



REGOLATORE ASSETTO FARI

191 - Giulietta

HEADLAMP ALIGNMENT ADJUSTMENT - DESCRIPTION

The vehicle is fitted with two electronically controlled 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.

In addition to the vertical correction function for the light beam, already used for some time on headlights with xenon bulbs, the 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 and can be activated or deactivated through the dedicated button among the controls in the middle of the dashboard.

For more details

See descriptions 5540 EXTERIOR LIGHTING

 On versions with gas discharge headlamps, the light beam is adjusted automatically and the controls on the left side panel are not active.

The device is only enabled with the dipped beam headlights on.

HEADLAMP ALIGNMENT ADJUSTMENT - FUNCTIONAL DESCRIPTION

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 F51 of M001 supplies the control unit M073, pin 1 and pin 7 of F011A.

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

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.

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 headlamp adjustment control unit M073 receives a power supply, pin 1, from the INT line protected by fuse F51 of M001; pin 3 of M073 is earthed.

Pins 8-7 and 9-18 are connected to the CAN and, in particular, to the electric steering control unit M086 from which the steering angle and steering angular speed signals are received.

See E1050 CAN CONNECTION LINES

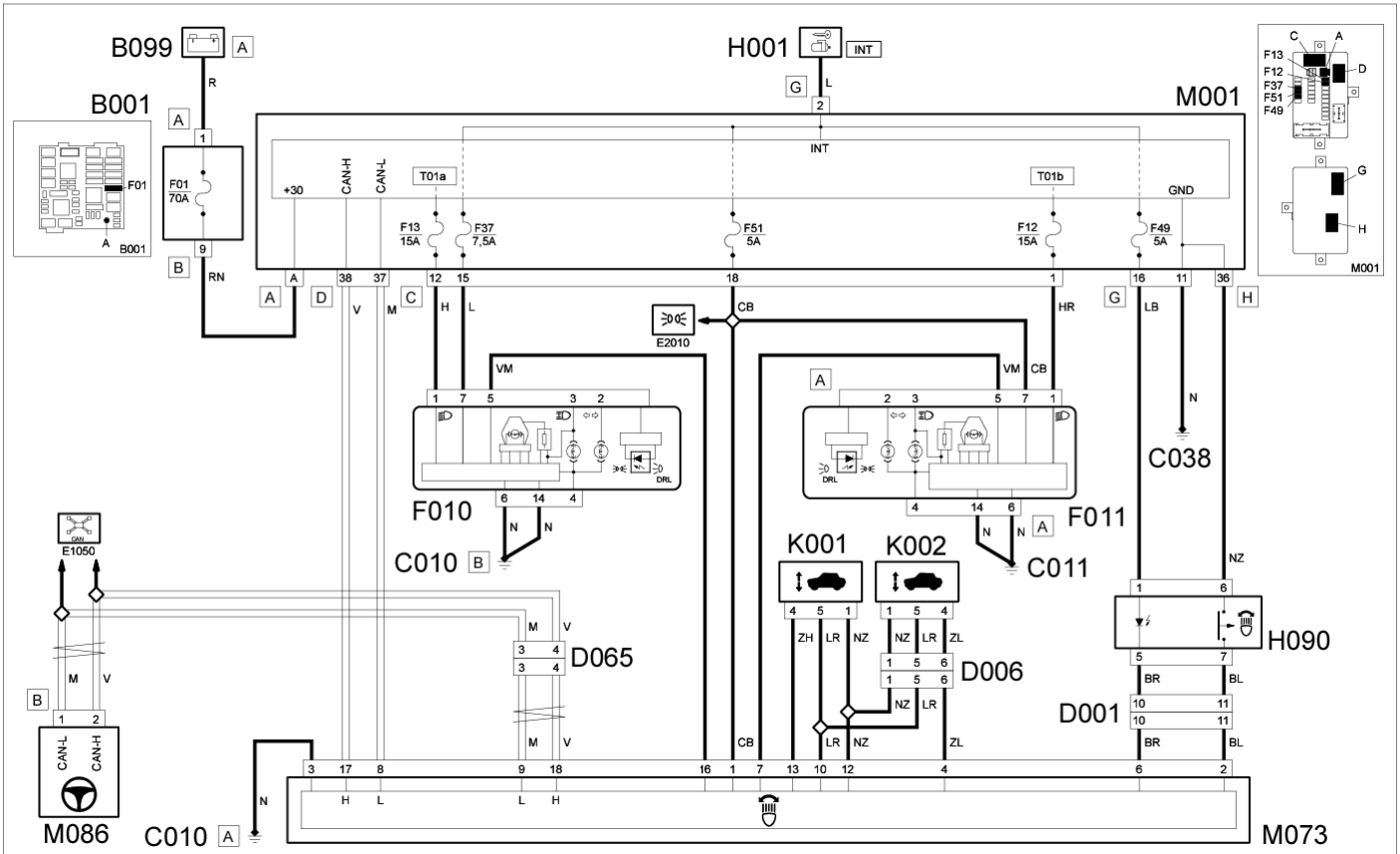
The AFS function activation signal (earth) reaches pin 2 of M073 from the control button in the controls in the centre of the dashboard, H090.

