AiM Infotech

MBE 9A8 ECU

Release 1.01







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This tutorial explains how to connect MBE 9A8 ECU to AiM devices.

1 Software setup

MBE 9A8 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
2 2 1 2		t Data nDatastre	Ctri 2am	U+I •	🚖 并	1 C
Engine Speed	Device Info Set Default Data		14 115	The Stil		

🚳 Easimap 6.R29 - 992-Lambda-2.pge - Page 2 / 2						
<u>Eile 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			74		
	<u>T</u> ransfer All Data					
Engine Spe	Can Datastream 🔹 🕨			Setup		
						13

• 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:

Setup : ECI	J Device [CA	N1:] *							
Send Send/Close Reload [mont_Options_Window Exit_Mapping DISABLED									
Setup									
Select a Mess	age identifier								-
									_
Message Id	entifier 32	F							× •
wessage iu	entitier 102								
Number of c	hannels	8 Channels (rows in Table belo	w) 📉 Maximum 8						
Message	Identifier	Data 1	Data 2	Data 3	Data 4	Data 5	Data 6	Data 7	
1	1	Coolant Temperature	Engine Speed (MSB)	Engine Speed (LSB)	Throttle Voltage 🔽	Throttle Site 🔽	Supply Voltage 🔽	Air Temperature 🔽	
2	2	Gear 🔽	Gear Voltage 🔽	Oil Pressure 🔽	Oil Temp 👱	MAP 1 (Site)	Baro Pressure mbar(MSB) 🔽	Baro Pressure mbar(LSB) 🔽	
3	3	Ignition Advance (Bank A)	Ignition Advance (Bank B)	Injection Time (Bank A)	Injection Time (Bank B) 🛛 👱	Injection Time (Upper A)	Injection Time (Upper E)	Inj Lower/Upper Split	
4	4	Lambda 🔽	MAP 1	Inj Duty Cycle (A)	Inj Duty Cycle (B)	Target Lambda 🗾	Target Boost 🔽	Launch Timer 🗾	
5	5	Launch Voltage 🗾	Limiter (MSB)	Limiter (LSB)	WheelSpeed (MSB)	WheelSpeed (LSB)	Shift Light 1 (Mask 08) 🛛 🔽	Shift Light 2 (Mask 2) 🛛 🔽	
6	6	Rad Fan 1(Mask 01) 🛛 👱	Rad Fan 2 (Mask 02) 🛛 👱	Water Pump Duty Cycle 🔽	Fuel Trim Inj A (MSB) 🛛 👱	Fuel Trim Inj A (LSB)	Fuel Trim Inj B (MSB)	Fuel Trim Inj E (LSB)	
7	7	Fuel Trim Inj C (MSB)	Fuel Trim Inj C (LSB)	Fuel Trim Inj D (MSB)	Fuel Trim Inj D (LSB) 🛛 💌	Fuel Trim Inj E (MSB)	Fuel Trim Inj E (LSB)	Undefined 🔽	
8	8	Fuel Trim Inj F (MSB)	Fuel Trim Inj F (LSB)	Fuel Trim Inj G (MSB) 🛛 🔽	Fuel Trim Inj G (LSB) 🛛 🔽	Fuel Trim Inj H (MSB)	Fuel Trim Inj H (LSB) 🗾 🔽	Undefined	
/									<u>~</u>

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.

- 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 9A8 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 "9A8CAN"

4 Available channels

Channels received by AiM devices connected to "MBE" "9A8CAN" protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	MBE_RPM	RPM
ECU_2	MBE_WATER_TEMP	Engine coolant temperature
ECU_3	MBE_THROT_VOLT	Throttle voltage
ECU_4	MBE_THROT_SIDE	Throttle position raw value
ECU_5	MBE_BATTERY	Battery supply
ECU_6	MBE_AIR_TEMP	Intake air temperature
ECU_7	MBE_TPP	Throttle position percentage
ECU_8	MBE_GEAR	Engaged gear
ECU_9	MBE_GEAR_VOLT	Gearbox voltage
ECU_10	MBE_OIL_PRESS	Oil pressure
ECU_11	MBE_OIL_TEMP	Oil temperature
ECU_12	MBE_MAP_SIDE	Map position
ECU_13	MBE_BARO_PRESS	Barometric pressure
ECU_14	MBE_IGN_ADV_A	Ignition advance bank A
ECU_15	MBE_IGN_ADV_B	Ignition advance bank B
ECU_16	MBE_INJ_A	Injection advance bank A



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EC	U_17	MBE_INJ_B	Injection advance bank B
EC	U_18	MBE_INJ_UP_A	Injection time upper bank A
EC	U_19	MBE_INJ_UP_B	Injection time upper bank B
EC	U_20	MBE_INJ_SPLIT	Injection time lower/upper split
EC	U_21	MBE_LAMBDA	Lambda value
EC	U_22	MBE_MAP	Manifold air pressure
EC	U_23	MBE_DUTY_CY_A	Injection Duty Cycle Bank A
EC	U_24	MBE_DUTY_CY_B	Injection Duty Cycle Bank B
EC	U_25	MBE_TAR_LAMBDA	Target Lambda Air/Fuel ratio
EC	U_26	MBE_TAR_BOOST	Target boost
EC	U_27	MBE_LAUNCH_TIM	Launch timer
EC	U_28	MBE_LAUNCH_VOLT	Launch voltage
EC	U_29	MBE_LIMITER	Limiter
EC	U_30	MBE_WHEELSPEED	Wheel speed
EC	U_31	MBE_SHIFT_L1	Shift light 1
EC	U_32	MBE_SHIFT_L2	Shift light 2
EC	U_33	MBE_RAD_FAN1	Rad fan 1
EC	U_34	MBE_RAD_FAN2	Rad fan 2
EC	U_35	MBE_WAT_PUMP_DC	Water pump duty cycle
EC	U_36	MBE_TRIM_INJA	Fuel trim injection A
EC	U_37	MBE_TRIM_INJB	Fuel trim injection B
EC	U_38	MBE_TRIM_INJC	Fuel trim injection C
EC	U_39	MBE_TRIM_INJD	Fuel trim injection D
EC	U_40	MBE_TRIM_INJE	Fuel trim injection E
EC	U_41	MBE_TRIM_INJF	Fuel trim injection F
EC	U_42	MBE_TRIM_INJG	Fuel trim injection G
EC	U_43	MBE_TRIM_INJH	Fuel trim injection H