



AiM Infotech

Marelli SRA

Release 1.01

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SRA-EDL8

ECU



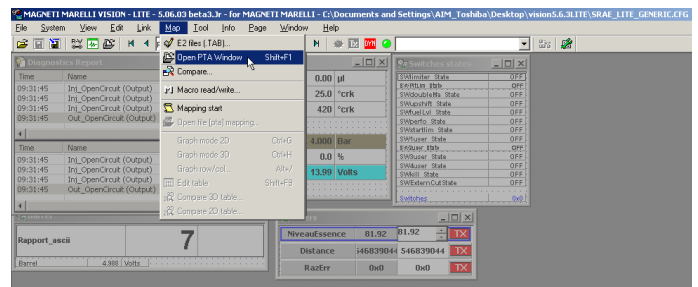
This tutorial explains how to connect Marelli SRA EDL8 ECU to AiM devices.

# 1 Software setting

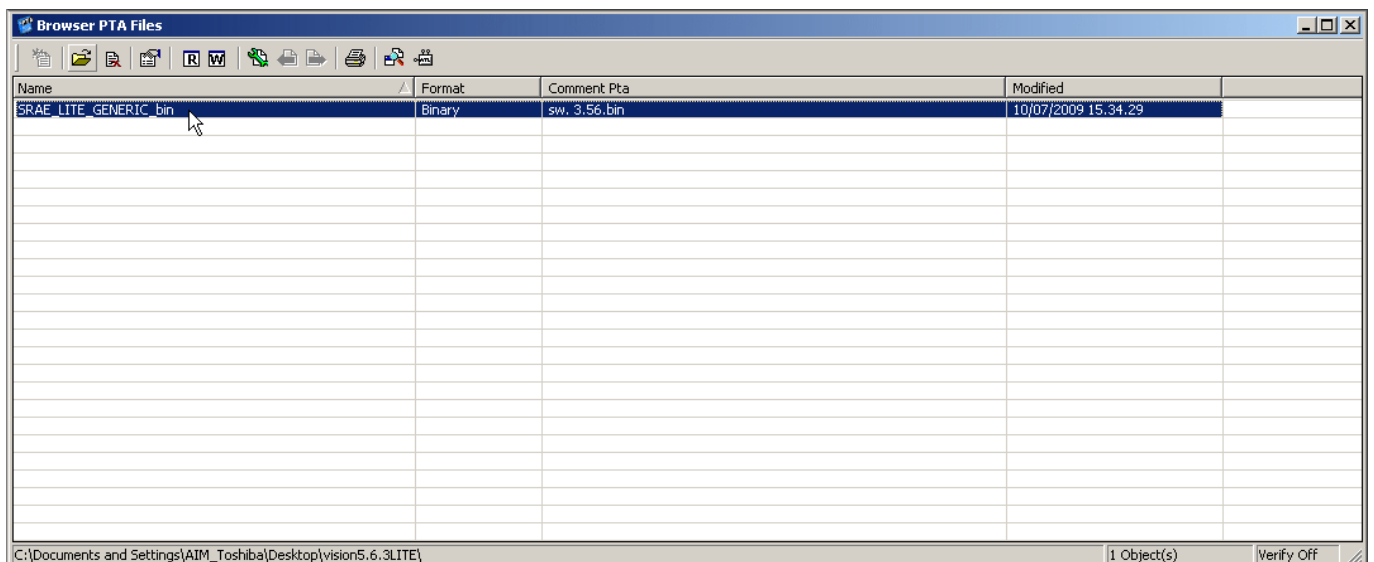
Marelli SRA ECU needs a software setting to correctly communicate with AiM devices. To perform it use Marelli "Vision" software and follow these instruction.

Run the software and follow this path:

- Map→ Open PTA Window



- A MAP file is normally available in the PTA files browser. If not browse the PC and double click on it.





- Scroll "PTA Table" window and double click "Dashboard"

The screenshot shows the 'MAGNETI MARELLI VISION - LITE' software interface. The main window displays a table of components for the file 'sw. 3.56.bin'. The 'DASHBOARD' component is highlighted in blue. The table has columns for Title, Reference, \*, and Size.

Title	Reference	*	Size
TRANSIENTS & CUTOFF			[33]
INJECTION PHASE			[6]
KNOCK CONFIGURATION			[4]
KNOCK			[49]
TURBO			[112]
UPSHIFT			[22]
ALARMS			[3]
STRATEGIES PWM 1 & 2			[4]
USER STRATEGIES			[48]
ANALOG LAMBDA CONTROL			[41]
LAMBDA ON/OFF REGULATION			[15]
ENGINE SUPERVISION			[41]
<b>DASHBOARD</b>			<b>[7]</b>
GDU			[17]
DDU			[18]
MISCELLANEOUS			[11]
DIAGNOSTIC ON BOARD			[3]
SDU			[47]
GCU Megaline			[4]
TRACTION CONTROL			[68]

At the bottom of the window, the status bar shows 'Ready', 'Comm: Prot. works...', 'ETH: Pc1', and a green 'CONN ON' button.

