AiM Infotech

#### MBE 992 V2 ECU

#### Release 1.01





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This tutorial explains how to connect MBE 992\_V2 ECU to AiM devices.

# 1 Software setup

MBE 992\_V2 ECU comes with EasyMap software. For a correct communication with AiM devices set it up as follows:

- Connect the ECU to your PC and power it.
- Run Easy Map and follow this path:
  - Data ->CAN Datastream -> Setup if you have EasyMap 5.5 release
  - System -> Can Datastream -> Setup if you have EasyMap 6 release

Here below you see images of EasyMap 5.5 – on the left – and EasyMap 6 – on the right.

		🙆 Easima
file ChipFile Page Panel	Data Mapping Logging Tools Options Window Help	<u>File P</u> age
<b>D D</b>	Get Data Ctrl+U 🖃 🛲 🌪 👁	
Engine Speed	Device Info Set Default Data	Engine Spe

🚳 Easimap 6.R29 - 992-Lambda-2.pge - Page 2 / 2						
<u>File P</u> age	<u>S</u> ystem	<u>M</u> apping	Logging	<u>T</u> ools	Options	<u>H</u> elp
	Maps and Settings Ctrl+U				Ctrl+U	74
Iransfer All Data						
Engine Spe	Can Datastream 🔶					Setup
0	Device <u>I</u> nfo					Ly .

• This way the software reads information coming from the ECU and opens a new window to configure the CAN communication;



• Parameters must be configured in the right sequence and with the right scaling; complete the table with the information suggested here below:

	J Device [CA								_ D ×
Send Send/Close Reload Import Options Window Exit - Mapping DISABLED									
Setup Configure the CAN Data Logging Interface									
Select Message Header Type Standard (11 Bit) V							×		
	9 Bit Identifier	CBF1234							
	1 Bit Identifier	32E V							
Select the nu	umber of char	nels 4 Channels (rows in	Table below) Maximum 8						
Message	Identifier	Data 1	Data 2	Data 3	Data 4	Data 5	Data 6	Data 7	
1	1	Coolant Temperature 👱	Engine Speed (Low) 🗾	Engine Speed (High)	Throttle Voltage 👱	Throttle Site 🔽	Battery Voltage 🔽	Air Temperature	
2	2	Gear 👱	Gear Vottage 🔽	Oil Pressure 👱	Oil Temp 👱	MAP 1 (Site)	Ignition Advance (Bank A)	Ignition Advance (Bank B)	
3	3	Baro Prssure 👱	Injection Time (Bank A)	Injection Time (Bank B) 🔽	Injection Time (Upper A)	Injection Time (Upper B)	WheelSpeed (Low)	WheelSpeed (High)	
4	4	Lambda 👱	MAP 1	Fuel Pressure 🔽	Undefined <u>·</u>	Undefined <u>·</u>	Undefined 🔽	Undefined 🔽	
5	0	Undefined 👱	Undefined 🔽	Undefined <u>·</u>	Undefined <u>·</u>	Undefined 🔽	Undefined 🔽	Undefined 🔽	
6	0	Undefined 🔽	Undefined 🔽	Undefined <u> </u>	Undefined <u>·</u>	Undefined <u>·</u>	Undefined 🔽	Undefined 🔽	
7	0	Undefined 👱	Undefined 🔽	Undefined <u>·</u>	Undefined <u>·</u>	Undefined 🔽	Undefined 🔽	Undefined 🔽	
8	0	Undefined 👱	Undefined 🗾	Undefined 🗾	Undefined 👱	Undefined 🗾	Undefined <u>·</u>	Undefined 🔽	
Please note: data logging configuration with EasiMan coffware is intended for expert users only									
Please note: data logging configuration with EasiMap software is intended for expert users only.									
The software can of course be changed by MBE. Refer to www.mbesystems.com for further									
information.									
mornation.									

- once all parameters configured press "Send" and choose "ECU Device" when requested; the configuration is stored in ECU memory
- close configuration window and quit the program
- before connecting MBE ECU to AiM device enable "Broadcast Mode" ensuring a nominally zero voltage (or open circuit) on fuel trim and ignition trim inputs.

## 2 Wiring connection

MBE 992\_V2 ECU features a bus communication protocol based on CAN on J2 36 pins front connector. Here below is connection table.

J2 36 Pins connector pin	Pin function	AiM cable
9	CAN High	CAN+
8	CAN Low	CAN-

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# 3 AiM device configuration

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

- ECU manufacturer "MBE"
- ECU Model "992\_V2"

### 4 Available channels

Channels received by AiM devices connected to "MBE" "992\_V2" protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	MBE_RPM	RPM
ECU_2	MBE_ECT	Engine coolant temperature
ECU_3	MBE_THROTTLEVOLT	Throttle voltage
ECU_4	MBE_TPS	Throttle position sensor
ECU_5	MBE_BATTVOLT	Battery supply
ECU_6	MBE_AIRTEMP	Intake air temperature
ECU_7	MBE_GEAR	Engaged gear
ECU_8	MBE_GEARVOLT	Gear voltage
ECU_9	MBE_OIL_P	Oil pressure
ECU_10	MBE_OIL_T	Oil temperature
ECU_11	MBE_MAP1_SITE	Manifold air pressure 1 site
ECU_12	MBE_IGN_ADVANCE	Spark advance on ignition table
ECU_13	MBE_BARO_PRESS	Barometric pressure
ECU_14	MBE_INJ_BANK	Injection time on engine bank
ECU_15	MBE_INJ_UPPER	Injection time on upper engine bank
ECU_16	MBE_SPEED	Speed



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- ECU\_17 MBE\_THROTTLE\_SITE
- ECU\_18 MBE\_LAMBDA
- ECU\_19 MBE\_MAP1
- ECU\_20 MBE\_FUEL\_P

Throttle site Lambda value Manifold pressure bank 1 Fuel pressure