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DIPPED HEADLAMPS

DIPPED HEADLIGHTS - DESCRIPTION

The vehicle is equipped with two dipped beams in the headlamps.

The dipped beam headlamps are activated by turning a wheel on the left stalk switch to the next position after the side light setting.

Their activation is therefore linked to the side lights coming on previously.

A relay in the junction unit under the dashboard controls activation of the dipped beam headlamps via two lines protected by dedicated fuses.

The dipped beam headlamps activation relay is controlled by the Body Computer.

The relay is excited by enablement signals received when the key is inserted into the ignition and turned ON and a specific control signal sent from the steering column stalk unit.

The dipped beam headlamps can also be activated automatically by the dusk sensor (where fitted), if the AUTO function is set using the left-hand steering column stalk wheel.

The dusk sensor is an infrared device that detects changes in light intensity outside the vehicle according to the light sensitivity setting: the higher the sensitivity, the lower the amount of exterior light required to activate the side lights.

The setting can be altered by the user through the instrument panel display set up menu (COMFORT version only).

To activate this AUTO function turn the ring nut on the left steering column switch unit lever to the corresponding position. In this way the side lights and the dipped headlamps come on automatically depending on the exterior brightness.

Once the dusk sensor detects a sufficient level of external light to be able to turn off the lights, it will switch off the dipped beam headlamps and, after about ten seconds, the side lights as well.

 The sensor is not capable of detecting the presence of fog therefore, in these circumstances, the lights have to be turned on manually.

In addition, the vehicle is equipped with a Follow me home function which lights up the area surrounding the vehicle for a limited period. This function can be activated without the key inserted (or with it turned to the OFF position) by pulling the left steering column switch unit lever towards the steering wheel within two minutes of the engine being switched off.

This causes the front lights to come on for 30 seconds, a time which can be prolonged by 30 seconds each time the lever is activated, up to a maximum of 210 seconds.

When this time is up the lights automatically switch off.

When the lever is operated the side lights warning light in the instrument panel comes on together with the message shown on the display for the period during which the function remains activated. The warning light comes on when the stalk is pulled for the first time and stays lit until the function switches itself off automatically. Each time the lever is activated the time the lights are on increases.

Keep the stalk pulled towards the steering wheel for more than 2 seconds in order to manually interrupt the function.

The activation of the dipped beam headlamps allows the rear fog lights to be switched on using the control on the central control panel, and the orientation of the headlamps to be adjusted using the buttons on the left-hand control panel.

See E2031 REAR FOG LAMPS

See E3080 HEADLAMP AGLINMENT CORRECTOR

DIPPED HEADLIGHTS - FUNCTIONAL DESCRIPTION

A single (earth) signal is sent from the stalk unit H005 to the Body Computer M001 to manage both the side lights and dipped headlamps (including the AUTO mode): from pin 7 of H005 to pin 2 of connector B of M001; the signal is coded through various resistance partitions so that multiple information is sent from the steering column stalk unit to the Body Computer via a single connection.

A reference earth reaches pin 4 of connector A of steering column stalk unit H005 from pin 9 of connector B of Body Computer M001.

The Body Computer M001 receives a direct battery power supply at pin 1 (protected by fuse F38 of B002) and 18 of the coupling with the junction unit under the dashboard B002; it also receives an ignition-controlled power supply (INT) at pin 9 of the same coupling.

This direct battery power supply is protected upstream by fuse F71 (CPL1) of the B099 maxifuse control unit on the battery (connector D). On the Minibus versions (2.3 JTD / 3.0 JTD) the above power supply is protected by fuse F73 (CPL1) of the maxifuse box on the battery B099 (connector D).

The M001 Body Computer is also connected to the C022 central dashboard earth via pins 10 and 19 of connector B and via pin 20 of the junction with the B002 junction unit under the dashboard (output from pin 10 of connector B of the B002 junction unit).

The Body Computer M001 manages the activation of the dipped beam headlamps by providing an earth signal to relay T01 of the junction unit under the dashboard B002, once it has received the command from the steering column stalk unit (or from the dusk sensor in AUTO mode).

The left F010 (pin 1) and right F011 (pin 1) front headlamps are supplied via lines protected by fuses F13 and F12 respectively, both of which are located in the junction unit under the dashboard B002.

In particular, left headlamp F010 receives power via the connection from pin 3 of connector A of the junction unit under the dashboard B002, whilst left headlamp F011 receives power from pin 12 of connector A.

