



**AiM Infotech**

# KMS MA25 and MP25 ECUs

**Release 1.06**

---



**ECU**



# 1 Supported models

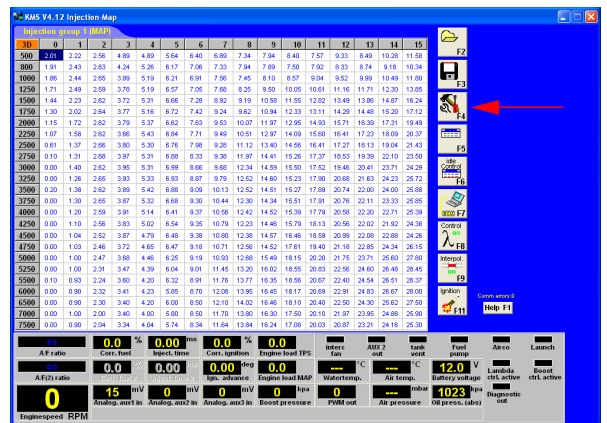
This tutorial explains how to connect KMS ECUs to AiM devices. Supported models are:

- MA25
- MP25

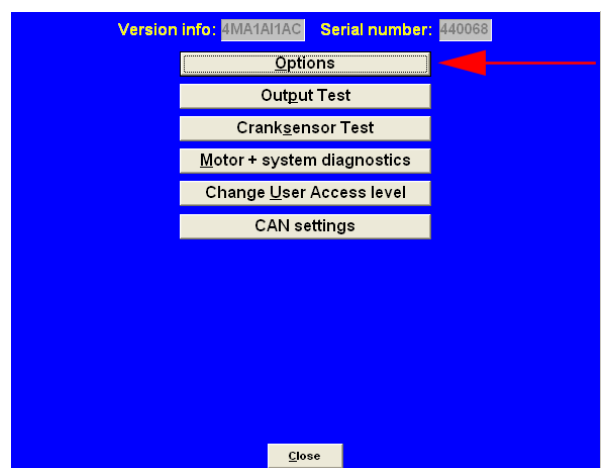
# 2 Software setup

KMS MP25 and MA25 ECUs come with KMS dedicated software. To ensure a correct communication between the ECUs and AiM devices set up the ECUs as follows:

Run the software and press "Options" icon.

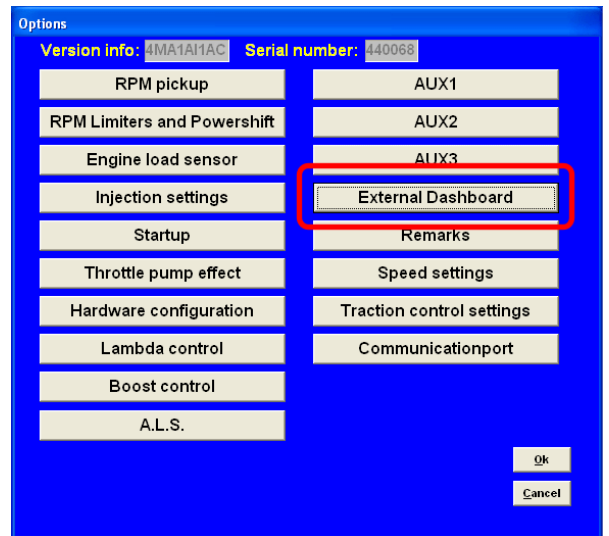


Press "Options".

