AiM Infotech

MoTec
CAN Custom Data Set1

Release 1.01

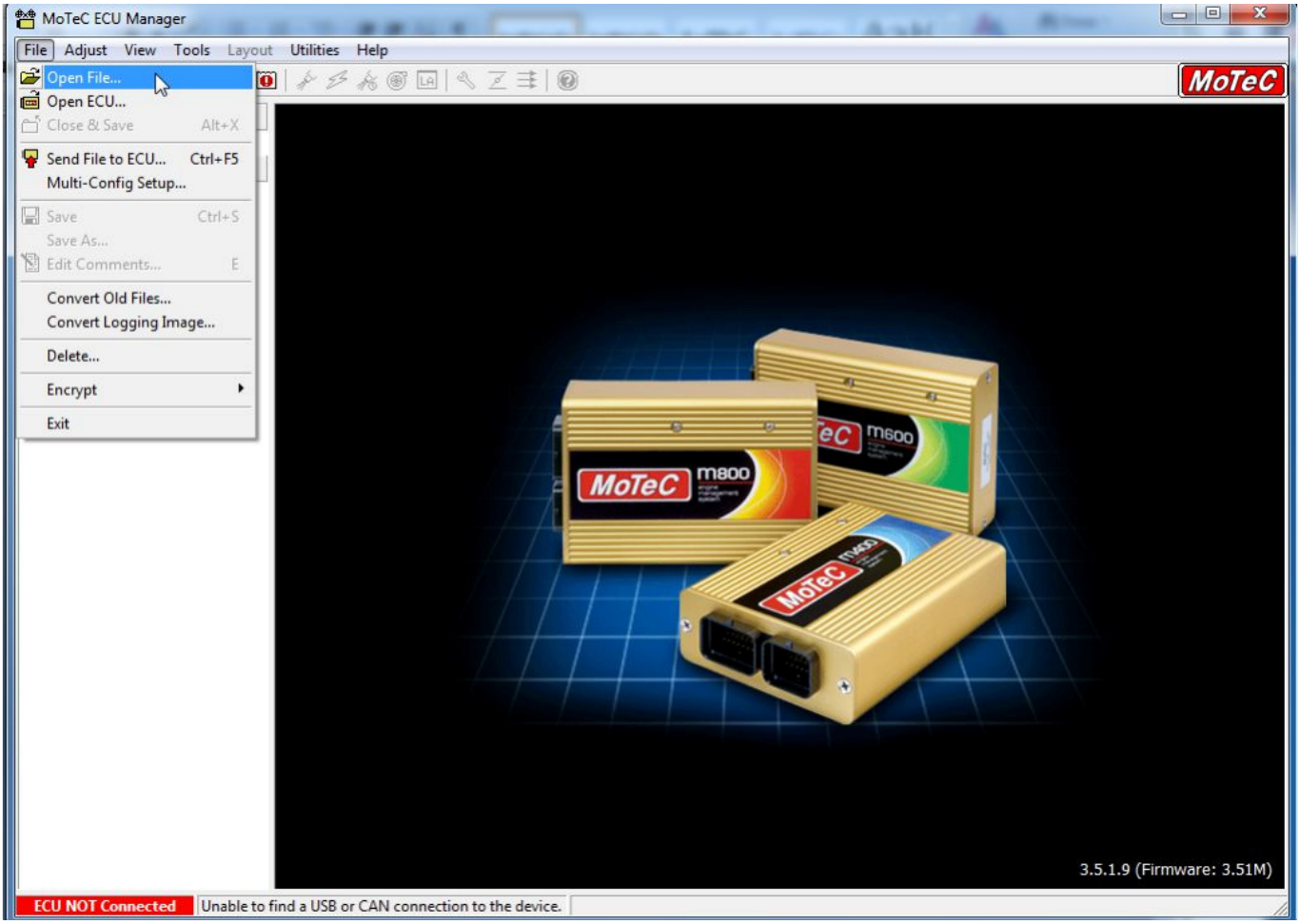
Devices

This tutorial explains how to connect MoTec and AiM devices.

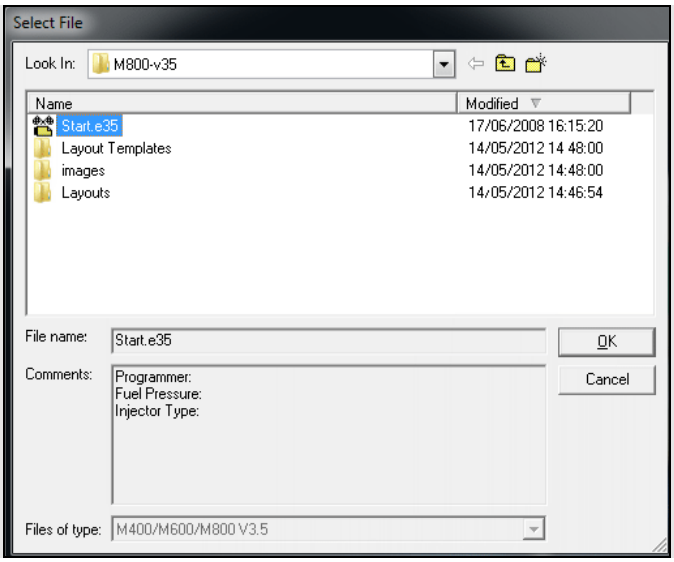
1
Software Setup

MoTec devices need to be set up via MoTec ECU Manager software. Run it and follow this path:

