ECUMASTER ADU

Application Note

MITSUBISHI LANCER EVOLUTION X

Revision 1.0

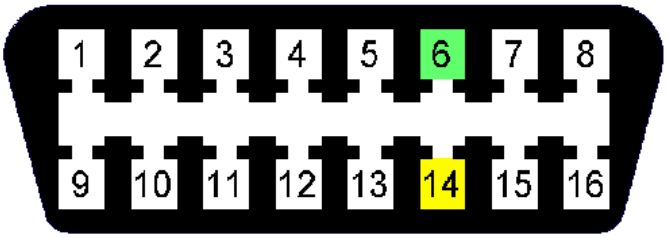
1. Copyright and trademarks

2. Introduction

This application note explains how to connect the ECUMASTER ADU to a Mitsubishi Lancer Evolution X with the OEM ECU.

3. Electrical connection

We suggest to connect to the CAN bus using OBD2 connector.



Terminal 6 (green) is CAN-H and terminal 14 (yellow) is CAN-L.
The OEM ECU CAN bus speed is fixed at 500kbps. Due to this fact, the ECU must be connected to ADU CAN2.

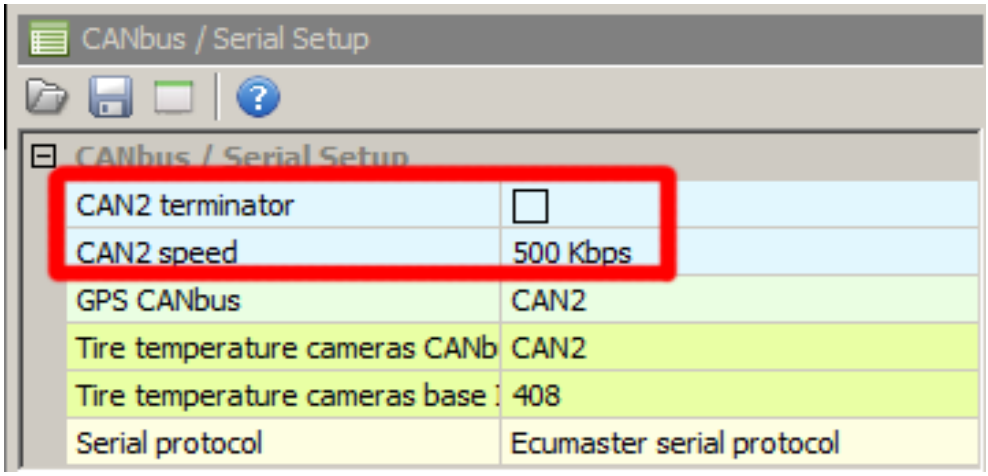
OBD2 connector	ADU CAN2	Comment
14	6	CAN L
6	7	CAN H

Twisted pair cable is required for any CAN BUS connection.

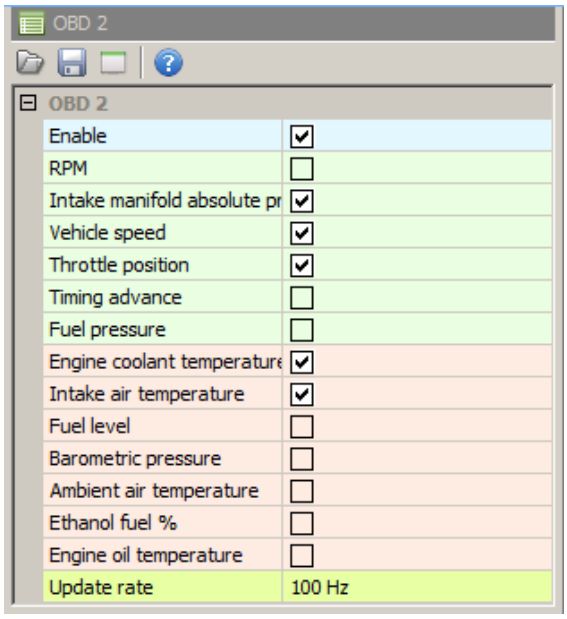
4. ADU configuration

The ADU can read parameters directly from OEM ECU CAN messages (e.g. Rpm) and from OBD2 at the same time (e.g. Clt).

First, the ADU CAN2 bus must be configured. To open CAN2 configuration, press F9 to show the pane selector. Then, open "*General / CAN BUS Serial setup".* Select 500Kbps as the CAN2 speed. Do not enable the CAN2 terminator!



