



SIDE LIGHTS / NO. PLATE LIGHTS

## SIDE LIGHTS/NUMBER PLATE LIGHT - DESCRIPTION

The side lights are turned on in the first position of the steering column switch unit lever ring nut.

Their activation is managed by the Body Computer.

The side lights command function is activated by enablement signals from the ignition switch with the key inserted and turned to ON, and from the steering column stalk unit control: the four side lights are supplied in this way.

The two number plate lights and numerous other interior lights for lighting up the passenger compartment, instruments and controls come on together with the side lights.

See E2530 INSTRUMENT LIGHTING

In the same context as the activation of the side lights and the number plate lights, the four lights are also activated to allow improved identification of the vehicle in poor visibility conditions.

The sidemarker lights, compulsory for vehicles with dimensions of more than 6 metres, on this version are available for the Long wheelbase (L) and Medium-long wheelbase (ML) versions.

To activate the side lights, turn the special ring nut on the left steering column switch unit lever to one of the positions.

The side lights activation and/or deactivation information is sent by the Body computer, via the CAN, to the instrument panel for the management of the "Side lights" warning light.

The side lights may be activated automatically by the dusk sensor if it is set to the AUTO function using the ring nut on the left steering column switch unit lever.

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.

For safety reasons, the side lights are activated if the inertia switch is operated (FIS).

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 "parking lights" function makes it possible to switch the side lights and the number plate lights on with the ignition key turned to the PARK position by pressing the button on the actual switch.

If the steering column switch unit left-hand lever is operated (in the same way as for activating the direction indicators) it is possible to choose whether to turn on the side lights on both sides of the vehicle (lever in middle position) or only those on one side (lever downwards to select the left side, lever upwards to select the right side).

The Body Computer manages the correct operation of the side and number plate lights, detecting the following possible faults:

- open load (also without any command);
- load short circuited to earth or Vbatt.;
- bulb missing or replaced with one of greater power (from 5W to 21W).

When one of the above situations occurs, the Body Computer makes the fault status available via the CAN network: the dedicated exterior lights failure warning light in the instrument panel comes on and the information is simultaneously shown in the display.

The system also detects any faults in the rain / dusk sensor: if a fault is detected, the "general failure" warning light in the instrument panel comes on and the information is shown simultaneously in the display.

The Body Computer is supplied and protected by dedicated fuses located in the junction unit under the dashboard.

The clearance lights are supplied via a relay, managed by the Body Computer, located in the secondary fuse box.

The clearance lights are protected by a fuse in the same module.

The engagement of the side lights enables the switching on of the fog lights using the special control in the centre panel.

See E2030 FOG LIGHTS

## SIDE LIGHTS/NUMBER PLATE LIGHT - 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.

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 side lights respectively:

- from pin 52 connector A, for left light F010 (pin 4);
- from pin 39 connector A, for right light F011 (pin 4);
- from pin 8 connector C, for the left rear light cluster F030 (pin 1);
- from pin 9 connector C, for the right rear light cluster F031 (pin 1);
- from pin 12 connector C, for left-hand F050 (pin 1) and right-hand F051 (pin 1) number plate lights.

The side lights 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.

On the Medium-long (ML) and Long (L) wheelbase versions there are also sidemarker lights, divided into front (F066; A left branch, B right branch) and rear (F068; A left branch, B right branch).

All the clearance lights receive a direct battery supply from a line protected by fuse F38 and controlled by relay T30, both located in secondary fuse box B098.

The activation of the lights is controlled by the Body Computer M001 which, provides an earth signal, from pin 1 connector C, for the coil for relay T30 (pin 25 of connector A of B098), closing the circuit and providing a power supply for all the lights via pin 29 of connector A of junction unit B098.

The side/no. plate lights can also be turned on by placing the ignition switch H001 in the PARK position (POS power supply); the Body Computer M001 receives this power supply via pin 12 of the coupling with the junction unit under the dashboard B002.

The connection between pin 5 of connector A of the steering column switch unit H005 and pin 7 of connector B of the Body Computer M001 (direction indicators) allows the possible selection of the lights on only one of the two vehicle branches (left or right).

