



CODE

188 - Punto Classic

## CODE - DESCRIPTION

To increase protection against theft attempts, an engine immobilizer system known as the FIAT CODE system has been adopted.

The keys are fitted with an electronic Transponder device, which sends a coded signal to a special CODE electronic control unit. If it recognizes the code sent, it allows the engine to be started up.

The Body Computer has a control function in managing engine starting.

During the starting stage, key on (+15), the engine management control unit sends a code request to the body computer which, if the response is positive, enables the starting of the engine and switches off the warning light in the instrument panel which has remained on throughout the entire period described.

If the information protocol between the two control units is not successful, the instrument panel is notified of this negative outcome and it causes the appropriate warning light to flash.

The default communication channel between the body computer and the engine management control unit is the CAN; if there is a fault with the latter, the engine management control unit recovery strategy requests codes from the body computer (and the relevant response) via the W serial line.

The Code system has supply lines for the control unit protected by the maxifuse which also protects the engine management system, by the supply fuses for the body computer and the instrument panel located in the junction unit under the dashboard.

## CODE - FUNCTIONAL DESCRIPTION

The body computer

M001 is either supplied by the ignition or directly to pin 11 of connector E and to pin A connector C of the junction unit under the fascia B002.

There is a protective fuse

F1 for the direct supply located in the engine compartment junction unit B001.

These lines also supply the instrument panel, dividing into two inside the general supply MAXIFUSE box. The lines are protected by fuses

F37

e

F53

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Pins 8 and 9 connector B of the body computer are connected to earth.

Pins 4 and 5 of connector C of the body computer

M001 are connected by two cables to the aerial P091, fitted coaxially on the ignition switch, in order to detect the insertion and the rotation of a key with a transponder.

e

F53

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I pin 8 e 9 del connettore D del body computer sono invece collegati a massa .

I pin 4 e 5 del connettore C del body computer

M001

si collegano tramite due cavi all'antenna

P091

, posta coassialmente sul commutatore di accensione, in modo da "sentire" l'inserimento e la rotazione della chiave dotata di Transponder.

The body computer

M001 recognizes the transponder and receives a starting enablement signal from the engine management control unit M010 from line K of pin 16 connector B.

effettua il riconoscimento della lettura del trasponder e riceve il segnale di consenso per l'avviamento dalla centralina controllo motore

M010

dalla linea K dal pin 16 connettore B.

The body computer

M001 recognizes the transponder and receives a starting enablement signal from the engine management control unit M010 from line K of pin 2 connector B.

effettua il riconoscimento della lettura del trasponder e riceve il segnale di consenso per l'avviamento dalla centralina controllo motore

M010

dalla linea K dal pin 2 connettore B.

The body computer

M001 recognizes the transponder and receives a starting enablement signal from the engine management control unit M010 from line K from pin 16 connector B and from the methane injection control unit M019 pin 3 connector A.

effettua il riconoscimento della lettura del trasponder e riceve il segnale di consenso per l'avviamento dalla centralina controllo motore

M010

dalla linea K dal pin 16 connettore B, e dalla centralina iniezione metano

M019

pin 3 connettore A.

The body computer

M001 recognizes the transponder and receives a starting enablement signal from the engine management control unit M010 from line K of pin 2 connector B. Pin 52 has the function of 'conversing' between the engine management control unit M010 and the body computer according to the logic described above, whilst the engine management control unit lights up the electronic injection/EOBD warning light (also valid as the CODE failure) inside the instrument panel E050 by means of pin 31 connector B.

effettua il riconoscimento della lettura del trasponder e riceve il segnale di consenso per l'avviamento dalla centralina controllo motore

M010

dalla linea K dal pin 2 connettore B. Il pin 52 ha la funzione di "dialogo" tra la centralina controllo motore

M010

ed il body computer per la logica sopra descritta, mentre tramite il pin 31 sempre connettore B la centralina controllo motore illumina la spia iniezione elettronica/ EOBD (valida anche come avaria CODE) interna al quadro strumenti

E050

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The body computer

M001 recognizes the transponder and receives a starting enablement signal from the engine management control unit M010 from line K of pin 32 connector B. Pin 30 has the function of 'conversing' between the engine management control unit M010 and the body computer according to the logic described above, whilst the engine management control unit lights up the electronic injection/EOBD warning light (also valid as the CODE failure) inside the instrument panel E050 by means of pin 8 connector B.