The signal which lights the LED signalling that the function is on comes from pin 6 of M073.

The control unit M073 also manages the headlamp alignment function: the two sensors (potentiometers) which measure the front alignment K001 and the rear alignment K002 are connected.

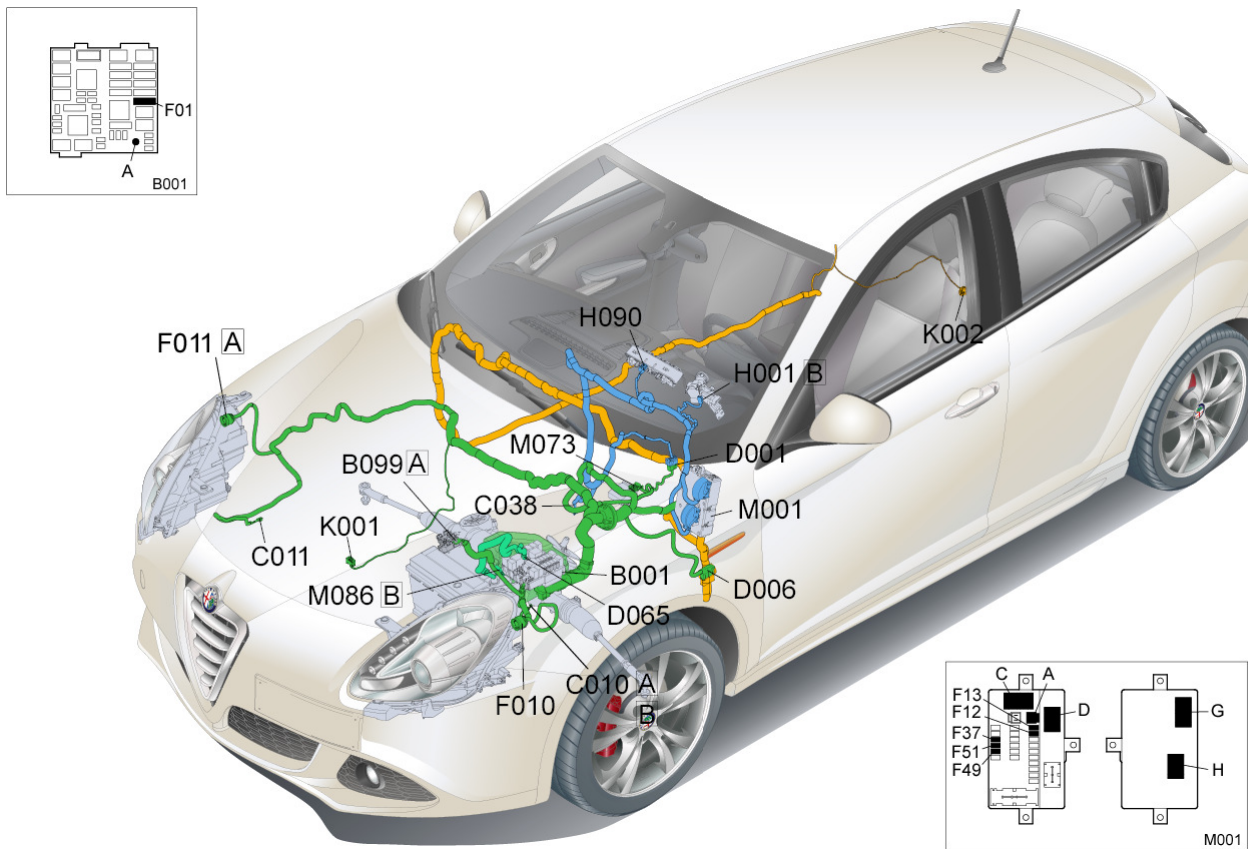
The power supply is sent to the sensors from pin 10 and the reference earth from pin 12, whilst the return signals from sensors K001 and K002 respectively reach pins 13 and 4.

