



LUCI ANABBAGLIANTI

191 - Giulietta

DIPPED BEAM HEADLIGHTS - DESCRIPTION

The vehicle is fitted with two GAS DISCHARGE headlamps.

The electronics in each of the two headlamps switches the gas discharge bulb on and off at the times defined by the software and in accordance with international regulations governing gas discharge bulbs.

The system for each lamp comprises an igniter located at the base of the bulb and a ballast located in the lower part of the lamp.

This system also offers the new AFS function (automatic front light system).

This is an advanced control system which, through the CAN, allows the light beam to be adjusted in accordance with the steering system controls. The light beam follows the steering controls by performing a rotation proportional to the radius of curvature up to a maximum of 15° and permitting the vehicle state of the art dynamic drive safety.

This logic is managed by the Self-ADAPTIVE Lamp Node located under the central tunnel.

For more details

See E3080 HEADLAMP AGLINMENT CORRECTOR

With the dipped beam headlights on, switching to main beam headlights causes the shutter in the gas discharge bulb to be raised.

The dipped beam headlights are switched on using the steering column stalk by turning the ring nut forwards: the dipped beam headlights are activated, the daytime lights switch off and the side lights, dipped beam headlights and number plate lights switch on.

The switching on of the dipped beam headlights is managed by the Body Computer.

On some versions, the dipped beam headlights are also activated automatically by the dusk sensor.

This sensor, located on the windscreen under the interior rear view mirror, detects the variations in outside brightness depending on the light setting: the greater the sensitivity, the less external light is required to activate the exterior lights.

The setting of the dusk sensor can be adjusted using the instrument panel setup menu.

When the ring nut is turned in the opposite direction (AUTO position) the side lights and the dipped beam headlights automatically switch on simultaneously depending on the exterior brightness.

The headlights can only be flashed with the sensor on.

The main beam headlights will switch off followed after approximately 10 seconds by the side/taillights, when the sensor is deactivated.

If a fault is detected with the dusk sensor, the "general failure" warning light is switched on and the information is shown simultaneously on the display.

The "Follow me home" function allows the dipped beam headlights and the side lights to remain on even after the engine has been switched off (key in STOP position or extracted) for a period of 30 seconds or multiples thereof. The side lights warning light in the instrument panel signals that the lights have remained on. It is turned on using the lever in the same way as for activating the flasher within 2 minutes of the ignition being turned to STOP: each time the lever is operated the length of time the lights remain on is increased by 30 seconds, up to a maximum of 210 seconds. Turning the key to the MAR position or keeping the flasher lever pulled for more than 2 seconds eliminates the function.

At Key OFF the "Exterior courtesy lights" function switches on the dipped beam headlights, the rear side lights and the number plate lights.

The lights remain lit for approximately 25 seconds unless the doors and boot are locked again with the remote control or the doors or boot are opened and reclosed.

In this case, within 5 seconds the rear side lights and the number plate lights for a limited time when the doors or the tailgate are unlocked using the remote control.

The "Exterior courtesy lights" function can be activated or deactivated using the setup menu in the instrument panel.

DIPPED BEAM HEADLIGHTS - FUNCTIONAL DESCRIPTION

There is a single (earth) signal sent by the steering column stalk H005 to the Body Computer M001 that manages both the side lights and the dipped beam headlights: from pin 3 of H005 to pin 42 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 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 power supply for the dipped beam headlamps in the headlights F010 (left) and F011 (right) from pins 12 and 1 of connector C of M001.

Each circuit is controlled by a relay and protected by a fuse in control unit M001: T01a and F13 for the left headlamp and T01b and F12 for the right one.

The INT line protected by fuse F37 of M001 supplies pin 7 of F010.

The INT line protected by fuse F51 of M001 supplies the control unit M073, pin 1 and pin 7 of F011A.

The two headlamps and the control unit are connected through a dedicated serial line: from pin 5 of F010 to pin 16 of M073 and from pin 7 of M073 to pin 5 of F011A.

