USER GUIDE

inCarDoc iOS

inCarDoc

OVERVIEW

Use Smartphone for Quick View of the Car and Engine Main Parameters:

- ✓ Read real-time parameters: speed, rotation, timings, economy
- ✓ Read diagnostic trouble codes
- ✓ Clean trouble codes (turn off Check Engine, MIL)

✔ $ - features available at In-App Purchases.

✔ ** - KiWi 3 adapters work at smartphones having Bluetooth 4.0 (BLE), present at Android starting with version 4.3; will be available at InCarDoc iOS version 1.8, that is currently in development.

Supported parameters	IPhone
Wi-Fi adapters support	✓
Kiwi 3 (BLE) adapters support	✓**
Read and interpret trouble codes (DTC memory)	✓
Clear error codes including Check Engine Light (MIL) and others	✓
Read parameters in real-time (if supported by the car):	✓
Engine RPM	✓
Motor load	✓
Coolant temperature	✓
Fuel System Status	✓
Speed of Vehicle	✓
Absolute air pressure	✓
Ignition timing	✓
Inlet air temperature	✓
Mass air flow	✓
Throttle position	✓
Lambda Sensor (correction of the motor)	✓
Fuel pressure	✓
And another parameters - depending on the car	✓
Chart drawing for real-time data	✓
Reading VIN chassis number	✓
Real time parameters recording	✓$
Read, display, record multiple parameters simultaneously	✓$
Recording parameters in background mode	✓$
View and sending recorded parameters traces	✓$
GPS support	✓$
Fuel Economy parameters	✓
Upload to InCarDoc.com server	✓$
Store and share DTC data and General info	✓
Console for advanced users experiments with OBD-II and adapter commands (use "Test"-"Console" option in Configuration to allow console screen)	✓
Consumption fuel per time	✓
Fueling records	✓
Tech inspections (MOT) records	✓

Available at **App Store**

CONTENTS

Requirements

Car

American cars since
1996, European since
2001, diesel - 2004.

OBD scan tool hardware

iOS application requires **OBD-II Wi-Fi, V-Gate BLE and Kiwi3 BLE adapters**.

Mobile device

InCarDoc for iPhone requires iOS 8.0
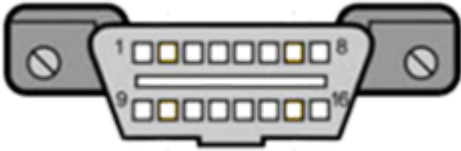and newer: iPhone 5 - 7, iPod touch.

OBD II Wi Fi Hardware

Please, note that **InCarDoc iOS** supports OBD-II Wi-Fi, V-Gate BLE and Kiwi3 BLE adapters.

The easiest way to get the adapter is to search internet using keywords **ELM327 Wi-Fi, OBD-II Wi-Fi, V-Gate BLE or Kiwi3 BLE adapter**.

InCarDoc
Starting Using

Before starting usage the application make sure that your car supports OBD-II standard.

To learn whether your car supports OBD-II standard, you may examine the 16 pin-out DLC - Diagnostic Link Connector of a trapezoidal shape.

All OBD-II cars have a connector located in the passenger compartment easily accessible from the driver's seat. Check under the dashboard or behind or near the ashtray. All cars built since January 1, 1996 have OBD-II systems.

* Some cars have OBD-II system but they do not support OBD-II protocol, like Opel Vectra 1996–1997. In such cases it is necessary to use a scanner, designed to work with the factory protocols of that particular brand of the car - for example, this applies to Opel Vectra B 1996-1997 of the European market. You will need to determine specific OBD-II protocol that is used.

