



LUCI DIREZIONE / EMERGENZA

191 - Giulietta

DIRECTION INDICATORS/HAZARD WARNING LIGHTS - DESCRIPTION

The front (located in the headlights) and rear (located in the fixed side light clusters) direction indicators are traditional with an incandescent bulb.

The side direction indicators, with their particular elongated shape, consist of LED circuits controlled by dedicated internal electronics.

The left and right direction indicators are switched on by raising or lowering the special left steering column stalk; the function is activated with the key in the MAR position.

The hazard warning lights (left and right direction indicators operated simultaneously) are activated via a button in the centre of the dashboard and all the direction indicators are activated at the same time. An LED at the back of the control button also comes on, synchronised with the flashing of the exterior lights.

This function is always active for safety reasons.

The device also has a lane change function: when the lever is placed in an unstable position for less than half a second (lane change) the direction indicator on the side selected is activated for 5 flashes and then switches off automatically.

The engagement of the direction indicators / hazard warning lights is managed by the Body Computer which also controls the flashing frequency which is sent to the other nodes via the CAN serial network. In this way the two direction indicator warning lights in the instrument panel are also switched on; in addition, the system provides a low frequency acoustic signal in conjunction with the activation of the lights.

The direction indicators check function checks that the lights are working properly: the following are checked for each of the two circuits (right side branch and vehicle left side):

- open circuit or missing bulb
- short circuit to earth (bulb s.c. or wiring s.c. to earth)
- short circuit to battery voltage (wiring short circuited to Vbatt)

When one of the situations described above is verified, the Body Computer makes the failure status available to the CAN: in the instrument panel: a special failure warning light comes on and, at the same time, the information is shown in the display only at key on.

In addition, at the same time as a failure warning light switches on, the flashing frequency of the visual indication in the display and the acoustic signal increases; the flashing frequency of the exterior lights, on the other hand, remains unchanged.

the direction indicators are also used to signal that the commands sent by the remote control have been received and/or to signal a manoeuvre not carried out by the passenger compartment access control system.



See E3040 CENTRAL LOCKING

DIRECTION INDICATORS/HAZARD WARNING LIGHTS - FUNCTIONAL DESCRIPTION

There is a single (earth) signal sent by the steering column stalk H005 to the Body Computer M001 that manages the left and right direction indicators: from pin 1 of H005 to pin 57 of connector H of M001; the signal sent is coded by means of resistive dividers so that multiple information can be sent by the steering column stalk to the Body Computer via a single connection.

The reference earth reaches pin 10 of H005 from pin 45 of connector H of M001.

The (earth) signal for activating the hazard warning lights reaches pin 55 of connector H of M001 from the control button H020; pin 8 of connector H sends the signal for switching on the LED on the button.

The Body Computer M001 - connector A - receives a direct power supply from the battery through the line protected by maxi fuse F01 of the engine compartment junction unit B001.

