moto student

2022 - 2023

AiM

OFFICIAL PETROL ECU SUPPLIER

TECHNICAL
SPECS

VII MOTOSTUDENT INTERNATIONAL COMPETITION

2022 – 2023

OFFICIAL ECU SUPPLIER: AIM

AIM, through its Official Technical Service DSMR Racing Group supports the VII MotoStudent International Competition 2022-2023 as Official ECU dealer for the all MotoStudent Petrol teams.

AIM ELECTRONICS RACING SYSTEMS

AIM, established in 1976, is today a world leader in Data Acquisition for Racing applications. AIM in cooperation with its Official Technical Service DSRM Racing Group has developed a specific firmware focused on the needs of the MotoStudent teams for their AIM Taipan MotoStudent ECU Unit.

All the experience obtained in first level championships, as official ECU supplier for PreMoto3 and Moto3 categories, has been transferred to the specific MotoStudent configuration for the ECU AIM Taipan.

Main characteristics of the ECU are:

- OEM main connector (OEM wiring loom compatible).
- Plug and Play, base map is ready to go without modifications.
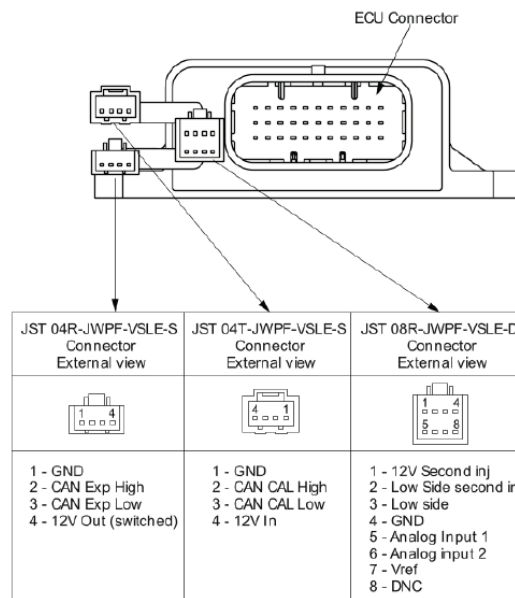- Quick shifter with cut-off time management integrated.

- Configurable Launch Control system.

- Configurable Traction Control function.

- 5 different maps with ignition and injection tunning.

- Injection timing correction available across the whole map.

- Ignition timing correction available across the whole map.

- CAN line for logger or expansion units (lambda, AIM switch).

CONNECTIONS

AIM MotoStudent Taipan ECU has four different connectors:

- A main ECU connector supported by the OEM KTM SX-f 250 wiring loom.
- A JST CAN connector to connect Taipan to the optional handlebar switch.
- A second JST CAN connector to connect Taipan to the optional UC Bridge user version.
- A third JST CAN connector for external AIM CAN expansion modules.

Pinout of the ECU:

ECU Connector

JST 04R-JWPF-VSLE-S Connector External view	JST 04T-JWPF-VSLE-S Connector External view	JST 08R-JWPF-VSLE-D Connector External view
1 - GND 2 - CAN Exp High 3 - CAN Exp Low 4 - 12V Out (switched)	1 - GND 2 - CAN CAL High 3 - CAN CAL Low 4 - 12V In	1 - 12V Second inj 2 - Low Side second inj 3 - Low side 4 - GND 5 - Analog Input 1 6 - Analog input 2 7 - Vref 8 - DNC

ACCESORIES

MotoStudent Taipan ECU main optional accesories are:

- ⭕ UC Bridge the USB to CAN dongle used to make Taipan ECU communicate to Spark user software.
- ⭕ Handlebar switch to manage engine maps, TC and LC system.
- ⭕ LCU1 Lambda controller.

UC Bridge

UC Bridge is the AIM device that connects Taipan CAN bus to your PC USB port and is compatible with MotoStudent ECU firmware **only for the User license**.

This user license allows Teams to manage all features available in this ECU to be adjusted, including managing the Launch Control settings, tuning fuel and ignition compensation, traction control settings and quick shifter cut-off time and set 5 different maps configurations.

Handlebar switch

Handlebar switch is used for changing the running map, activating traction control and activating launch control. (Fuel corrections are disabled).

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LCU1 Lambda controller

The AIM Lambda Sensor monitor the engine carburation in every moment, in order to adjust the air/fuel ratio with the maximum efficiency. This controller is included in both AIM KITs for Petrol category.

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Contact

For orders:

1. You must complete the form "DSRM Racing Group Parts Request" available on the MotoStudent Platform.

2. Your order will be processed with DSRM Racing Group.

3. You will receive a proforma invoice with the fee to complete the process.

4. Once the payment is completed, the order will be done and you will receive the Kit at your facilities.** **For orders before the shipment of the MotoStudent Kit, the ECU will be included in the Kit box.**
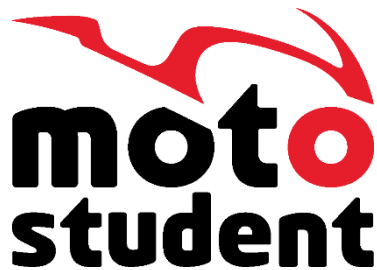
For technical questions:

All technical questions about the AiM MotoStudent Kit must be directed to the DSMR Racing Group Technical Department – technical@dsrmgroup.com with faq@motostudent.com in copy.

www.motostudent.com

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