AiM Infotech

MV Agusta F4 2010-2012

Release 1.03

ECU

1
Bike models and compatibility with AIM devices

This tutorial describes how to connect AIM SoloDL, EVO4 and ECU Bridge to MV Agusta bikes.

Please note: no compatibility is allowed with AIM MXL because this logger installation would imply MV Agusta stock dash removal Supported models and years are:

* MV Agusta   F4   2010-2012

Warning: for this model/year 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
CAN and K line wiring connection

MV Agusta is equipped with two bus protocols: based on CAN bus and based on the K line. Channels received by these two communication lines are different. The CAN line exports 8 channels while K line exports other four channels.

AIM devices can manage both protocols; it is thereby recommended to connect both lines.

2.1
CAN line wiring connection

The bike CAN bus can be reached through two gateways: the stock Dash connector behind the OEM stock dash and the bike wiring connector under the bike seat.

Here below you see the CAN bus gateway position under the bike seat while the two images below you see the cables to be used for the connection.


Bike wiring connector

Bike wiring connector
CAN High
CAN Low

Stock dash connector
CAN Low
CAN High
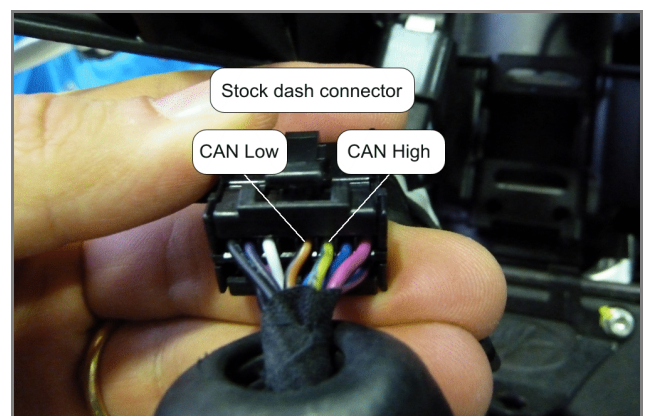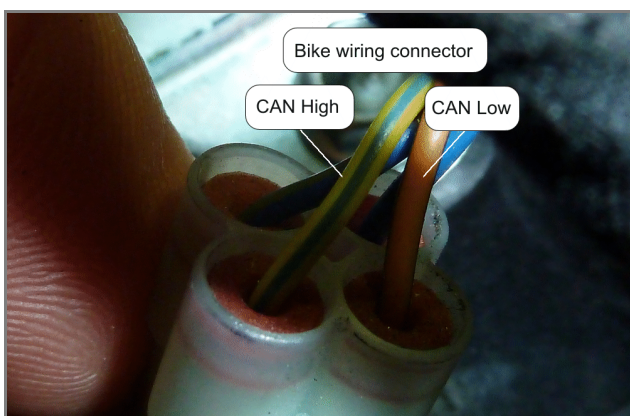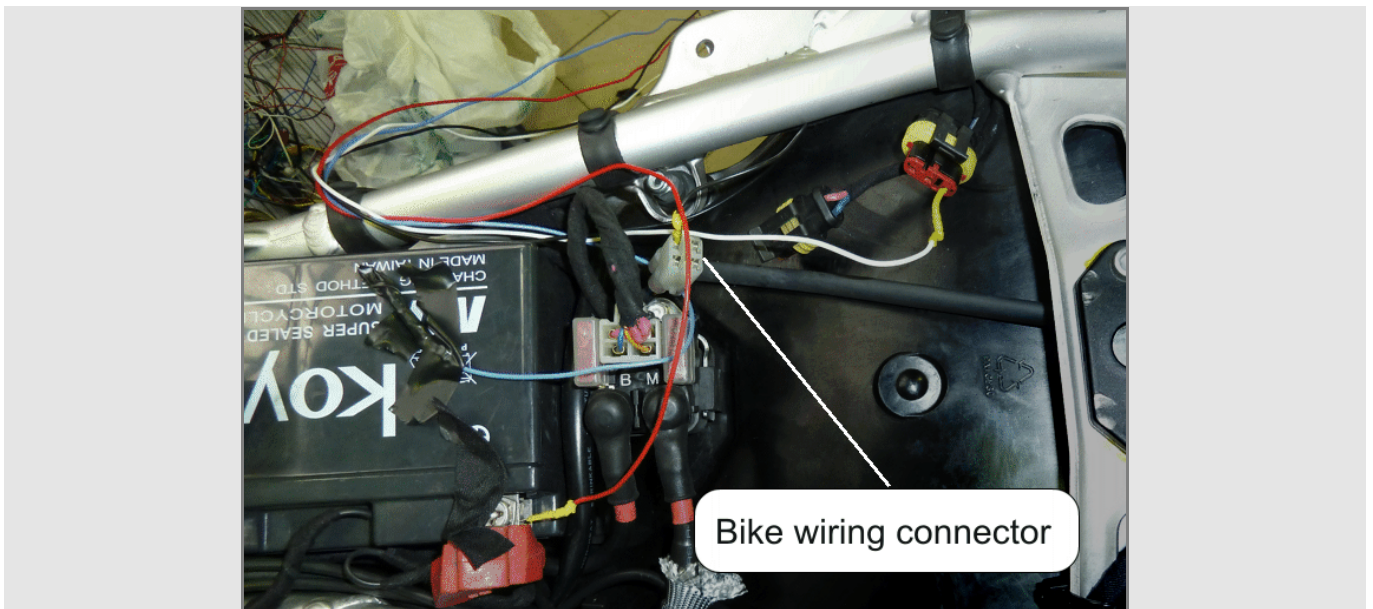
2.2
K line wiring connection

The bike K line can be reached through a connector under the bike seat.