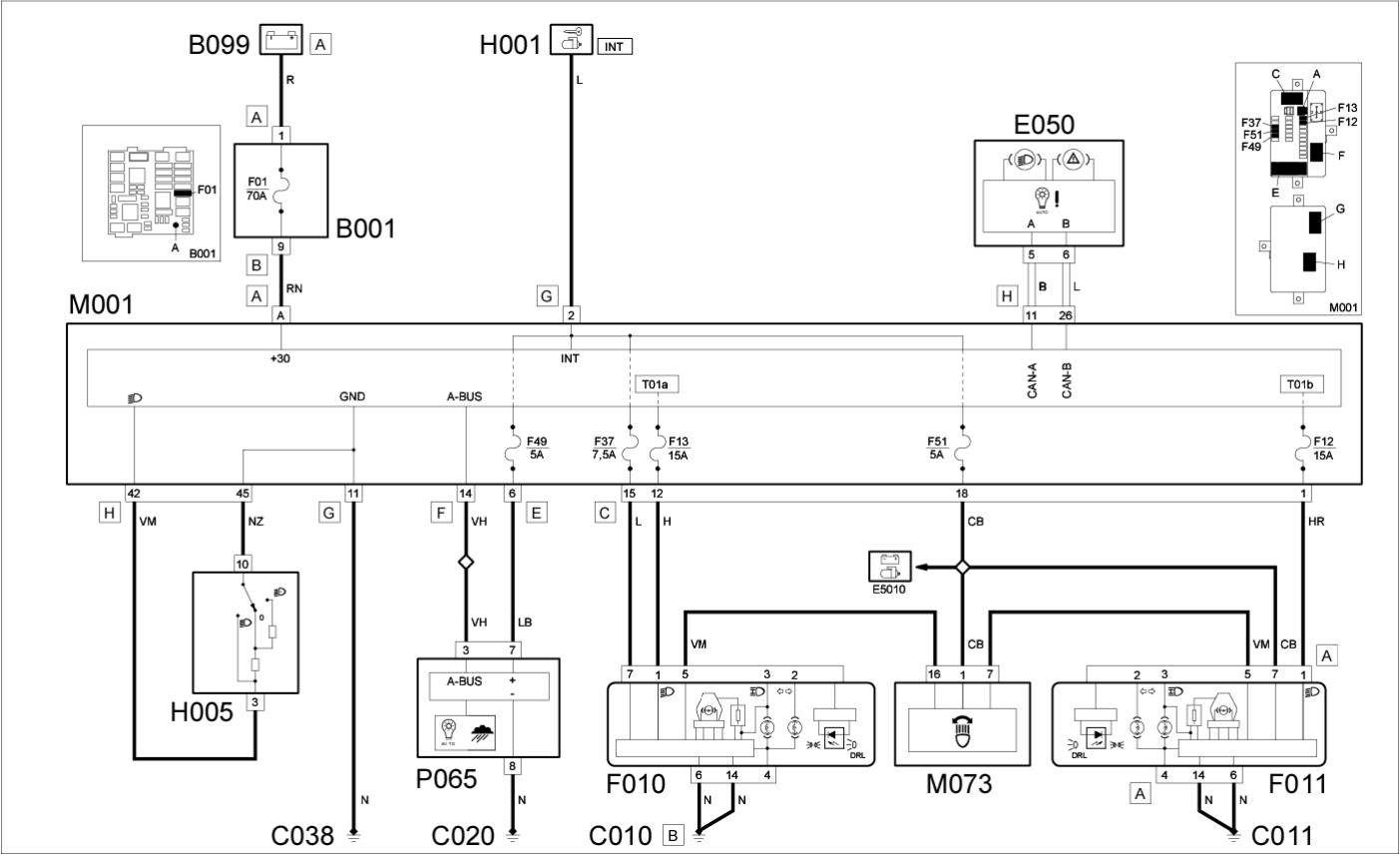
See E3080 HEADLAMP AGLINMENT CORRECTOR

The Body Computer M001 is connected via the CAN line to the instrument panel E050 to manage the "dipped beam headlights on" warning light and, if the dusk sensor fails, the dedicated signal.

The dipped beam headlights are also activated if the dusk sensor is present in the rear view mirror P065 (A-BUS signal from pin 14 of connector F of M001).

