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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 T06 and T07 of the engine compartment junction unit B001 manage the switching on of the two speed fan N011: the power lines are protected by fuses F06 and F07, also in engine compartment junction unit B001.

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 57 of connector A - that a certain pressure level has been reached, then the control unit M010 sends a signal - from pin 13 of connector A - which energises the 1st speed fan relay T06 which sends the power supply to the fan N011 through the additional resistance O010: 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 28 and 7 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 12 of connector A - which energises the 2nd speed fan relay T07 which sends the power supply directly to the fan N011: the fan turns at the maximum speed.

Engine temperature sensor K036 measures the engine temperature and receives a reference earth from pin 29 of connector B of control unit M010 and sends a signal proportional to the engine coolant temperature to pin 43 of connector B.

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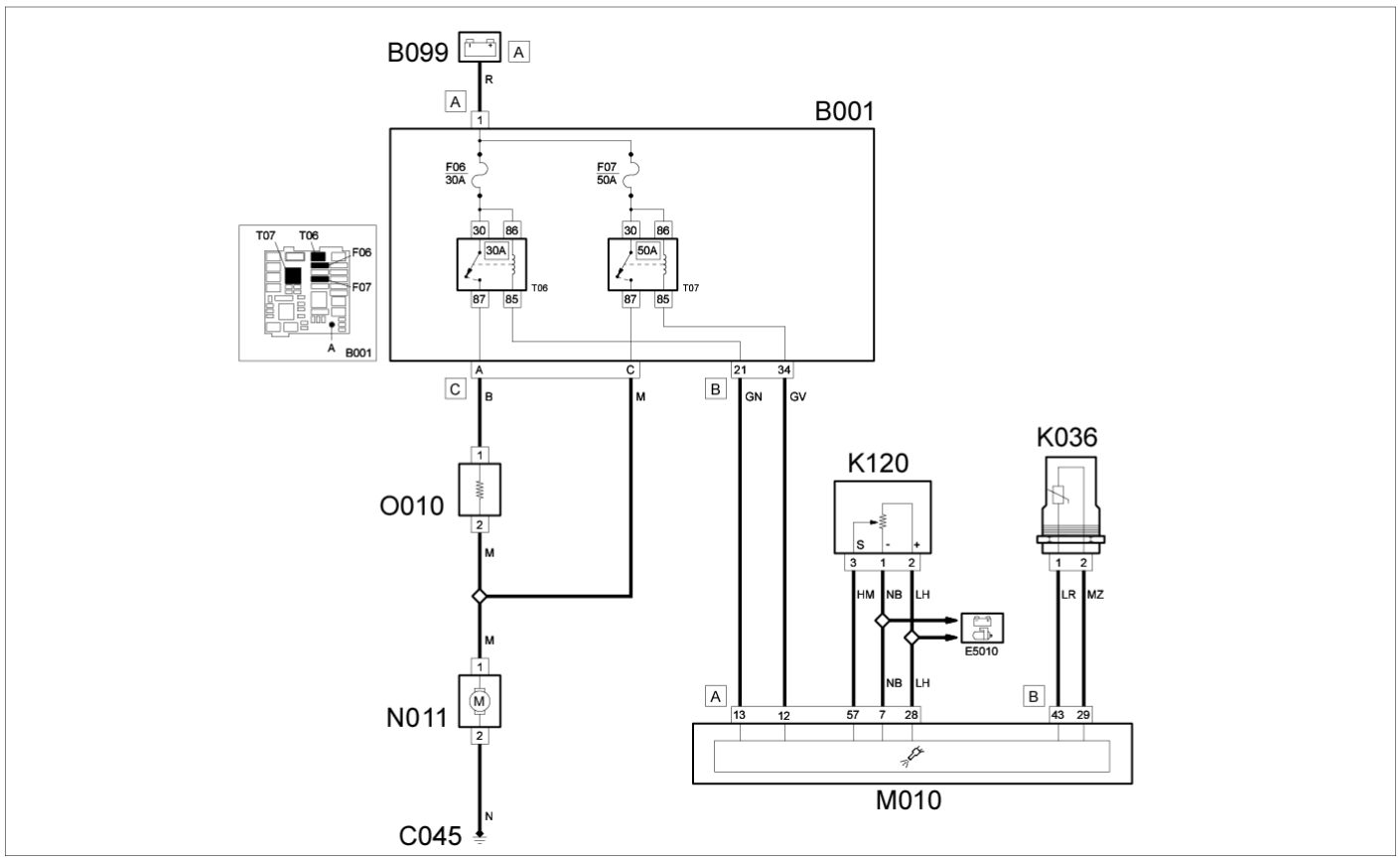
ENGINE COOLING - WIRING DIAGRAM