See E2020 DIRECTION INDICATORS / HAZARD WARNING LIGHTS

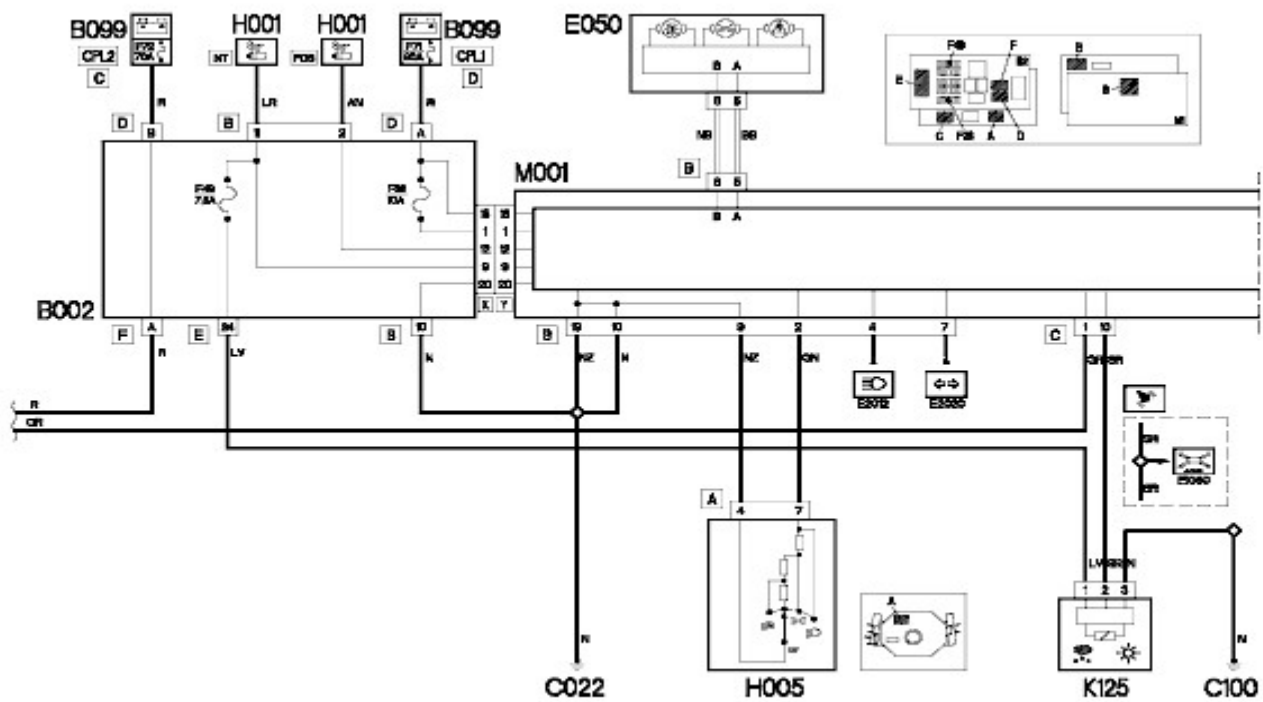
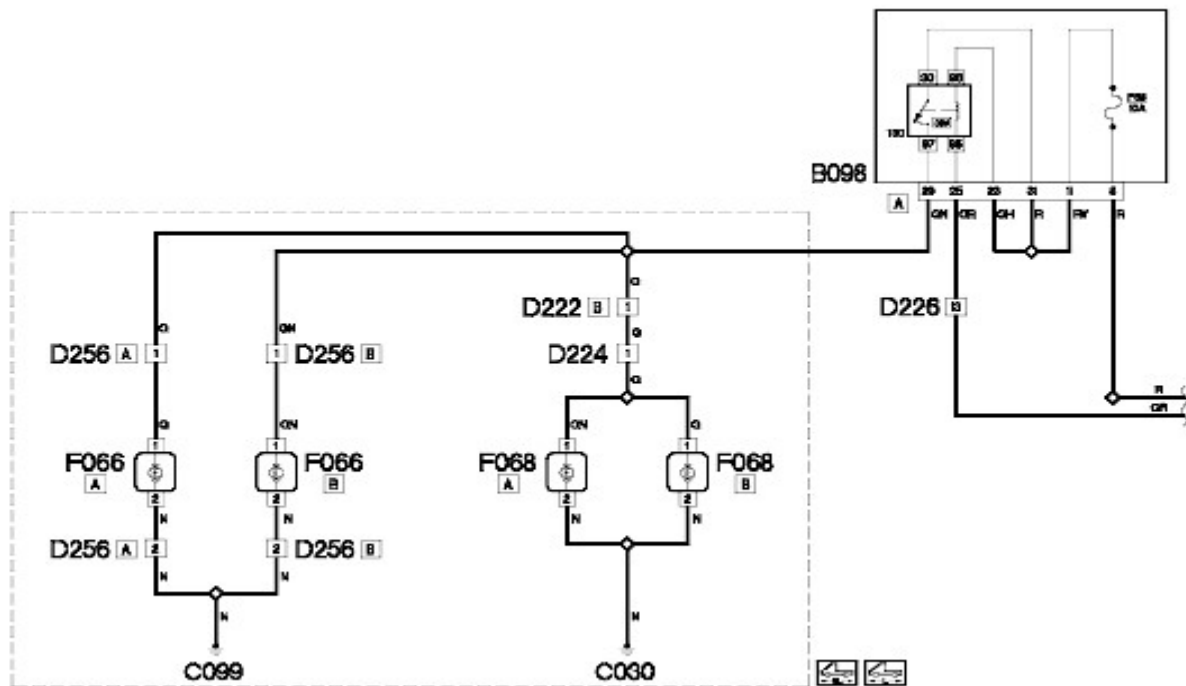
The Follow me home function is activated by a "main beam headlamps flasher" earth signal sent from the steering column switch unit H005 (pin 6 connector A) to the Body Computer M001 (pin 4 connector B).