- File –> Open file

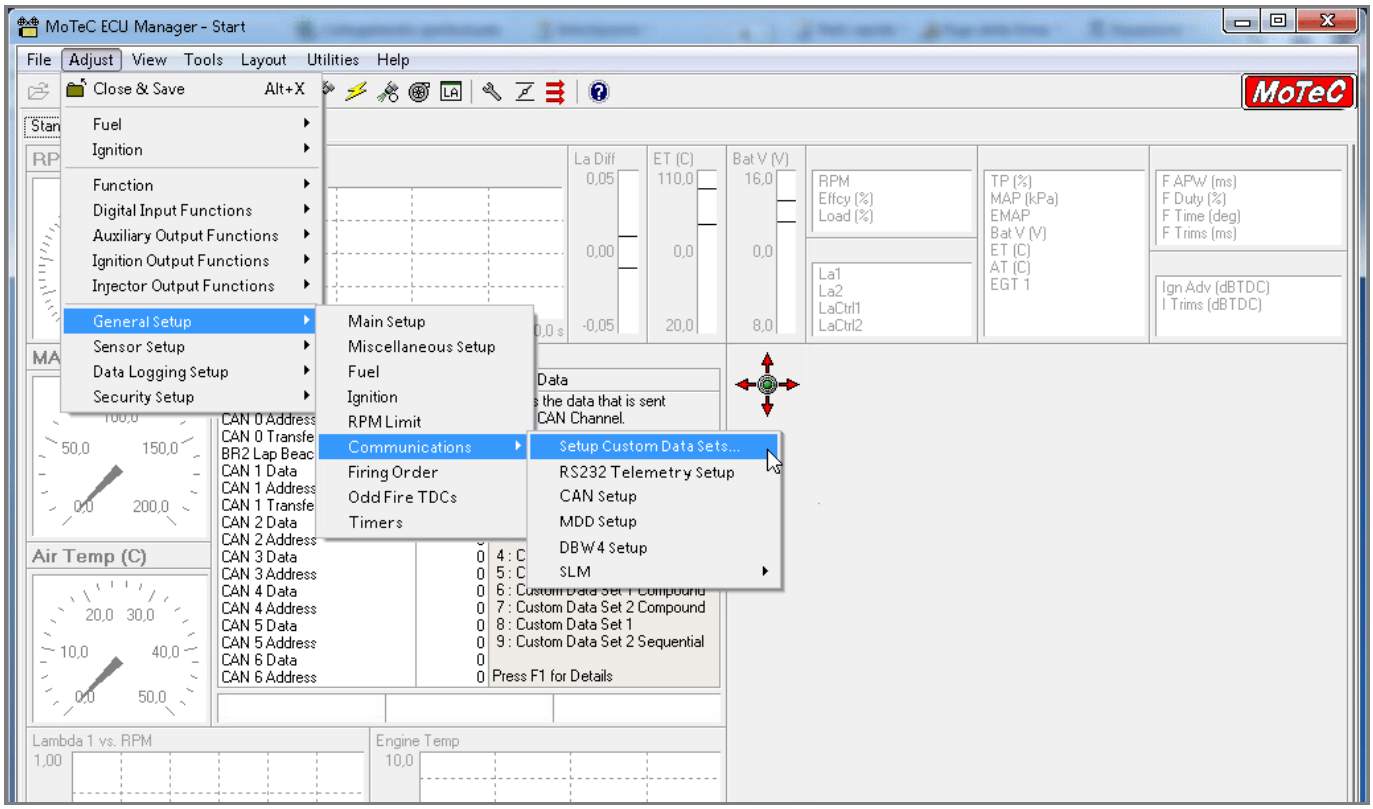


Upload the project file you already have – this file has ".e35" extension – and press "OK"