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. 1056B82 INJECTION/IGNITION SYSTEM E.C.U. (ONE) - 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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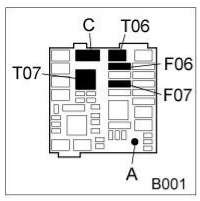
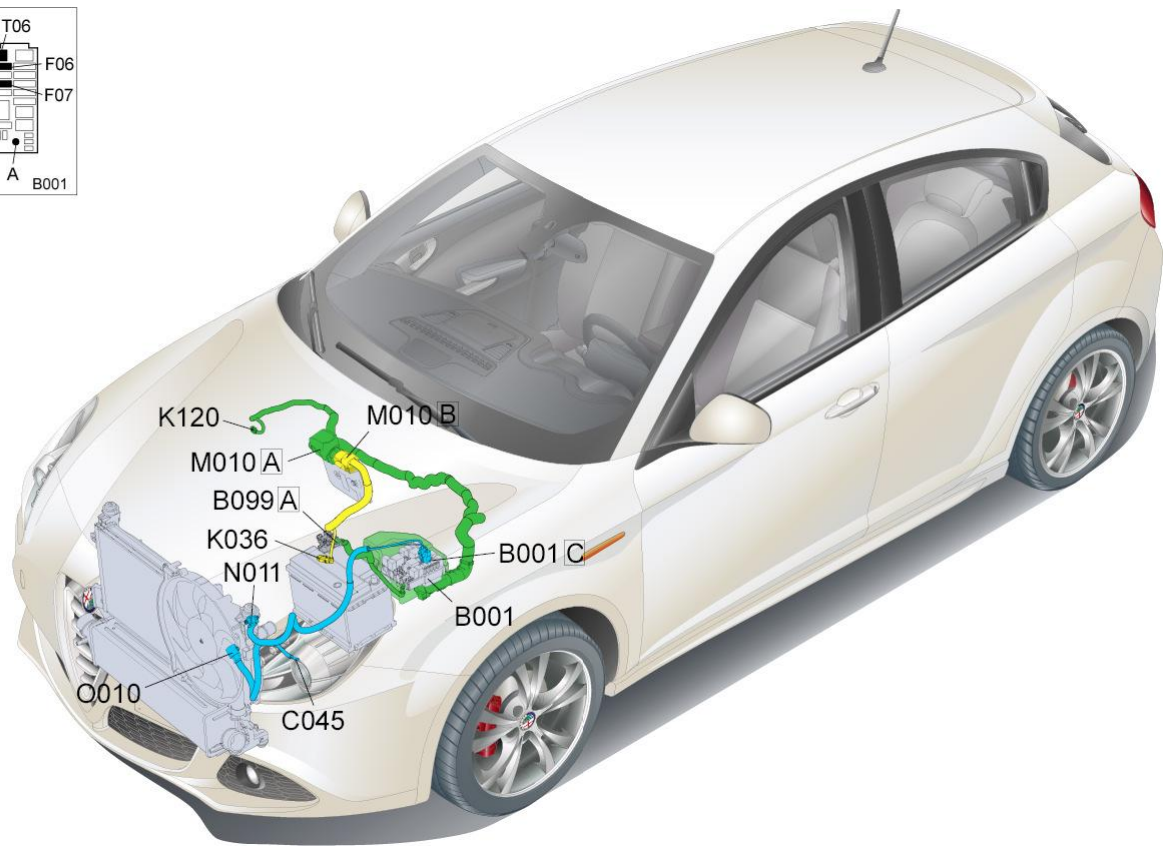
ENGINE COOLING - COMPONENT LOCATION





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