It is also useful to see all the identification plate on the car - there may be signs "OBD-II compliant" (supports OBD-II), or "OBD-II certified" .
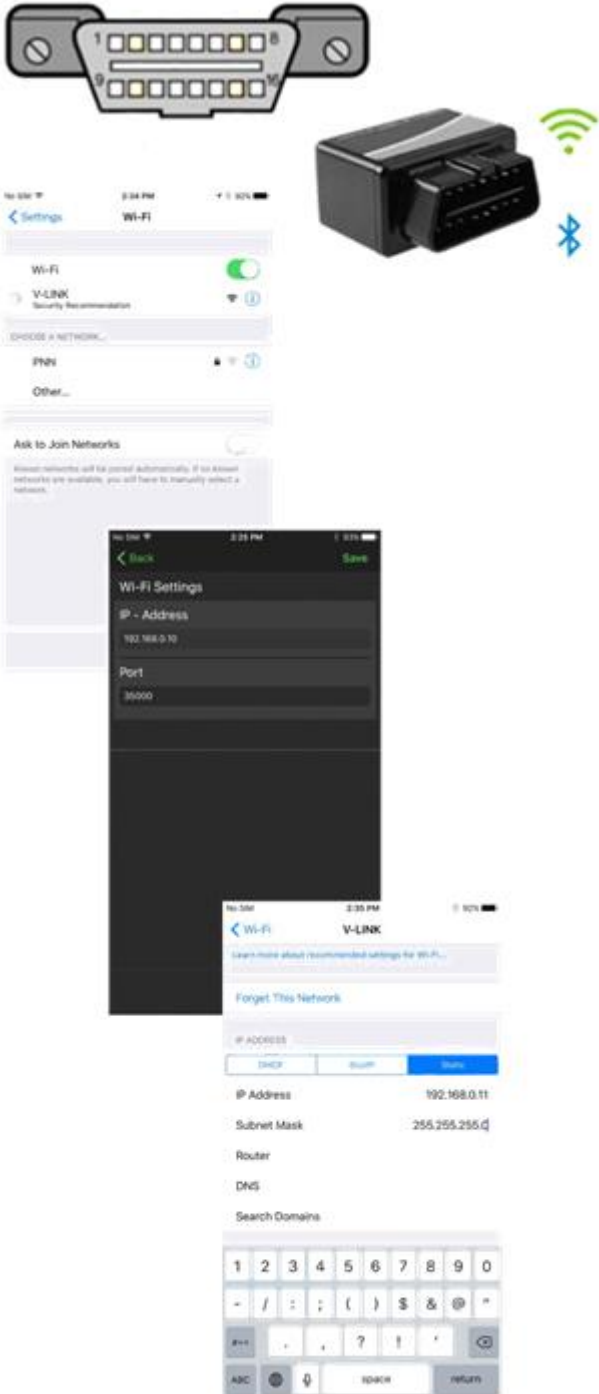
As another way to find out if your vehicle is supported -- read technical documentation of your vehicle (but not in the general direction to the car brand / model!). You may also internet search using keywords – your car brand / model.

InCarDoc
Launching and Configuration

1. **Plug your OBD Wi-Fi Device** (OBD-II Wi-Fi Adapter) to your car's OBD2 diagnostic port. The OBD-II port is usually located within 2 feet (0.61 m) of the steering wheel.

2. **Start car's engine.**

3. **At your iPhone go to Settings**, choose Wi-Fi, V-Gate or Kiwi

4. In the case of Bluetooth connection (V-Gate, Kiwi3), make sure that Bluetooth is enabled in the system settings. No additional configuration connection via Bluetooth does not require. For the connection click "Connect" on the main screen of the app.

5. For Wi-Fi connection go to the system settings and choose Wi-Fi connection

6. Configure the following information:
   - IP Address: Static
   - IP Address: 192.168.0.10
   - Subnet Mask 255.255.255.0
   - Click device name to set WiFi connection
   - Exit the Settings
     1. Go to the InCarDoc

