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RAFFREDDAMENTO MOTORE

191 - Giulietta

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ENGINE COOLING - DESCRIPTION

The air conditioning condenser and radiator cooling system consists of an electric fan operated at two different speeds:

- the first speed is activated at an initial engine coolant temperature level or a certain air conditioning refrigerant fluid pressure;

- the second speed engages at higher temperature or pressure levels.

The fan is operated by means of two dedicated relay switches located in the engine compartment junction unit.

The supply line for the fan is protected by two dedicated fuses, also located in the engine compartment junction unit.

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ENGINE COOLING - FUNCTIONAL DESCRIPTION

Relay switches T6 and T7 of the engine compartment junction unit B1 manage the switching on of the two speed fan N11: the power lines are protected by fuses F6 and F7, also in engine compartment junction unit B1.

Both are energised by an earth control signal coming from the engine management control unit M010.

If the engine coolant reaches an initial temperature level, or the linear sensor K120 signals to the control unit M010 - pin 13 of connector A - that a certain pressure level has been reached, then the control unit M010 sends a signal - from pin 90 of connector A - which energises the 1st speed fan relay T6 which sends the power supply to the fan N11 through the additional resistance O10: the fan turns at the first speed (slow).

The linear sensor K120 receives a power supply and reference earth from the engine management control unit M010, pins 22 and 12 of connector A.

If the engine coolant reaches a higher temperature level, or the linear sensor K120 signals to the control unit M010 that a higher pressure level has been reached, then the control unit M010 sends a signal - from pin 69 of connector A - which energises the 2nd speed fan relay T7 which sends the power supply directly to the fan N11: the fan turns at the maximum speed.

Engine temperature sensor K36 measures the engine temperature and receives a reference earth from pin 41 of connector B of control unit M010 and sends a signal proportional to the engine coolant temperature to pin 58 of connector B.

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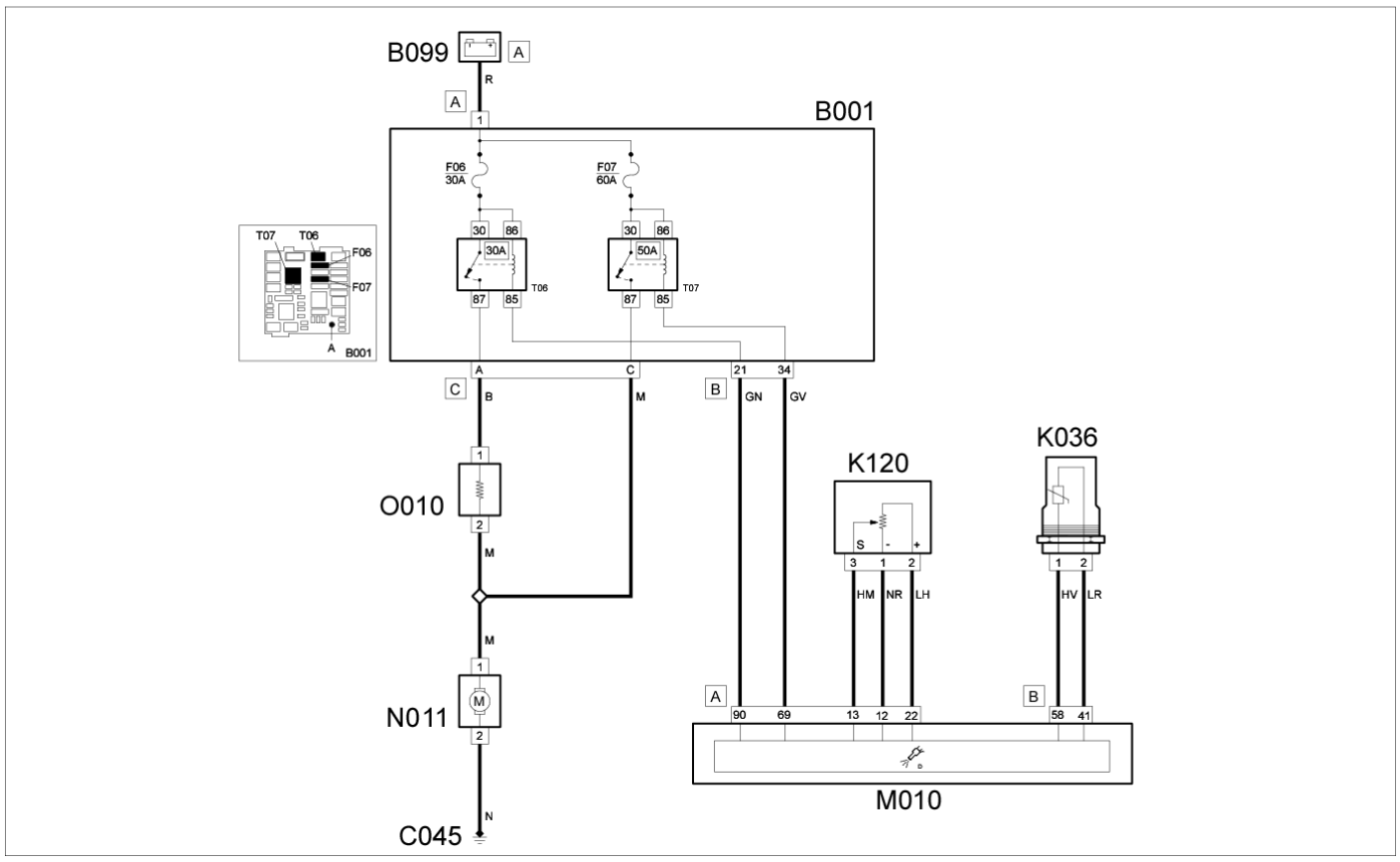
ENGINE COOLING - WIRING DIAGRAM



