FMB1YX CAN Adapter

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Contents

Program number selection

The program number can be entered using one of three options:

Entering via SMS command

Required conditions:

- FMB/FMU/FMC/FMM (1XY;6XY) properly connected to vehicle

CAN-ADAPTER program number can be set remotely, using SMS command. Send following **SMS command** to FMB/FMU/FMC/FMM (1XY;6XY) device:

- If you have set SMS login and password: `login pass lvcansetprog X`
- If SMS login and password are not set leave two spaces before command: `  lvcansetprog X`

Command example: `  lvcansetprog 11434`

SMS response: `LVCAN ProgNum: 11434`

If during SMS command FMB/FMU/FMC/FMM (1XY;6XY) was in following Sleep mode:

- Program No. will be set immediately.
- Program No. will be set after device wake up.
- Program No. will be set immediately.
- Program No. will be set after device wake up.

Entering via Teltonika Configurator

Required conditions:

- FMB/FMU/FMC/FMM (1XY;6XY) properly connected to vehicle

CAN-ADAPTER program number can be set via **Teltonika Configurator** → **(1) CAN Adapter** → **(2) Program Number**. When program number is entered press **(3) Save to device** button that saves the entered program number into FMB/FMU/FMC/FMM (1XY;6XY).

CAN-ADAPTER must be set to program number which depends on the vehicle model. **Needed program number is always written on CAN Adapter mounting scheme.** In order to be able to enter program number in adapter **Software date of CAN adapter must be newer than connection scheme date**. CAN adapter Software date can be checked:

- Via Teltonika Configurator→Status→CAN Adapter
- Via SMS command - lvcangetinfo

Entering via Autoscan procedure.

·   Device has a program number 11120 or 11130;

·   Ignition source is **DIN1** or **Power Voltage**;

·   Ignition must be **ON**;

After device startup, autoscan will begin. It will scan for available program numbers with a timeout of 50 seconds. Autoscan feature will retry for 3 times in total. After that autoscan will be cancelled. If autoscan on init is successful it will take the first program number received and set it in internal CAN chip and device configuration. Thus, device will continue to work with that program number. The rest of program number list is not available and not displayed in configurator. Although, it can be received using sms command: *lvcanproglist*.

Auto scan procedure available for FMB140 device and CAN-Control.

For manual autoscan if you have FMB140 device please visit FMB140 Autoscan instruction

![x]|| NOTE: CAN-ADAPTER must be set to program number which depends on the vehicle model. **Needed program number is always written on CAN Adapter mounting scheme.** NOTE: During Autoscan procedure - vehicle must be stationary with ignition ON! Do not start "autoscan" while vehicle is driving to avoid interference with internal vehicle communication.

In order to be able to enter program number in adapter **Software date of CAN adapter must be newer than connection scheme date**. CAN adapter Software date can be checked:

- Via Teltonika Configurator→Status→CAN Adapter
- Via SMS command - lvcangetinfo

CAN Adapter parameters configuration

Teltonika Configurator

CAN Adapter configuration can be performed using [Teltonika Configurator](#) via **Micro-USB cable** or **Blue-tooth connection** when CAN Adapter is connected to the vehicle.

When FMB/FMU/FMC/FMM is connected to the CAN Adapter, user can see all information that is received from the vehicle in [Teltonika Configurator](#) → **Status** → **CAN Adapter** tab or [Teltonika Configurator](#) → **CAN Adapter** section. In **Status** → **CAN Adapter** tab you can see information about CAN adapter and its readable parameters. In **CAN Adapter** section you can configure CAN Adapter and see incoming CAN bus data highlighted by **green** background color. Incoming data in both sections is automatically refreshed every 5 seconds. CAN bus data which should be readable from your vehicle is provided in "CAN Adapter supported vehicles list", which you can get from Teltonika Sales Representative.

The CAN Adapter I/O element can be configured like any other I/O element in [Teltonika Configurator](#). All information about I/O element parameters description is in section [I/O settings](#).