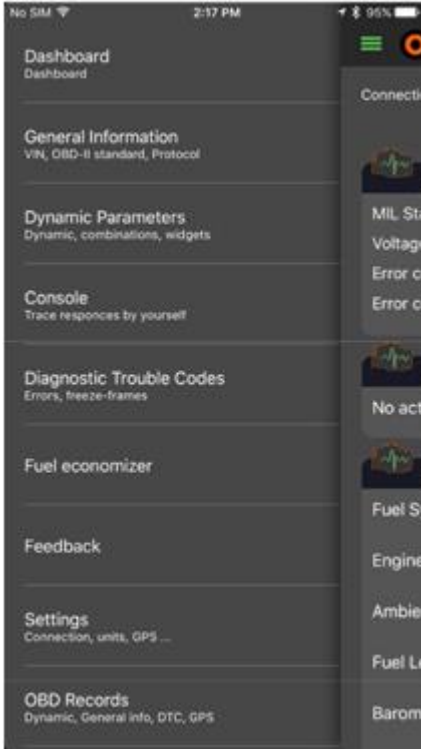Application
Choose Settings >
IP Address: 192.168.0.10
Port: 35000
Click Save
     2. Start your car and see Dynamic Parameters.

InCarDoc
General Info

After you've set up the adapter and configured the app you may start using it.

On the main screen of the InCarDoc App the following options are available:

«Dashboard»
«General info»
«Dynamic Parameters»
«Console»
«Diagnostic Trouble Codes»
«Economizer»
«Feedback»
«Settings»
«OBD Records»

**4.1. «General Info» option** allows you to review and input the general information about the devices and a car:

- Device – adapter name
- OBD Protocol
- Adapter – adapter type and version
- Description
- OBD Standard
- VIN (Vehicle Identification Number) – is displayed at tick set **Supported PIDs**)
- Voltage level
- Car Brand
- Car Model
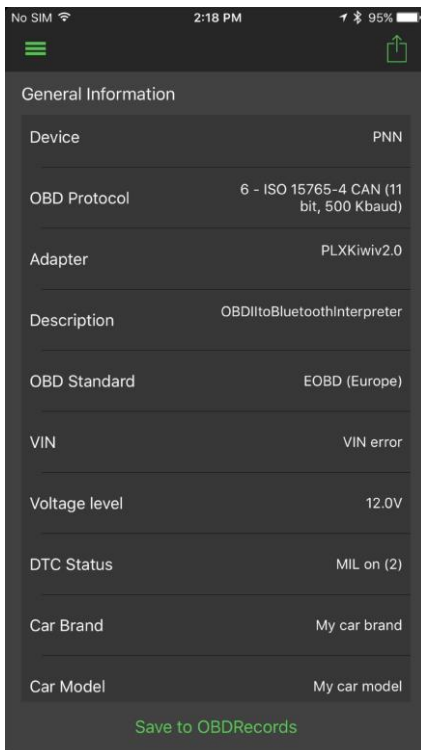
You can see also your car parameters that you've filled at the **Settings** menu
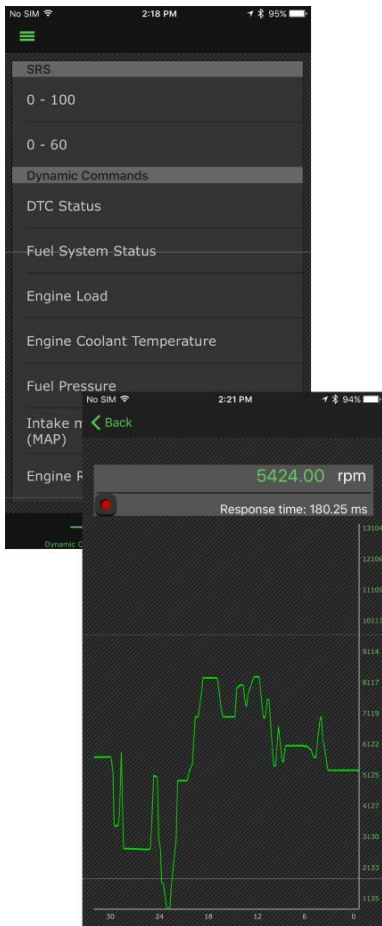
InCarDoc

