AiM User manual

Honda CBR1000RR Fireblade, SP, SP2, HRC MY2017 onwards

Release 1.00

1
Supported models and years

This user manual explains how to connect Honda CBR1000RR to AiM devices. Supported models and years are:

• Honda CBR1000RR MY2017	2017 onwards*
• Honda CBR1000RR SP MY2017	2017 onwards*
• Honda CBR1000RR SP2 MY2017	2017 onwards*
• Honda CBR1000RR HRC kit MY2017	2017 onwards*

*Warning: for this model/year AiM recommends not to remove the stock dash. Doing so will disable some of the bike's functions or safety controls.

2
CAN bus connection

Honda CBR1000RR ECU features a bus communication protocol based on CAN that can be reached through the OEM dash connector, the ECU connector or other control units (i.e. ABS, IMU, SCU only SP) or CAN junction connectors.
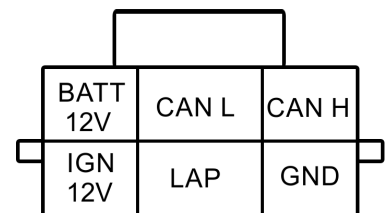
The wires colour is brown for CAN H and red for CAN L.

On the OEM dash connector pins to use are:

CAN H - Pin 8 – Br (brown)
CAN L – Pin 9 – R (red)

HRC Kit version Data Connector has a 6 pins connector Yazaki 7283 2764 30 female with the following pinout (front view):

7283-2764

| BATT 12V | CAN L | CAN H |
| IGN 12V | LAP | GND |

3

AiM device configuration

Before connecting the bike ECU to AiM device set it up using Race Studio software. The parameters to select in the logger configuration are:

- ECU Manufacturer "Honda"
- ECU model:
  - "CAN CBR 2017"

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"Honda – CAN CBR 2017" protocol

Channels received by AiM devices connected to "Honda – CAN CBR 2017" protocol are:

CHANNEL NAME	FUNCTION
RPM	RPM
Gear	Active gear
Speed	Vehicle speed
Fr Speed	Front wheel speed
Rr Speed	Rear wheel speed
Throttle	Throttle position sensor
ACP	Accelerator position
Coolant Temp	Engine coolant temperature
Acceleration	Forward/backward acceleration
AccX	Inline accelerometer
AccY	Lateral accelerometer
AccZ	Vertical accelerometer
GyroX	Yaw rate
GyroZ	Roll rate

Lean Angle	Vehicle lean angle
DrumAngle KIT	Drum angle
Slip	Slip percentage
Delta Slip	Delta slip
TC Percentage	Traction control intervention percentage
FI System flag	Contains the following messages:
= 4 ShiftPatt_Err	Shift patter error
= 5 RCV_Err	Rotating cylinder valves error
= 7 QS_Init_Done	Quick shift initialising done
= 8 Sports_Kit	Sport kit enabled
AuxAD3 KIT	General purpose AD input 3
AuxAD2 KIT	General purpose AD input 2
AuxAD1 KIT	General purpose AD input 1
AuxAD4 KIT	General purpose AD input 4
Lambda AD KIT	Lambda
FS AD KIT	Shift sensor voltage
Lambda AFR KIT	Lambda Air/Fuel ratio
SpeedLim	Speed limiter
Start Mode	Start mode
Eng Brake Level	Engine brake level
TCS Level	Traction control Level
Eng Output Lev	Engine output level
Speed Warning	Speed warning
Brake Switch	Brake switch
IgnitionCut KIT	Ignition cut
Engine Level KIT	Engine output level
TCS Level KIT	Traction control level
Eng Brake KIT	Engine brake level
Wheel Level KIT	Wheel
Eng SlipLev KIT	Engine slip level
Map Sw KIT	Engine map switch

FInj mapsel KIT	Fuel injection
Ignit mapsel KIT	Ignition map selection
SRC Level	SRC level (setting tool)
DTC	Dual clutch transmission
Trq Manip Status	Torque manipulation status
Trq IgRtd Status	Torque retard status
Fuel Cons Pulse	Fuel consumption pulse
Indicators	Contains the following indications
= 4 ECU_Init	ECU status indicator
= 5 Imo	Active immobilizer
= 6 TCS_Ind	Traction control indicator
= 7 FI_Ind	Failure indicator
= 8 HESD_Ind	Honda electronic steering damper indicator
QS Offset	Quick shift offset value
QS FAT Perm	-
QS FAT Status	FAT Status

Technical notes:
- 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.
- Channels labelled as **"KIT"** are specific for bikes equipped with HRC kit.