AiM Infotech

Yamaha
YZF-R1 and YZF-R6 2004-2016

Release 1.03

ECU

1
Models and years

This tutorial explains how connect AiM devices to Yamaha bikes. Supported models and years are:

- Yamaha YZF-R1 (YEC included)   1000cc   2004-2014
- Yamaha YZF-R6 (YEC included)   600cc   2004-2016

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.
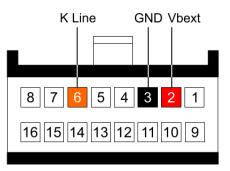
2
Wiring connection

Yamaha bikes feature a bus communication protocol based on the K line.

To connect AiM device to your bike ECU use the connector you find rear of the bike stock dash and shown here on the right.

Different model years feature different connectors and/or pinout. In the following pages they are shown with their connection tables.
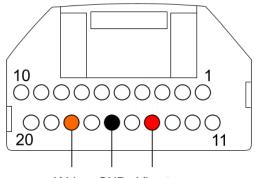
Here below is 16 pins AMP male connector of Yamaha YZF-R1 2004-2008 and YZF-R6 2006-2016 front view and its connection table.

AMP Pin	Pin function	AiM cable
6	K Line	K Line
3	Ground	GND
2	Vbext	Vbext

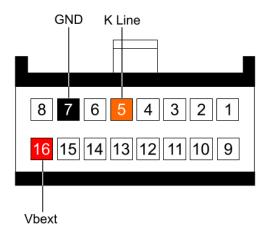Here below is 20 pins JAE male connector of Yamaha YZF-R1 2009-2014 front view and its connection table.

JAE Pin	Pin function	AiM cable
18	K Line	K Line
16	Ground	GND
14	Vbext	Vbext

Here below is 16 pins AMP male connector of Yamaha YZF-R6 2004-2005 front view and its connection table.

AMP Pin	Pin function	AiM cable
5	K Line	K Line
7	Ground	GND
16	Vbext	Vbext

4
Configuring with Race Studio 2

Before connecting AiM device to your Yamaha bike set this up using AiM Race Studio 2 software. Parameters to select in the logger configuration are:

- ECU Manufacturer: "YAMAHA
- ECU Model:
    - BIKE_R1_04_05_06   for Yamaha YZF-R1 from 2004 to 2006 included
    - BIKE_R1_07-08   for Yamaha YZF-R1 from 2007 to 2008 included
    - BIKE_R1_09_11   for Yamaha YZF-R1 from 2009 to 2014 included
    - BIKE_R6_04_05   for Yamaha YZF-R6 from 2004 to 2005 included
    - BIKE_R6_06_10   for Yamaha YZF-R6 from 2006 to 2016 included

5
Yamaha protocol

Channels received by AiM devices connected to "Yamaha" bikes are the same with the different protocols but it is necessary to set the protocol corresponding to the year of production of your bike to receive them correctly.

ID	CHANNEL NAME	FUNCTION
ECU_1	R1_RPM	RPM
ECU_2	R1_WH_SPEED	Wheel speed
ECU_3	R1_ECU_ERR	ECU error
ECU_4	R1_WATER_TEMP	Engine coolant temperature
ECU_5	R1_AIR_TEMP	Intake air temperature