

Aprilia
RSV4 APRC
(Aprilia Performance Ride Control)



INTRODUCTION

AIM has developed a special application for Aprilia RSV4 APRC (Aprilia Performance Ride Control): by special application we mean a user friendly systems which allow to easily connect the ECU to **EVO3 Pro/Pista**, **EVO4**, **ECU Bridge** and **SoloDL** just installing harness between the logger and the ECU.

Once connected, the stock dash displays values like RPM, the map selected, fuel level, battery voltage, speed, gear, water temperature...and in the meantime AIM loggers record the same values.

AIM loggers come with **Race Studio 2** software, a powerful tool to configure the system and analyze recorded data on your PC.

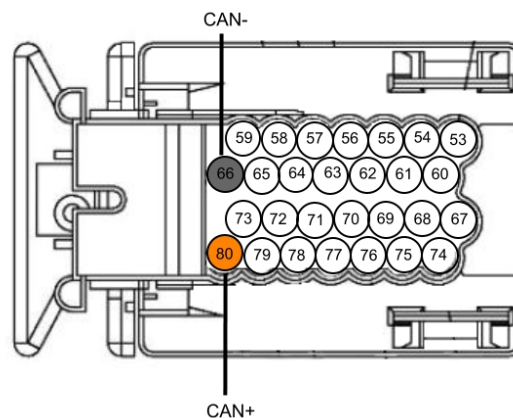
**Warning: once the ECU is connected to the logger it is necessary to set it in the logger configuration in Race Studio 2 software.
Select Manufacturer: "APRILIA", Model: "RSV4_APRC".**

Chapter 1 – Bike Models and communication with AIM loggers

AIM loggers support Aprilia RSV4 APRC (Aprilia Performance Ride Control) 2011. The bike ECU has a CAN communication protocol used to communicate parameters to an external logger. The ECU be connected to AIM loggers directly, or through the stock dashboard connector. The easiest connector to be reached is the dashboard one.

2.1 – ECU direct connection

Aprilia RSV4 APRC ECU has 2 connectors called “ECU1” (engine) and “ECU2” (vehicle). CAN-bus is on ECU2 connector, right of the fuel tank. Here below is the connector pinout:

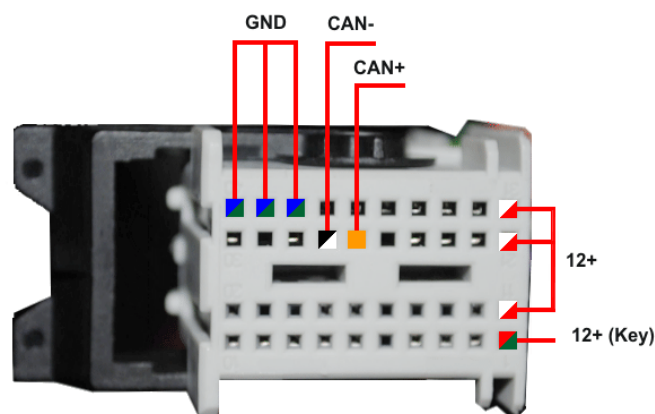


After connecting CAN interface to EVO4, ECU Bridge or SoloDL connect:

- **AIM cable labelled CAN+** to **pin 80** of “ECU2” connector (orange wire);
- **AIM cable labelled CAN-** to **pin 66** of “ECU2” connector (white/black wire).

2.2 – Dashboard connector

The stock dash has a 40 pins connector placed on its back. To see the connector it is necessary to remove the dash.



To connect **AIM** loggers to ECU:

- connect **AIM cable labelled CAN+** to **pin 26** (orange wire) connector;
- connect **AIM cable labelled CAN-** to **pin 27** (white/black wire) connector;
- 12+ is on pin 11 or 21 or 31 (white/red);
- 12+ (key) is on pin 1 (green/red);
- GND is on pin 38 or 39 or 40 (blue/green).

Chapter 3 – Supported channels

Channels received by AIM loggers connected to Aprilia RSV4APRC ECU are:

ID	CHANNEL NAME	FUNCTION
ECU_1	RSV4_RPM	RPM
ECU_2	RSV4_BK_SPEED	Bike speed
ECU_3	RSV4_GEAR	Engaged gear
ECU_4	RSV4_SEL_MAP	Selected Map
ECU_5	RSV4_NEUTRAL	Neutral signal
ECU_6	RSV4_WARNING	General warning led
ECU_7	RSV4_SIDEStand	Side stand led
ECU_8	RSV4_ENG_TEMP	Water temperature
ECU_9	RSV4_V_BATT	V battery
ECU_10	RSV4_FUEL_LOW	Low fuel level
ECU_11	RSV4_YAW_RATE	Yaw rate
ECU_12	RSV4_ROLL_RATE	Rolling rate
ECU_13	RSV4_ACC_LAT	Lateral accelerometer
ECU_14	RSV4_ACC_LONG	Longitudinal accelerometer
ECU_15	RSV4_THRT_HAND	Throttle handle
ECU_16	RSV4_WH_SPD_F	Front wheel speed
ECU_17	RSV4_WH_SPD_R	Rear wheel speed
ECU_18	RSV4_TC_CTRL	ATC – Aprilia Traction Control
ECU_19	RSV4_WHEEL_C	AWC – Aprilia Wheel control
ECU_20	RSV4_LAUNCH_C	ALC – Aprilia Launch control
ECU_24	RSV4_TPS1	Throttle position 1
ECU_25	RSV4_TPS2	Throttle position 2
ECU_27	RSV4_TC_INT	Traction control intervention