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CONDIZIONATORE

191 - Giulietta

AIR CONDITIONING - DESCRIPTION

An efficient system manages passenger compartment climate control, i.e. temperature and ventilation, with air flow recirculation and direction.

A special control unit manages the operation of the system by controlling:

- air temperature at the vents;

- air distribution to the vents;

- fan speed);

- compressor engagement (air refrigeration circuit);

- air recirculation engagement;

- the "MAX-DEF" rapid defrosting function (which consists of a collection of measures which make it possible to demist both the windscreen and the rearscreen quickly).

The system controls (three knobs and three buttons) are located on the outside of the container which houses the control unit:

- inlet air temperature adjustment;

- fan speed adjustment;

- distribution setting adjustment (and rapid demisting function);

- engagement of compressor;

- defrosting/demisting engagement;

- recirculation function engagement.

On the basis of the controls received, the control unit sets:

- the speed of the air introduced in the passenger compartment by means of an electronic governor that controls the fan;

- the temperature of the air through the mixing actuator;

- the distribution of the flows through a suitable actuator;

- the interior/exterior air recirculation function by means of another specific actuator.

All actuators are controlled by an electronic control unit.

If the conditions require, the control unit also switches on the air cooling and dehumidification circuit, activating the air conditioning compressor

See E6021 COMPRESSOR ENGAGEMENT

A 'frost" sensor on the evaporator: it temporarily deactivates the compressor if temperature drops to 0°C, with risk of "frost" on the evaporator.

For more details,

See descriptions 5040 AIR CONDITIONING CASING AND COMPONENTS

AIR CONDITIONING - FUNCTIONAL DESCRIPTION

The climate control system control unit M070 receives direct supply at pin 5 from the line protected by fuse F36 of M001, whilst pin 3 receives an "ignition-controlled" supply (INT) from the line protected by fuse F51 of M001.

The pin 40 of M070 is earthed.

The climate control system control unit M070 is connected – from pins 37 and 38 - through the CAN line, to the Body Computer M001 and to the other network nodes.

See E1050 CAN CONNECTION LINES

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 and "ignition-operated power supply - start-up excluded" (INT/A) at pin 9 of connector G.

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

The frost sensor K086 is connected to pins 12 and 23 of M070.

The recirculation actuator N082 is controlled by control unit M070 through pins 10 and 28.