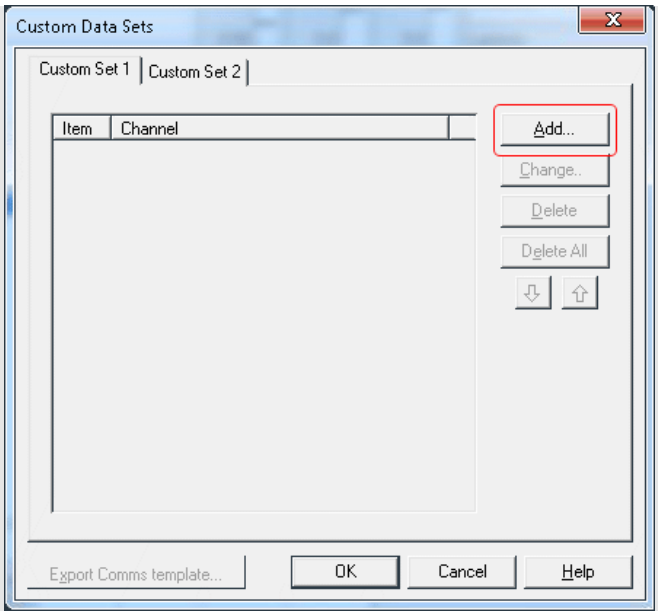


The panel below appears; follow this path:

- Adjust –> General Setup –> Communications –> Setup Custom Data Sets...

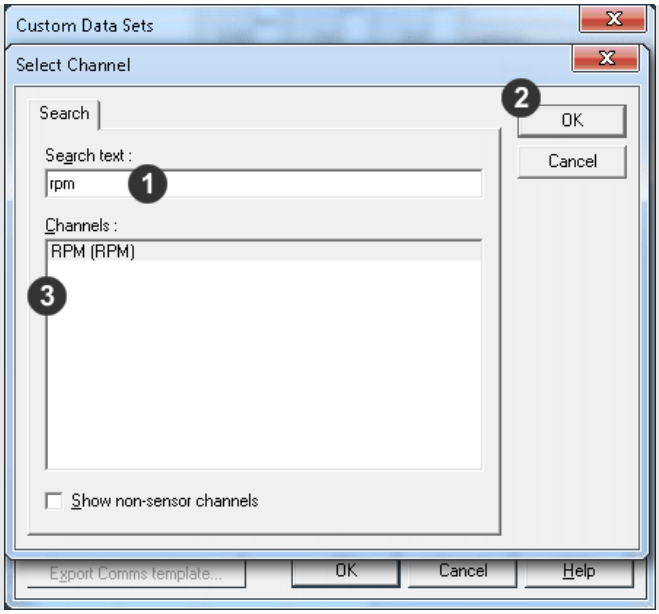


"Custom Data Sets" panel appears. It is now necessary to add all channels needed by the configuration.