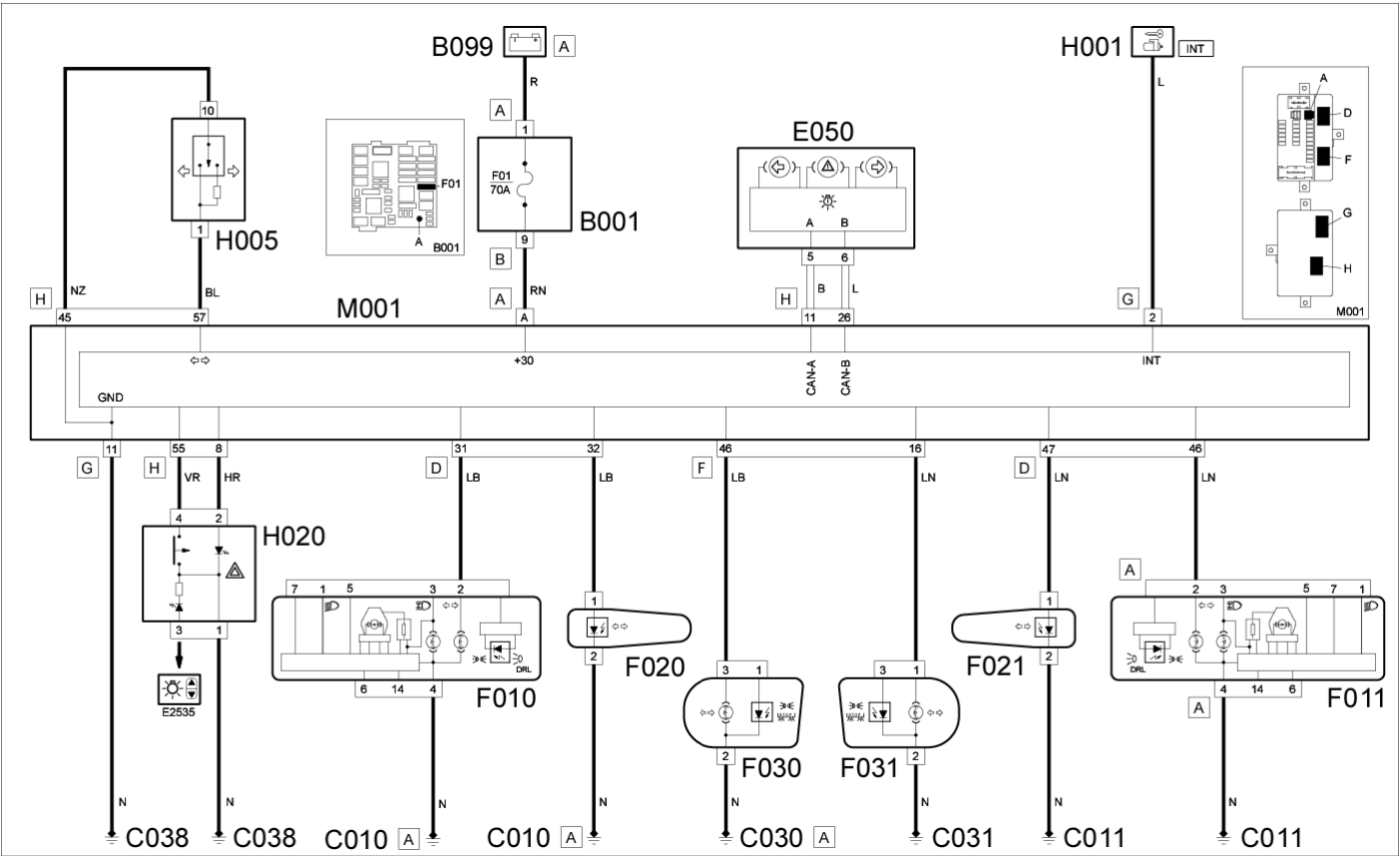
The Body Computer M001 receives an ignition-operated power supply (INT) at pin 2 of connector G: this signal is used, amongst other things, to "wake up the network".

Pin 11 of connector G of M001 provides the Body Computer with a reference earth.

The Body Computer M001 controls the side direction indicators F020 (left) and F021 (right) from pins 32 and 47 of connector D, the front direction indicators F010 (left) and F011 (right) from pins 31 and 46 of connector D and, lastly, the rear direction indicators F030 (left) and F031 (right) from pins 46 and 16 of connector F. The Body Computer M001 controls the side direction indicators F020 (left) and F021 (right) from pins 32 and 47 of connector D, the front direction indicators F010 (left) and F011 (right) from pins 31 and 46 of connector D and, lastly, the rear direction indicators F030 (left) and F031 (right) from pins 46 and 16 of connector F.