HEADLAMP ALIGNMENT ADJUSTMENT - 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	-
C038	EARTH ON CENTRE TUNNEL	-
D006	FRONT/REAR COUPLING	-
D065	ELECTRIC STEERING COUPLING	-
E050	INSTRUMENT PANEL	Op. 5560B10 CONTROL PANEL - R+R
F010	LEFT HEADLIGHT	Op. 5540B81 LEFT GAS DISCHARGE LIGHT CLUSTER - R.R.
F011	RIGHT HEADLIGHT	Op. 5540B82 RIGHT GAS DISCHARGE LIGHT CLUSTER - R.R.
H001	IGNITION SWITCH	Op. 5520A18 IGNITION SWITCH CONTACT CARRIER LOCK BARREL - R.R.
H090	SWITCH CONTROL PANEL	Op. 7040A56 SWITCH UNIT IN DASHBOARD - R.R.
K001	HEADLAMP ALIGNMENT FRONT POTENTIOMETER	Op. 5540C42 SENSOR FOR CORRECTING/ALIGNING GAS DISCHARGE LIGHTING UNITS ON FRONT SUSPENSION - R.R.
K002	HEADLAMP AGLINMENT REAR POTENTIOMETER	Op. 5540C46 SENSOR FOR CORRECTING/ALIGNING GAS DISCHARGE LIGHTING UNITS ON REAR SUSPENSION - 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
M086	ELECTRIC STEERING CONTROL UNIT	Op. 4110D50 WIRING HARNESS OF STEERING ELECTRIC CONTROL SYSTEM - R.R.

HEADLAMP ALIGNMENT ADJUSTMENT - 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	-
C038	EARTH ON CENTRE TUNNEL	-
D006	FRONT/REAR COUPLING	-
D065	ELECTRIC STEERING COUPLING	-
E050	INSTRUMENT PANEL	Op. 5560B10 CONTROL PANEL - R+R
F010	LEFT HEADLIGHT	Op. 5540B81 LEFT GAS DISCHARGE LIGHT CLUSTER - R.R.
F011	RIGHT HEADLIGHT	Op. 5540B82 RIGHT GAS DISCHARGE LIGHT CLUSTER - R.R.
H001	IGNITION SWITCH	Op. 5520A18 IGNITION SWITCH CONTACT CARRIER LOCK BARREL - R.R.
H090	SWITCH CONTROL PANEL	Op. 7040A56 SWITCH UNIT IN DASHBOARD - R.R.
K001	HEADLAMP ALIGNMENT FRONT POTENTIOMETER	Op. 5540C42 SENSOR FOR CORRECTING/ALIGNING GAS DISCHARGE LIGHTING UNITS ON FRONT SUSPENSION - R.R.
K002	HEADLAMP AGLINMENT REAR POTENTIOMETER	Op. 5540C46 SENSOR FOR CORRECTING/ALIGNING GAS DISCHARGE LIGHTING UNITS ON REAR SUSPENSION - 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
M086	ELECTRIC STEERING CONTROL UNIT	Op. 4110D50 WIRING HARNESS OF STEERING ELECTRIC CONTROL SYSTEM - R.R.