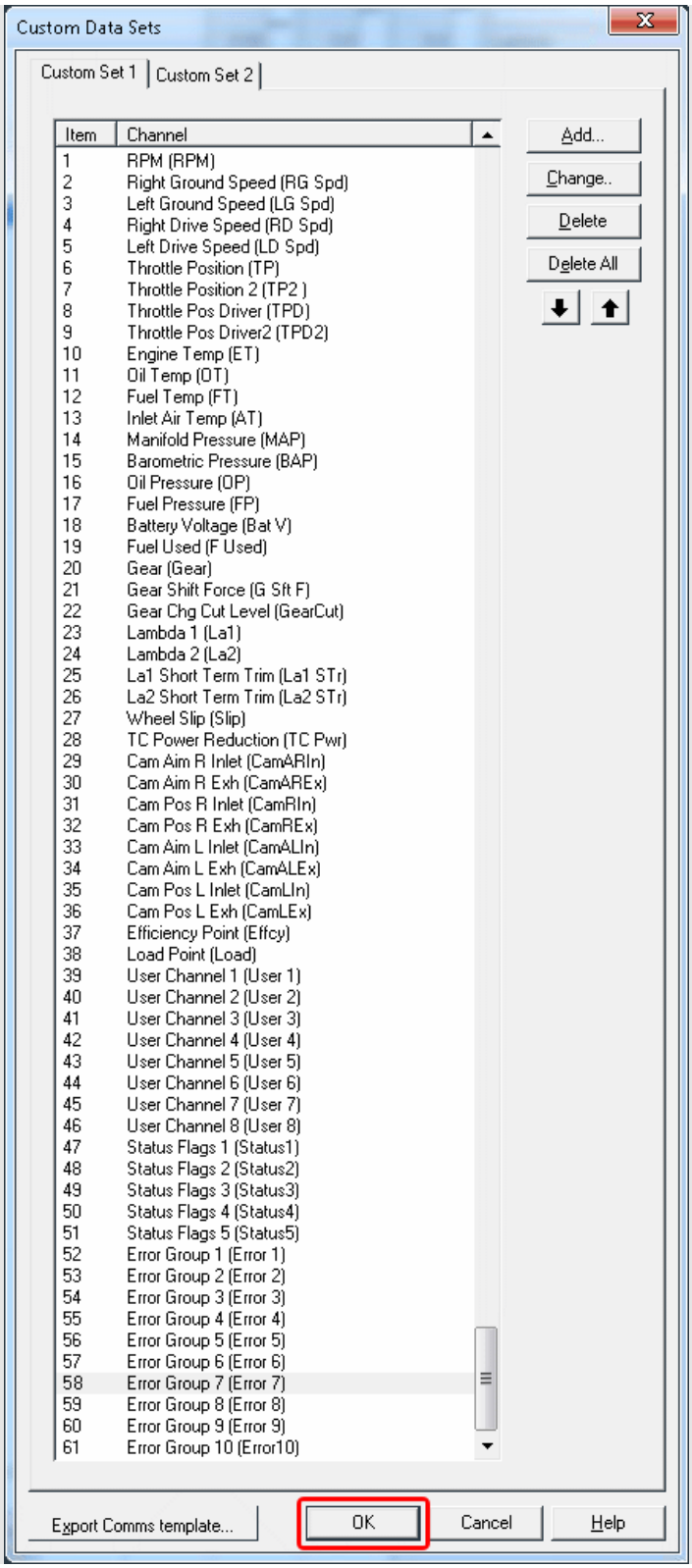


To add a channel

- press "Add" in the panel here above
- the panel below appears
- insert the channel you wish in "Search text" box (**1**) and press "OK" (**2**)
- the requested channel appears in the list (**3**)

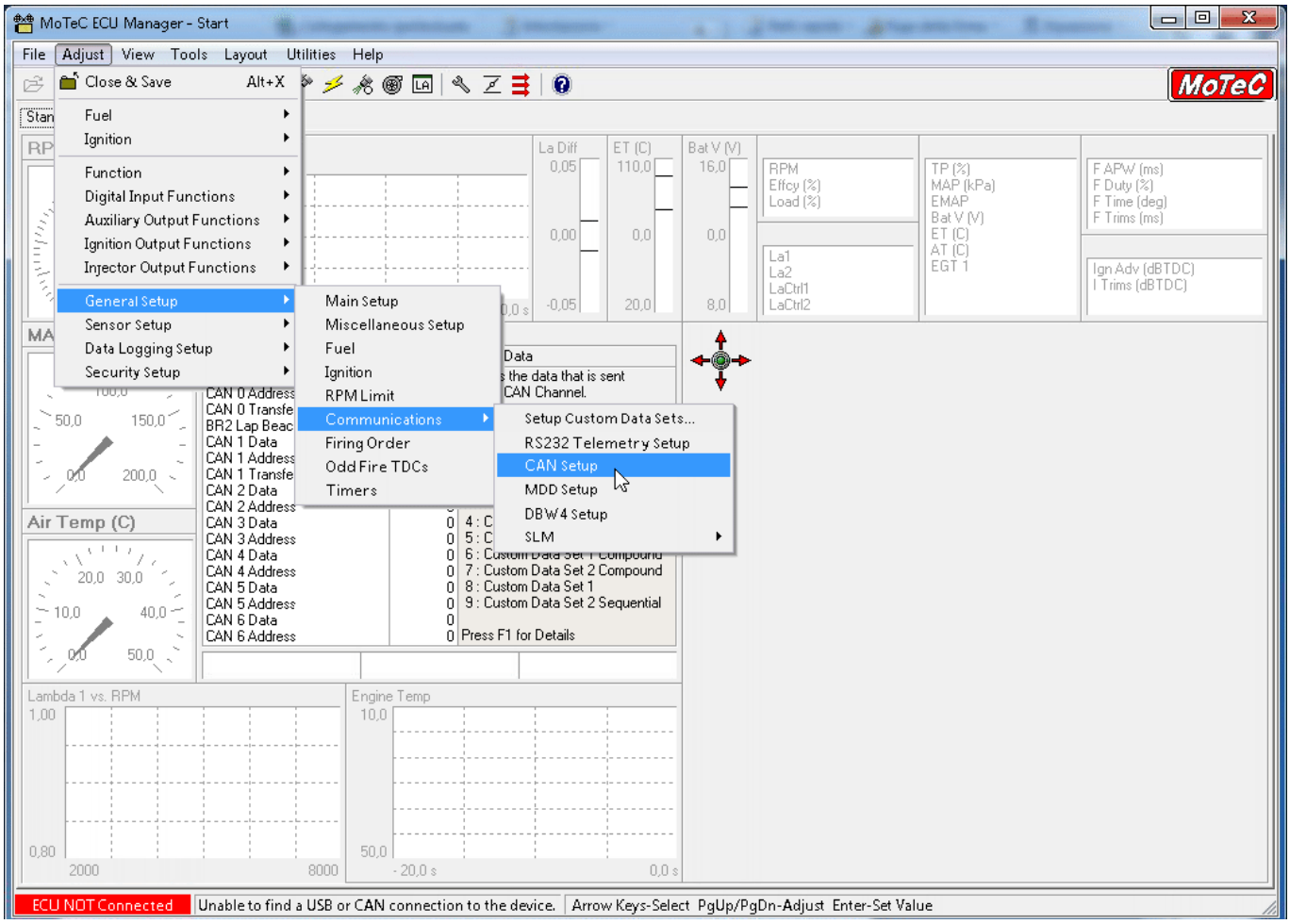


The image below shows all the channels to be added. At the end press "OK" to save and exit.