Here below you see K line gateway position on the left and connection cable on the right.

3 Pins AMP superseal female connector

K line

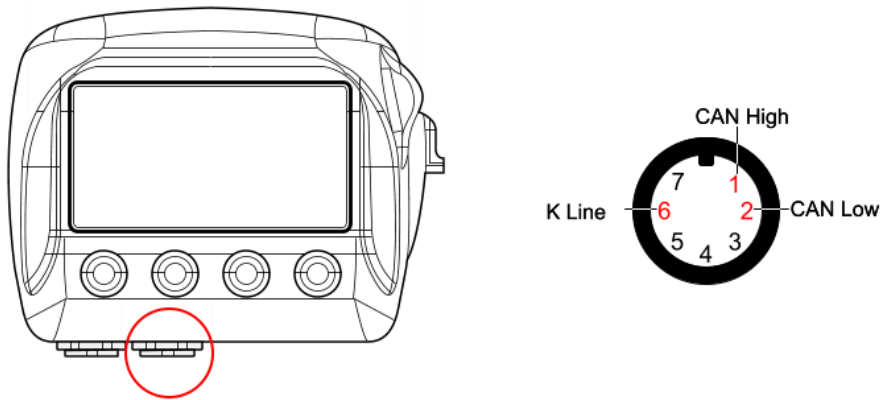3 Pins AMP superseal female connector
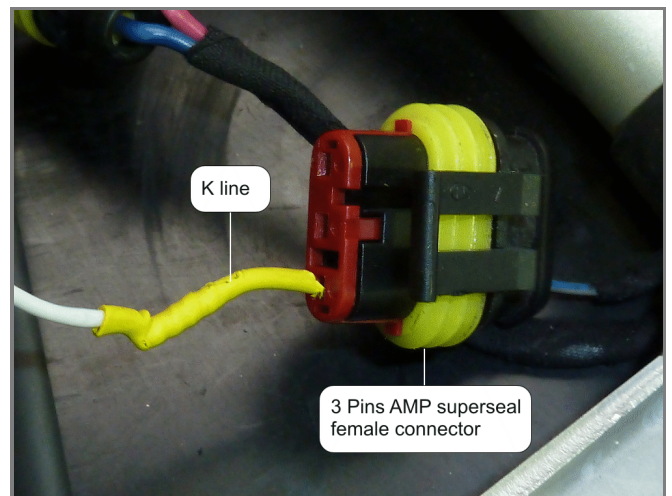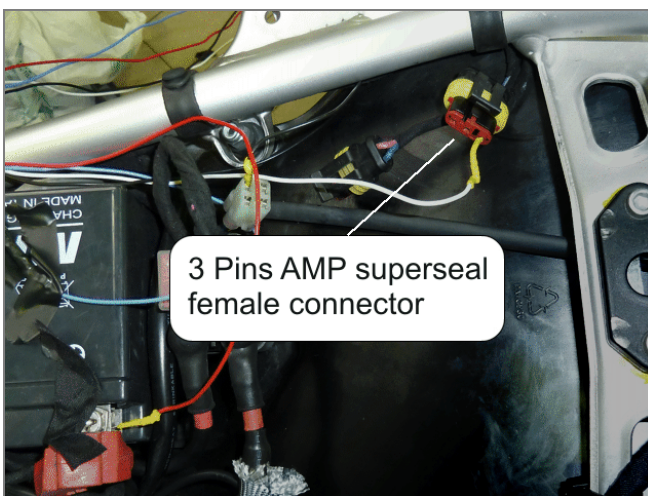
3
Connection with AIM devices

Here below you find instructions on how to connect MV Agusta F4 2010 to AIM SoloDL, EVO4 and ECU Bridge:

3.1
SoloDL

To connect SoloDL to MV Agusta use the seven pins right female connector placed under the logger. Below you see the connection table.