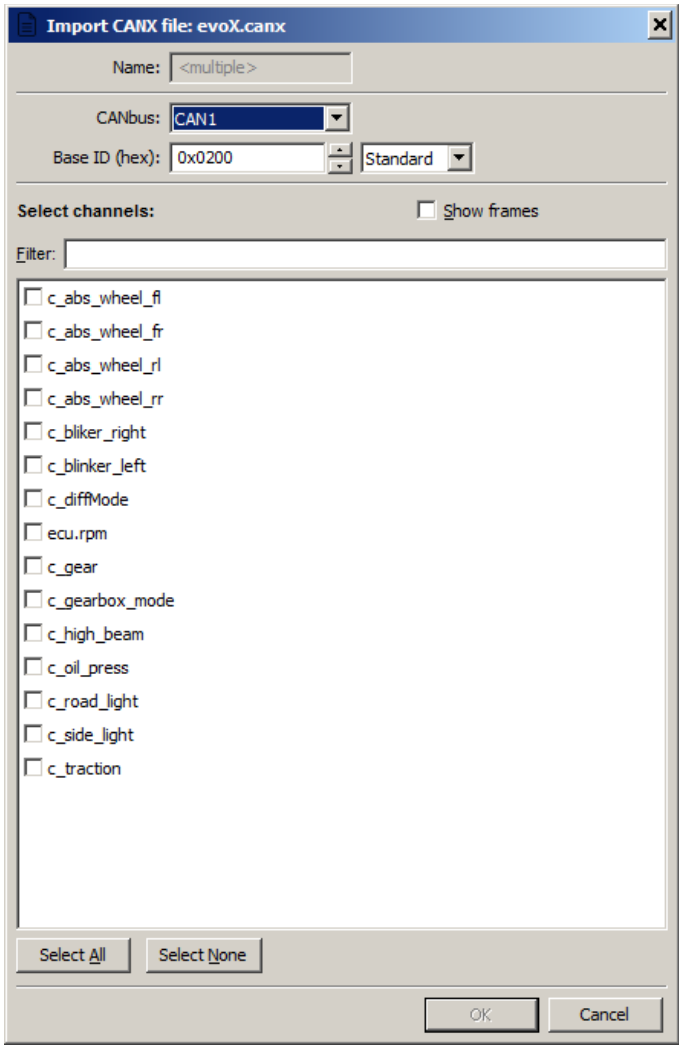
The next step is to enable OBD2 support. To configure, press F9 to show the pane selector. Then open OBD2 pane. Then copy the configuration from the picture on the right side.



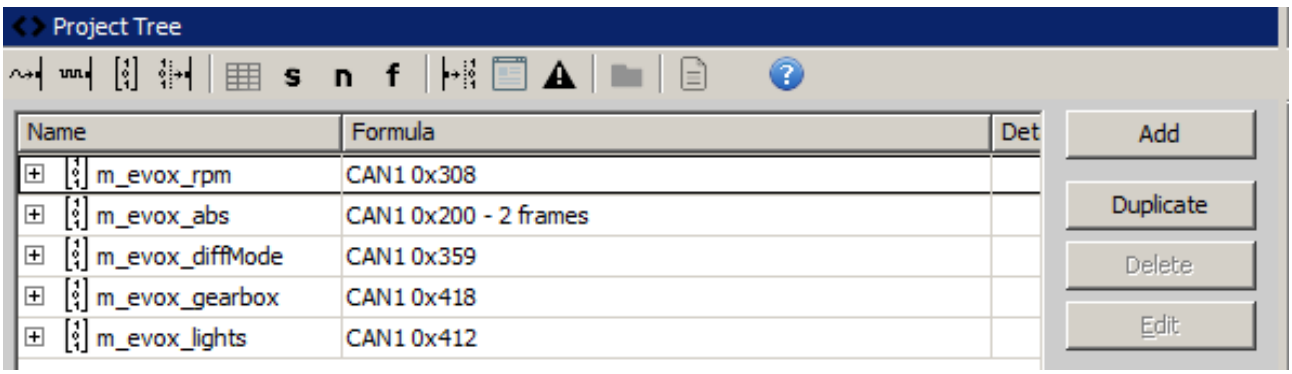
The next step is to load the proper CANX file with EVO X channel definitions.

On the Project tree, click the "Add" button and select "Import .CANX file". When the file dialog opens, select "evoX.*canx"* file. The following dialog appears:

At this point, select the CAN BUS network that will be used for communication (CAN1 or CAN2) and the channels you want to read. In most situations all channels should be loaded (Select All).



The project tree should look like the following:



5. Supported channels

ADU channel	Description
ecu.clt	engine coolant temeperature
ecu.iat	intake air temperature
ecu.map	manifold absolute pressure
ecu.rpm	engine speed
ecu.speed	vehicle speed
ecu.tps	throttle position
c_abs_wheel_fl	front left wheel speed
c_abs_wheel_fr	rront rigth wheel speed
c_abs_wheel_rl	rear left wheel speed
c_abs_wheel_rr	rear right wheel speed
c_bliker_right	right indicator status
c_blinker_left	left indicator status
c_diffMode	differential mode: 1 – tarmac 2 – gravel 3 – snow
c_gear	automatic transmission gear: 0 – park 8 – reverse 16 – neutral 32 - drive
c_gearbox_mode	automatic gearbox mode: 1 – super sport 2 – sport 3 - normal
c_high_beam	high beam lights status
c_oil_press	oil pressure switch status
c_road_light	road lights status
c_side_light	side lights
c_traction	traction control status