

AiM User Guide

Solo 2/Solo 2 DL, EVO4S
and ECULog kit for Suzuki
GSX-R 600 (2004-2023)
GSX-R 750 (2004-2017)
GSX-R1000 from 2005
GSX-R 1300 (2008-2016)

Release 1.01



KIT





1

Models and years

This manual explains how to connect Solo 2 DL, EVO4S and ECULog to the bike engine control unit (ECU).

Compatible models and years are:

- GSX-R 600 2004-2023
- GSX-R 750 2004-2017
- GSX-R 1000 from 2005
- GSX-R 1300 Hayabusa Gen. 2 2008-2016

Warning: for these models/years AiM recommends not to remove the stock dash. Doing so will disable some of the bike functions or safety controls. AiM Tech Srl will not be held responsible for any consequence that may result from the replacement of the original instrumentation cluster.

2

Kit content and part numbers

AiM developed a specific installation bracket for Solo 2/Solo 2 DL that fits some bike models only – specified in the following paragraph – and a CAN connection cable to the ECU for Solo 2 DL, EVO4S and ECULog.

2.1

Bracket for Solo 2/Solo 2 DL

Part number of **Solo 2/Solo 2 DL** installation bracket for **Suzuki GSX-R** – shown below – is: **X46KSSGSXR**.

Installation kit contains:

- 1 bracket (1)
- 1 Allen screw with rounded head M8x45mm (2)
- 2 Allen screws with flat head M4x10mm (3)
- 1 toothed washer (4)
- 1 rubber dowel (5)



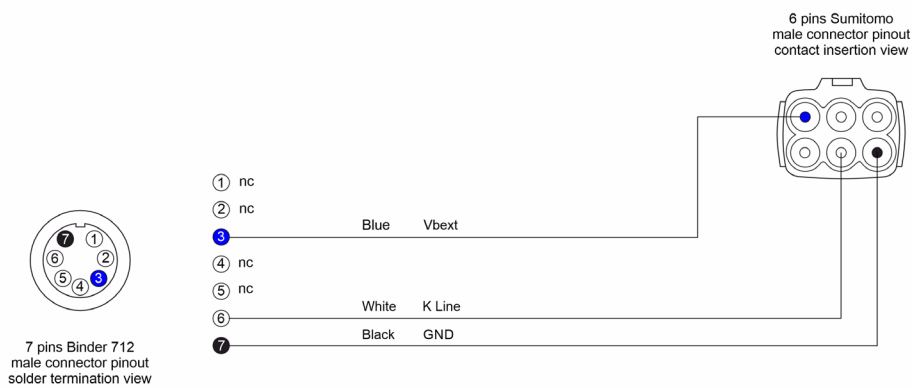
Please note: installation bracket does not fit Suzuki GSX-R 1000 bikes from 2005 to 2008 nor Suzuki GSX-R 1300 Hayabusa Gen. 2 from 2008 to 2016 included.

2.2 AiM cable for Solo 2 DL, EVO4S and ECULog

Part number of connection cable for **Suzuki GSX-R**– shown below – is: **V02569140**.



Following image shows the cable constructive scheme.



2.3 Solo 2 DL kit (AiM cable + bracket)

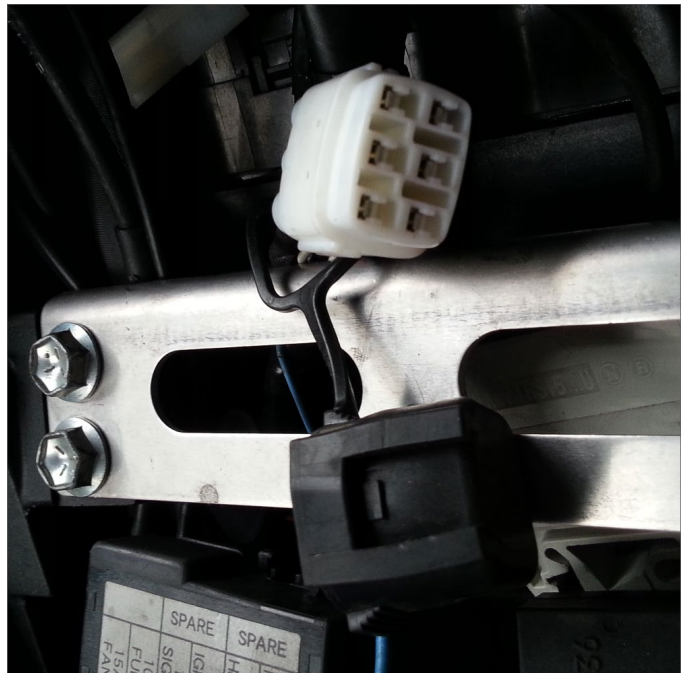
Solo 2 DL installation bracket and connection cable for Suzuki GSX-R can also be bought together with part number: **V0256914CS**. Please **remember that the bracket does not fit** Suzuki GSX-R 1000 from 2005 to 2008 nor Suzuki GSX-R 1300 Hayabusa Gen. 2 from 2008 to 2016.