Function	SoloDL connector pin	MV Agusta cable colour
CAN High	Pin 1	Yellow with blue stripe
CAN Low	Pin 2	Orange with black stripe
K line	Pin 6	Superseal connector

3.2
EVO4

EVO4 has the CAN Bus and the K line on two different connectors (red circled here below). Furthermore it is necessary to install a 1K Ohm resistor between AIM logger and MV Agusta ECU as shown in the drawing that follows.
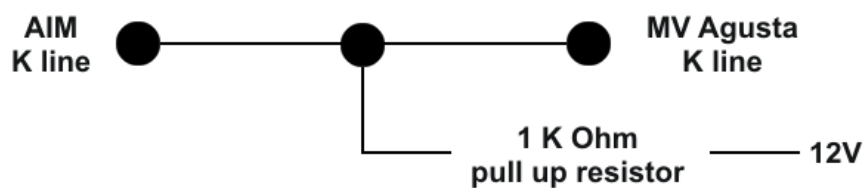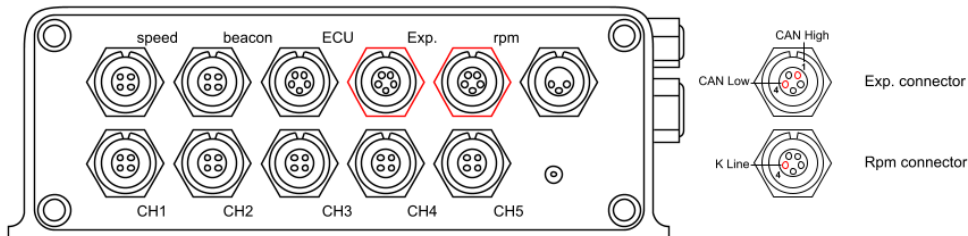
Function	EVO4 connector pin	MV Agusta cable
CAN High	Exp connector pin 1	Yellow with blue stripe
CAN Low	Exp connector pin 4	Orange with black stripe
K line	RPM connector pin 4	Superseal connector

3.3
ECU Bridge

ECU Bridge is available in two versions: CAN/RS232 and K/CAN line with OBDII connector. The latter is the only one equipped with both the CAN Bus and the K line, that are available on the OBDII connector as shown here below. The part number of this ECU Bridge is **X90BGCK12MA**.
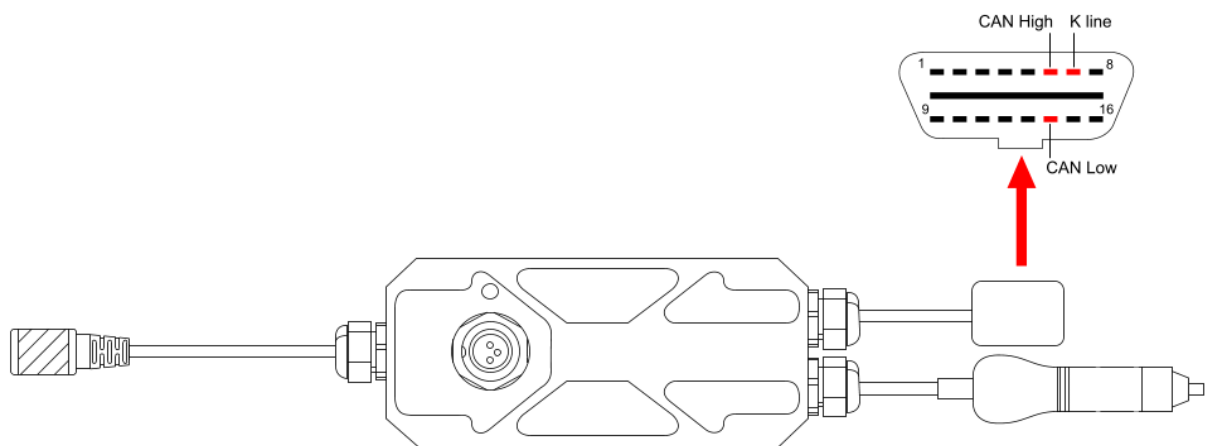
Function	ECU Bridge connector pin	MV Agusta cable colour
CAN+	OBDII connector pin 6	Yellow with blue stripe
CAN-	OBDII connector pin 14	Orange with black stripe
K line	OBDII connector pin 7	Superseal connector

4
Configuration with Race Studio 2

Before connecting the device to the ECU set this up using AiM Race Studio 2 software; the parameters to select in the device configuration are:

- ECU manufacturer "MV Agusta"
- ECU Model "F4"

5
Available channels

Channels received by AIM devices connected to "MV Agusta" "F4" protocol are shown in the table below; channels from 1 to 8 come from the CAN Bus while channels from 9 to 12 come from the K line.

ID	CHANNEL NAME	FUNCTION	PROTOCOL
ECU_1	F4_RPM	RPM	The CAN bus
ECU_2	F4_SPEED	Vehicle speed	The CAN bus
ECU_3	F4_TPS	Throttle position sensor	The CAN bus
ECU_4	F4_GEAR	Engaged Gear	The CAN bus
ECU_5	F4_ECT	Engine coolant temperature	The CAN bus
ECU_6	F4_INTK_AIRT	Intake air temperature	The CAN bus
ECU_7	F4_VBATT	V Battery	The CAN bus
ECU_8	F4_TC	Traction control enabled	The CAN bus
ECU_9	F4_MAP	Manifold air pressure	The K line
ECU_10	F4_IGN_ADV1	Ignition advance 1	The K line
ECU_11	F4_IGN_ADV2	Ignition advance 2	The K line
ECU_12	F4_INJ_TIME	Injection time	The K line

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.