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
C045	FAN EARTH	-
K036	ENGINE COOLANT TEMPERATURE SENSOR/SENDER UNIT	Op. 1060G14 ENGINE COOLANT TEMPERATURE SENSOR - R.R.
K120	LINEAR SENSOR FOR FANS	Op. 5040B20 AIR CONDITIONING LINEAR PRESSURE TRANSDUCER - R.R.
M010	ENGINE MANAGEMENT CONTROL UNIT	Op. 1060G80 DIESEL ELECTRONIC INJECTION CONTROL UNIT - R.R
N011	FAN MOTOR	Op. 1088E10 RADIATOR COOLING FAN - R + R
O010	ENGINE FAN ADJUSTMENT RESISTANCE - 1	Op. 1088E20 RESISTOR FOR RADIATOR COOLING FAN - R + R

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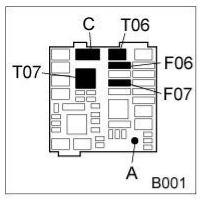
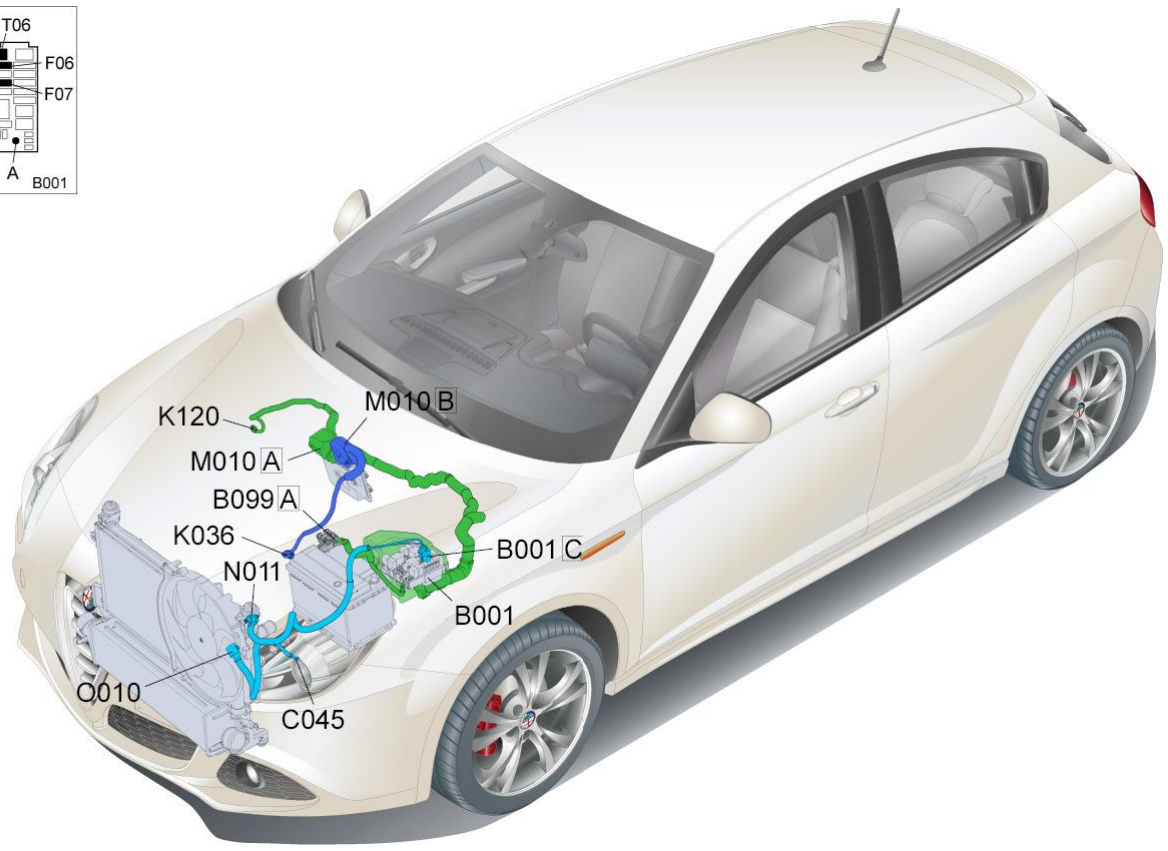
ENGINE COOLING - COMPONENT LOCATION





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