Dynamic Parameters
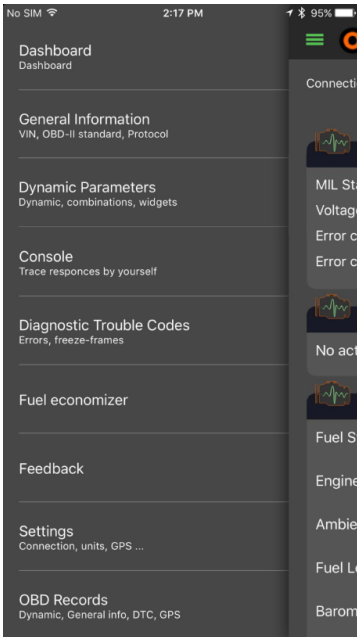
4.2. «Dynamic Parameters» option displays the list of dynamic data read from the car engine.

While clicking the command name one will see the detailed information with its real time value.

Keep in mind that not every vehicles ECU supports all of the functions and not every OBD-II diagnostic scanner can use all of these modes:

- PID 03 Fuel system status. At the value "Closed Loop" the system works in the feedback mode at that time the data from Oxygen Sensor are used for correction of the fuel supply. At the value "Open Loop" the data from Oxygen Sensor are NOT used for correction of the fuel supply;
    - PID 04 Calculated Load;
    - PID 05 Coolant temperature;
    - PID 06/08 Short Term Fuel Trim Bank 1/2;
    - PID 07/09 Long Term Fuel Trim Bank 1/2;
    - PID 0A Fuel pressure;
    - PID 0B Manifold pressure;
    - PID 0C Engine speed - RPM;
    - PID 0D Vehicle speed;
    - PID 0E Ignition Timing Advance;
    - PID 0F Intake Air Temperature;
    - PID 10 Air Flow;
    - PID 11 Throttle position;
    - PID 12 Secondary Air Status;
    - PID 12 Location of O2 sensors;
    - PID 13-1B O2 Sensor 1/2/3/4 Bank 1/2 Volts.
- Getting saved status of the current parameters of the control system at the time of the fault codes occurrence (Mode 2 Freeze Frame).
- Mode 3 Read Diagnostic Trouble Codes (DTCs)).
- Mode 4 Reset DTC's and Freeze Frame data – clear error codes, status of the current parameters, Oxygen sensor tests results, test monitors data.

