

FM1000 ST supported OBD2 functionality

FM1000 ST device enables following OBD2 features:

- 1) Reading current vehicle OBD2 data;
- 2) Request trouble codes;
- 3) Clear trouble codes/Turn off Malfunction indicator lamp (MIL);
- 4) Request vehicle information.

1. Reading current vehicle data - FM1000 ST OBD-II standard Mode 1

(https://en.wikipedia.org/wiki/OBD-II_PIDs#Mode_01)

This OBD2 mode shows current vehicle data. PIDs (parameters) availability depends on vehicle manufacturer and exact model.

OBD2 Mode 1 data is sent together with FM1000 ST AVL data.

OBD2 parameters monitoring can be enabled on FM1000 ST OBD2 settings via configurator, SMS, FOTA. For more information about these parameters, please refer to FM1000 ST user manual, chapter "5.13.2 Data".

2. Request trouble codes - FM1000 ST OBD2-II standard Mode 3

(https://en.wikipedia.org/wiki/OBD-II_PIDs#Mode_03)

This OBD2 mode requests trouble codes.

FM1000 ST supports trouble codes reading via SMS or GPRS commands.

SMS text: *faultcodes*

Response details	Description
LIST	Returns list of fault codes; response when no faults: "No fault codes detected."

Example: "P0100,P0200,P0300,C0300,B0200,U0100".

GPRS command: *#GET FAULTCODES*

OBD2 trouble codes are returned in standard format. OBD2 trouble decoders can be easily be found on the internet. Here are some references:

- <http://www.totalcardiagnostics.com/support/Knowledgebase/Article/View/21/0/generiemanufacturer-obd2-codes-and-their-meanings>

- <http://www.engine-codes.com/>
- http://www.obd-codes.com/trouble_codes/

Some codes might be specific manufacturer codes, for unknown codes vehicle owner should contact vehicle manufacturer.

3. Clear trouble codes / Malfunction indicator lamp (MIL) – OBD2 Standard Mode 4 (https://en.wikipedia.org/wiki/OBD-II_PIDs#Mode_04)

FM1000 ST supports this mode for clearing trouble codes and setting MIL off. User can do it via SMS command.

SMS text: *cleardtc* - Clears all vehicle stored trouble codes and turns the MIL (Malfunction indicator lamp) off.

Examples: DTC cleared: OK; or: DTC cleared: ERROR.

4. Request vehicle information – OBD2 Standard Mode 9 (https://en.wikipedia.org/wiki/OBD-II_PIDs#Mode_09)

This mode returns vehicle information.

FM1000 ST supports vehicle information request via SMS command.

SMS TEXT: *obdinfo*

Response details	Description
LIST of OBD info	Protocol, VIN, AdaptiveTiming value, requested PID counter, OBD application state, available vehicle PIDs, fuel calc method, mil status, number of DTCs

Example:Protocol:5,VIN:N/A,TM:5,CNT:5,ST:OBDDATA
REQUESTING,P1:0x0,P2:0x0,P3:0x0,P4:0x0,Fuel: ELOAD,MIL:0,DTC:0,IDO

GPRS command: *#GET VIN* - This command returns vehicle VIN number.