AiM Infotech

## EFI Euro 1

#### Release 1.02





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This tutorial explains how to connect AiM devices to EFI Euro 1 ECU using the CAN Bus.

#### 1 Recommended check

Before connecting EFI Euro 1 ECU to AiM devices two checks are strongly recommended.

- **Hardware check**: all AiM devices feature a 120 Ohm resistor integrated in the logger (MXL Strada/ Pista/Pro05) or mounted on the device harness (SoloDL, EVO4, ECU Bridge). Your network should be equipped with another 120 Ohm resistor. In case you find a third resistor, please remove it.
- **Firmware check**: according to their firmware version, EFI Euro 1 ECU may be compatible or not with AiM devices. In detail:
  - ECU with firmware version 200-299:
  - o ECU with firmware version 300-379:
  - ECU with firmware version 380-399:
  - o ECU with firmware version 400 onwards

not compatible

- firmware upgrading needed contact EFI dealer
- compatible
- software setup needed see below

**Please note**: always ensure that your AiM device is upgraded to the latest available firmware version checking www.aim-sportline.com download area, firmware section.

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# 1.1 Software setup

To setup your EFI Euro 1 ECU with firmware versions from 400 onwards follow this procedure.

- Run "ECT Mode" and load Euro 1 ECU
- click "Map Editor"
- select "Map Manager -> ECU Setup Map"

📅 EFI Map Editor - [Map Editor]									
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	Delete map		<b>_</b>	Map					
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						Descriptor	:		
					_Available items				

• click "File" and select "Load from File"

🚏 EFI Map Editor - [Setup Map Editor]			
🔲 File Map manager Windows About			
Load from File			
General Map Information			
Coded name :			
Map:			
Descriptor :			
_Available items			



- select ".ECF" file
- select ".CDS" file
- the map is loaded
- the page shows a long list of options: select "System Setup Data Export"

- EFI Map Editor - [1EC.ECF]				
File Map manager Windows About		_ = =		
General Map Information				
Coded name : 1EC	Coded date : 04/mar/05 14.06			
Map: 1EC.ECF	Notes about Map : 110 1EC.NTP			
,				
Descriptor : E6-410.CDS	Notes about Descriptor 🔟 E6-410.CMM			
_Available items				
Fuel - Consumption				
Fuel - Injectors				
Ignition				
Internal Logger Configuration				
Knock Sensor Configuration				
Lambda - Closed Loop				
MFIO - Drive by Wire				
MFIO - Inputs				
MFID - Outputs				
MPTO - PoverShit				
MFIO - Shift Light				
HFIO - Universal outputs HFIO - VANOS /VCT				
MFIO Multi Function Input/Output				
Sensor Calibration - Lambda NTK				
Sensor Calibration - Pedal Position				
Sensor Calibration - Temperature				
Sensor Calibration - Throttle Position				
Serial Link Data Export				
System Setup				
System Setup - Boost				
System Setup - Data Export				
System Setup - more supervision				
System Setup - Cear				
System Setup - hardware converter				
System Setup - Idle				
System Setup - Smot2				
System Setup - Vehicle Speed				
Variable Camshaft Timing				

"Data export" table is loaded. Available options are:

- 0 = disable
- 1 = standard
- 2 = extended type this one

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3	]		Windows About				
	General Map Inform	ation	n				_
	Coded nar	ne:	IEC	Coded date :	:	04/mar/05 14.06	
	м	ар :	IEC.ECF	Notes about Map :			
	Descrip	or :	E6-410.CDS	Notes about Descriptor		E6-410.CMM	
1	System Setup - Data	Exp	port				
	Configure CAN	d	data link: 0= Disable; l= Standard; 2= Extended			2	



# 2 Wiring connection

To connect EFI Euro 1 ECU with AiM devices use the 35 pins AMP male connector located frontally on it. Here below the connection table.

Pin function	AiM cable
CAN High	CAN+
CAN Low	CAN-
	CAN High

### 3 AiM Logger configuration

Once the ECU connected to the logger, set up the logger as follows:

Run Race Studio 2 software and select:

- Device Configuration -> select the device you are using;
- select the configuration or press "New" to create a new one;
- select ECU manufacturer "EFI\_EUROPE" and ECU Model "Euro\_1";
- transmit the configuration to the device pressing "Transmit".



### 3 Available channels

Channels received by AiM loggers connected to EFI Euro 1 protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	EFI_RPM	RPM
ECU_2	EFI_TPS	Throttle position
ECU_3	EFI_DFARF	Throttle position derivative
ECU_4	EFI_MAP	Manifold air pressure
ECU_5	EFI_BARO	Barometric pressure
ECU_6	EFI_ARR_TRANS	Fuel enrichment multiplier on throttle position transient
ECU_7	EFI_SPEED	Vehicle speed
ECU_8	EFI_VBATT	Battery supply
ECU_13	EFI_TEROGBASE	Injection table – injection time
ECU_14	EFI_TEROG	Real injection time
ECU_15	EFI_TEROG12	Injection time of cylinder 1-2
ECU_16	EFI_TEROG34	injection time of cylinder 3-4
ECU_17	EFI_SABASE	Ignition table - spark advance
ECU_18	EFI_SA	Real spark advance
ECU_19	EFI_SA1	Spark advance 1
ECU_20	EFI_SA2	Spark advance 2
ECU_21	EFI_NTK1	Lambda value 1
ECU_22	EFI_FCCLAT	Auto mapping flag
ECU_23	EFI_KFUELLEARN	Fuel correction coefficient for auto mapping
ECU_24	EFI_CLC1	Clutch 1
ECU_31	EFI_TH2O	Engine coolant temperature
ECU_32	EFI_TAIR	Intake air temperature