The autodiagnostic system also produces the signal for the 'vehicle protection system failure' warning light located in the instrument panel

E050: it involves a signal belonging to the CAN line between the instrument panel E050 and the body computer M001.

dalla linea K dal pin 32 connettore B. Il pin 30 ha la funzione di "dialogo" tra la centralina controllo motore

M010

ed il body computer per la logica sopra descritta, mentre tramite il pin 8 sempre connettore B la centralina controllo motore illumina la spia iniezione elettronica/ EOBD (valida anche come avaria CODE) interna al quadro strumenti

E050

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Il sistema di autodiagnosi genera anche il segnale per la spia "avaria sistema protezione veicolo", collocata nello strumento

E050

si tratta di un segnale appartenente alla linea CAN tra quadro strumenti

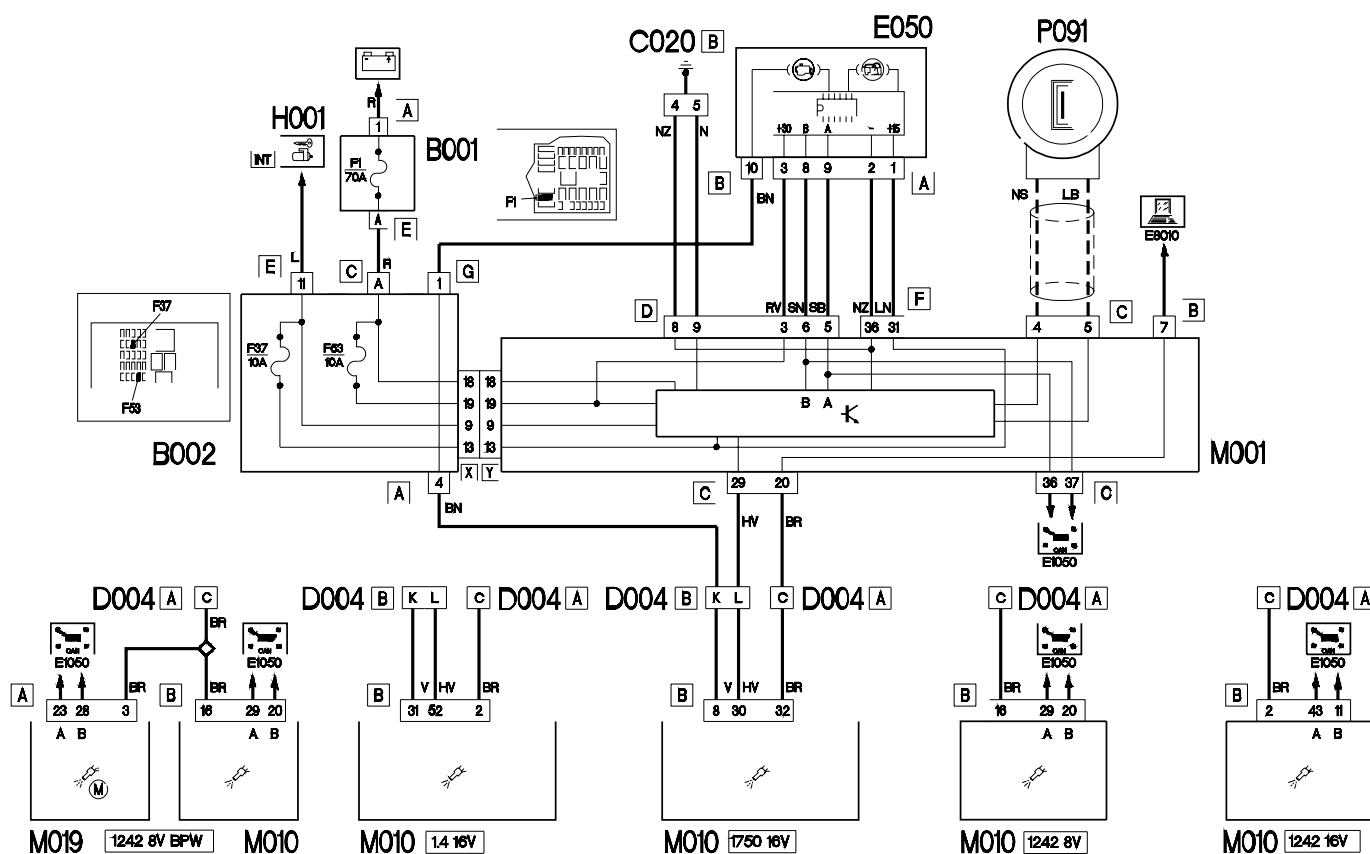
E050

e body computer

M001

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# CODE - WIRING DIAGRAM



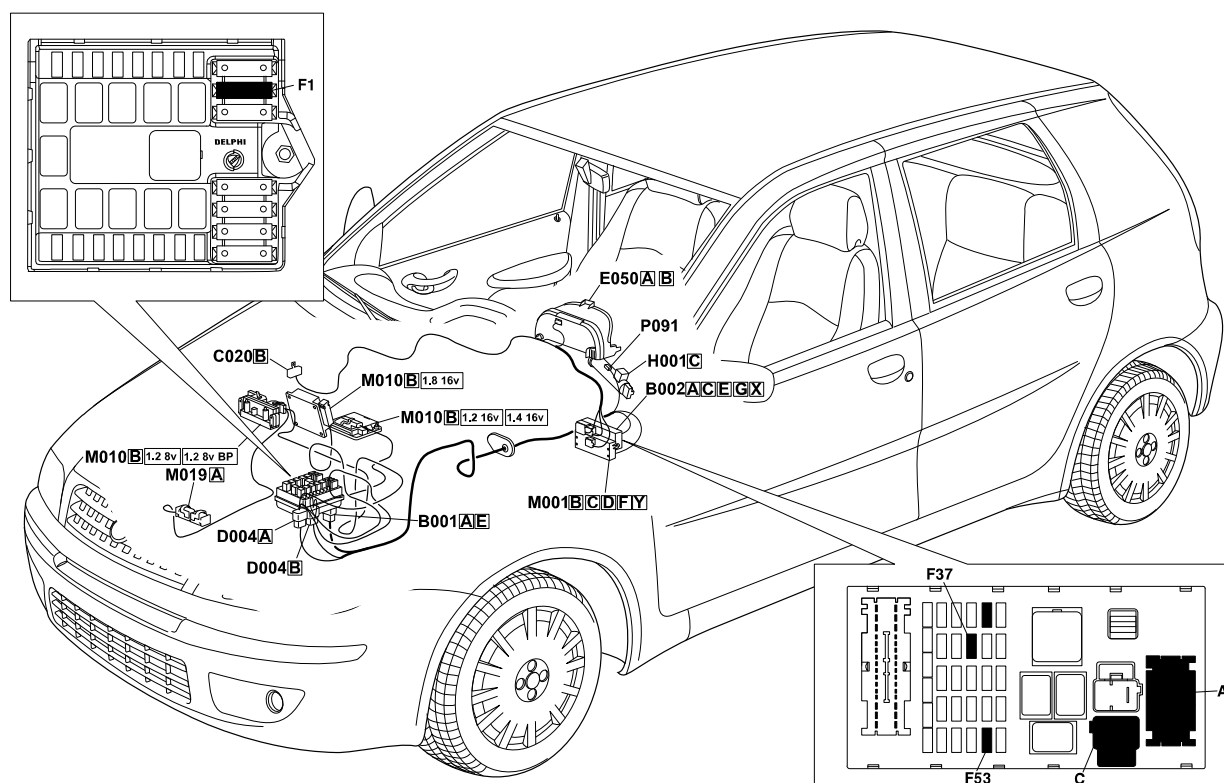
## Component code

Component code	Name
B1	Engine compartment junction unit
B2	Junction unit under dashboard
C10	Front left earth
C20	Passenger side dashboard earth
D4	Front / engine coupling
E50	Instrument panel
M1	Body computer
M10	Engine management control unit
