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.

🗱 Easimap 5.5.R09 - TellyStandard [telly-pge] - Page 2/3					
File ChipFile Page Panel	Data Mapping Logging Tools Options Window Help		<u>File P</u> age		
2 2 2 2	Get Data Ctrl+U 🖃 💷 🍙 🕲				
Engine Speed	Device Info Set Default Data		Engine Spe		

🚳 Easimap 6.R29 - 992-Lambda-2.pge - Page 2 / 2							
<u>Eile P</u> a	ge	<u>S</u> ystem	<u>M</u> apping	Logging	<u>T</u> ools	Options	<u>H</u> elp
Engine Spe		Maps and Settings Ctrl+U					1 4
		<u>T</u> ransfer All Data					
		Can Datastream 🔶					Setup
Device Info						15	

• 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:

🖾 Getun - Ef Il Device [f &NI-] *									
Send Send/	Preconce Team Constructions Window Ext - Mapping DISABLED								
Setup	Setup								
Configure the	e CAN Data Log	iging Interface							
								_	
		Observed (44, Dit)							<u> </u>
Select Mes	sage Header T	ype Standard (11 Bit)							
Select the	29 Bit Identifier	CBF1234							
Select the	11 Bit Identifier	32E							
Select the	number of cha	nnels 4 Channels (rows i	in Table below) 🗹 🛛 Maximum 8	3					
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 🔽	Undefined 🗾	Undefined 🔽	Undefined 🔽	
5	0	Undefined	r Undefined 🛛 👻	Undefined 🔽	Undefined 🔽	Undefined 🔽	Undefined 🔽	Undefined 🔽	
6	0	Undefined	Undefined 🛛 🖌	Undefined 🔽	Undefined 🔽	Undefined 🔽	Undefined 🔽	Undefined 🔽	
7	0	Undefined	r Undefined 🛛 🔽	Undefined 🔽	Undefined 🔽	Undefined 🗾	Undefined 🔽	Undefined 🔽	
8	0	Undefined	Undefined 🔽	Undefined 🔽	Undefined 🔽	Undefined 🔽	Undefined 🔽	Undefined 🔽	
									-
<									
<b>Please note</b> : data logging configuration with EasiMap software is intended for expert users only.									
The software can of course be changed by MBE. Befer to www.mbesystems.com for further									
The software can of course be changed by MbL. Refer to www.inbesystems.com for further									
information.									

- 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