

DIY Fault Code Reading for EEC IV units

Folks with cars later than mid 95 have the EEC V unit and should visit <http://www.obd-2.com/>

EEC IV units are found on Mondeo's up to about mid 95 when the swap was made to the EEC V unit.

For EEC V units on Duratec and Post 95 units there is no cheap way of reading Flash Codes. You need a proper FCR reader which is very expensive or a download cable and software from the Internet

OK so the Ford STAR system may even tell you the colour of your underpants last time you drove, but who wants to pay Ford for a readout on the off chance something is wrong. Also aftermarket FCR's cost £300 plus and don't give you much other than the fault codes. Well there are much cheaper ways of doing this

- 1) Buy a [Gunson's FCR](#) from Halfords
- 2) Use a voltmeter or a bulb to read "Flash Codes"

If you are going route two then a voltmeter is easy, or get a 12v test light. Find the FCR test plug, its the middle one of the three plugs next door to the power Steering Fluid chamber.

You need to count the pulses or light flashes and the gaps between them (with this method a zero is the same as a pause), its just like morse code, so code 327 will look like -### # ##- where - is a pause and # is a flash.

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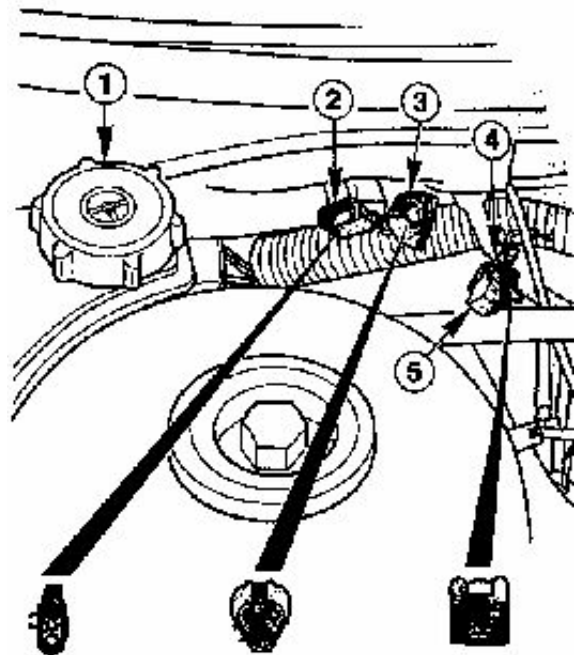
Preparing for Tests

Next take the multimeter/light and plug it in across the battery Positive Terminal and pin 17

Get your pen and paper ready and get someone in the drivers seat

Make sure the following is prepared on the vehicle

1. Handbrake on
2. A/C off
3. All other electrics off
4. Neutral or Park
5. Engine at full working temperature
6. Ignition on
7. Engine off
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Ignition Off Test

Set the tester in operation by connecting pin 48 (white/green wire) to a good earth

This test will begin with code 000 (which you probably won't see followed by code 010. Press the accelerator fully down and release (within 10 seconds)

The tester will then flash out any codes resulting from the test. 111 is no faults.

It will then flash 010 and then flash any faults in memory. Again 111 means no faults, but don't be worried by 327 as everyone I know gets this all the time.

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Wiping the Keep Alive Memory

Removing the earth during the test will clear the Keep Alive Memory (KAM). If you wish to keep the memory then switch off the ignition before removing the earth

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Wiggle Test

If you earth the connector and then turn the ignition on (don't start the engine), then you go into wiggle test mode and the flash will occur if a connection fails while you go around shaking the connections

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Ignition On Test

Connect the earth, turn on the ignition and start the car (within 10 seconds). You may get some very rapid pulses as the EEC IV does its self tests

Then it will indicate the number of cylinders it has found (2=4cyl, 3=6cyl). The test will then stop and wait for the user to carry out the following

- Turn the steering wheel half a turn and back
- Press and release the brake pedal

The engine speed will increase to about 2500rpm and after about 30 seconds to 1 minute will return to idle

You then will get a single pulse. Depress the throttle fully and release.

The unit will then flash out any fault codes and the 010 and any memory faults

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Power Balance Test

Within 2 minutes of the end of an engine on test increase the revs to above 3000 for about 5 seconds and then release the throttle. The power balance test will then start as the engine cuts out each piston in turn and measures the results to see if there are any differences. If all are good then a 9 code will be given, if not then a code identifying the cylinder will result.

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Relay Test

To activate the relay test, at the end of the Engine off test depress the accelerator fully and release. This will switch all the relays, pressing the throttle will de-energise the relays. repeat as often as needed.

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Mad Moles Mondeo Madness, © Mad Mole 2001. You may see the Molemobile fly past in the Sutton area (Surrey).

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