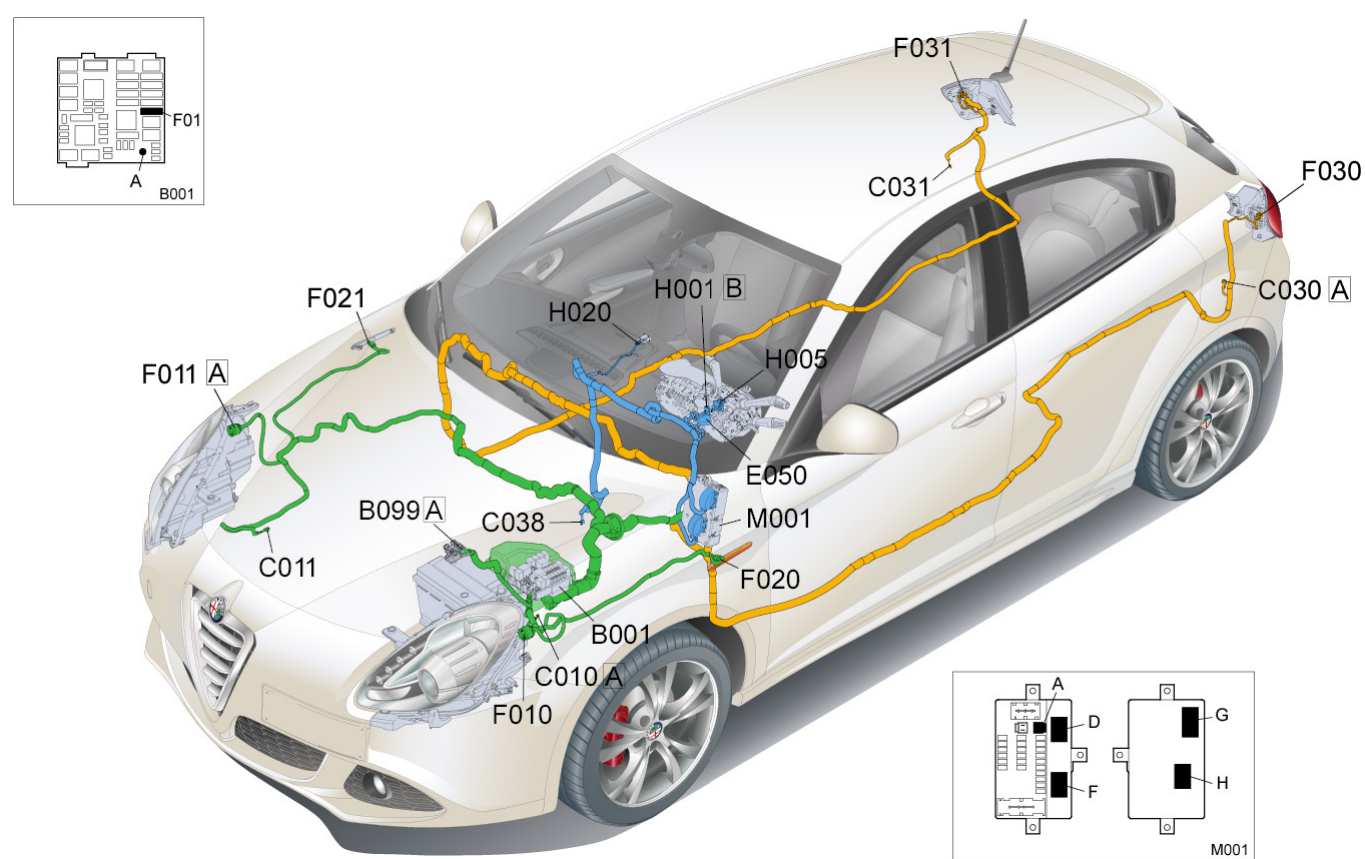
The Body Computer M001 is connected, via the CAN line, to the instrument panel E050 to manage the direction indicator warning lights, the buzzer and, if there is a problem in the circuit, the "lights failure" warning light.

