# Ford Falcon EFI Engine/Automatic Transmission Diagnostic Trouble Code Retrieval

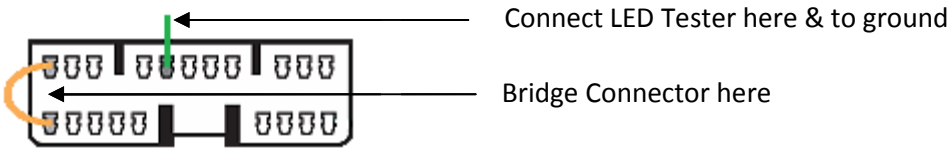
EF-EL Ford Falcon, Futura, Fairmont, Fairmont Ghia, Fairlane, LTD, and XR6 6Cyl EEC-V

**Year range: 1994 to 1998**

Self Test Mode

The EEC-V Self Diagnostic Connector is located inside the Fuse Panel – driver's side.
The diagnostic trouble codes (DTC's) can be read using an LED Tester **(See Note)** connected to the Vehicle's Diagnostic connector. These instructions are for Key On Engine Off test (KOEO).
**Note:** LED Testers are available from us – go to the obd-obdii.com Products page

**Engine Diagnostic Connector Diagram**




**1** Run engine until it reaches operating temperature.

**2** If you are reading codes for the Automatic Transmission, if possible you should drive the car to get the transmission up to operating temperature.

**3** Stop the vehicle and turn ignition OFF.

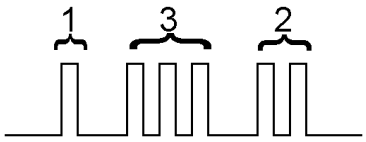
**4** To run Self Test Mode, bridge the terminals with a wire link, as shown in the diagram.

**5** Connect an LED tester to the connector pin as shown in the diagram and ground.

**6** Turn the ignition ON.

**7** Read codes as described in the Code Format Diagram below.

**Code Format Diagram**




**Code Format Description**

- The EEC-V system displays two types of codes, hard codes and memory codes. Hard Codes are present at time of test. Memory Codes previously detected codes.
- Hard Codes are displayed first followed by a single separator flash (with a 6 second pause) then Memory Codes.
- Each fault code is repeated 2 times before next code is displayed.
- Ignore any quick flashes that may occur before both Hard Codes and Memory Codes.

**To Erase Codes:**

Turn the ignition key off for a period of 10 seconds, then on.
Activate the Self Test, as soon as the Diagnostic codes are being displayed, simply remove the bridge to the Self Test Input.

**Ford EEC-V** DTC's (Diagnostic Trouble Codes)

**111** Pass There are no codes to display for the selected test

**112** IAT Shorted to ground The IAT Value is too low. Can be caused by short to ground, or faulty sensor

**113** IAT Shorted to B+ or Vref The IAT Value is too high. Can be caused by shorts to Vref, B+ or faulty sensor

**114** IAT Sensor out of Calibration The IAT Voltage is out of the normal range. Can be caused by the sensor going out of spec

**116** ECT Sensor out of calibration The ECT Value is out of range or is erratic

**117** ECT Shorted to Ground The ECT Value is too low. Can be caused by a short to ground, or faulty sensor

**118** ECT shorted to B+ or Vref The ECT Value is too high. Can be caused by a short to B+, Vref, or faulty sensor

**121** TP Sensor out of range Throttle position sensor is out of range. Can be caused by the sensor going out of spec

**122** TP Sensor shorted to ground The Value for the Throttle position sensor is too low. Can be caused by a short to ground, or faulty sensor

**123** TP Sensor shorted to B+ or Vref The Value for the Throttle position sensor is too high. Can be caused by a short to V+, Href, or faulty sensor

**126** MAP Sensor out of calibration The MAP sensor is producing a frequency that is outside the normal range, or no frequency at all

**129** NO MAP/MAF change in goose EEC did not see the MAP(I6) or MAF(V8) value change when the engine was goosed in the ER test