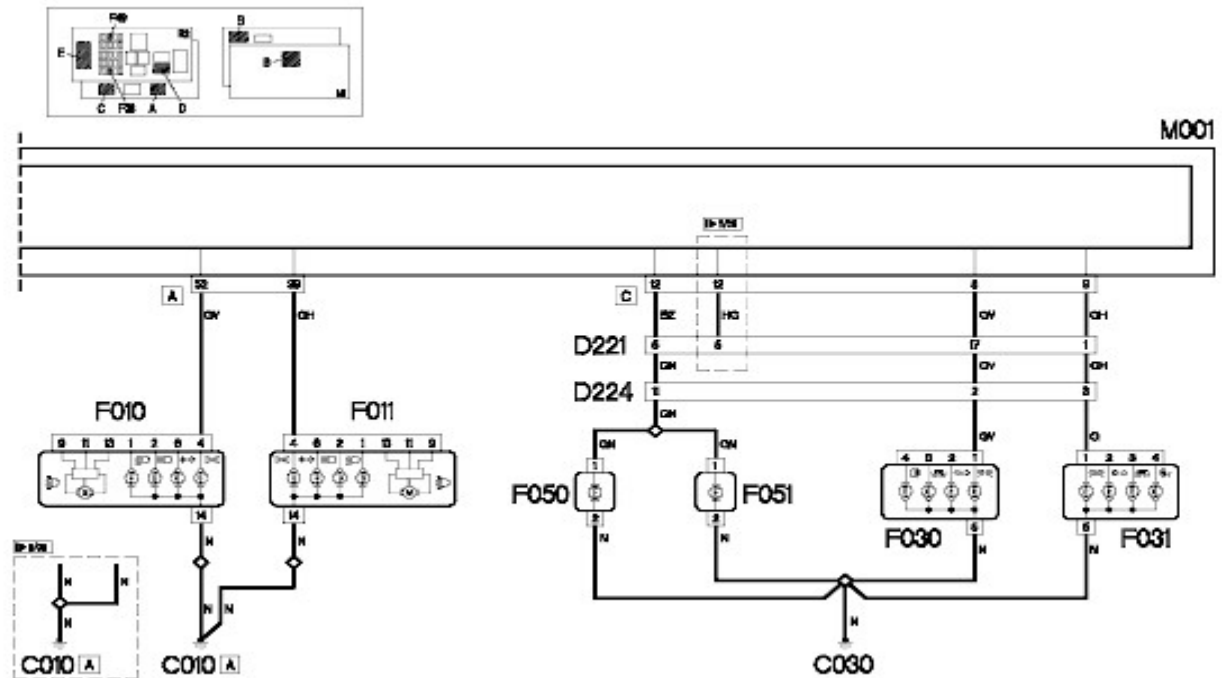
See E2012 MAIN BEAM HEADLAMPS

The Body Computer is connected, via the CAN line, pins 5 and 6 of connector B, to the instrument panel E050 to manage the "side lights on" warning light.

In addition, if there are faults detected in the circuit or in the bulbs, the Body Computer manages the "exterior lights failure" warning light, via the CAN, or, in the case of a failure in the dusk sensor, the "general failure" warning light and the relevant messages in the display.