DIRECTION INDICATORS/HAZARD WARNING LIGHTS - WIRING DIAGRAM



Component Code	Description	Reference to the operation
B001	JUNCTION UNIT	Op. 5505A28 CONTAINER FOR ADDITIONAL JUNCTION UNIT IN ENGINE COMPARTMENT - R.R.
B099	MAXI FUSE BOX ON BATTERY	Op. 5530B40 SUPPLY BOX ON BATTERY (LINK BATTERY AND FUSE BOX) - R R
C010	LEFT FRONT EARTH	-
C011	RIGHT FRONT EARTH	-
C030	LEFT REAR EARTH	-
C031	RIGHT REAR EARTH	-
C038	EARTH ON CENTRE TUNNEL	-
F010	LEFT HEADLIGHT	Op. 5540B07 LEFT FRONT HEADLAMP - R.R.
F011	RIGHT HEADLIGHT	Op. 5540B08 RIGHT FRONT HEADLAMP - R.R.
F020	LEFT SIDE REPEATER	Op. 5550C22 L/H OR R/H SIDE REPEATER (ONE) - R+R
F021	RIGHT SIDE REPEATER	Op. 5550C22 L/H OR R/H SIDE REPEATER (ONE) - R+R
F030	LEFT REAR LIGHT CLUSTER	Op. 5540A58 OUTER REAR LIGHT CLUSTER WITH DIRECTION INDICATOR INCORPORATED (ONE), LEFT OR RIGHT - R.R.
F031	RIGHT REAR LIGHT CLUSTER	Op. 5540A58 OUTER REAR LIGHT CLUSTER WITH DIRECTION INDICATOR INCORPORATED (ONE), LEFT OR RIGHT - R.R.
E050	INSTRUMENT PANEL	Op. 5560B10 CONTROL PANEL - R+R
H001	IGNITION SWITCH	Op. 5520A18 IGNITION SWITCH CONTACT CARRIER LOCK BARREL - R.R.
H005	STEERING COLUMN SWITCH UNIT	Op. 5550A10 STALK UNIT ASSEMBLY - R+R
H020	HAZARD WARNING LIGHTS SWITCH	Op. 5550C14 HAZARD WARNING LIGHT SWITCH - R+R
M001	BODY COMPUTER	Op. 5505A35 MAIN BODY COMPUTER/JUNCTION UNIT - R.R.

DIRECTION INDICATORS/HAZARD WARNING LIGHTS - COMPONENT LOCATION



Component Code	Description	Reference to the operation
B001	JUNCTION UNIT	Op. 5505A28 CONTAINER FOR ADDITIONAL JUNCTION UNIT IN ENGINE COMPARTMENT - R.R.
B099	MAXI FUSE BOX ON BATTERY	Op. 5530B40 SUPPLY BOX ON BATTERY (LINK BATTERY AND FUSE BOX) - R R
C010	LEFT FRONT EARTH	-
C011	RIGHT FRONT EARTH	-
C030	LEFT REAR EARTH	-
C031	RIGHT REAR EARTH	-
C038	EARTH ON CENTRE TUNNEL	-
F010	LEFT HEADLIGHT	Op. 5540B07 LEFT FRONT HEADLAMP - R.R.
F011	RIGHT HEADLIGHT	Op. 5540B08 RIGHT FRONT HEADLAMP - R.R.
F020	LEFT SIDE REPEATER	Op. 5550C22 L/H OR R/H SIDE REPEATER (ONE) - R+R
F021	RIGHT SIDE REPEATER	Op. 5550C22 L/H OR R/H SIDE REPEATER (ONE) - R+R
F030	LEFT REAR LIGHT CLUSTER	Op. 5540A58 OUTER REAR LIGHT CLUSTER WITH DIRECTION INDICATOR INCORPORATED (ONE), LEFT OR RIGHT - R.R.
F031	RIGHT REAR LIGHT CLUSTER	Op. 5540A58 OUTER REAR LIGHT CLUSTER WITH DIRECTION INDICATOR INCORPORATED (ONE), LEFT OR RIGHT - R.R.
E050	INSTRUMENT PANEL	Op. 5560B10 CONTROL PANEL - R+R
H001	IGNITION SWITCH	Op. 5520A18 IGNITION SWITCH CONTACT CARRIER LOCK BARREL - R.R.
H005	STEERING COLUMN SWITCH UNIT	Op. 5550A10 STALK UNIT ASSEMBLY - R+R
H020	HAZARD WARNING LIGHTS SWITCH	Op. 5550C14 HAZARD WARNING LIGHT SWITCH - R+R
M001	BODY COMPUTER	Op. 5505A35 MAIN BODY COMPUTER/JUNCTION UNIT - R.R.