The software comes back to the main page. Follow this path:

- Adjust –> General Setup –> Communications –> CAN Setup



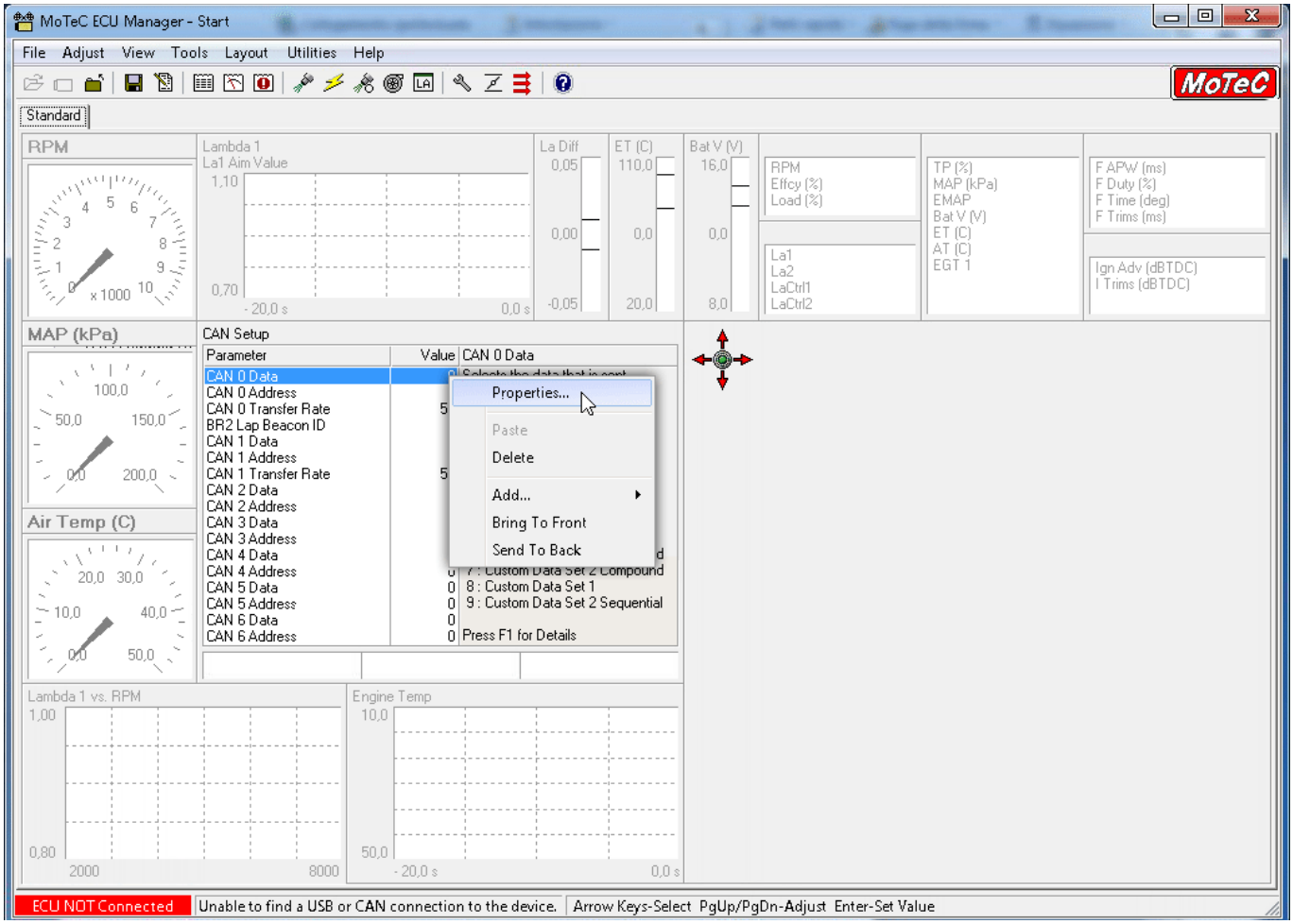
The window here below appears. Three parameters are to be set:

- CAN Data
- CAN Address
- CAN Transfer Rate

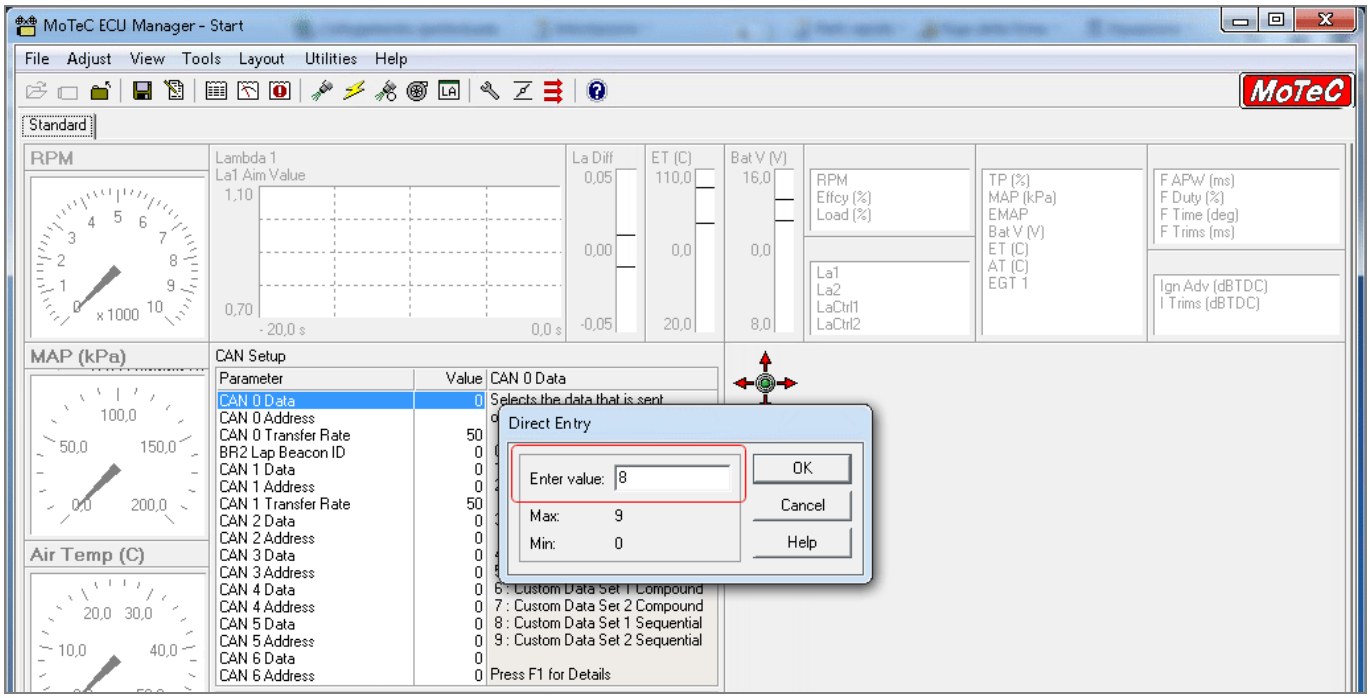
You can choose CAN 0 or CAN1 line and the other two parameters are subsequent.

In the example below CAN 0 was chosen.

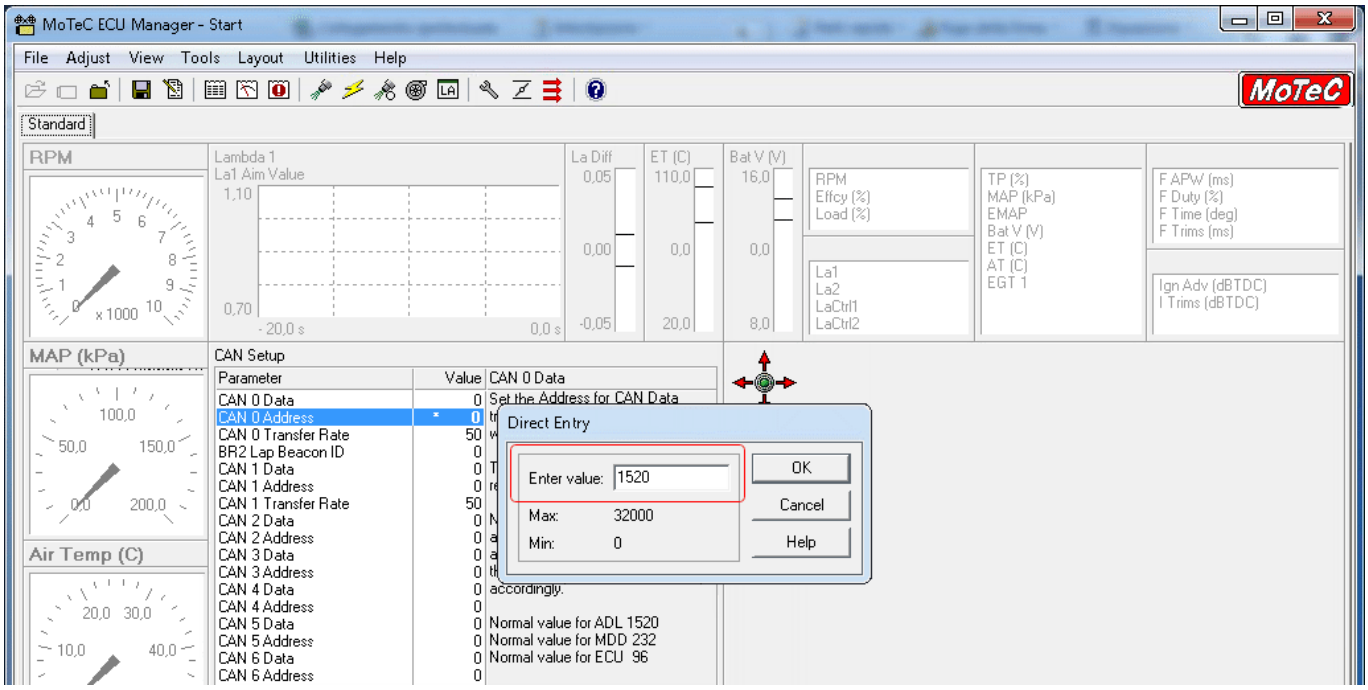
Start selecting the CAN line you want to use and right click on it selecting "Properties..." as shown below.