## SIDE LIGHTS/NUMBER PLATE LIGHT - WIRING DIAGRAM





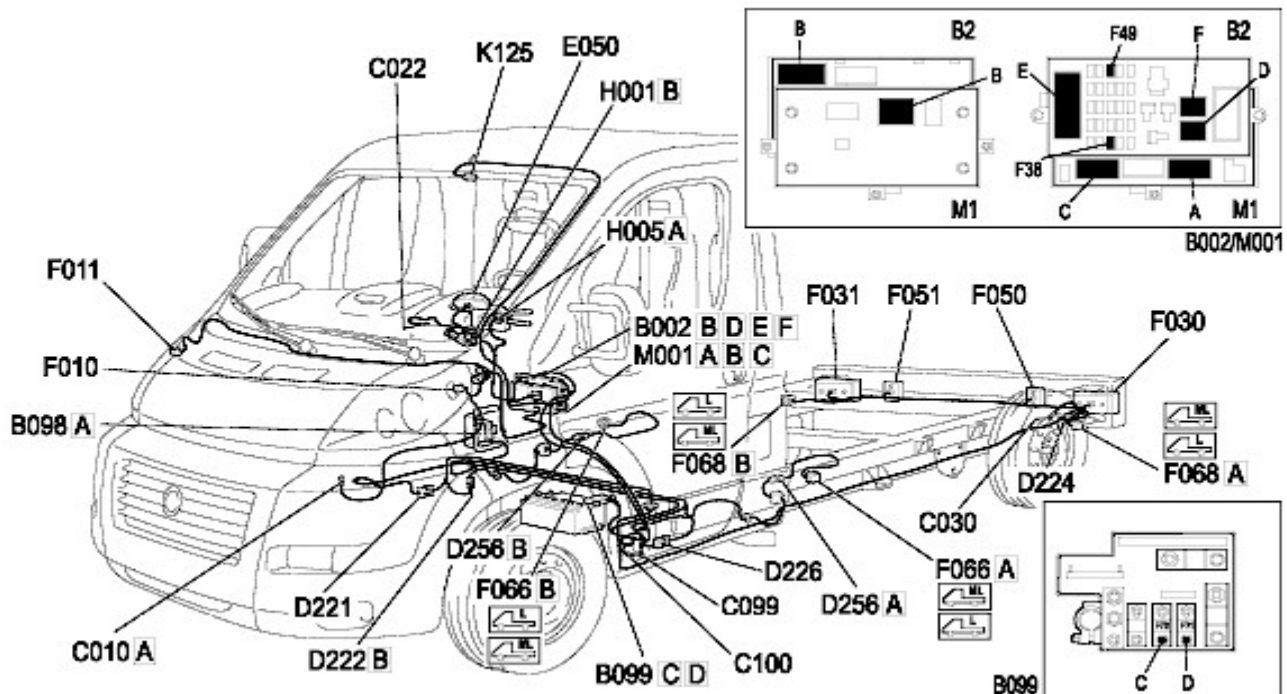
# Component code Description

B002	JUNCTION UNIT UNDER DASHBOARD
B098	SUPPLEMENTARY FUSE BOX
B099	MAXI FUSE BOX ON BATTERY
C010	LEFT FRONT EARTH
C022	Centre dashboard earth
C030	LEFT REAR EARTH
C099	OPT CAB EARTH
C100	CAB EARTH
D221	LEFT/CAB LONGITUDINAL COUPLING
D222	LEFT/OPT CAB LONGITUDINAL COUPLING
D224	LEFT LONGITUDINAL/REAR LIGHT CLUSTER CROSSMEMBER COUPLING
D226	CAB/OPT CAB COUPLING
D256	OPT. CAB/SIDEMARKER LIGHTS
E050	INSTRUMENT PANEL
F010	LEFT HEADLAMP
F011	RIGHT HEADLAMP
F030	LEFT REAR LIGHT CLUSTER
F031	RIGHT REAR LIGHT CLUSTER
F050	LEFT NUMBER PLATE LIGHT
F051	RIGHT NUMBER PLATE LIGHT
F066	FRONT SIDE MARKER
F068	REAR SIDE MARKER
H001	IGNITION SWITCH
H005	STEERING COLUMN SWITCH UNIT
K125	RAIN AND DUSK SENSOR
M001	BODY COMPUTER

# With reference to the assembly

Op. 5505A MULTI-FUNCTION COMPONENTS
-
Op. 5530B BATTERY AND LEADS
-
-
-
-
-
Op. 5560B ANALOGUE CONTROL PANEL
Op. 5540B HEADLAMPS
Op. 5540B HEADLAMPS
Op. 5540A LIGHTING
Op. 5540A LIGHTING
Op. 5540A LIGHTING
Op. 5540A LIGHTING
-
-
Op. 5520A IGNITION SWITCH
Op. 5550A STALK UNIT
Op. 5050B WINDSCREEN WASH/WIPE
Op. 5505A MULTI-FUNCTION COMPONENTS

