

Ford

Injector Programming (TDCi Engines)

This function is required by service centres when an Injector needs to be replaced, or there is a driveability problem.

For 1.8 TDCi and 2.0 TDCi engines the each injector has a 16-digit calibration code stamped on the body.

For 1.6 TDCi engines the each injector has an 8-digit calibration code stamped on the body.

These codes relate to the electrical and structural characteristics of each injector, which are defined during production. The PCM must know the calibration codes for each injector in order to treat and operate the injectors in the correct manner. This helps to reduce emissions and improve performance. The code must be programmed in by communicating and downloading the code into the PCMs memory.

There are three common situations which demand this function.

1. After Injector replacement.
2. Fuel injection system 'calibration'.
3. To cure drivability problems. Lack of power, black smoke and the presence of DTC's P2336, P2337, P2338 can often be fixed by re-entering the existing 4 injector codes.

Injector Programming is used on the following vehicles:

Model	Engine	MY
Fiesta	1.6 TDCi	2004 -
Focus	1.8 TDCi	2001 - 2005
Focus (new shape)	1.6 TDCi	2005 -
Focus C-Max	1.6 TDCi	2005 -
Mondeo	2.0 TDCi	2000 - 2006
Mondeo	2.2 TDCi	2005 - 2006
Transit	2.0 TDCi	2000 - 2005
Transit	2.4 TDCi	2000 - 2005
Transit Connect	1.8 TDCi	2002 - 2006

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NOTE:

- On earlier model years (approx pre-2003) it is not possible to read the actual injector codes. On these vehicles you will see '00 00 00 00 00 00 00 00' or 'FF FF FF FF FF FF' or a mixture.
- After entering an injector code the fuel system will initially run without any pilot injection sequence. The car must be driven for a few miles to correct this.

The codes of the ORIGINAL injectors fitted to vehicle can be found on a label, which is fitted to the side of the engine or on the engine rocker top (if it has not yet been removed).

1.6 TDCi Engines:



QM1349

Injector label arrowed in illustration

1.6 TDCi Engines:



Injector codes arrowed in illustration

The codes on the label are in the following format:

(1&2)	X11111111122222222X
(3&4)	X33333333344444444X

Where:

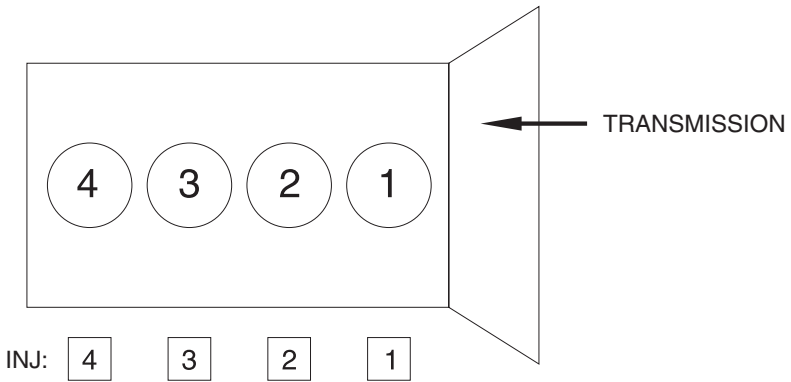
11111111 is the code for injector 1,

22222222 is the code for injector 2,

33333333 is the code for injector 3,

44444444 is the code for injector 4.

NOTE: The injectors are in the physical order, NOT firing order.



OM1357

Injector codes can also be read from the injectors fitted as the codes are stamped on a ring attached to the head of the injector, underneath the connector.

1.8 TDCi Engines:



Injector label arrowed in illustration - Side view



OM1351

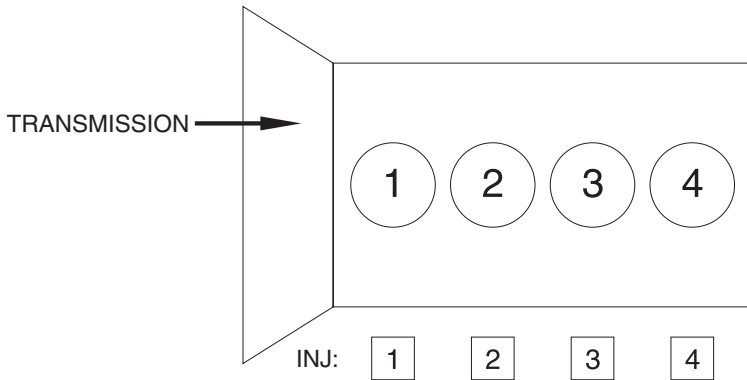
Injector label & Injector head arrowed in illustration - Front view



OM1353

Injector label - gives four 16 digit numbers

NOTE: The injectors on the label are in physical order, NOT firing order.



OM1356

Injector codes can also be read from the injectors fitted as the codes are stamped on a ring attached to the head of the injector, underneath the connector.

2.0 TDCi Engines:



OM1354

Injector label arrowed in illustration - Side view



OM1355

Injector label - gives four 16 digit numbers

NOTE: The injectors on the label are in firing order, NOT physical order. The top left code is Injector 1 (Cyl.1), the top right code is Injector 2 (Cyl.3), the bottom left is Injector 3 (Cyl.4) and the bottom right is Injector 4 (Cyl.2). Where Injector is the firing number, Cylinder is the physical number.

When replacing an Injector the code stamped on the body of the new Injector must be programmed into the PCM, NOT the code on the label.

WARNING: Before attempting Injector Programming it is necessary for the vehicle to be left stationary with the Engine off for at least 8 hours. This is to ensure that the engine is stone cold before Injector Programming is performed.

Failure to follow these instructions may result in failure of the Injector Programming function and/or drivability problems.