InCarDoc
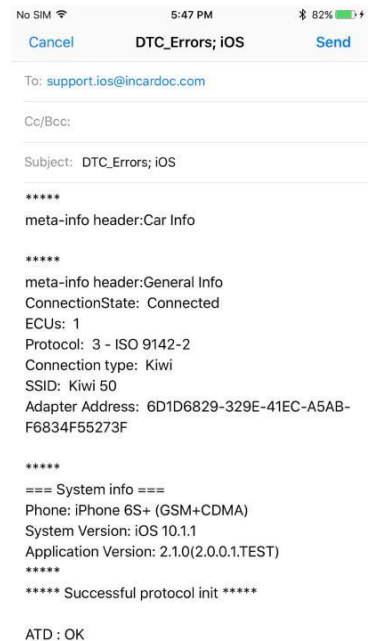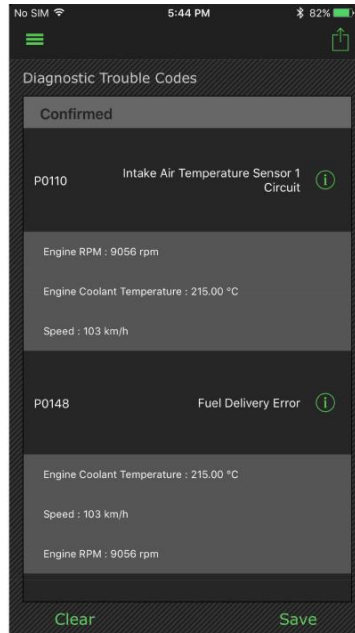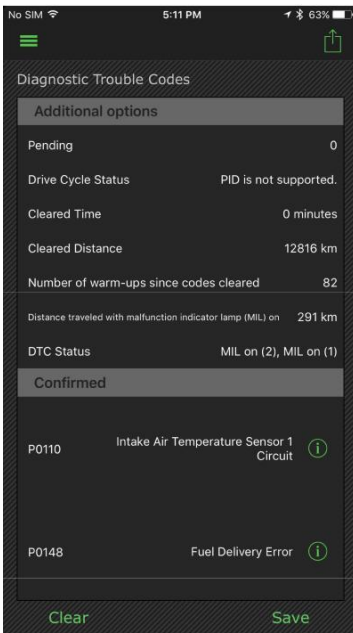## Diagnostic Trouble Codes
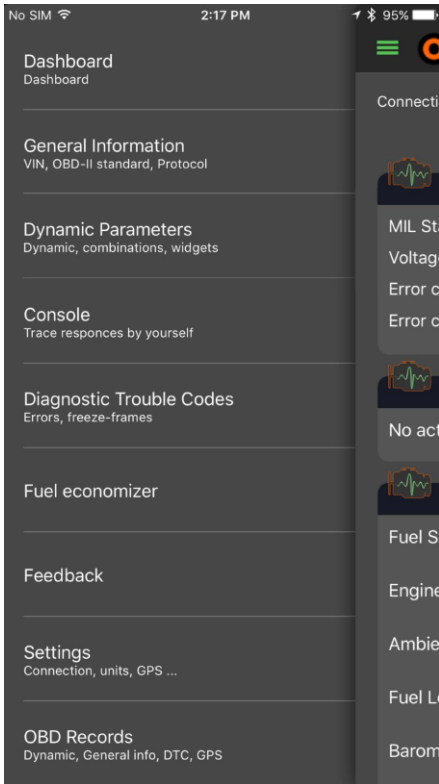
### 4.3. «Diagnostic Trouble Codes» option

- Displays error codes (if there is any)
- Gives the possibility to clean the error codes if necessary
- Send diagnostic trouble codes to developer's e-mail or any other e-mail

InCarDoc

Settings

4.4. «Settings» option

Settings option will help you to configure the application.

* For a quick start it is enough to configure **Wi-Fi connection**, and leave the other settings as default.
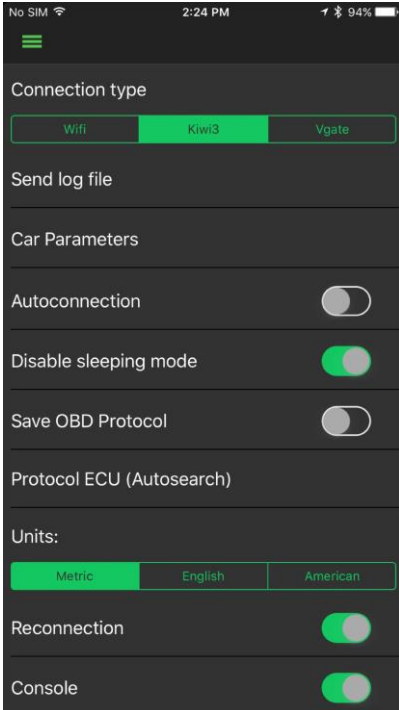
For more accurate tuning in **Settings** you can change:

- **Wi-Fi Settings** – input Wi-Fi parameters (see page 7);

- **Send log file** - recording application performance for the developers to send (it is recommended to put a tick, for quick solving of the potential problems).

- **Car parameters** - **Car Brand, Model, Year, Engine Capacity** (sm3).