## SIDE LIGHTS/NUMBER PLATE LIGHT - COMPONENT LOCATION



Component code Description

B002	JUNCTION UNIT UNDER DASHBOARD
B098	SUPPLEMENTARY FUSE BOX
B099	MAXI FUSE BOX ON BATTERY
C010	LEFT FRONT EARTH
C022	Centre dashboard earth
C030	LEFT REAR EARTH
C099	OPT CAB EARTH
C100	CAB EARTH
D221	LEFT/CAB LONGITUDINAL COUPLING
D222	LEFT/OPT CAB LONGITUDINAL COUPLING
D224	LEFT LONGITUDINAL/REAR LIGHT CLUSTER CROSSMEMBER COUPLING
D226	CAB/OPT CAB COUPLING
D256	OPT. CAB/SIDEMARKER LIGHTS
E050	INSTRUMENT PANEL
F010	LEFT HEADLAMP
F011	RIGHT HEADLAMP
F030	LEFT REAR LIGHT CLUSTER
F031	RIGHT REAR LIGHT CLUSTER
F050	LEFT NUMBER PLATE LIGHT
F051	RIGHT NUMBER PLATE LIGHT
F066	FRONT SIDE MARKER
F068	REAR SIDE MARKER
H001	IGNITION SWITCH
H005	STEERING COLUMN SWITCH UNIT
K125	RAIN AND DUSK SENSOR
M001	BODY COMPUTER

With reference to the assembly

Op. 5505A MULTI-FUNCTION COMPONENTS

-  
Op. 5530B BATTERY AND LEADS

-  
-  
-  
-  
Op. 5560B ANALOGUE CONTROL PANEL  
Op. 5540B HEADLAMPS  
Op. 5540B HEADLAMPS  
Op. 5540A LIGHTING  
Op. 5540A LIGHTING  
Op. 5540A LIGHTING  
Op. 5540A LIGHTING  
-

-  
Op. 5520A IGNITION SWITCH  
Op. 5550A STALK UNIT  
Op. 5050B WINDSCREEN WASH/WIPE  
Op. 5505A MULTI-FUNCTION COMPONENTS