

Viewing Fiat Ducato Engine fault codes, software versions and other information.

My interest in this was prompted by the appearance of an engine fault warning light while in Switzerland. After a weekend of obligatory driving I ignored the advice from the locals to drive to Germany or France (due to the eye watering costs of garage labour in Switzerland) and got a diagnostic from a local garage (done for free!). I was advised it was safe to drive back to the UK, the van ran well and got us home with nothing more than the threatening glare of the EML (Engine Malfunction Light) also known as the MIL (Malfunction Indicator Light; not Mother In Law, but see below!)

Then I see a thread in the MotorhomeFun forum asking how to check the software version number on the engine which sent me down this rabbit hole. I have documented what I have learnt (as a complete novice) which I hope might be a useful reference to others.

Objective; be able to see engine fault codes for first aid purposes, without spending a fortune.

If you want to fiddle with settings you probably already know what you are doing and don't need to read this.

Overview of car computer diagnostics

Motor vehicles are now basically controlled by computer chips running on proprietary software. The main one is the ECU (Electronic Control Unit) but there may be others such as the engine control chip. Access to these components is via the OBD2 (On Board Diagnostics version 2) socket which looks similar to a SCART socket (as in the back of your old video cassette player). Look in your manual to find it; on the Ducato, to the right of your UK steering column behind a 5" square panel, x2 screws. The diagnostic equipment plugs in there. There are various options but basically there is an interface which is the bit that plugs in and a computer that communicates through it. This may be an all in one unit, or the computer bit might be connected via a wire or via WiFi or Bluetooth. Not all these components are equal; the devil is in the detail.

OBD2; This is supposed to be a standard format for all vehicles, but of course many 'customise' it for their own use. Fiat is no exception. This means that the cheap/free generic diagnostic software completely fails to return correct information.

The Computer; There are software solutions for Windows, Android phone or tablet, and IOS. They are not interchangeable of course. The software needs to be Fiat specific, and communicate via its computer to the interface device as above, by WiFi, Bluetooth or USB. An interface that talks to an Android phone by Bluetooth may not talk to the software on an iPhone by Bluetooth

OBD2 interface; these vary enormously in capability, reliability and compatibility. A good starting point for choosing one is the compatibility list in the software manual. Or just read on!

Computer software; There seem to be two Fiat specific options; MultiEcuScan for IOS or Windows and AlfaOBD for Android. They are reported to have relatively minor differences in functionality and both come with a free version that will provide most of the info required in when there is an unexpected Engine malfunction light.

MultiEcuScan

Said to be professional level functionality with the paid version, subscription and expensive. The free

limited version is adequate and works on IOS iPhones and iPads. You can explore the windows version here; https://www.gendan.co.uk/product_FESPKG.html

There is a detailed breakdown of what you can access with free and paid versions here <https://www.multiecuscan.net/SupportedVehiclesList.aspx> Scroll down to your model of Ducato. It also shows if a (yellow) adaptor is required for the OBD2 interface to access all areas- which you probably won't need but is available for a tenner; https://www.gendan.co.uk/product_FESYELLOW.html . For IOS, it seems you can only use a limited range of OBD2 interfaces, listed here on their Help page; <https://www.multiecuscan.net/HowToUse.aspx>

Of note; on IOS devices the software connects to the interface directly by Bluetooth or WiFi within the app. You do not connect via the IOS phone settings and the iPhone may not detect the device if you try to connect there first.

AlfaOBD

See <https://www.alfaobd.com/> Just for Android, the free version does what I need and is less fussy about the OBD2 interface. Their front page gives details of what interfaces they have tested with, but I got this on a forum recommendation and it works OK so far; Vgate iCar Pro Bluetooth 4 <https://amzn.eu/d/hzozYRG> (don't be fooled by the manufacturer's recommendation for the free OBD Auto Doctor for IOS; it completely fails to read FIAT correctly). Note that this interface does not work with Multiecuscan.

There are some limitations with the free version, see the website, you can get a full version for \$49, no time limit, but the free one is all I need.

Of note; the software connects to the interface directly by Bluetooth within the app. Also the yellow adaptor is again needed to access all areas using this system, but is not really needed for the main diagnostics. See the list in the MultiEcuScan page as above.

I don't use Android but my late lamented MIL had a Samsung Galaxy Tab Pro 8.4 with Android version 4.4 so I resurrected that and it works a treat so an old Android phone from someone's drawer of electrical rubbish might be an option.

Ducato software versions; a small source of confusion I think. The engine software version is the one we are interested in, not the ECU software version. The latest is 32 as of 1.1.2022. It is found in the engine section rather than the ECU section in the AlfaOBD diagnostic software

So now I have the equipment to identify faults while away from home. With a bit of help from Google, the forums or my garage I should be able to find out if it is safe to sail on of if I have to head for dry dock!