- **Autoconnection** – connect to Wi-Fi automatically

- **Disable sleeping mode** – requires Application restart;

- **Save OBD protocol** - the last protocol, which has been successfully connected to (fast connection);

- **Protocol ECU (Autosearch)** - it is recommended to set Auto, but if you know the ECU protocol of your car, you can choose from the list;

- **Units:**
  English (miles/hour) or
  Metric (km/h);

- **Reconnection –** connect after connection failed
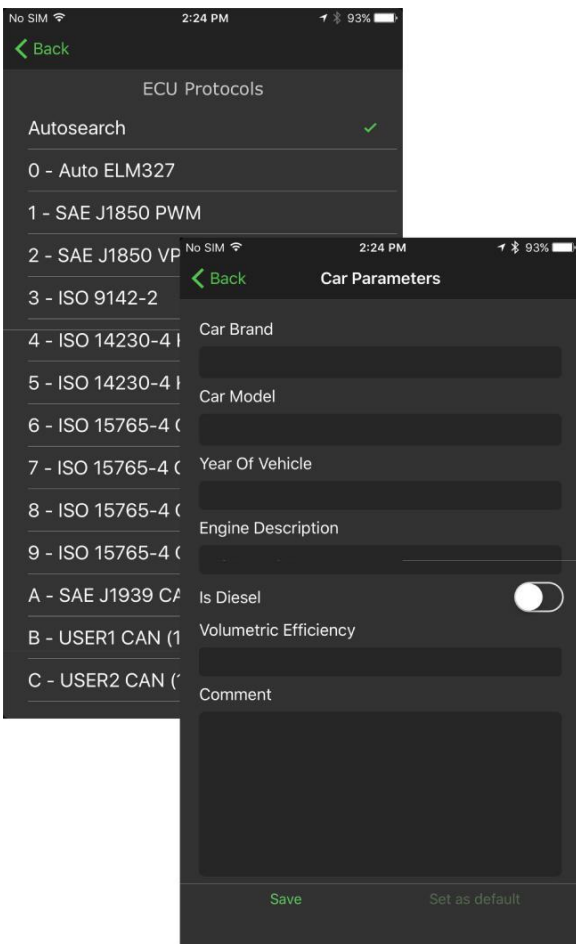
InCarDoc
OBD Records
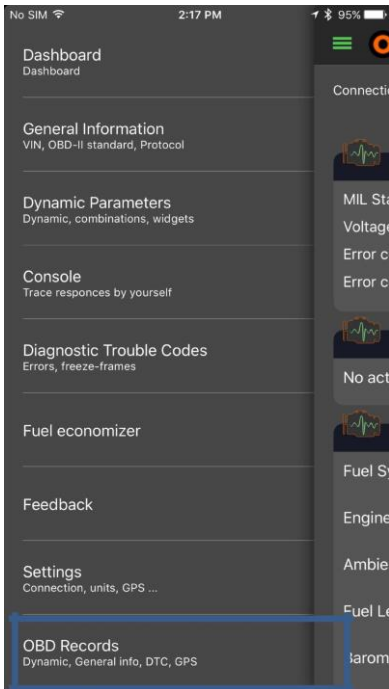
OBD records allows users to record and view information about fueling and maintaince. You need to choose OBD Records in the main screen - Add a new record of maintaince or fueling.
Also users can edit their records.

Questions

1. Does my car support OBD-II standard?

Following factors designate that you car support OBD-II

- 16 pin-out DLC - Diagnostic Link Connector of a trapezoidal shape.
- All OBD-II cars have a connector located in the passenger compartment easily accessible from the driver's seat. Check under the dashboard or behind or near the ashtray. All cars built since January 1, 1996 have OBD-II systems.
- read technical documentation of your vehicle (but not in the general direction to the car brand / model!).
- identification plate on the car - there may be signs "OBD-II compliant" (supports OBD-II), or "OBD-II certified" .

2. Diagnostic connector. What is this? How to find diagnostic connector in the car?

16-pin DLC – Diagnostic Link Connector, usually located in the center of the car. It should be within 16 inches of the steering wheel. The manufacturer can locate the DTL in one of the eight locations defined by EPA. Each pin of the connector has a different purpose. See also the question

3. What is DTC?

OBD-II supports SAE J2012 standard which comprises the corresponding trouble codes - Diagnostic trouble codes (DTC's). The OBD-II codes has united format consisting of a Latin letter and 4 digits (sometimes letters instead).

These codes are used by some manufacturers to identify vehicle problems.

