



ENGINE COOLING

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ENGINE COOLING - Description

The engine radiator and air conditioner condenser cooling system consists of one fan operated at two different speeds:

- the first speed is activated at a first coolant temperature level or at a certain air conditioner coolant pressure.
- The second speed cuts in at a higher temperature or pressure threshold.

The fan is operated via special relays.

The fan power supply line is protected by two special maxifuses.

Both fuses and relays are housed in a relay carrier control unit located on the left side of the engine bay.

ENGINE COOLING - Functional description

The power supply to fan N11 is controlled by two relays R7 (1. speed) and R6 (2. speed), located in relay control unit B3 .

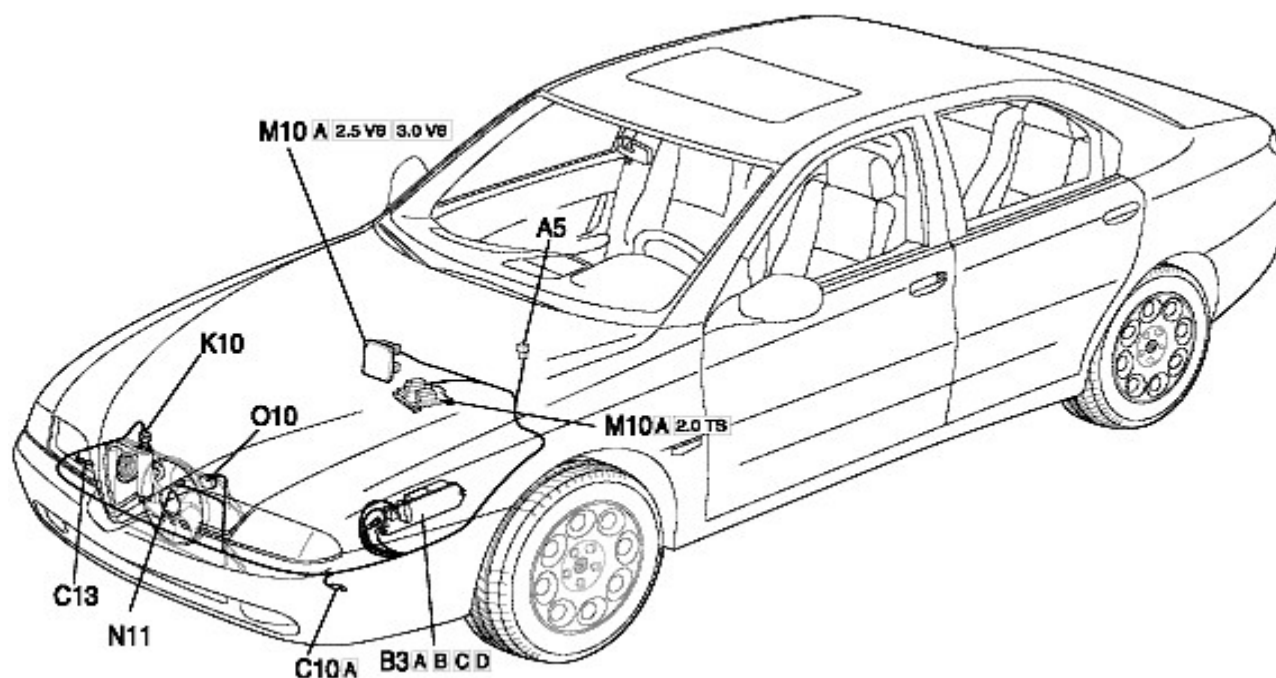
When fan N11 is supplied by relay R7 (1st speed), the supply line is subject to charge O11 , which reduces effective voltage and thus speed; is the fan is supplied by relay R6 (2nd speed) this is activated by maximum battery voltage, which therefore corresponds to maximum speed.

Both relays are supplied with power directly from the battery - junction unit A5 - by a line protected by a special fuse F9 for R7 and F8 for R6 , all located in B3 .

They are energized by an earth signal coming from four-stage pressure switch K10 via the engine control unit M10.

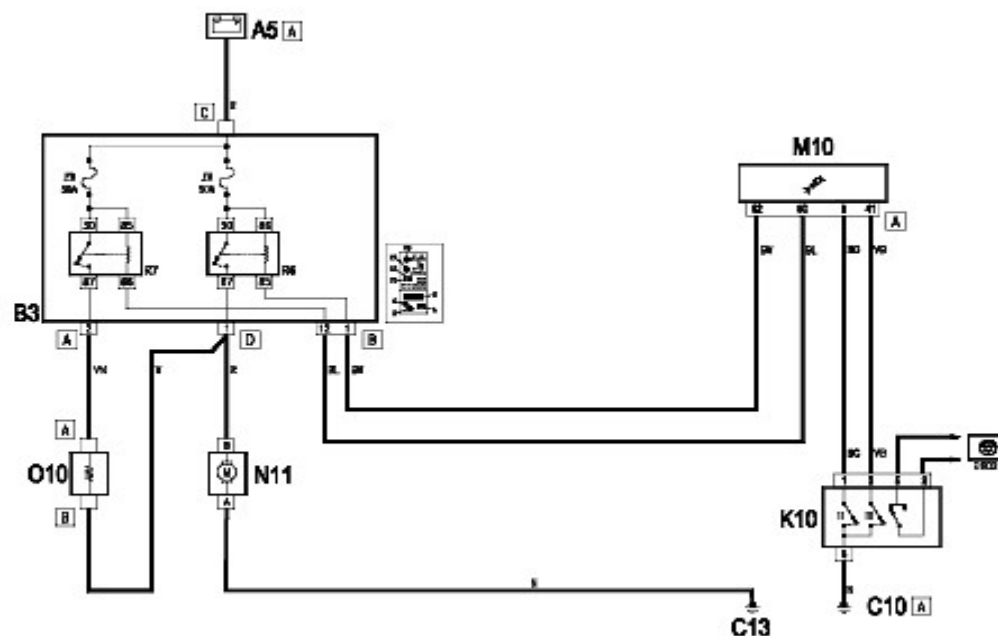
- if the coolant temperature reaches the first temperature stage, or the 4-stage pressure switch K10 pin 1 - indicates to control unit M10 pin 9 of connector A - that the first pressure stage has been reached, control unit M10 sends a signal to 1st speed relay R7 from pin 50 of connector A.
- if the engine coolant reaches a higher temperature level, or the 4-stage pressure switch K10 pin 3 - indicates to control unit M1 pin 41 of connector A - that a higher pressure level has been reached, control unit M10 sends an earth signal to 2nd speed relay R6 from pin 62 of connector A.

ENGINE COOLING - Location of components



Component code	Name	Assembly reference
A5	Terminal board	-
B1	Junction unit	-
B1	Junction unit	5505A
B3	Relay unit	5505A
B8	(MAXI FUSE) for engine fan	-
B99	Battery fuses junction unit (CBA)	5530B
C10	Front left earth	-
C11	Right front earth	-
C13	Front earth on left side panel	5505A
D4	Engine front connection	-
J30	Engine cooling fan. low. speed. relay	-
J30	Engine fan 1st° speed relay	-
K10	4 stage pressure switch	5040B
M10	Engine management control unit	-
M10	Engine management control unit	1056B
N11	Engine electric fan motor	-
N11	Engine electric fan motor	1088E
N12	Engine electric fan motor	-
N12	Engine fan motor -2	1088E
O10	Engine fan adjustment resistor	1088E
O12	Engine fan adjustment resistor -2	1088E
O12	Engine fan adjustment resistor	-

ENGINE COOLING - Wiring diagram



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