The dipped beam headlamps are activated by rain / dusk sensor K125 in AUTO mode; the sensor dialogues with the Body Computer via serial line A-BUS (connection between pin 2 of rain / dusk sensor K125 and pin 10 connector C of Body Computer M001).

See E1060 A-BUS SERIAL LINE

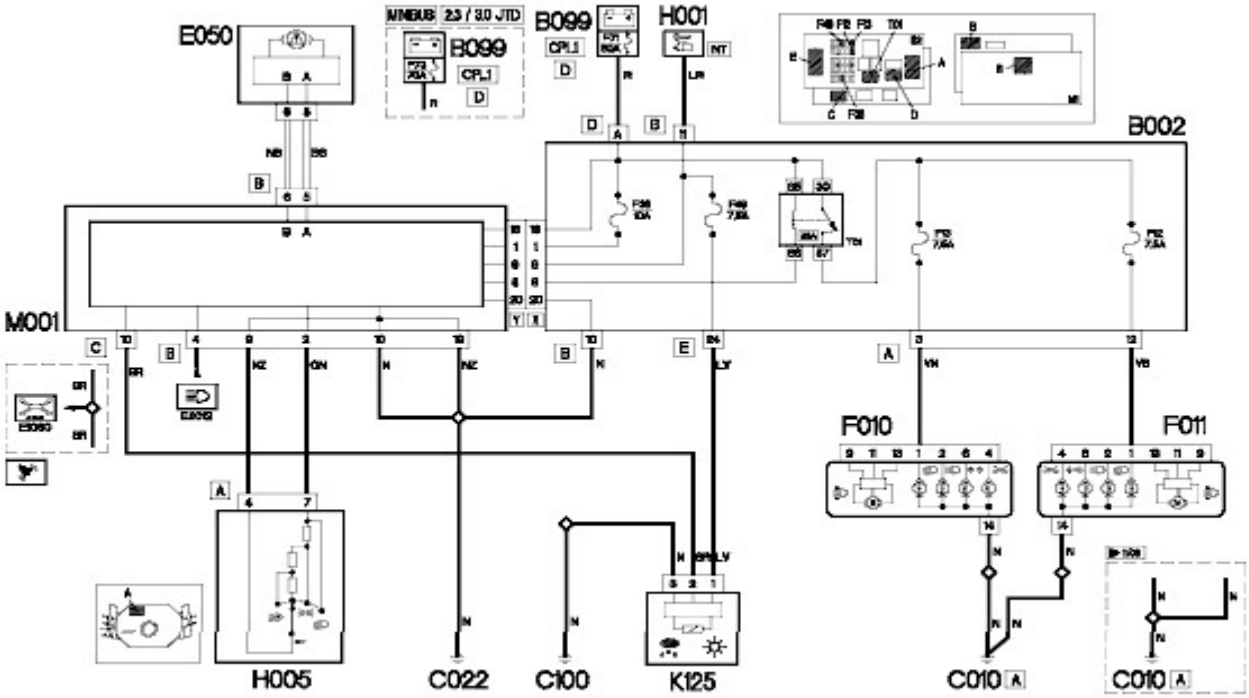
The dusk sensor is supplied (pin 1) by an INT line protected by fuse F49 of the junction unit under the dashboard B002, and is connected, via pin 3, to cabin earth C100.

The Follow me home function is activated by a "main beam headlamps flasher" earth signal sent from the steering column switch unit H005 (pin 6 connector A) to the Body Computer M001 (pin 4 connector B).