When using offline configuration method user can select which CAN data (according to vehicle) will be sent directly to the server without connection to adapter.

Send data with 0, if ignition is off

Depending on CAN Adapter I/O parameters and ignition status, FMB/FMU/FMC/FMM (1XY;6XY) can send locked (last known) CAN Adapter I/O and active (real time) parameters values or reset values to 0. When ignition is off, CAN Adapter I/O parameters values sent to server are:

CAN Adapter I/O Element	Status
Vehicle Speed	reset
Accelerator Pedal Position	reset
Total Fuel Used	lock
Fuel Level (Liters)	lock
Engine RPM	reset
Total Mileage	lock
Fuel Level (%)	lock
Program Number	lock
Module ID	lock
Engine Work Time	lock
Engine Work Time (Counted)	lock
Total Mileage (Counted)	lock
Fuel Consumed (Counted)	lock
Fuel Rate	reset
Program Number	lock
AdBlue Level (%)	lock
AdBlue Level (Liters)	lock
Engine Load	reset
Engine Temperature	active
Axle 1 Load	lock
Axle 2 Load	lock

Axle 3 Load	lock
Axle 4 Load	lock
Axle 5 Load	lock
Control State Flags	active
Agricultural Machinery Flags	active
Harvesting Time	lock
Area Of Harvest	reset
Mowing Efficiency	active
Grain Mown Volume	active
Grain Moisture	active
Harvesting Drum RPM	reset
Gap Under Harvesting Drum	active
Security State Flags	active
Tachograph Total Vehicle Distance	lock
Trip Distance	reset
Tachograph Vehicle Speed	reset
Tachograph Driver Card Presence	active
Driver1 States	active
Driver2 States	active
Driver1 Continuous Driving Time	active
Driver2 Continuous Driving Time	active
Driver1 Cumulative Break Time	active
Driver2 Cumulative Break Time	active
Driver1 Selected Activity Duration	active
Driver2 Selected Activity Duration	active
Driver1 Cumulative Driving Time	active
Driver2 Cumulative Driving Time	active

SMS Configuration

All FMB/FMU/FMC/FMM (1XY;6XY) IO elements can be configured remotely via SMS commands.

SMS/GPRS Commands

FMB/FMU/FMC/FMM have several dedicated SMS/GPRS commands.

SMS command structure:

`<SMS login><space><SMS password><space><command><space><value>`

SMS command lvcangetinfo example:

- If you have set SMS login and password: `login pass lvcangetinfo`
- If SMS login and password are not set leave two spaces before command: `aalvcangetinfo`

GPRS commands require Codec 12 protocol.

For more SMS commands please see [SMS/GPRS command list](#)

COMMAND	DESCRIPTION	RESPONSE
lvcansetprog #	Set program number to CAN Adapter that is connected to FMB140. # - three digit number that identity vehicle.	Yes
lvcansimpletacho #	Add or remove simpletacho start byte. # - 0 or 1 (0 – don't add start byte, 1 – add start byte).	No
lvcangetprog	Get program number from CAN Adapter that is connected to FMB140.	Yes
[lvcangetinfo](#)	Get information about connected CAN Adapter	Yes
[lvcanclear #](#)	Clear Total Mileage (counted), Engine Work Time (counted), Fuel Consumed (counted) parameters values. # - parameter (0 – Engine work time (counted), 1 – Fuel Consumed (counted), 2 – Vehicle Mileage (counted)).	Yes

Additional information

Frequently Asked Questions CAN bus adapters

[Troubleshooting CAN adapters](#)

[Connection scheme shows the use of a resistor.](#)

[Connection scheme shows two CAN wires of the same color connected to one connector](#)

[How to capture CAN adapter log from FMX1YX](#)

[How to capture CAN adapter log from FM device?](#)

[CAN Adapter update](#)

[Immobilizing and locking issues using CAN-Control with Immobilizer](#)

CAN adapters manuals

[LV-CAN200](#)

[ALL-CAN300](#)