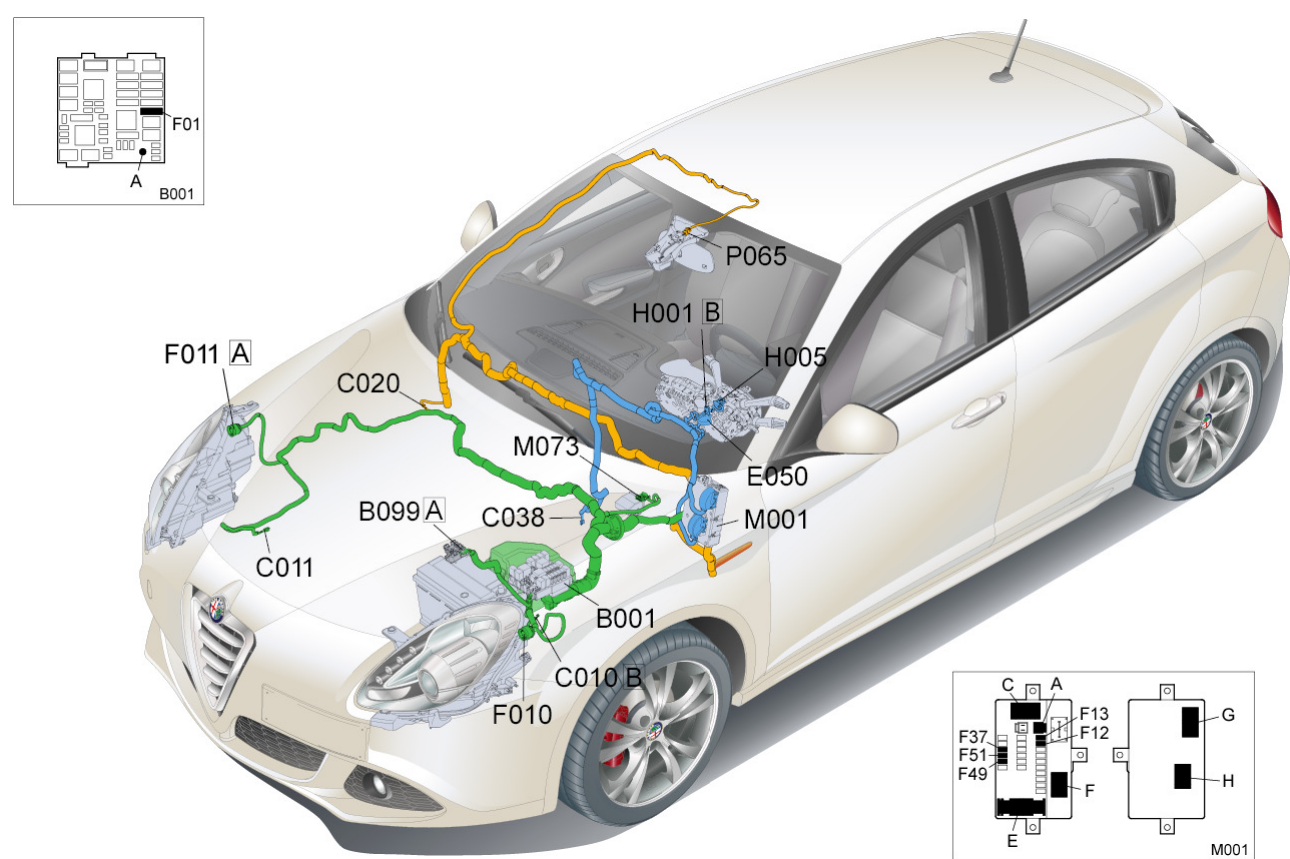
The dusk sensor located in P065 is supplied by the INT line protected by fuse F49 of M001.

DIPPED BEAM HEADLIGHTS - 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	-
C020	PASSENGER SIDE DASHBOARD EARTH	-
C038	EARTH ON CENTRE TUNNEL	-
E050	INSTRUMENT PANEL	Op. 5560B10 CONTROL PANEL - R+R
F010	LEFT HEADLIGHT	Op. 5540B07 LEFT FRONT HEADLAMP - R.R.
F011	RIGHT HEADLIGHT	Op. 5540B08 RIGHT FRONT HEADLAMP - 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
M001	BODY COMPUTER	Op. 5505A35 MAIN BODY COMPUTER/JUNCTION UNIT - R.R.
M073	HEADLAMP ALIGNMENT CONTROL UNIT	Op. 5540C50 CONTROL UNIT FOR CORRECTING/ALIGNING GAS DISCHARGE LIGHTING UNIT - R R
P065	ELECTRO-CHROMIC INTERIOR REAR VIEW MIRROR	Op. 7065C60 INTERIOR REAR VIEW MIRROR FOR VERSIONS WITH RAIN/DUSK SENSOR - R.R.

DIPPED BEAM HEADLIGHTS - 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	-
C020	PASSENGER SIDE DASHBOARD EARTH	-
C038	EARTH ON CENTRE TUNNEL	-
E050	INSTRUMENT PANEL	Op. 5560B10 CONTROL PANEL - R+R
F010	LEFT HEADLIGHT	Op. 5540B07 LEFT FRONT HEADLAMP - R.R.
F011	RIGHT HEADLIGHT	Op. 5540B08 RIGHT FRONT HEADLAMP - 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
M001	BODY COMPUTER	Op. 5505A35 MAIN BODY COMPUTER/JUNCTION UNIT - R.R.
M073	HEADLAMP ALIGNMENT CONTROL UNIT	Op. 5540C50 CONTROL UNIT FOR CORRECTING/ALIGNING GAS DISCHARGE LIGHTING UNIT - R R
P065	ELECTRO-CHROMIC INTERIOR REAR VIEW MIRROR	Op. 7065C60 INTERIOR REAR VIEW MIRROR FOR VERSIONS WITH RAIN/DUSK SENSOR - R.R.