



AiM Solo 2 DL GPS Lap Timer With ECU Input User Guide

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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

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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.

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)



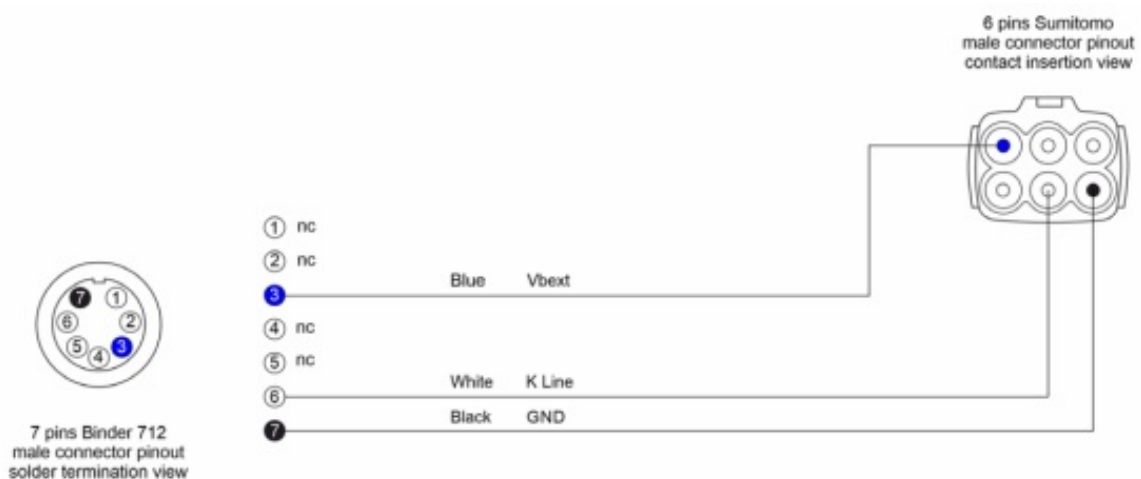
Please note: installation bracket does not fit Suzuki GSX-R 1000 bikes from 2005 to 2008 nor Suzuki GSX-R 1300 Hayabusa Gen. 2 from 2008 to 2016 included.

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.

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.



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)
 - o "SDS_protocol" for all models except for Suzuki GSX-R 1000 from 2017
 - o "SDS 2 Protocol" for Suzuki GSX-R 1000 from 2017

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



Documents / Resources

<div><div>AiM User Guide</div><div>Solo 2/Solo 2 DL, ECU/ECU and ECU Input for Suzuki GSX-R 600 (2004-2023), GSX-R 750 (2004-2017), GSX-R 1000 (2005-2016), GSX-R 1300 (2005-2016)</div><div></div><div>Release 1.01</div></div>	<div><div>AiM Solo 2 DL GPS Lap Timer With ECU Input [pdf] User Guide</div><div>Suzuki GSX-R 600 2004-2023, GSX-R 750 2004-2017, GSX-R1000 from 2005, GSX-R 1300 20 08-2016, Solo 2 DL GPS Lap Timer With ECU Input, Solo 2 DL, GPS Lap Timer With ECU Input , ECU Input</div></div>
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References

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