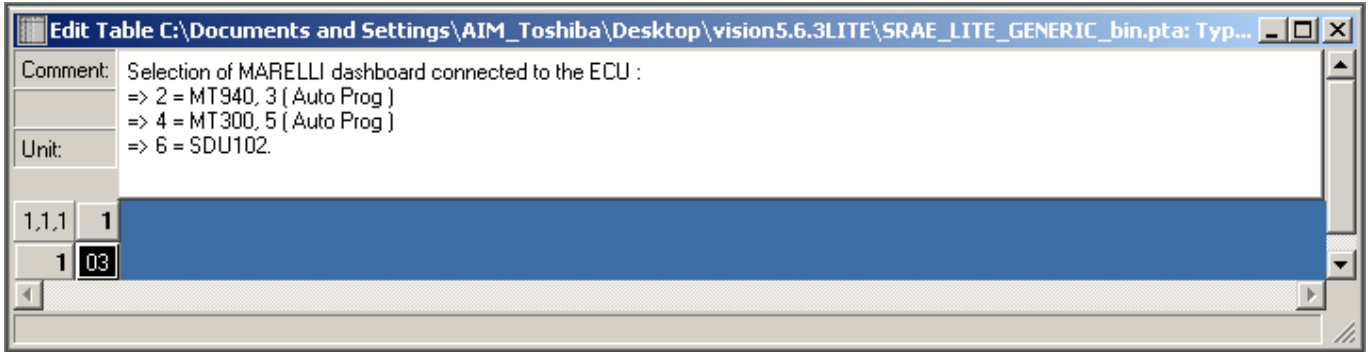
- Double click "Type of Dash Board"

The screenshot shows the 'PTA table' window in the software. The main window displays a table of components for the file 'sw. 3.56.bin'. The 'Type of Dash Board' component is highlighted in blue. The table has columns for Title, Reference, \*, and Size.

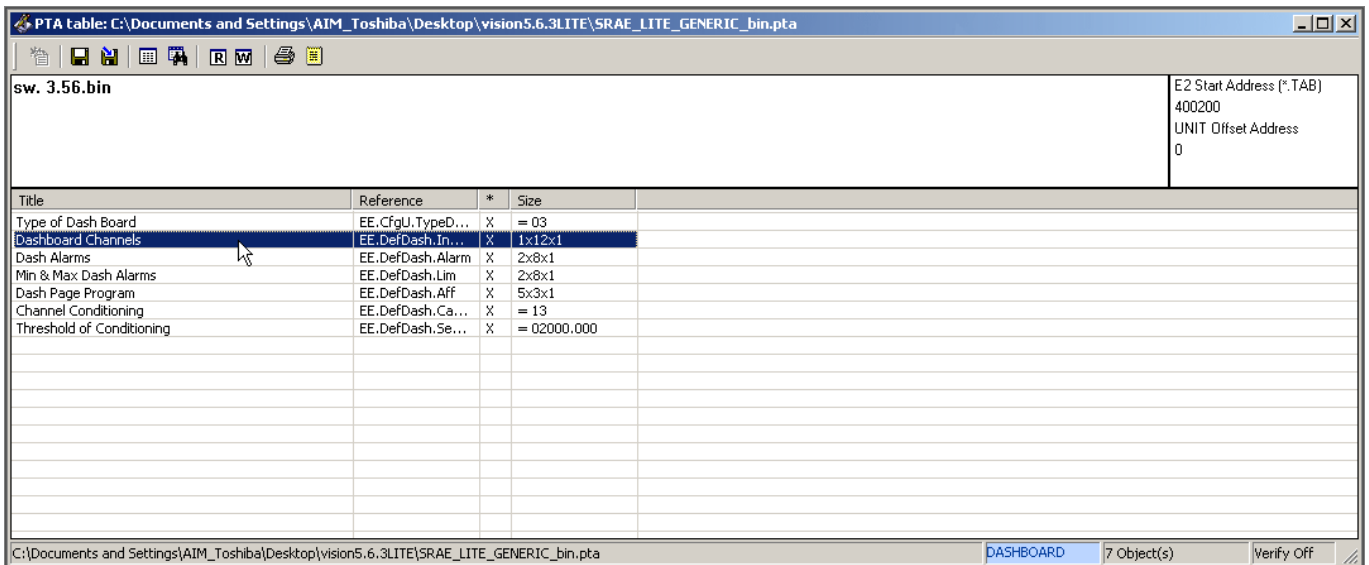
Title	Reference	*	Size
<b>Type of Dash Board</b>	EE.CfgU.TypeD...	X	= 03
Dashboard Channels	EE.DefDash.In...	X	1x12x1
Dash Alarms	EE.DefDash.Alarm	X	2x8x1
Min & Max Dash Alarms	EE.DefDash.Lim	X	2x8x1
Dash Page Program	EE.DefDash.Aff	X	5x3x1
Channel Conditioning	EE.DefDash.Ca...	X	= 13
Threshold of Conditioning	EE.DefDash.Se...	X	= 02000.000

At the bottom of the window, the status bar shows 'DASHBOARD' and '7 Object(s)'. A 'Verify Off' button is also visible.

