AiM InfoTech

# HONDA
# CBR1000RR-R
# from 2020

## Release 1.00

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ECU

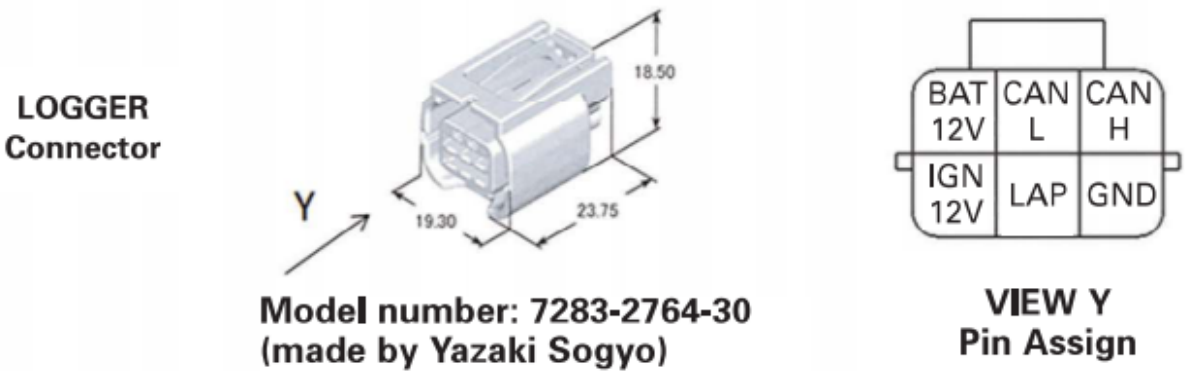
# 1 Models and years

This document explains how to connect AiM devices to the vehicle Engine Control Unit (ECU) data stream.
Supported models and years are:

- CBR1000RR-R from 2020

# 2 Wiring connection

This bike features 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.




| Yazaki color pinout | 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 |

# 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** (Only RS3)

# 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 |
| SHIF 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 |
| CRTL TORQUE INT | Control torque intervener 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 IMPUT 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.