AiM InfoTech

BMW – S1000RR MY 2020

Release 1.00

ECU

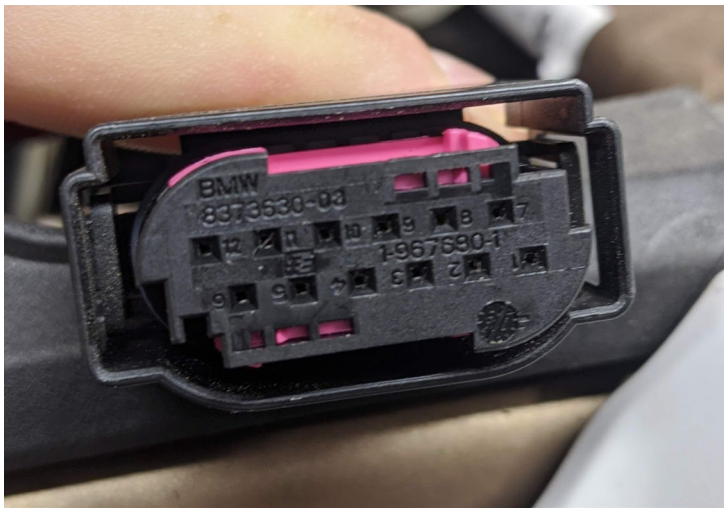
1 Models and years

This document explains how to connect AiM devices to the vehicle Engine Control Unit (ECU) data stream.
Supported models and years are:

- BMW S1000RR MY 2020

2 ECU CAN connection

These models feature a 12pins connector data bus accessible under the two seats, removing the plastic panel (see picture below). It is strongly recommended to refer to a skilled technician to perform this kind of installation. For this installation refer to the following pinout of the bike's 12pins connector (vehicle side – front view) and connection table.



12pins connector pin	Wire color	Pin function	AiM Cable
1	Blue	CAN H	CAN +
2	Grey	CAN L	CAN -
4	Brown	GND	GND
10	Green/White	12V (switched)	9-15VDC

3
Race Studio configuration

Before connecting the AiM device to the ECU, set all functions using AiM software Race Studio. The parameters to set in the device configuration are:

- ECU manufacturer: **BMW**
- ECU Model: **BIKE S1000RR 2015**

4
"BMW – BIKE S1000RR 2015" protocol

Channels received by AiM devices configured with "BMW – BIKE S1000RR 2015" protocol are:

CHANNEL NAME	FUNCTION
RPM	RPM
Gear	Active gear
SpeedF	Front wheel Speed
SpeedR	Rear wheel speed
LongAcc	Longitudinal accelerometer
LatAcc	Lateral accelerometer
VertAcc	Vertical accelerometer
RollRate	Roll rate
YawRate	Yaw rate
WaterTemp	Water temperature
IntakeAirTemp	Intake air temperature
BrakePressF	Front brake pressure
BrakePressR	Rear brake pressure
Banking	Banking angle
TPS	Throttle position
HandTPS	Throttle position (grip)
MomTotRedu	Wheel torque reduction
ASCTrqReduct	Torque reduction for anti-spin control intervention
AscTyreGrip	Tyre grip % for anti-spin control intervention

WheelMomAct	Wheel torque actual
WheelMomRedu	Wheel torque reduction
LaunchCtrl	Launch control
TC Sel	Traction control selection
ABSActive	ABS active status
LiftOff	Lift control off status
DamperFmm	Front dampers travel (mm)
DamperRmm	Rear dampers travel (mm)
InjFuelmL	Fuel injection (ml)
OilLevelLow	Low oil level
ASCOn	Anti-spin control on
MIL	Malfunctioning indicator lamp
RReboundSet	Rear rebound set
FReboundSet	Rear bump set
RBumpSet	Front rebound set
FBumpSet	Front bump set

Technical note: note 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.