- Double click the only settable cell and fill in "3" (Auto Prog)



- Double click "Dashboard Channels"





- Fill "Dashboard channels" table with the following values:

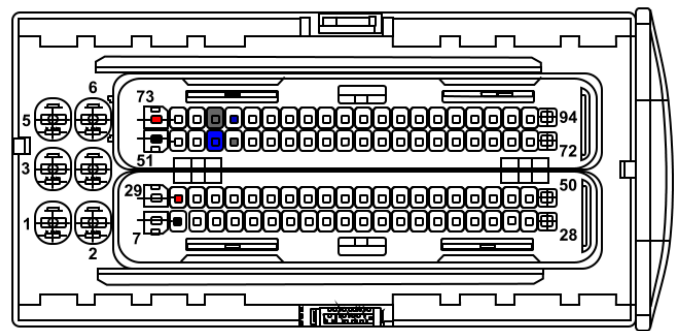
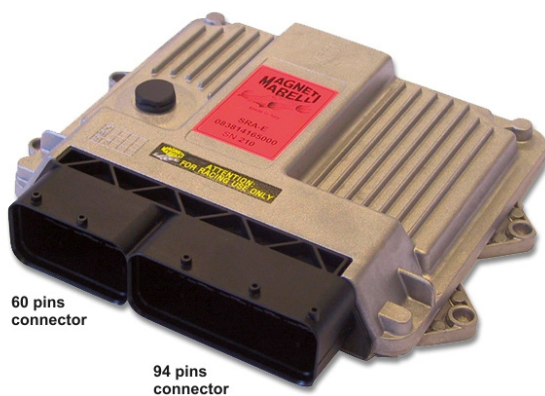
- 0000
- 0001
- 0005
- 0006
- 0004
- 0009
- 000B
- 0026
- 001E
- 0002
- 0007
- 0017

The screenshot shows a window titled "Edit Table C:\Documents and Settings\AIM\_Toshiba\Desktop\vision5.6.3LITE\SRAE\_LITE\_GENERIC\_bin.pta: Das...". The window contains a table with a comment and a list of channel numbers. The comment reads: "List of 12 dashboard channels. ( See documentation for the channel numbers ) Warning :HEXADECIMAL FORMAT". The table has a header row with "1,1,1" and "1". The data rows are numbered 13 to 24, with the following channel numbers: 0000, 0001, 0005, 0006, 0004, 0009, 000B, 0026, 001E, 0002, 0007, and 0017.

1,1,1	1
13	0000
14	0001
15	0005
16	0006
17	0004
18	0009
19	000B
20	0026
21	001E
22	0002
23	0007
24	0017

## 2 Connection to AiM devices

Magneti Marelli SRA EDL8 ECU features a bus communication protocol based on CAN on the 94 pins front right connector. Here below it is indicated on the left; on the right is connector pinout in detail.



Here below is connection table. The ECU has two CAN lines: CAN0 and CAN1; AiM suggests to use CAN1.

**Please note:** be sure to **never** cross CAN High and CAN low of different CAN lines.

94 Pins connector pin	Pin function	AiM cable
76	CAN0 High	CAN+
54	CAN0 Low	CAN-
<b>55</b>	<b>CAN1 High</b>	<b>CAN+</b>
<b>77</b>	<b>CAN2 Low</b>	<b>CAN-</b>
8 or 51	Ground	GND
73 or 30	Battery Positive Pole	9-15 VDC

## 3

# AiM device configuration

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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 "MARELLI"
- ECU Model "SRA\_EDL8 "

## 4

# Available channels

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Channels received by AiM devices connected to "MARELLI" "SRA\_SRAE\_SRT" protocol are:

<b>ID</b>	<b>CHANNEL NAME</b>	<b>FUNCTION</b>
ECU_1	EDL8_RPM	RPM
ECU_2	EDL8_TPS	Throttle position sensor
ECU_3	EDL8_ECT	Engine coolant temperature
ECU_4	EDL8_OILT	Oil temperature
ECU_5	EDL8_OILP	Oil pressure
ECU_6	EDL8_FUELP	Fuel pressure
ECU_7	EDL8_BATTV	Battery supply
ECU_8	EDL8_GEAR	Engaged gear
ECU_9	EDL8_LAMBDA	Lambda value
ECU_10	EDL8_SPEED	Vehicle speed
ECU_11	EDL8_MAP	Manifold air pressure
ECU_12	EDL8_AIR_T	Intake air temperature