The codes are divided into two groups – generic and extended codes. Generic ones are strictly standardized and their decoding is always the same for all the OBD-II cars, but vehicle manufacturers also may use manufacturer specific DTC codes that are different from the Generic codes – extended codes. Foreign vehicles may also use DTC codes different from the generic DTC codes. It's important to remember that codes depend on the cars construction, model and manufacturer.

Questions

4. How do I connect my mobile device and Application to my car?

1. **Plug your OBD Wi-Fi Device** to your car's OBD2 diagnostic port.
2. **Start car's engine.**
3. At your iPhone go to Settings, choose Wi-Fi, V-Gate or Kiwi
4. In the case of Bluetooth connection (V-Gate, Kiwi3), make sure that Bluetooth is enabled in the system settings. No additional configuration connection via Bluetooth does not require. For the connection click "Connect" on the main screen of the app.
5. For Wi-Fi connection go to the system settings and choose Wi-Fi connection
6. Configure the following information:
   IP Address: Static
   IP Address: 192.168.0.10
   Subnet Mask 255.255.255.0
   Click device name to set WiFi connection
   Exit the Settings
   1.Go to the InCarDoc Application
    Choose Settings >
   IP Address: 192.168.0.10
   Port: 35000
   Click Save
   2.Start your car and see Dynamic Parameters.

5. Fail to set the Wi-Fi connection with the adapter?

1. Make sure that, OBD II adapter is plugged correctly, the engine is on and adapter's lamp flashes green.
2. Make sure that, you've configured Wi-Fi network correctly (see page 7, paragraph 3).

3. Make sure that, that you've configured the InCarDoc app correctly (see page 7).

If everything mentioned is correct, but there is still no connection, try following:
Stop all the apps, go to the Settings > Wi-Fi, restart it and try to run the app ones more.

Questions

6. I've got Wi-Fi connection but ECU is not defined, what have I do?

It might be that your car doesn't support OBD II,
in this case go to **InCarDoc**
Settings > Send log file (where describe you problem
in details, there is a possibility to type in some text before
the .txt file) > after that press send and send us the log
file. Basing on logging
the results we will find the solution for you.
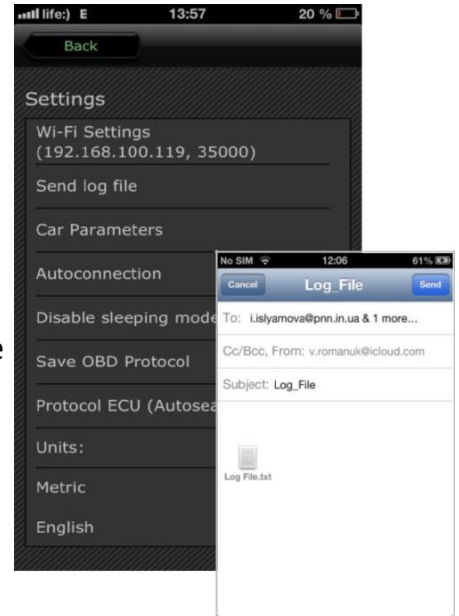
7. Does InCarDoc work with my phone or tablet?

InCarDoc for iPhone requires iOS 8.0 and newer: iPhone 5 - 7, iPod touch.

8. Are there any tips to get the accurate data?

For the data accuracy, we recommend that you avoid simultaneous running
multiple programs to read OBD. The driver should insure that there are no
other active applications connected to the OBD.

9. What is the principle of the application?

Application reads dynamic and stored parameters of the ECU-compliant
(engine control unit) in the vehicles that supports OBD-II standard. Multiple
ECU data reading are also available.

10. What parameters I will see using the InCarDoc?

See page **Overview** - A comparative list of all supported parameters and
features.

11. How do I upgrade to the InCarDoc Pro-version?

Settings - Buy a PRO version

Alarm situations

In case of appearing mistakes during the work with **InCarDoc** which are not described in this user's guide, you should contact the staff of PNN, of technical support department.

e-mail: support@incardoc.com
tel. +38 044 239 98 97