



LUCI STOP

191 - Giulietta

## BRAKE LIGHTS - DESCRIPTION

The vehicle brake lights are located at the rear in the side light clusters and in the special centre third brake light.

The rear brake lights are located in the rear side light clusters - both on the fixed and the mobile part of the tailgate - and consist of LED circuits.

The centre light comprises an LED and has a light beam coming out of the rearscreen serigraphy.

The brake lights are operated each time the brake pedal is pressed via the special switch on the pedal.

The switch fitted on the pedal unit consists of two contacts which supply two signals: the first is N.A. type, which recognises the position of the brake pedal if it is not in the rest position, i.e. the pedal is pressed; the second is N.C. type, which recognises the position of the brake pedal in the rest position.



The lights are switched on by the N.O. contact (pedal pressed).

The control function is activated by the enablement signals (key on MAR) and the command from the contact of the switch.

The brake lights check function monitors that the side lights are working correctly: the following are checked:

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

The continuity of the fuse protecting the switch on the brake pedal is also checked.


When one of the situations described above is verified, the Body Computer makes the failure status available to the CAN: a special lights failure warning light switches on in the instrument panel and, at the same time, the information is shown in the display by means of the specific symbol.

## BRAKE LIGHTS - FUNCTIONAL DESCRIPTION

Switch I030 receives an ignition-operated supply from the line for pin 16 of connector C of the Body Computer M001 via the line for fuse F37 of the Body Computer M001: when the brake pedal is pressed, the switch closes and sends an N.A. signal to Body Computer M001, pin 57 of connector D of M001.

The Body Computer M001 controls the power supply for the fixed rear brake lights F030 (left) and F031 (right) from pins 47 and 17 of connector F and for the mobile lights F035 (left) and F036 (right) from pins 2 and 32 of connector F.

It also controls the central brake light F040 from pin 48 of connector F of M001.

 The controls for the LED side brake lights are the same which are used to switch on the rear side lights: the signal is only modulated in a different way so that the light intensity changes.

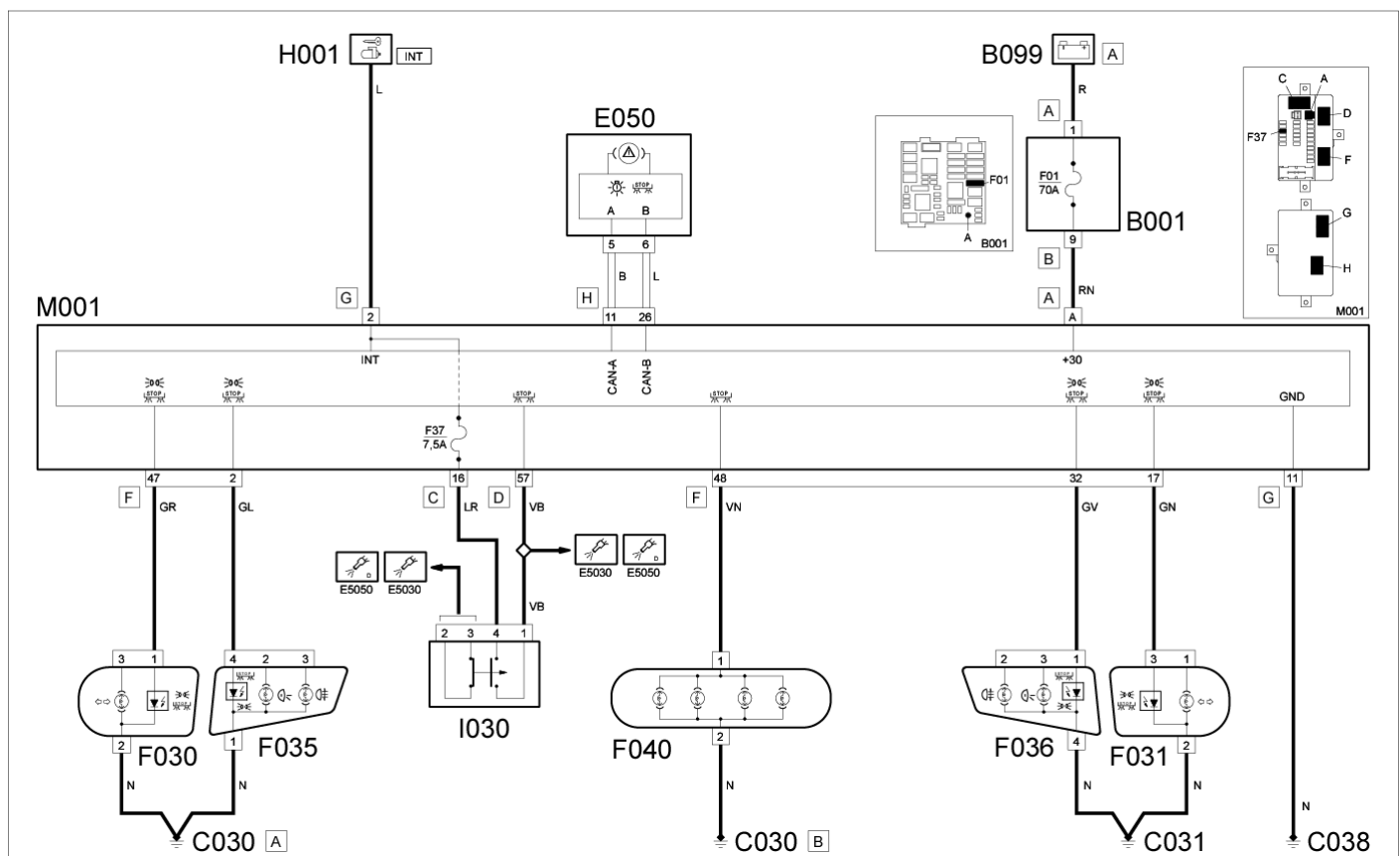
The Body Computer M001 - connector A - receives a direct power supply from the battery through the line protected by maxi fuse F01 of the engine compartment junction unit B001.

