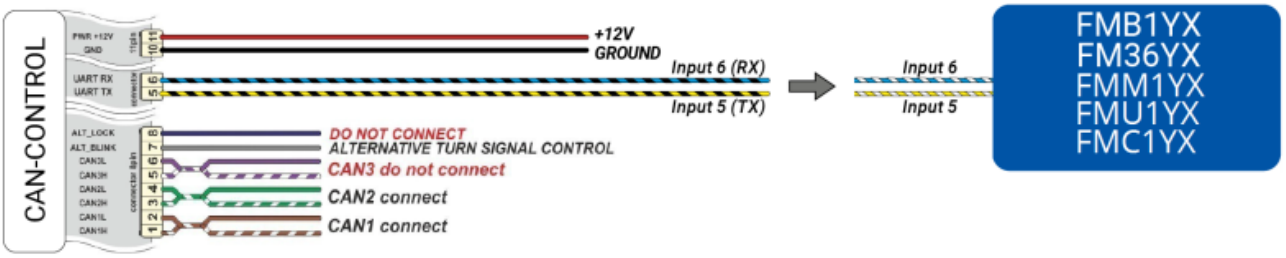
# CAN MODULES

The following CAN modules can be connected to the FMB125 device:

## LV-CAN200 and ALL-CAN200

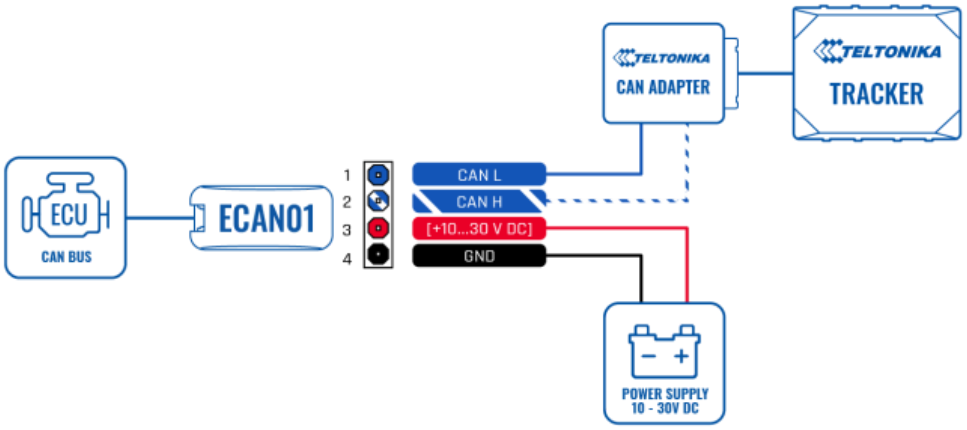



## CAN CONTROL




You can also use ECAN01 to not interfere with the car's CAN installation:

## ECAN01




**The CAN module must be connected to the appropriate CAN network of the vehicle so that so that all expected information is sent to the system!**

# OPERATION CHECK

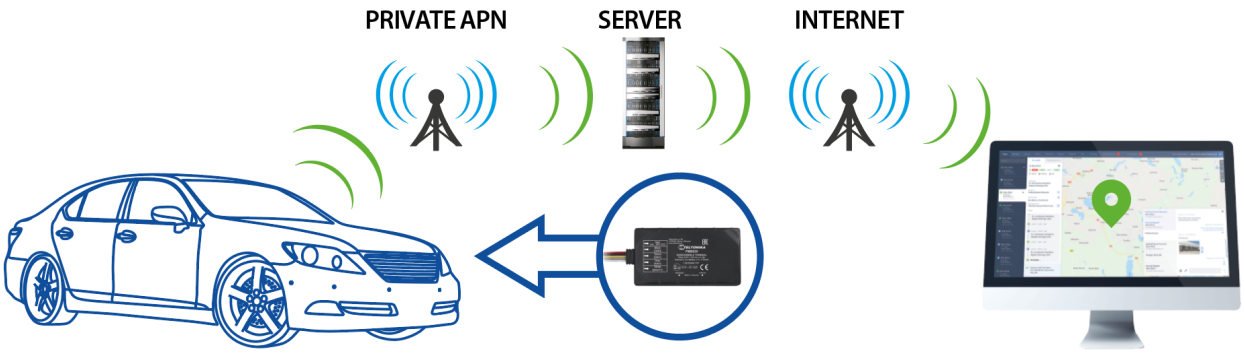
After connecting the device, check its correct operation by observing the diodes.

Behavior of the “Status” LED (GSM):

- The LED blinks every second – normal operation, GSM signal has been stabilized.
- LED flashes every two seconds – GSM is in deep sleep mode.
- The LED flashes quickly for a short time – GSM is sending data to the server.
- Constant flashing of the diode – the device is being updated.
- The LED is off – faulty GSM modem.

Behavior of the “Navigate” LED (GPS):

- The LED is lit continuously – no GPS signal, the module is searching for satellites.
- LED flashes every second – normal operation, GPS signal has been stabilized.
- The LED is not lit at all – the GPS module is turned off, the GPS is in deep sleep or the GPS antenna has a short circuit.



# TECHNICAL SPECIFICATIONS

**GSM**

- Quad band 850/900/1800/1900MHz
- GPRS class 12

**interface**

- 1 digital input, 1 analog input
- 1 digital output NO
- CAN adapter input
- RS232, RS485, 1-Wire
- accelerometer
- Internal high-gain GSM antenna
- External GNSS antenna connector
- 2 device status LEDs
- Operating temperature: -20 °C to +60 °C
- Humidity: 5% to 95%
- IP41
- Dimensions: 65 x 56.6 x 20.6mm (L x W x H)

**GNSS**

- GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS
- Tracking: 33 channels
- Sensitivity -165 dBM
- Hot start <1s
- warm start <25s
- Cold start <35s
- Accuracy <3m

**Power**

- Power supply 10~30V DC, 1A Max.
- Integrated backup battery: 170 mAh Li-Ion 3.7 V (0.63 Wh)

**Current consumption at 12V**

- Sleep: <12mA
- Nominal operation: <38mA
- Maximum: < 1A

# SIGNS

CE mark. This marking informs that the device complies with the terms of Directive 2014/30/EU regarding the compliance of Member States with electromagnetic compatibility regulations and the terms of Directive 2014/35/EU regarding compliance by Member States with low voltage regulations and safety related to the operation of electrical equipment.

The symbol of the crossed-out waste bin attached to the product means that the product is covered by the European Directive 2012/19/EU. Information on separate collection points for waste electrical and electronic products can be obtained from the place of residence. Please follow the guidelines of your local authorities and do not dispose of this type of equipment with other household waste. The correct disposal of your old products helps prevent environmental pollution and loss of health.

If this logo is found on the product, it means that the fees related to the appropriate recycling and recovery system have been paid.


This logo informs that the device is compliant with the terms of Directive 2011/65/EU (commonly known as the Restriction of Hazardous Substances Directive or RoHS). The RoHS Directive covers restrictions at the production stage on the introduction of hazardous substances in electronics.

# CONTACT DETAILS

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