**157** MAF shorted to ground The MAF voltage is too low. Can be caused by short to ground or faulty sensor

**158** MAF shorted to B+ or Vref The MAF voltage is too high. Can be caused by shorts to Battery, or Vref or faulty sensor

**159** MAF sensor out of calibration The MAF Voltage is out of the normal range. Can be caused by sensor going out of spec

**167** No Throttle Position Change in Goose EEC did not see the throttle position sensor change when the engine was goosed in ER test

**172** System always lean HO2S(1) The engine is always running lean (V8)

**173** System always rich HO2S The engine is always running rich. Can be caused by a faulty sensor, cold engine, MAP hose off, or fuel system (V8)

**176** System always lean HO2S(2) The engine is always running lean (V8) Can be caused by a faulty sensor, cold sensor, or exhaust manifold leak

**177** System always rich HO2S(2) The engine is always running rich. Can be caused by a faulty sensor, cold engine, MAP hose off, or fuel system

**211** PIP Erratic during Idle test The rate of change of the PIP signal is out of range (IE EEC saw an accell or decel that was too fast) could be caused by CKP sensor or an internal IDIS failure

**214** CMP Sensor Input failed The signal from the CMP sensor has gone out of normal range. Could be caused by a faulty CMP sensor or wiring

**215** EDIS Coil A Failed Coil A failed to fire. Could be caused by a faulty coil or wiring

**216** EDIS Coil B Failed Coil B failed to fire. Could be caused by a faulty coil or wiring

**217** EDIS Coil C Failed Coil C failed to fire. Could be caused by a faulty coil or wiring

**226** Unknown EDIS Coil Failure Associated with code 214 - CMP Failure. One ohm the EDIS coils failed to fire, and because the CMP signal also failed, EEC was not able to determine which coil

**227** Knock Sensor Failure The knock sensor failed to provide a signal while the engine was within the normal knock sensor operating conditions (I.E. >50% load <4500 RPM) NOTE : knock sensor codes may result when running on Non-Factory fitted LPG systems

**232** EDIS CPU Failed Internal EEC Fault - the EDIS CPU has failed

**327** EGR Shorted to ground The EGR Voltage is too low. Can be caused by a short to ground or a faulty sensor

**328** EGR Valve position too low The EGR Valve position is Low. Can be caused by a closed valve

**332** EGR Valve not working EGR valve position does not change during ER test. Can be caused by a vacuum leak in the EGR control system

**334** EGR Valve position too high The EGR position is out of its normal range. Can be caused by a Fully open Valve

**335** EGR Sensor out of calibration The EGR voltage is out of the normal range. Can be caused by the sensor going out of spec.

**411** ISC Low Idle fail The Idle Speed Controller was not able to control the low idle speed during the engine running test

**412** ISC High Idle fail The Idle Speed Controller was not able to control the High idle speed during the engine running test

**452** Speedo Signal Fault The Speedo signal is intermittent or non existent

**511** Internal EEC V Fault The EEC Module is Faulty – Replace

**512** Internal EEC Fault Faulty EEC Module

**513** Battery Voltage Too Low The Internal battery power voltage is too low. Can be caused by a low system voltage, or internal EEC fault

**521** PSP Failed open The switch must be closed for the KOEO and ER test. During ER test, the steering must be turned approx 1/2 turn. Can be caused by disconnected or faulty switch, or failure to turn steering during test

**522** NDS - A/C On For KOEO test, the transmission must be in either Park, or Neutral, the A/C must also be turned off

**523** AC Blower Fan Sensor fault EEC cannot see a signal from the A/C blower fan. Can be caused by open circuit, blown fuse (Hi Series), or short to +12V (Low Series)

**524** LPG Enabled LPG option is selected This does not indicate any system fault

**538** Operator did not goose ER test requires that the operator briefly open the throttle fully

**578** Battery Voltage too low The Internal reference voltage is too low for proper transmission operation. Can be caused by a low system voltage or internal EEC fault

**628** Trans Mode Switch Fault The mode selector (Normal/Econ) signal is operating intermittently. Can be caused by faulty switch or wiring