M10	Engine management control unit
M10	Engine management control unit
P91	Aerial for Fiat-CODE

## Assembly reference

Assembly reference
Op. 5505A multi-function components
Op. 5505A multi-function components
Op. 5505A multi-function components
Op. 5505A multi-function components
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Op. 5560B analogue control panel
Op. 5505A multi-function components
Op. 1056B multi-point injection system (mpi)
Op. 1060D electronic diesel injection control
Op. 1060G pressure pump electric control
Op. 5580E anti-theft device

## CODE - LOCATION OF COMPONENTS



Component code	Name	Assembly reference
B1	Engine compartment junction unit	Op. 5505A multi-function components
B2	Junction unit under dashboard	Op. 5505A multi-function components
C10	Front left earth	Op. 5505A multi-function components
C20	Passenger side dashboard earth	Op. 5505A multi-function components
D4	Front / engine coupling	-
E50	Instrument panel	Op. 5560B analogue control panel
M1	Body computer	Op. 5505A multi-function components
M10	Engine management control unit	Op. 1056B multi-point injection system (mpi)
M10	Engine management control unit	Op. 1060D electronic diesel injection control
M10	Engine management control unit	Op. 1060G pressure pump electric control
P91	Aerial for Fiat-CODE	Op. 5580E anti-theft device