See E2012 MAIN BEAM HEADLAMPS

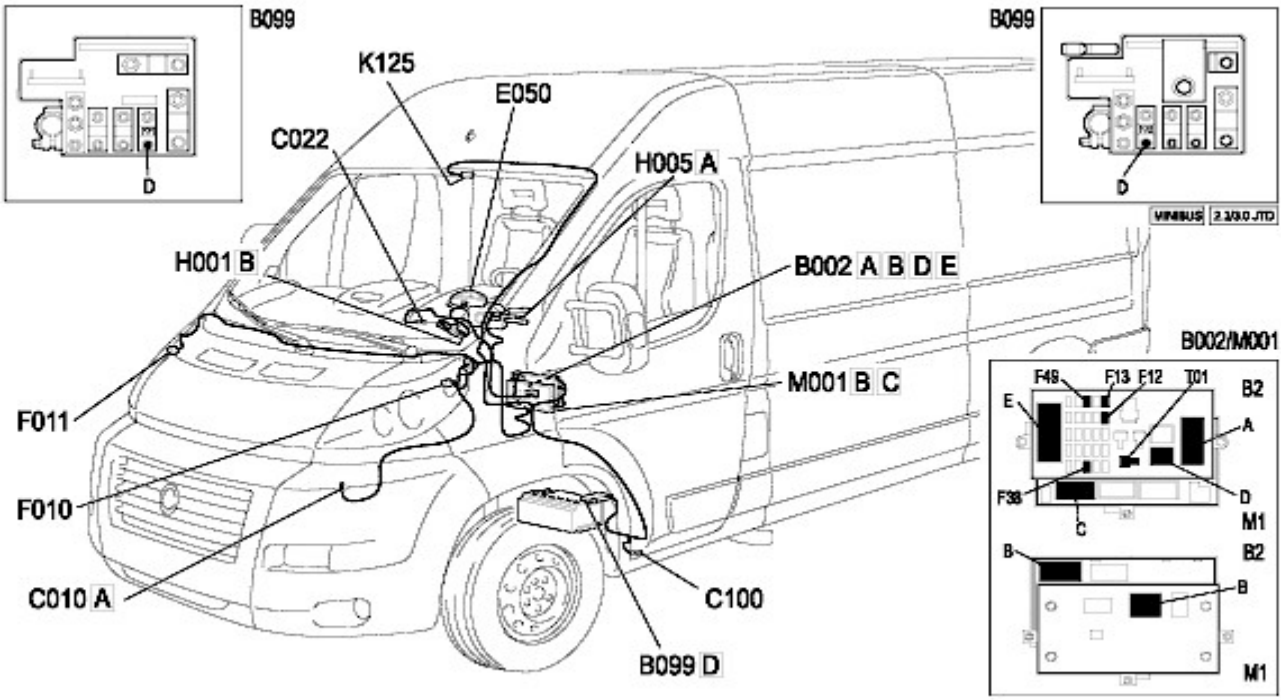
Via the CAN line, the Body Computer is connected to instrument panel E050, pins 5 and 6 of connector B, and manages the general failure warning light and the relevant message on the display in the event of a dusk sensor fault.

DIPPED HEADLIGHTS - WIRING DIAGRAM



Component code	Description	With reference to the assembly
B002	JUNCTION UNIT UNDER DASHBOARD	Op. 5505A MULTI-FUNCTION COMPONENTS
B099	MAXI FUSE BOX ON BATTERY	Op. 5530B BATTERY AND LEADS
C010	LEFT FRONT EARTH	-
C022	Centre dashboard earth	-
C100	CAB EARTH	-
E050	INSTRUMENT PANEL	Op. 5560B ANALOGUE CONTROL PANEL
F010	LEFT HEADLAMP	Op. 5540B HEADLAMPS
F011	RIGHT HEADLAMP	Op. 5540B HEADLAMPS
H001	IGNITION SWITCH	Op. 5520A IGNITION SWITCH
H005	STEERING COLUMN SWITCH UNIT	Op. 5550A STALK UNIT
K125	RAIN AND DUSK SENSOR	Op. 5050B WINDSCREEN WASH/WIPE
M001	BODY COMPUTER	Op. 5505A MULTI-FUNCTION COMPONENTS

DIPPED HEADLIGHTS - COMPONENT LOCATION



Component code	Description	With reference to the assembly
B002	JUNCTION UNIT UNDER DASHBOARD	Op. 5505A MULTI-FUNCTION COMPONENTS
B099	MAXI FUSE BOX ON BATTERY	Op. 5530B BATTERY AND LEADS
C010	LEFT FRONT EARTH	-
C022	Centre dashboard earth	-
C100	CAB EARTH	-
E050	INSTRUMENT PANEL	Op. 5560B ANALOGUE CONTROL PANEL
F010	LEFT HEADLAMP	Op. 5540B HEADLAMPS
F011	RIGHT HEADLAMP	Op. 5540B HEADLAMPS
H001	IGNITION SWITCH	Op. 5520A IGNITION SWITCH
H005	STEERING COLUMN SWITCH UNIT	Op. 5550A STALK UNIT
K125	RAIN AND DUSK SENSOR	Op. 5050B WINDSCREEN WASH/WIPE
M001	BODY COMPUTER	Op. 5505A MULTI-FUNCTION COMPONENTS