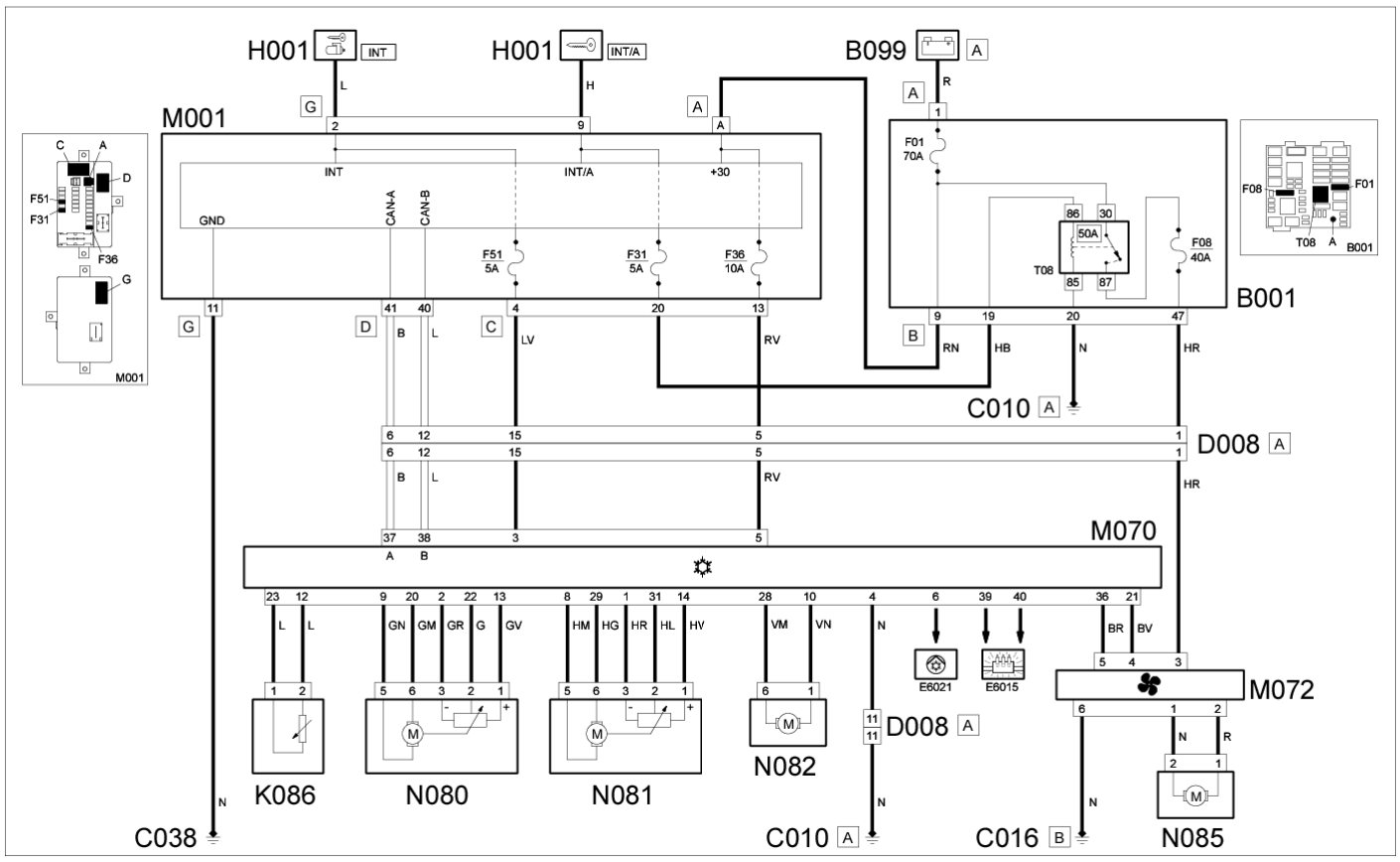
The mixing actuator N081 is controlled by the control unit M070 through pins 29-8. It receives power to control the potentiometer from pin 1 of M070, a reference earth from pin 14 of M070 and sends a feedback signal to pin 31 of M070.

The distribution actuator N080 is controlled by control unit M070 from pin 20-9. It receives power to control the potentiometer from pin 2 of M070, a reference earth from pin 13 of M070 and sends a feedback signal to pin 22 of M070.

The fan N085 is supplied, via through the electronic governor M072 - by the dedicated fuse F08 in the engine compartment junction unit B001 from the line supplied by relay switch T08 in B001: it is and "ignition-controlled starting exclusion" power supply (INT/A) controlled by pin 20 of connector C of the Body Computer M001 through the line protected by fuse F31 of M001.

