

AiM Infotech

Aprilia RSV 1000
2004-2008

Release 1.02



ECU





This tutorial explains how to connect Aprilia bikes to AiM devices.

1 Bike Models and years

Supported bike models and years are:

- | | |
|------------------------------|-----------|
| • Aprilia RSV 1000 R | 2004-2008 |
| • Aprilia RSV 1000 R Factory | 2004-2008 |

2 CAN Communication

Aprilia RSV 1000 ECU features a bus communication protocol based on CAN. You can connect AiM devices to the ECU through the stock dashboard rear connector or directly.

2.1 Connection through the stock dashboard connector

The stock dashboard is equipped with a 20 pins rear connector. Here below you find the connection table.

| Dash connector pin | Pin function | Aprilia cable colour | AiM cable label |
|--------------------|--------------|----------------------|-----------------|
| 11 | CAN High | Orange | CAN+ |
| 12 | CAN Low | White/Black | CAN- |

2.2

Connection through the ECU connector

Aprilia RSV 1000 ECU is equipped with two 41 pins connectors named "A" and "B". The CAN bus is on connector "B". Here below you find the connection table.

| "B" connector pin | Pin function | Aprilia cable colour | AiM cable label |
|-------------------|--------------|----------------------|-----------------|
| 28 | CAN High | Orange | CAN+ |
| 27 | CAN Low | White/Black | CAN- |

3

AiM Logger configuration

Before connecting the ECU to AiM device set it up as follows:

Run Race Studio 2 software and follow this path:

- Device Configuration -> Select the device you are using;
- select the configuration or press "New" to create a new one;
- select ECU manufacturer "Aprilia" and ECU Model "RSV_1000_04_08"
- transmit the configuration to the device pressing "Transmit".

4

Available channels

Channels received by AiM devices connected to "Aprilia" " RSV_1000_04_08" protocol are:

| ID | CHANNEL NAME | FUNCTION |
|--------|----------------|---------------------------------------|
| ECU_1 | RSV_RPM | RPM |
| ECU_2 | RSV_SPEED | Vehicle Speed |
| ECU_3 | RSV_TPS | Throttle Position Sensor |
| ECU_4 | RSV_GEAR | Engaged Gear |
| ECU_5 | RSV_ENGINE_T | Engine Coolant Temperature |
| ECU_6 | RSV_BATT_VOLT | Battery Voltage |
| ECU_7 | RSV_ECU_ERROR | ECU Error |
| ECU_8 | RSV_NEUTRAL | Neutral sensor |
| ECU_9 | RSV_IDLE_SPEED | Idle Speed |
| ECU_10 | RSV_SIDE_STAND | Side Stand |
| ECU_11 | RSV_OIL_LAMP | Raw value |
| ECU_12 | RSV_FUEL_CONS | Fuel Consumption in L per 100km |
| ECU_13 | RSV_FUEL_KM_L | Fuel Consumption in km for each litre |

Technical note: not all data channels outlined in the ECU template are validated for each manufacturer model or variant; some of the outlined channels are model and year specific, and therefore may not be applicable.