

AiM InfoTech

HONDA
CBR 1000RR-R HRC 2024

Release 1.00





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Models and years

This document explains how to connect AiM devices to the vehicle Engine Control Unit (ECU) data stream.

Supported models and years are:

- CBR 1000RR-R HRC from 2024

2 Wiring connection

These bikes feature a specific protocol based on CAN, accessible through the Yazaki Sogyo female connector labelled "LOGGER" connector. For this installation refer to the pinout and the connection table shown here below.

Note: this is a specific connector provided by the HRC harness, reserved to data logging and is not to be confused with the red diagnostic connector of standard bikes.



Yazaki CBR1000RR-R	Function	AiM cable	AiM cable color
LightBlue	CAN High	CAN+	White
Brown	CAN Low	CAN-	Blue
Black/white	Ignition 12V	Ignition	Red
Green	Ground	GND	Black

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RaceStudio 3 configuration

Before connecting the AiM device to the ECU, set all functions up using AiM RaceStudio 3 software. The parameters to set in the device configuration are:

- ECU manufacturer: **HONDA**
- ECU Model: **CBR HRC 2024 ECU** (Only RS3)

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“HONDA – CBR HRC 2024 ECU” protocol

Channels received by AiM devices configured with "HONDA – CBR HRC 2024 ECU" protocol are:

CHANNEL NAME	FUNCTION
Engine RPM	Engine RPM
Gear Position	Engaged gear
Est Vehicle Speed	Vehicle Speed
FrontWheelSpeed	Front wheel speed
RearWheelSpeed	Rear Wheel speed
Direction Accel	Running direction acceleration
NE Conversion FW	Conversion value from front wheel speed
NE Conversion RW	Conversion value from rear wheel speed
Front Wheel RPM	Front wheel speed (rpm)
Rear Wheel RPM	Rear wheel speed (rpm)
Coolant Temp	Engine coolant temperature
Intake Air Temp	Intake air temperature
MAP LCyl 1-2	MAP sensor value for cylinders 1 and 2 left side
MAP RCyl 3-4	MAP sensor value for cylinders 3 and 4 right side
TPS Cyl1-2	Throttle position sensor for cylinders 1 and 2



TPS Cyl3-4	Throttle position sensor for cylinders 3 and 4
Grip Position AD	Grip position (deg) after tool adjustment
Bank Angle	Bank angle
Pitch Angle	Pitch angle
PitchAngle Wheel	Relative pitch angle from wheelie
PitchAngle Speed	Pitch angle speed
Shift Drum Angle	Shift drum angle
IGTrqRtd LCyl1-2	Left side (1/2 cylinder) control retard amount
IGTrqRtd RCyl3-4	Right side (3/4 cylinder) control retard amount
Ign Adj L Cyl1-2	Left side (1/2 cylinder) ignition correction amount
Ign Adj R Cyl3-4	Right side (3/4 cylinder) ignition correction amount
THL Angle Cyl1-2	Left side (1/2 cylinder) throttle opening (deg)
THR Angle Cyl3-4	Right side (3/4 cylinder) throttle opening (deg)
TC Slip target	Traction control slip target
Slip Tar Map Val	Slip target Map value
Slip Tar Offset	Slip target offset level
SlipTarget Offse	Slip target offset (%)
EB Slip target	EB Slip target
Intervention CT	Control torque intervention value
Grip Position	Grip position
Slip Rate	Slip target
FC rate Cycle	FC Rate Cycle
Delta Slip	Delta slip
Engine Rev Time	Engine rev frequency (time)
Engine Rec Dist	Engine rev distance (distance)
VBat	Battery voltage
Shift Ref Value	Shift rev value
Shift Sensor In	Shift sensor input value
ShiftSensorLearn	Shift sensor input value learned value
Ext AD Input 1	External AD input 1
Ext AD Input 2	External AD input 2
Ext AD Input 3	External AD input 3



Ext AD Input 4	External AD input 4
Ext AD Input 5	External AD input 5
Ext AD Input 6	External AD input 6
Ext AD Input 7	External AD input 7
Ext AD Input 8	External AD input 8
LAF 1	Lambda A/F 1
LAF 2	Lambda A/F 2
LAF 3	Lambda A/F 3
LAF 4	Lambda A/F 4
Fuel Cut total	Fuel Consumption
Fuel Correction1	Fuel Correction 1
Fuel Correction2	Fuel Correction 2
Fuel Correction3	Fuel Correction 3
Fuel Correction4	Fuel Correction 4
SRC Trigger	SRC trigger setting value
Clutch sw	Clutch switch ON
FI Model	FI Mode
FI IND	FI warning
GRPPCT Mode	GRPPCT Mode
TCS Mode	Traction control sensor mode
Traction Control	Traction Control
Wheelie Mode	Wheelie mode
SlipRate Control	Slip rate control mode
EngineBraking Mo	Engine braking mode
EBSLIP Mode	EBSLIP Mode
AntiJerk Control	Anti-Jerk Mode (Drumming control level)
Mode A	Mode A
Mode B	Mode B
Mode TYRE	Mode tyre
MILCODE	MIL Code
HESD Factory	HESD Factory setting level
TrqTrgPct	Control target torque amount (%)



TrqTrgRid Pct	Rider required torque amount (%)
Control Torque V	Control torque intervention amount
IG Mode	IG mode
Power Mode	Power mode
NSect	Sector number
NDVMap	TH split mode
USSAJLVL1	Upshift Driving force cut time level
USSAJLVL2	Upshift Driving force return time level
DNSTLVL1	Downshift Blip adjustment level
DNSTLVL2	Downshift Shift error EB adjustment level
K SRC ROAN	SRC basic setting Factor
KLFWGYAJ	Front tire size correction factor
KLRWGYAJ	Rear tire size correction factor
RCV	Exhaust valve opening (V)
Sect Time	Sector time
Lap Time X2	Lap time
X2 Input IID	X2 Input ID
DistSCM	Partial distance
Lap X2	Lap number
Sec X2	Sector number

Technical note: not all data channels outlined in the ECU template are validated for each manufacturer's model or variant; some of the outlined channels are model and year specific, and therefore may not be applicable.