

Aprilia RSV1000 2004-2008

ECU connection



Racing Data Power

INTRODUCTION

AIM has developed special applications for many of the most popular ECU: by special applications we mean user friendly systems which allow to easily connect your ECU to our high tech data loggers: user needs only to install harness between the logger and the ECU.

Once connected, the logger displays (and/or records, depending on the logger and on the ECU data stream and configuration) values like RPM, engine load, throttle position (TPS), air and water temperatures, battery voltage, speed, gear, lambda value (air/fuel ratio) analog channels...

All **AIM** loggers include – free of charge – **Race Studio 2** software, a powerful tool to configure the system and analyze recorded data on your PC.

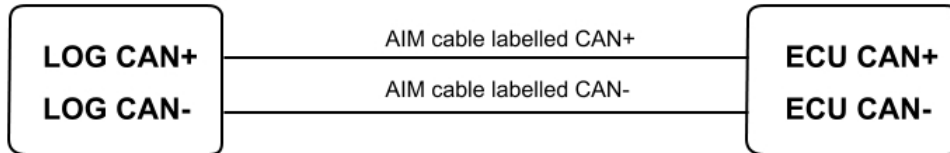
Warning: once the ECU is connected to the logger it is necessary to set it in the logger configuration in Race Studio 2 software.

Select Manufacturer: "APRILIA", Model: "APRILIA - RSV_1000_04_08 BETA Vers".

Warning: for any further information concerning ECU firmware/software settings and/or upgrading it is always recommended to address to the ECU dealer.

1 – Bike Models and CAN communication setup

Aprilia protocol is supported by all **Aprilia RSV 1000** bikes produced starting from 2004 to 2008. Aprilia ECU is equipped with a CAN communication protocol – used to communicate parameters to an external logger.



2 – Connection to AIM loggers

ECU can be connected to **AIM** loggers in two different ways: directly, or using the connector placed on the dashboard. The most easy to reach connector is certainly the dashboard ones. Refer to the following paragraphs for more connections details.

2.1. – Direct connection to ECU

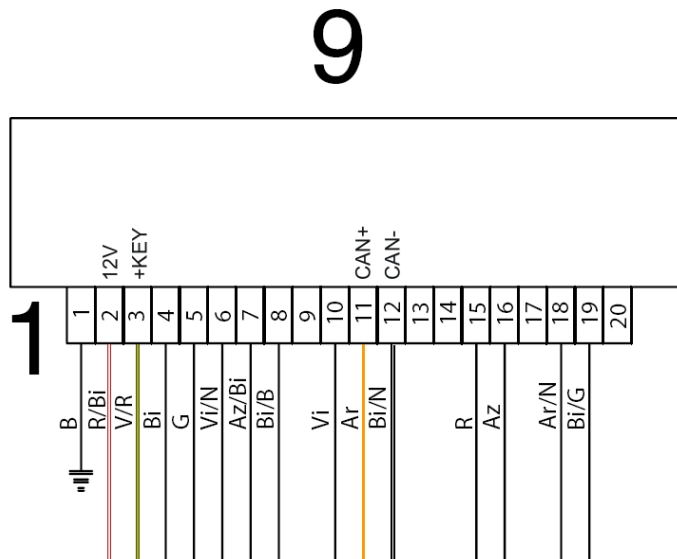
Aprilia ECU is equipped with 2 connector – called “A” and “B”. Connectors have got 41 pins both. Can-Bus line is on “A” connector, to connect the cables to the logger:

- connect **AIM cable labelled CAN+** to **pin 28** of “A” connector (orange wire);
- connect **AIM cable labelled CAN-** to **pin 27** of “A” connector.(white/black wire).

2.2 – Dashboard connector

Dashboard connector is equipped with pins and it is placed on the back of the dashboard.

Dashboard connector



To connect **AIM** loggers to ECU using the 20 pins dashboard connector:

- connect **AIM cable labelled CAN+** to **pin 11** (orange wire) connector.
- connect **AIM cable labelled CAN-** to **pin 12** (white/black wire) connector.

3 – ECU communication protocol

Channels received by AIM loggers connected to Aprilia ECU are:

ID	CHANNEL NAME	FUNCTION
ECU_1	RSV_RPM	Rpm
ECU_2	RSV_SPEED	Speed
ECU_3	RSV_TPS	Throttle position sensor
ECU_4	RSV_GEAR	Gear number
ECU_5	RSV_ENGINE_T	Engine Temperature
ECU_6	RSV_BATT_VOLT	Battery Voltage
ECU_7	RSV_ECU_ERROR	ECU error
ECU_8	RSV_NEUTRAL	Neutral
ECU_9	RSV_IDLE_SPEED	Idle speed
ECU_10	RSV_SIDE_STAND	Side stand
ECU_11	RSV_OIL_LAMP	Oil pressure lamp
ECU_12	RSV_FUEL_CONS	Fuel consumption (liters for 100 Km)
ECU_13	RSV_FUEL_KM_L	Fuel consumption (KM for each liter)