AIM Infotech

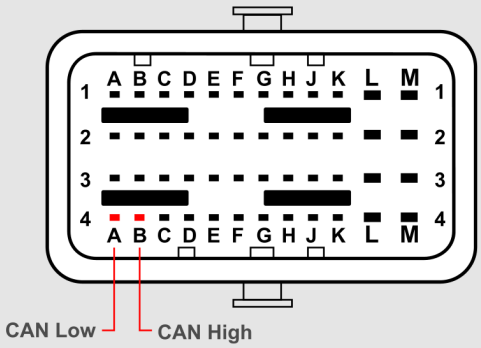
Marelli SRB-121 ECU

Release 1.00

This tutorial explains how to connect Marelli SRB-121 ECU to AIM loggers.

1 Wiring connection

Marelli SRB-121 ECU is equipped with a 48 pins Molex male connector on his front.
The ECU communicates using the CAN Bus. Connector pinout as well as connection table are shown here below.



Molex pin	Pin function	AIM cable
A4	CAN Low	CAN-
B4	CAN High	CAN+

2 AIM Logger configuration

When the ECU is connected to the logger, this last one is to be configured as connected to that ECU.

Run Race Studio 2 software and follow this path:

- Device Configuration –> Select the device you are using;
- select the configuration or press “New” to create a new one;
- select ECU manufacturer “Marelli” and ECU Model “SRB_121_1MBIT”;
- transmit the configuration to the device pressing “Transmit”.

3
Available channels

Channels received by AIM loggers connected to Marelli SRB-121 ECU are:

ID	CHANNEL NAME	FUNCTION
ECU_1	MF4M_RPM	RPM
ECU_2	MF4M_TPS	Throttle position
ECU_3	MF4M_IN_AIR_PR	Intake Air Pressure
ECU_4	MF4M_BARO_PR	Barometric Pressure
ECU_5	MF4M_DYN_PR	Dynamic Pressure sensor
ECU_6	MF4M_FUEL_PR	Fuel Pressure
ECU_7	MF4M_OIL_PR	Oil Pressure
ECU_8	MF4M_LAMBDA_V	Lambda Sensor Analog Voltage
ECU_9	MF4M_LAMBDA	Lambda Value
ECU_10	MF4M_TINJH	Injection Time Ramp 1 High
ECU_11	MF4M_QINJH_ul	Fuel Quantity Injection Ramp 1 High
ECU_12	MF4M_QINJ_ul	Global Injection Quantity
ECU_13	MF4M_BINJ_MAP_ul	Base Injection Map
ECU_14	MF4M_SPARK_ADV	Spark Advance
ECU_15	MF4M_BMAP_ADV	Base Map Advance
ECU_16	MF4M_BADV_TRBO	Base Advance Turbo Mode
ECU_17	MF4M_QINJT_ul	Base Fuel Quantity in Turbo Mode
ECU_18	MF4M_WAST_DUCY	Waste gate Duty Cycle
ECU_19	MF4M_VBAT	Battery Voltage
ECU_20	MF4M_VEH_SPEED	Vehicle speed
ECU_21	MF4M_WATER_T	Water Temperature
ECU_22	MF4M_AIR_T	Intake Air Temperature
ECU_23	MF4M_FUEL_T	Fuel Temperature
ECU_24	MF4M_OIL_T	Oil Temperature
ECU_25	MF4M_TCK	Thermocouple Temperature

ECU_26	MF4M_GEAR_BARR	Gear Barrel Position
ECU_27	MF4M_KLAMBDA	Lambda Correction Gain in closed loop
ECU_28	MF4M_GEAR	Engaged gear
ECU_29	MF4M_EN_ACC_ul	Enrichment on Acceleration
ECU_30	MF4M_KOBJ	Richness Target
ECU_31	MF4M_DIAG_ACQ1	I/O Defaults diagnostic
ECU_32	MF4M_DIAG_ACQ2	I/O Defaults diagnostic
ECU_33	MF4M_DIAG_ACQ3	I/O Defaults diagnostic
ECU_34	MF4M_ALARM_ACQ	I/O Alarm
ECU_35	MF4M_FUEL_CONS	Fuel consumption
ECU_36	MF4M_ST_SWITCH	State of the switches
ECU_37	MF4M_EN_DEC_ul	Enleaning on deceleration
ECU_38	MF4M_GAIN_LOOP	Gain for closed loop
ECU_39	MF4M_ECU_T	ECU Temperature
ECU_40	MF4M_ANAUPSHFT	Up shift Input voltage