**634** Gear Selector Sensor Faulty The signal from the Gear Selector switch is too high, too low, or at a value between any 2 normal modes

**636** Trans Oil Temp Fault The transmission oil temperature signal is incorrect. Can be caused by an open circuit, or short to Ground / Batt

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**637** Trans Temp Link Stuck high The information Link between the EEC and the 97LE module is at or near +12V. Can be caused by a short to Battery Voltage, or a fault in either of the 2 modules

**691** Trans Solenoid 1 Fault EEC Cannot control the solenoid. Can be caused by open circuit, or short circuit to Ground, +12V

**692** Trans Solenoid 2 Fault EEC Cannot control the solenoid. Can be caused by open circuit, or short circuit to Ground, +12V

**693** Trans Solenoid 3 Fault EEC Cannot control the solenoid. Can be caused by open circuit, or short circuit to Ground, +12V

**694** Trans Solenoid 4 Fault EEC Cannot control the solenoid. Can be caused by open circuit, or short circuit to Ground, +12V

**695** Trans Solenoid 5 Fault EEC Cannot control the solenoid. Can be caused by open circuit, or short circuit to Ground, +12V

**696** Trans Solenoid 6 Fault EEC Cannot control the solenoid. Can be caused by open circuit, or short circuit to Ground, +12V

**697** Trans Solenoid 7 Fault EEC Cannot control the solenoid. Can be caused by open circuit, or short circuit to Ground, +12V

**777** Drivers side Cooling Fan not operating The Fan motor is not drawing current from battery when switched on by EEC Module during self test

**778** Passenger side Cooling Fan not operating The Fan motor is not drawing current from battery when switched on by EEC Module during self test

**783** Serial Link output check fail Serial Link is faulty. Can be caused by open circuit, or short to Ground, +12V

**784** EGR Output check fail EGR Output is faulty. Can be caused by open circuit, or shorts to Ground, +12V

**785** CANP Output check fail CANP Output is faulty. Can be caused by open circuit, Ground, or +12V

**786** PIL Output check fail Performance Indicator Light output is faulty. Can be caused by open circuit, or shorted to Ground, +12V

**787** Fuel Pump Output Check Fail Fuel Pump output is faulty. Can be caused by open circuit, or shorted to Ground, +12V

**788** ACC Output check fail A/C Control relay output is faulty. Can be caused by open circuit, or shorted to Ground, +12V

**789** RCO Output check fail Recirculation override Output is faulty. Can be caused by open circuit, or shorted to Ground, +12V

**791** FC1 Output Check Fail Electro Drive fan 1 output is faulty. Can be caused by open circuit, or shorted to Ground, +12V

**792** FC2 Output Check Fail Electro Drive fan 2 output is faulty. Can be caused by open circuit, or shorted to Ground, +12V

**793** FC3 Output Check Fail Electro Drive fan 3 output is faulty. Can be caused by open circuit, or shorted to Ground, +12V

**794** FC4 Output Check Fail Electro Drive fan 4 output is faulty. Can be caused by open circuit, or shorted to Ground, +12V

**795** BBM Output Check Fail Broad Band Manifold output is faulty. Can be caused by open circuit, or shorted to Ground, +12V

**837** Evaporator Sensor shorted to ground The evaporator temperature voltage is too low. Can be caused by a short to ground or faulty sensor

**838** Evaporator Sensor shorted to B+ or Vref The evaporator temperature voltage is too high. Can be caused by a short to +12V or faulty sensor

**839** Evaporator Sensor out of calibration The evaporator temperature voltage is out of the normal range. Can be caused by the sensor going out of spec

**844** Vehicle Immobilised EEC is not receiving the enable code from the BEM. Can be caused by open circuit, short to +12V, or an immobilisation (BEM) problem

**845** Vehicle Immobilised - Plant Mode Immobilisation system is still in plant mode. BEM must be trained to the electronic lock assembly

**998** ER Test Error In the ER test, one or more of the major sensors (IAT, ECT, MAP, TP) are faulty. Run KOER test to determine the cause of the error