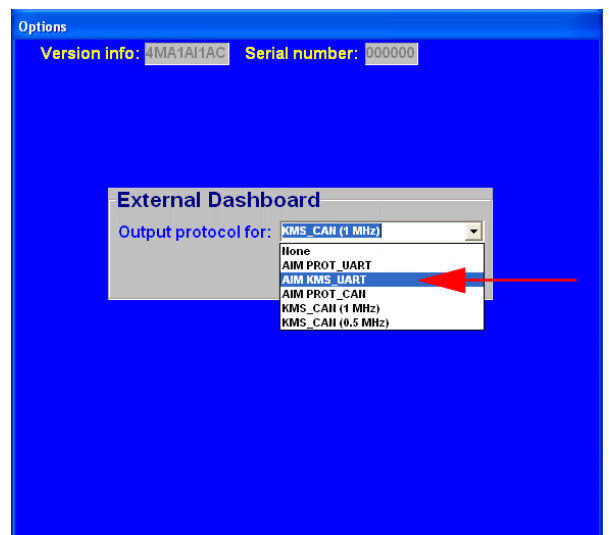




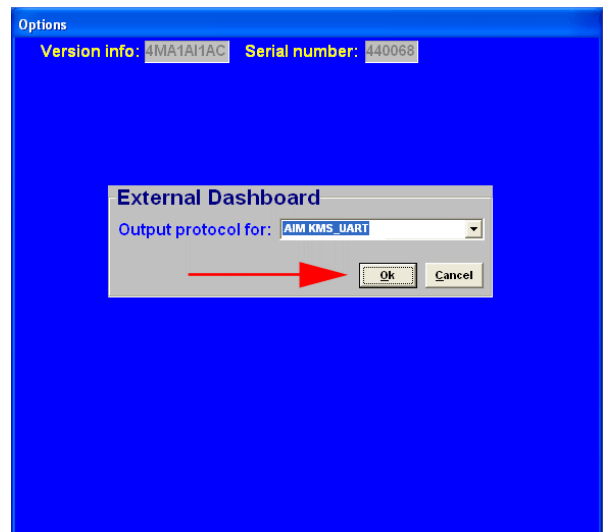
Press "External Dashboard"



Select "AIM KMS\_UART"



Press "OK"





Press "OK" again

Options DATA IS NOT LOCKED !!!

Version info: 4MA1A1AC Serial number: 440068

RPM pickup	AUX1
RPM Limiters and Powershift	AUX2
Engine load sensor	AUX3
Injection settings	External Dashboard
Startup	Remarks
Throttle pump effect	Speed settings
Hardware configuration	Traction control settings
Lambda control	Communicationport
Boost control	
A.L.S.	

Ok Cancel

Data download starts automatically

MMS V4.12 Injection Map DATA IS NOT LOCKED !!!

Injection speed (km/h)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
300	2.01	2.22	2.56	4.89	4.89	5.64	6.40	6.80	7.34	7.94	8.40	7.57	8.33	8.49	10.20	11.58
350	1.91	2.43	3.03	4.24	5.26	6.17	7.06	7.33	7.94	7.99	7.99	7.92	8.33	8.74	9.16	10.34
4000	1.86	2.44	2.66	3.89	5.19	6.21	6.91	7.96	7.45	8.10	8.67	9.04	9.62	9.99	10.49	11.80
4250	1.71	2.49	2.59	3.78	5.19	6.57	7.05	7.60	8.25	9.30	10.05	10.61	11.16	11.71	12.30	13.85
4500	1.44	2.23	2.82	3.72	5.31	6.68	7.28	8.32	9.19	10.56	11.55	12.82	13.46	14.83	16.24	
4750	1.30	2.02	2.64	3.77	5.16	6.72	7.42	8.24	9.62	10.94	12.33	13.11	14.28	14.48	15.20	17.12
2000	1.15	1.72	2.62	3.79	5.37	6.62	7.63	9.33	10.07	11.97	12.95	14.89	15.71	16.39	17.31	19.49
2250	1.07	1.58	2.62	3.86	5.43	6.84	7.71	9.49	10.51	12.37	14.09	15.88	16.41	17.23	18.69	20.37
2500	0.91	1.37	2.66	3.90	5.30	6.76	7.98	9.30	11.12	13.40	14.66	16.41	17.21	18.13	19.64	21.43
2750	0.10	1.31	2.68	3.97	5.31	6.80	8.33	9.36	11.97	14.41	16.26	17.37	18.63	19.39	22.10	23.50
3000	0.00	1.40	2.62	3.95	5.31	6.99						17.52	19.46	20.41	23.71	24.29
3250	0.00	1.26	2.65	3.93	5.33	6.93						17.90	20.96	21.63	24.23	25.72
3500	0.20	1.38	2.62	3.89	5.42	6.88						17.88	20.74	22.00	24.00	25.88
3750	0.00	1.30	2.65	3.87	5.32	6.80	8.30	10.44	12.30	14.34	16.51	17.91	20.76	22.11	23.30	26.85
4000	0.00	1.20	2.59	3.91	5.14	6.41	8.37	10.58	12.42	14.52	16.39	17.78	20.50	22.30	22.71	26.39
4250	0.00	1.10	2.56	3.83	5.02	6.54	8.36	10.79	12.23	14.46	16.79	18.13	20.58	22.02	21.62	24.38
4500	0.00	1.04	2.52	3.87	4.79	6.48	8.38	10.80	12.38	14.67	16.46	18.58	20.98	22.08	22.80	24.26
4750	0.00	1.00	2.46	3.72	4.85	6.47	8.18	10.71	12.96	14.52	17.61	19.40	21.18	22.85	24.34	26.15
5000	0.00	1.00	2.47	3.65	4.46	6.25	8.19	10.53	12.66	15.40	18.15	20.30	21.75	23.71	25.63	27.60
5250	0.00	1.00	2.38	3.47	4.39	6.04	8.01	11.45	13.20	16.02	18.65	20.83	22.58	24.60	26.48	28.45
5500	0.10	0.93	2.24	3.50	4.20	6.32	8.91	11.76	13.77	16.35	18.56	20.67	22.40	24.54	26.91	28.37
6000	0.00	0.90	2.32	3.41	4.23	5.68	8.70	12.08	13.95	16.45	18.87	20.68	22.91	24.83	26.67	28.00
6500	0.00	0.90	2.30	3.40	4.20	6.00	8.50	12.10	14.02	16.46	18.10	20.40	22.50	24.30	26.62	27.50
7000	0.00	1.00	2.00	3.40	4.80	6.50	8.50	11.70	13.80	16.30	17.50	20.10	21.97	23.85	24.88	25.90
7500	0.00	0.90	2.04	3.34	4.84	6.74	8.34	11.04	13.84	16.24	17.08	20.03	20.97	23.21	24.10	25.30

