AIM Infotech

Suzuki GSX-R

Release 1.01

ECU

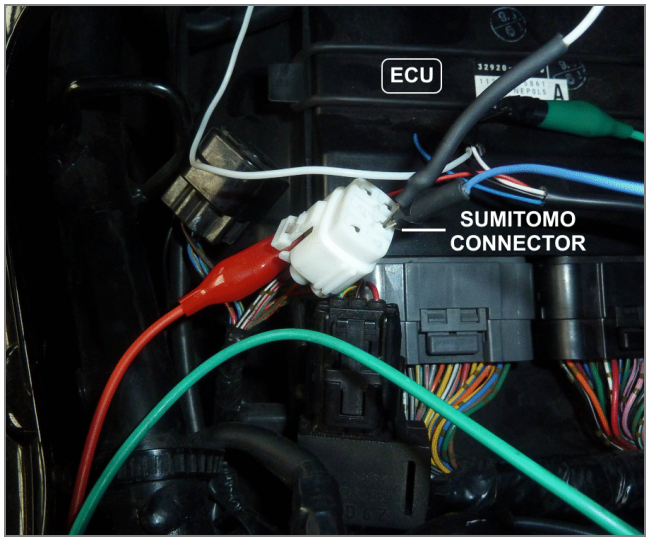
1
Bike models and compatibility with AiM devices

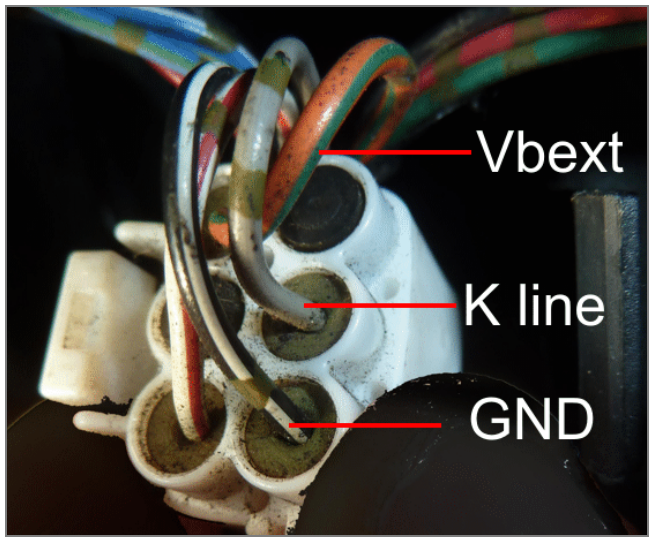
This tutorial describes how to connect AiM SoloDL, EVO4 and ECU Bridge to Suzuki ECU using the diagnosis connector. Supported bike models and years are:

- GSX-R600 from 2006 onward;
- GSX-R750 from 2006 onward;
- GSX-R1000 from 2005 onward;
- GSX-R1300 Hayabusa from 2008 onward.

2
K-line wiring connection

These Suzuki GSX-R bikes communicate through the K-line only; this is why they are not compatible with AiM MXL that does not support this communication protocol.
K-line can be reached through a Sumitomo connector placed near the bike ECU under the seat.
Here below are Sumitomo connector position on the left and its cables functions on the right.



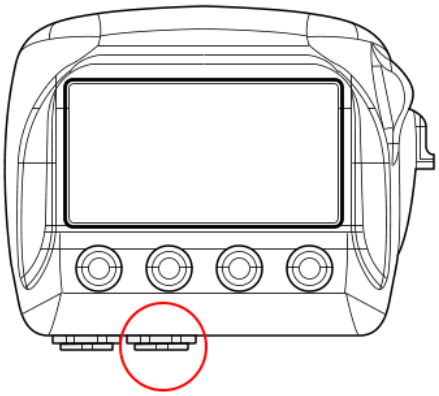


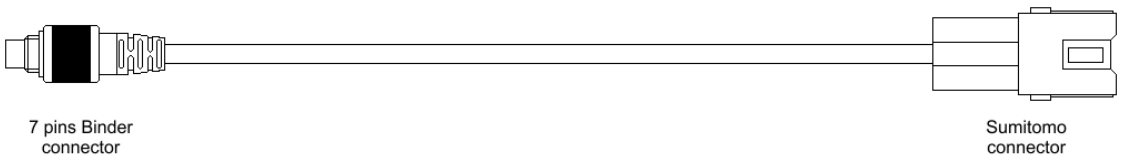
3
Connection with AiM devices

Here follow instructions on how to connect these Suzuki bikes to AiM SoloDL, EVO4 and ECU Bridge:

3.1
Connection with SoloDL

To connect SoloDL to these Suzuki bikes use a dedicated cable properly designed and developed by AiM whose part number is **V02569140**. Through this cable you can also power your SoloDL. Here below SoloDL female connector position with its pinout and the dedicated cable are shown.



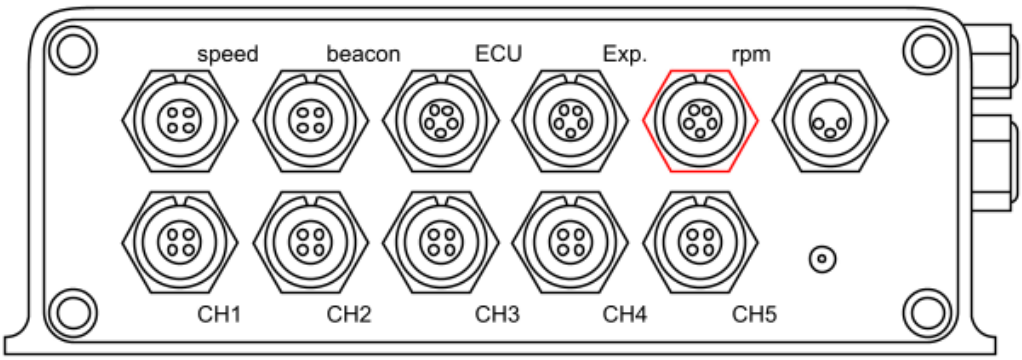


3.2
Connection with EVO4

EVO4 has the K-line on the RPM connector (highlighted in red here below). This connection requires a dedicated cable properly designed and developed by AIM whose part number is **V02563140**.

Please note: EVO4 needs external power. Refer to EVO4 user manual to know how to power the logger.

Here below EVO4 RPM connector with its pinout and the dedicated cable are shown.



3.3
Connection with ECU Bridge

ECU Bridge is available in different versions. The one that fits this installation has part number **X90BGSSDS**. Through the Sumitomo connector you can also power your ECU Bridge. Here below you see ECU Bridge with Sumitomo connector version.

4
AIM Logger configuration

Before connecting the ECU to the logger 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 “Suzuki” and ECU Model “SDS_Protocol”;
- transmit the configuration to the device pressing “Transmit”.

5
Available channels

Channels received by AiM devices connected to "Suzuki" "SDS_Protocol" are:

ID	CHANNEL NAME	FUNCTION
ECU_1	SDS_RPM	RPM
ECU_2	SDS_TPS	Primary throttle position
ECU_3	SDS_GEAR	Engaged gear
ECU_4	SDS_BATT_VOLT	Battery Supply
ECU_5	SDS_CLT	Engine coolant temperature
ECU_6	SDS_IAT	Intake air temperature
ECU_7	SDS_MAP	Manifold air pressure
ECU_8	SDS_BAROM	Barometric pressure
ECU_9	SDS_BOOST	Boost pressure
ECU_10	SDS_AFR	Air/Fuel ratio
ECU_11	SDS_NEUT	Neutral signal
ECU_12	SDS_CLUT	Clutch switch
ECU_13	SDS_FUEL1_pw	Fuel injector 1
ECU_14	SDS_FUEL2_pw	Fuel injector 2
ECU_15	SDS_FUEL3_pw	Fuel injector 3
ECU_16	SDS_FUEL4_pw	Fuel injector 4
ECU_17	SDS_MS	Mode selector
ECU_18	SDS_XON_ON	XON switch
ECU_19	SDS_PAIR	Air supply system
ECU_20	SDS_IGN_ANG	Ignition angle
ECU_21	SDS_STP	Secondary throttle position

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.