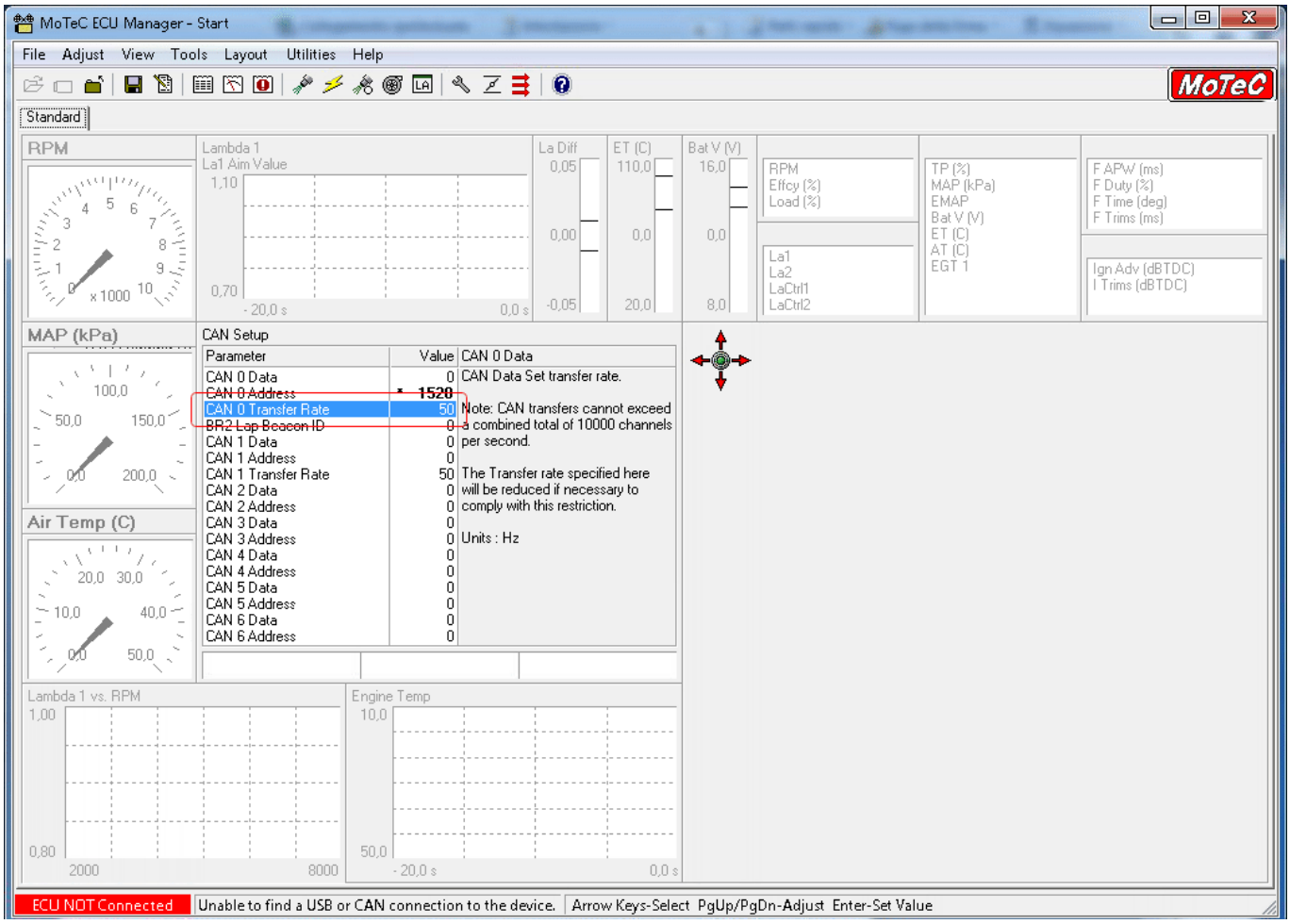
Direct Entry panel appears: fill in "8" and press "OK"



Then do the same with "CAN 0 Address": fill "Direct Entry " panel with 1520 and press "OK"



As far as "CAN 0 Transfer rate" is concerned: leave it set on 50 Hz as below.



