

**Race Studio 3**

## AiM devices 120 Ohm resistor management

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**Question:**

How can I understand if the 120 Ohm resistance (included into the AiM devices) must be enabled/disabled?

**Answer:**

It is possible to enable/disable the 120 Ohm CAN resistance built into the AiM devices.

It is necessary to specify that a correctly terminated CAN bus shows a resistance value between CAN+ and CAN- of 60 Ohm, given by the connection of two 120 Ohm resistors in parallel, normally placed at the two farther ends.

From the ECU Stream tab (Race Studio 3 Configurations section), tick the box referred to the "Enable the CAN Bus 120 Ohm resistor" to enable it.

A general criterion to understand if the 120 Ohm resistor must be enabled/disabled, starting from the total resistance value measurement between CAN+ and CAN-, with the AiM device already connected on CAN, is briefly explained here below:

- 60 Ohm: the net is already ended; do not modify the AiM logger settings.
- 120 Ohm: a CAN termination is not present into the net; it is necessary to enable the AiM logger 120 Ohm resistor.
- 40 Ohm: there is one CAN termination more; disable the AiM logger 120 Ohm resistor, since it is the one in excess.

The internal AiM resistor has to be enabled when an important component is removed from the vehicle CAN net (i.e.: when the OEM display is replaced with an AiM dash logger). In these cases, the total CAN net resistance value could change, since one of the termination resistors is built into the stock dash, so the AiM logger one must add this again.