AiM InfoTech

HONDA – CBR
1000RR-R HRC 2020-2021
600RR HRC 2021-2024

Release 1.03

ECU

1
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:

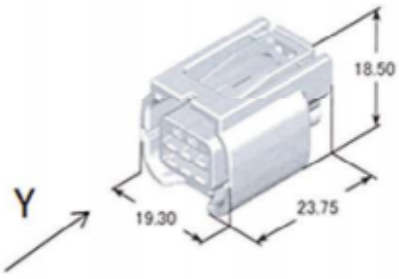
• CBR 1000RR-R HRC	2020 – 2021
• CBR 600RR HRC	2021 – 2024

2
Wiring connection

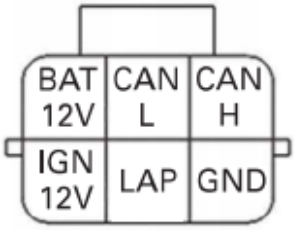
These bikes feature a specific protocol based on CAN, accessible through the Yazaki Sogyo female connector labelled "LOGGER" connector. For this installation refer to the following pinout of the Yazaki connector and its connection table.

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.

LOGGER Connector



Model number: 7283-2764-30
(made by Yazaki Sogyo)



VIEW Y
Pin Assign

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

Yazaki CBR600RR	Function	AiM cable	AiM cable color
White	CAN High	CAN +	White
Brown	CAN Low	CAN -	Blue
White/Green	Ignition 12V	Ignition	Red
Green	Ground	GND	Black

3
Race Studio configuration

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

- ECU manufacturer: **HONDA**
- ECU Model: **CAN_CBR_2020** (RaceStudio 3 only)

4
"HONDA – CAN_CBR_2020" protocol

Channels received by AiM devices configured with "HONDA – CAN_CBR_2020" protocol are:

CHANNEL NAME	FUNCTION
RPM	RPM
THROTTLE ANGLE	Throttle position sensor
GRIP ANGLE	Grip opening angle
R WHEEL SPEED	Rear wheel speed
F WHEEL SPEED	Front wheel speed
BANK ANGLE	Bank angle
PITCH ANGLE	Pitch angle
WHEELIE PITCH AN	Relative pitch angle from wheelie start
PITCH RATE	Pitch angle speed
INLINE ACC	Running direction acceleration
INT CTRL STATUS	Intervention control status
GEAR	Gear position
DRUM ANGLE	Shift drum angle
SHIFT SENS	Shift sensor input value
SHF SENS LEARN R	Shift sensor learning value

AUX AD1	General purpose AD input 1
AUX AD2	General purpose AD input 2
AUX AD3	General purpose AD input 3
AUX AD4	General purpose AD input 4
SLIP RATE	Slip percentage
TARGET SLIP	Target slip percentage
DER SLIP	Delta slip
SRC INT FACTOR	SRC base setting coefficient
CTRL TORQUE INT	Control torque intervention value
CTRL ADVANCE	Retard control value
10CC FC PULSE	Fuel consumption pulse per 10 cc
FC RATE 1 CYCLE	FC percentage per cycle
AFR	Air fuel ratio
AFR VOLT	Air fuel ratio voltage
LAPTIME X2	Lap time
SECTOR TIME	Sector time
CLUTCH	Clutch switch ON
POWER MODE	Power mode
EB MODE	EB mode
TCS MODE	Traction control status mode
WHEELIE MODE	Wheelie mode
SRC MODE	SRC mode
EBSLIP MODE	EBSLIP mode
FI MODE	FI mode
IG MODE	IG mode
SHIFT SEND LEARN	Shift sensor learning value
INIT FI IND	Initial FI IND
LAP NUM X2	Number of Laps
SECTOR NUM	Sector NO
IGN ADVANCE	IG adjust value
ENG HOUR COUNTER	Engine revolution frequency counter (time)
ENG DIST COUNTER	Engine revolution frequency counter (distance)

HE SD DEFAULT	HESD factory setting LVL
X2 INPUT ID	X2 input ID
TC POTENCY LEVEL	Traction control potency level
SRC DEADBAND	SRC trigger setting level
CONTROLLED LEV	Anti-jerk control level
EB SET TH ADJ	EB base setting TH ADJ
EB SKID TH ADJ	EBFC skid TH ADJ
NEBFC	EBFC number of cut cylinder
UPSA POWER CUT	Up shift driving force cut time level
UPSA SHIFT SHOCK	Down shift change shock adjust level
DNSA LVL	Reduce feel of down shift acceleration
DNSA TH ADJ	Down shift blip value
FI ADJ	Fuel correct value
ECT	Engine coolant temperature
IAT	Intake air temperature
MIL CODE	Malfunction indicator lamp code
MODE A	Mode-A
MODE B	Mode-B
MODE TYR	Mode -TYR

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