Once all parameters set transmit the configuration to your device.

2
AiM device configuration

Before connecting MoTec device to AiM device, set this up using AiM Race Studio software. The parameters to select in the device configuration are:

- ECU manufacturer “MoTec”
- ECU Model “CAN_CUSTOM_DATA_SET1”

3
Available channels

Channels received by AiM devices connected to "MoTec" "CAN_CUSTOM_DATA_SET1" protocol are.

ID	CHANNEL NAME	FUNCTION
ECU_1	MO_RPM	RPM
ECU_2	MO_GRD_SPEED_R	Right ground speed
ECU_3	MO_GRD_SPEED_L	Left ground speed
ECU_4	MO_DRV_SPEED_R	Right drive speed
ECU_5	MO_DRV_SPEED_L	Left drive speed
ECU_6	MO_THROT_POS	Throttle position
ECU_7	MO_THROT_POS2	Throttle position 2
ECU_8	MO_TH_POS_DRV	Throttle position driver
ECU_9	MO_TH_POS_DRV2	Throttle pos driver 2
ECU_10	MO_ENGINE_TEMP	Engine temperature
ECU_11	MO_OIL_TEMP	Oil temperature
ECU_12	MO_FUEL_TEMP	Fuel temperature
ECU_13	MO_AIR_TEMP_IN	Inlet air temperature
ECU_14	MO_MANIFOLD_PR	Manifold air pressure (MAP)
ECU_15	MO_BARO_PR	Barometric air pressure (BAP)
ECU_16	MO_OIL_PR	Oil pressure

ECU_17	MO_FUEL_PR	Fuel pressure (FP)
ECU_18	MO_BATT_ECU	Battery voltage (V Bat)
ECU_19	MO_FUEL_USED	Fuel used
ECU_20	MO_GEAR	Gear
ECU_21	MO_GEAR_SH_FOR	Gear shift force
ECU_22	MO_GEAR_CUT_LV	Gear change cut level
ECU_23	MO_LAMBDA_1	Lambda 1
ECU_24	MO_LAMBDA_2	Lambda 2
ECU_25	MO_LA_1_SH_TRM	La 1 short term trim
ECU_26	MO_LA_2_SH_TRM	La 2 short term trim
ECU_27	MO_WHEEL_SLEEP	Wheel sleep
ECU_28	MO_TC_POW_RED	Traction control power reduction
ECU_29	MO_CAMAIM_R_IN	Cam aim right inlet
ECU_30	MO_CAMAIM_R_EX	Cam aim right exhausted
ECU_31	MO_CAMPOS_R_IN	Cam position right inlet
ECU_32	MO_CAMPOS_R_EX	Cam position right exhausted
ECU_33	MO_CAMPOS_L_IN	Cam position left inlet
ECU_34	MO_CAMPOS_L_EX	Cam position left exhausted
ECU_35	MO_CAMAIM_IN	Cam aim inlet
ECU_36	MO_CAMAIM_EX	Cam aim exhausted
ECU_37	MO_CAMPOS_IN	Cam position inlet
ECU_38	MO_CAMPOS_EX	Cam position exhausted
ECU_39	MO_EFFCY_POINT	Efficiency point
ECU_40	MO_LOAD_POINT	Load point
ECU_41	MO_USER1	User channel 1
ECU_42	MO_USER2	User channel 2
ECU_43	MO_USER3	User channel 3
ECU_44	MO_USER4	User channel 4
ECU_45	MO_USER5	User channel 5
ECU_46	MO_USER6	User channel 6
ECU_47	MO_USER7	User channel 7
ECU_48	MO_USER8	User channel 8

ECU_49	MO_USER9	Status group 1
ECU_50	MO_USER10	Status group 2
ECU_51	MO_USER11	Status group 3
ECU_52	MO_USER12	Status group 4
ECU_53	MO_USER13	Status group 5
ECU_54	MO_USER14	Error group 1
ECU_55	MO_USER15	Error group 2
ECU_56	MO_USER16	Error group 3
ECU_57	MO_USER17	Error group 4
ECU_58	MO_USER18	Error group 5
ECU_59	MO_USER19	Error group 6
ECU_60	MO_USER20	Error group 7
ECU_61	MO_USER21	Error group 8
ECU_62	MO_USER22	Error group 9
ECU_63	MO_USER23	Error group 10