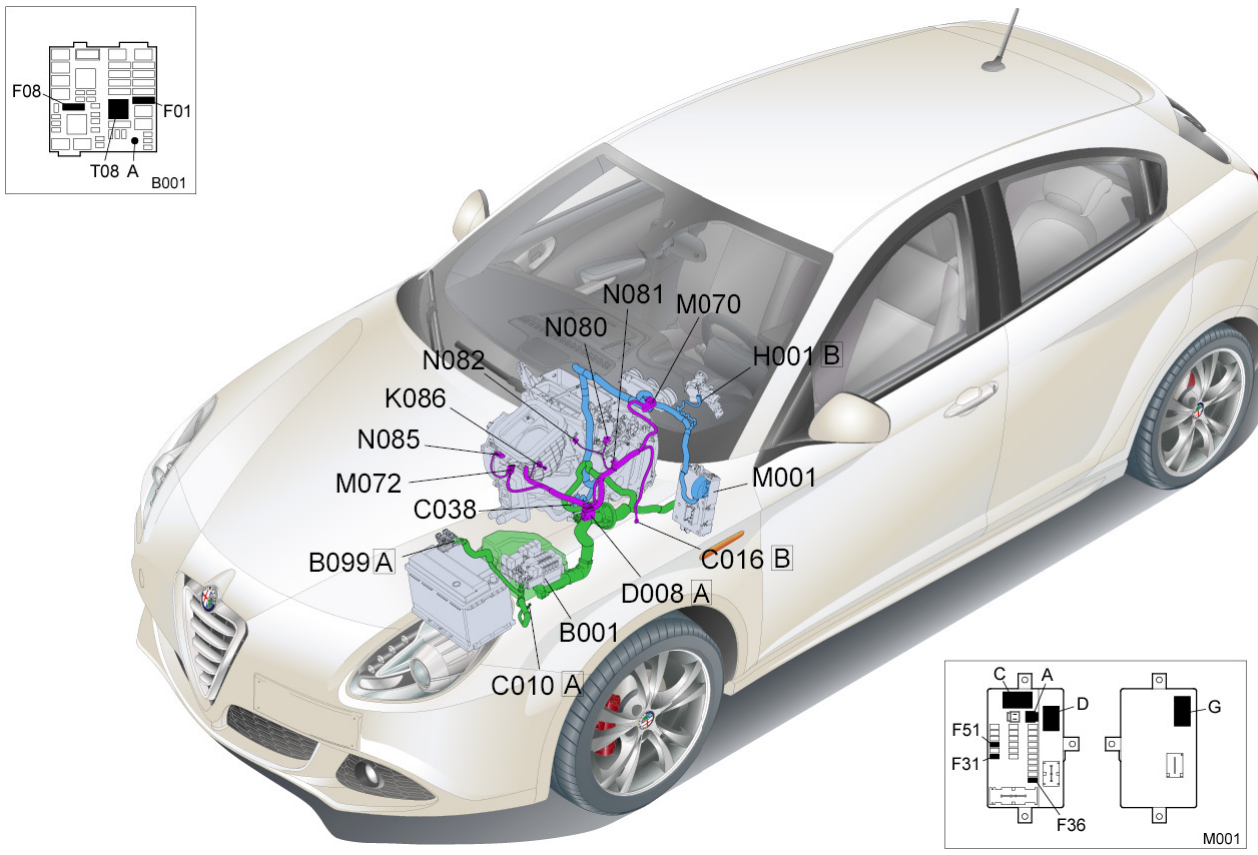
It receives commands for the various speeds from electronic governor M072: the latter receives the PWM adjustment signal from pin 365 of control unit M070 and sends a feedback signal to pin 21 of M070.

AIR CONDITIONING - 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	-
C016	AIR CONDITIONING UNIT EARTH	-
C038	EARTH ON CENTRE TUNNEL	-
D008	FRONT/AIR CONDITIONING-HEATER COUPLING	-
H001	IGNITION SWITCH	Op. 5520A18 IGNITION SWITCH CONTACT CARRIER LOCK BARREL - R.R.
K086	FROST SENSOR	Op. 5040B64 SENSOR ON EVAPORATOR FOR A/C ECU - R + R
M001	BODY COMPUTER	Op. 5505A35 MAIN BODY COMPUTER/JUNCTION UNIT - R.R.
M070	CLIMATE CONTROL SYSTEM CONTROL UNIT	Op. 5040D17 CONTROL UNIT WITH MANUAL AIR CONDITIONER KNOBS AND BUTTONS R R
M072	FAN SPEED VARIATOR	Op. 5040C44 FAN MOTOR ELECTRONIC VARIATOR - R+R
N080	AIR DISTRIBUTION FLAP ACTUATOR	Op. 5040D76 AIR CONTITIONING DISTRIBUTION FLAP CONTROL MOTOR - R.R.
N081	MIXTURE FLAP ACTUATOR	Op. 5040D77 AIR CONDITIONER MIXER FLAP CONTROL MOTOR - R R
N082	OUTSIDE / RECIRCULATION AIR INTAKE FLAP ACTUATOR	Op. 5040D75 AIR CONDITIONING RECIRCULATION FLAP CONTROL MOTOR - R.R
N085	PASSENGER COMPARTMENT AIR FAN	Op. 5040C30 AIR CONDITIONING FAN - R.R.

AIR CONDITIONING - COMPONENT LOCATION



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