3

Solo 2 DL, EVO4S and ECULog connection

To connect Solo 2 DL, EVO4S and ECULog to the bike ECU use the white diagnostic connector placed under the bike seat and shown here below.

Lifting the bike seat the ECU diagnostic connector shows a black rubber cap (shown bottom in the image here on the right): remove it and connect AiM cable to Suzuki connector.



4

Configuring with RaceStudio 3

Before connecting AiM device to the bike ECU set all functions using AiM RaceStudio 3 software. The parameters to set in the device configuration section ("ECU Stream" tab) are:

- ECU Manufacturer: **"Suzuki"**
- ECU Model: (RaceStudio 3 only)
 - **"SDS_protocol"** for all models except for Suzuki GSX-R 1000 from 2017
 - **"SDS 2 Protocol"** for Suzuki GSX-R 1000 from 2017

5 Suzuki protocols

Channels received by AiM devices configured with Suzuki protocols change according to the selected protocol.

5.1 "Suzuki – SDS_Protocol"

Channels received by AiM devices configured with "Suzuki – SDS_Protocol" protocol are:

| CHANNEL NAME | FUNCTION |
|---------------------|----------------------------|
| SDS RPM | RPM |
| SDS TPS | Primary throttle position |
| SDS GEAR | Engaged gear |
| SDS BATT VOLT | Battery supply |
| SDS CLT | Engine coolant temperature |
| SDS IAT | Intake air temperature |
| SDS MAP | Manifold air pressure |
| SDS BAROM | Barometric pressure |
| SDS BOOST | Boost pressure |
| SDS AFR | Air/Fuel ratio |
| SDS NEUT | Neutral switch |
| SDS CLUT | Clutch switch |
| SDS FUEL1 pw | Fuel injector 1 |
| SDS FUEL2 pw | Fuel injector 2 |
| SDS FUEL3 pw | Fuel injector 3 |
| SDS FUEL4 pw | Fuel injector 4 |
| SDS MS | Mode selector |
| SDS XON ON | XON switch |



| | |
|-------------|-----------------------------|
| SDS PAIR | PAIR ventilation system |
| SDS IGN ANG | Ignition angle |
| 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.

5.2

"Suzuki – SDS 2 Protocol"

Channels received by AiM devices configured with "Suzuki – SDS 2 Protocol" protocol are:

| CHANNEL NAME | FUNCTION |
|---------------------|-----------------------------|
| SDS RPM | RPM |
| SDS SPEED R | Rear wheel speed |
| SDS SPEED F | Front wheel speed |
| SDS GEAR | Engaged gear |
| SDS BATT VOLT | Battery voltage |
| SDS CLT | Engine coolant temperature |
| SDS IAT | Intake air temperature |
| SDS MAP | Manifold air pressure |
| SDS BAROM | Barometric pressure |
| SDS FUEL1 msx10 | Fuel injector 1 |
| SDS FUEL2 msx10 | Fuel injector 2 |
| SDS FUEL3 msx10 | Fuel injector 3 |
| SDS FUEL4 msx10 | Fuel injector 4 |
| SDS IGN AN 1 | Ignition Angle 1 |
| SDS IGN AN 2 | Ignition Angle 2 |
| SDS IGN AN 3 | Ignition Angle 3 |
| SDS IGN AN 4 | Ignition Angle 4 |
| SDS TPS1 V | TPS1 voltage |
| SDS TPS2 V | TPS2 voltage |
| SDS GRIP1 V | Grip1 voltage |
| SDS GRIP2 V | Grip2 voltage |
| SDS SHIFT SENS | Shift sensor |
| SDS TPS1 | Primary throttle position |
| SDS TPS2 | Secondary throttle position |
| SDS GRIP1 | Grip1 position |



| | |
|----------------|---------------------------|
| SDS GRIP2 | Grip2 position |
| SDS SPIN RATE | Wheel spin rate (TC: off) |
| SDS SPIN RT TC | Wheel spin rate (TC: on) |
| SDS DH COR AN | Dashspot correction angle |

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.

The following channels work only if the system is connected to a Yoshimura ECU:

- SDS SPEED F
- SDS SPIN RATE
- SDS SPIN RT TCC
- SDS DH COR AN