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.

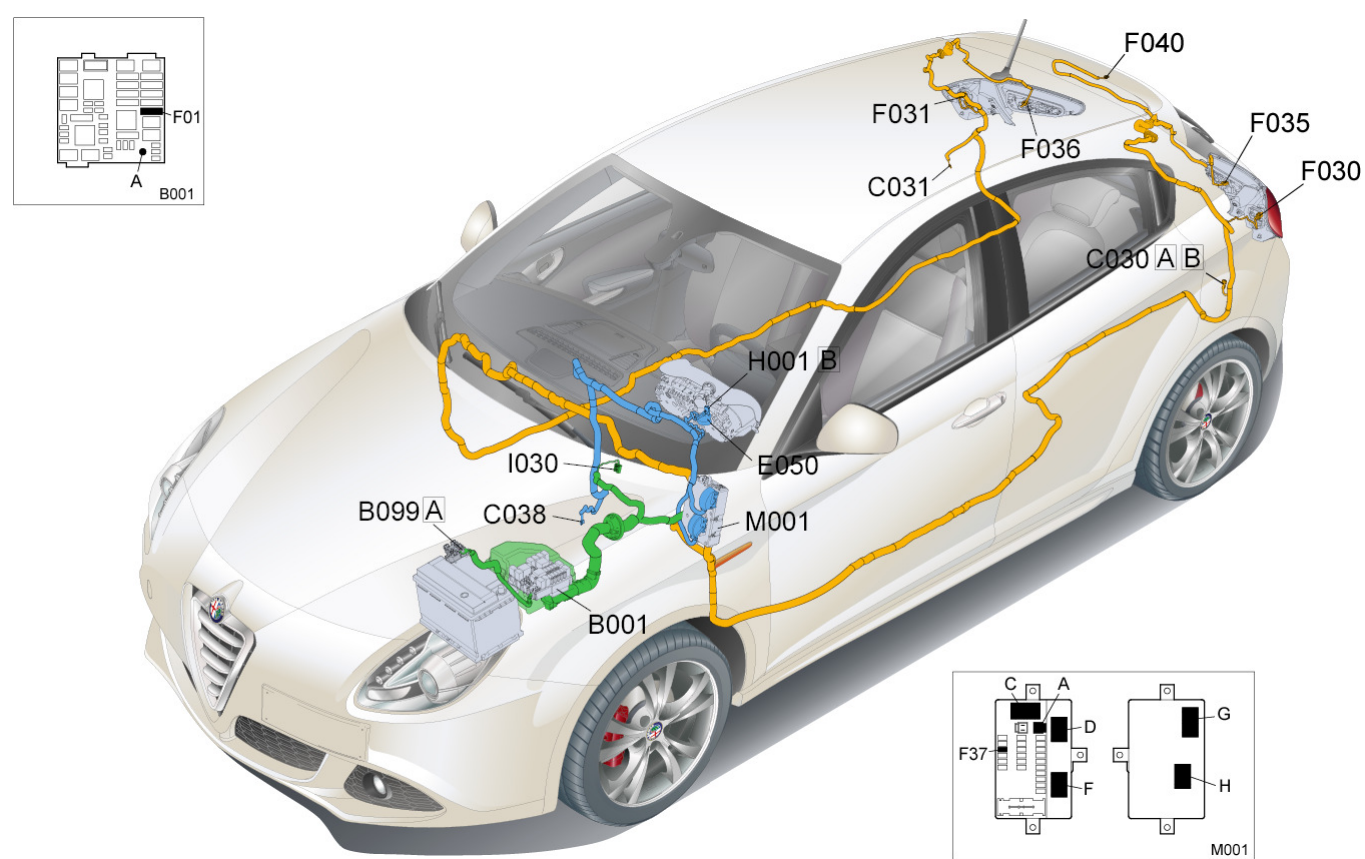
Body Computer M001 is connected via the CAN line to the instrument panel E050 to manage the "lights failure" warning light and the "brake lights check" signal if problems are detected in the circuit or in the fuse.