Down loading 10%

Map F1

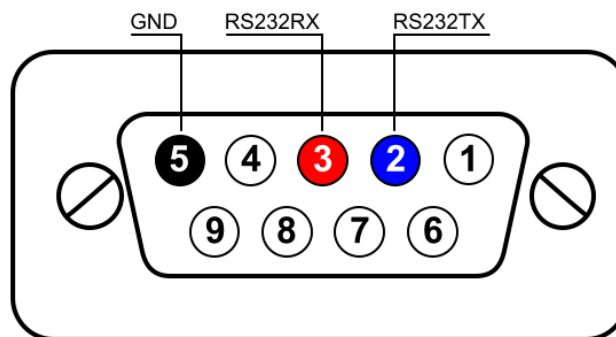
AF ratio: 0.00  
 A/F ratio: 0.00  
 Engine speed: 0 RPM  
 Ign. advance: 0.00  
 Engine load MAP: 0  
 Boost pressure: 0  
 Fuel pump: 0.00  
 Water temp.: 0.00  
 Air temp.: 12.0 V  
 Battery voltage: 1023  
 Magnestic coil: 0  
 Boost ctrl active: 0

### 3

## Connection to AiM devices

---

KMS MA25 and MP25 ECUs feature a serial communication protocol that can be reached using the DB9 female connector you find on the ECU harness. Here below are connector pinout and connection table.



DB9 Pin	Pin function	AiM cable label
2	RS232TX	RS232RX
3	RS232RX	RS232TX
5	GND	GND

### 4

## 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 "KMS"
- ECU Model "RS232"

## 5

# Available channels

---

Channels received by AiM devices connected to "KMS" "RS232" protocol are:

<b>ID</b>	<b>CHANNEL NAME</b>	<b>FUNCTION</b>
ECU_1	KMS_RPM	RPM
ECU_2	KMS_TPS_RAW	Throttle position sensor raw value
ECU_3	KMS_ECT	Engine coolant temperature
ECU_4	KMS_IAT	Intake air temperature
ECU_5	KMS_MAP	Manifold air pressure
ECU_6	KMS_OILP	Oil pressure
ECU_7	KMS_AFR	Air Fuel ratio
ECU_8	KMS_IGN_ADV	Ignition advance
ECU_9	KMS_INJ_TIME	Injection time
ECU_10	KMS_GEAR	Engaged gear
ECU_11	KMS_TPS_LOADST	Throttle position sensor load status
ECU_12	KMS_MAP_LOADST	Manifold air pressure load status
ECU_13	KMS_LAUNCH_SW	Launch switch
ECU_14	KMS_LAMBDA_CT	Lambda traction control
ECU_15	KMS_FUEL_INJ_C	Fuel injection correction
ECU_16	KMS_IGNI_CORR	Ignition correction
ECU_17	KMS_ECU_BATT	Battery supply
ECU_18	KMS_THROTTLE	Throttle percentage