## BRAKE 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                                    |
| C030           | LEFT REAR EARTH                                       | -  |
| C031           | RIGHT REAR EARTH                                      | -  |
| C038           | EARTH ON CENTRE TUNNEL                                | -  |
| E050           | INSTRUMENT PANEL                                      | Op. 5560B10 CONTROL PANEL - 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. |
| F035           | LEFT REAR LIGHT CLUSTER (MOVING SECTION ON BOOT)      | Op. 5540A68 INTERIOR REAR LIGHT (ONE), LEFT OR RIGHT - R.R.  |
| F036           | RIGHT REAR LIGHT CLUSTER (MOVING SECTION ON BOOT LID) | Op. 5540A68 INTERIOR REAR LIGHT (ONE), LEFT OR RIGHT - R.R.  |
| F040           | ADDITIONAL TAIL-LIGHT ('THIRD BRAKE LIGHT')           | Op. 5550D16 THIRD BRAKE LIGHT - R+R<br>Op. 5550D10 BRAKE LIGHT SWITCH - R+R                            |
| I030           | BRAKE PEDAL SWITCH                                    | Op. 1060G38 BRAKE PEDAL SWITCH - R.R.  |
| H001           | IGNITION SWITCH                                       | Op. 5520A18 IGNITION SWITCH CONTACT CARRIER LOCK BARREL - R.R.   |
| M001           | BODY COMPUTER   | Op. 5505A35 MAIN BODY COMPUTER/JUNCTION UNIT - R.R.  |

BRAKE 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                                    |
| C030           | LEFT REAR EARTH                                       | -  |
| C031           | RIGHT REAR EARTH                                      | -  |
| C038           | EARTH ON CENTRE TUNNEL                                | -  |
| E050           | INSTRUMENT PANEL                                      | Op. 5560B10 CONTROL PANEL - 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. |
| F035           | LEFT REAR LIGHT CLUSTER (MOVING SECTION ON BOOT)      | Op. 5540A68 INTERIOR REAR LIGHT (ONE), LEFT OR RIGHT - R.R.  |
| F036           | RIGHT REAR LIGHT CLUSTER (MOVING SECTION ON BOOT LID) | Op. 5540A68 INTERIOR REAR LIGHT (ONE), LEFT OR RIGHT - R.R.  |
| F040           | ADDITIONAL TAIL-LIGHT ('THIRD BRAKE LIGHT')           | Op. 5550D16 THIRD BRAKE LIGHT - R+R<br>Op. 5550D10 BRAKE LIGHT SWITCH - R+R                            |
| I030           | BRAKE PEDAL SWITCH                                    | Op. 1060G38 BRAKE PEDAL SWITCH - R.R.  |
| H001           | IGNITION SWITCH                                       | Op. 5520A18 IGNITION SWITCH CONTACT CARRIER LOCK BARREL - R.R.   |
| M001           | BODY COMPUTER   | Op. 5505A35 MAIN BODY COMPUTER/JUNCTION UNIT - R.R.  |