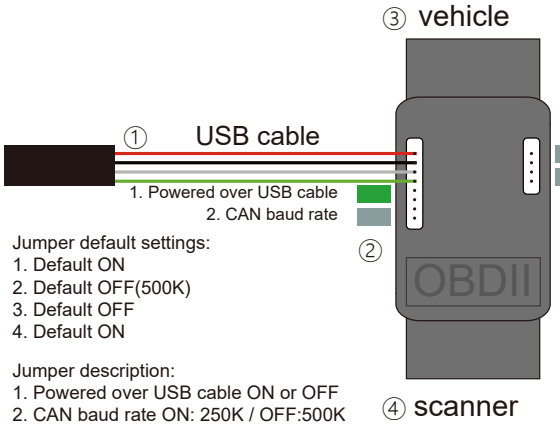
OBD2-CAN Data Processor

Introduction



Jumper default settings:
1. Default ON
2. Default OFF(500K)
3. Default OFF
4. Default ON

Jumper description:
1. Powered over USB cable ON or OFF
2. CAN baud rate ON: 250K / OFF:500K
3. Terminal resistor / vericle side
4. Terminal resistor / scanner side

CAN terminal resistor (120ohm)
3. Vehicle
4. Scanner

If the scanner does not have a built-in terminal resistor, you may need install jumper on scanner side.

iIf you use a ecu simulator, vehicle side jumper may required.

① USB data transfer cable
② CAN baud rate: installed=250K / not installed=500K
(configuration software has higher priority than this jumper)
③ J1962 male connector / connect to vehicle
④ J1962 female connector / connect to scan tool

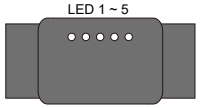
App & Driver

① Download software and usb driver(CP2102)
https://www.imsapp.com/en/support.html

② connect usb cable to data processor and computer usb port.
you can find COM port number in device manager
In this example, it is COM 4:
Silicon Labs CP210x USB to UART Bridge (COM4)

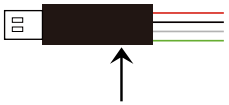
③ adjust settings and click "Write" button, all settings are stored in internal falsh memory.

LED indicator / OBD2



1. power
2. blinks every 1~2 seconds
3. fast flashing/CAN bus data transmission
4. I/M readiness / Mode 01 messages modified
5. USB R/W, DTC messages modified

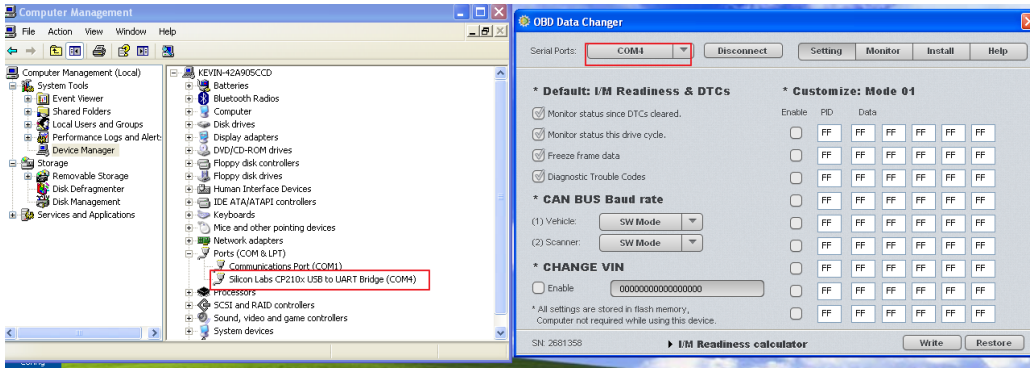
LED indicator / USB Cable



LED:
RED: Transmit (to data processor)
GREEN: Receive (from data processor)

Operation sequence

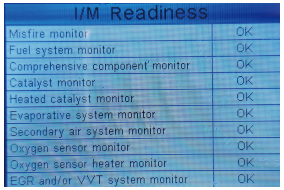
1.Vehicle turn off
2.Remove terminal resistor jumpers,
connect your scanner first then plug to obd port.
3.Turn ignition to ACC
4.If your scanner can not connected to vehicle, set scanner side terminal jumper, try again.



Settings

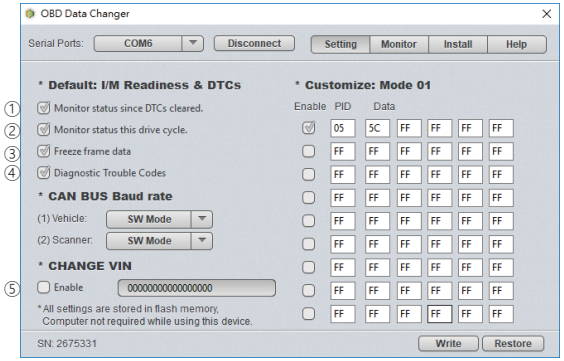
① Mode01 PID01
I/M Readiness (since DTCs were cleared)
continuous monitoring tests
non-continuous monitoring tests
all items 'supported' and 'complete'

② Mode01 PID41
I/M Readiness (this drive cycle)
continuous monitoring tests
non-continuous monitoring tests
all items 'supported' and 'complete'



③ Mode02
no freeze frame data

④ Mode03,07,0A
no stored Diagnostic Trouble Codes
no pending Diagnostic Trouble Codes
no Permanent Diagnostic Trouble Codes



⑤ Mode09 PID02
17 bytes VIN

Example

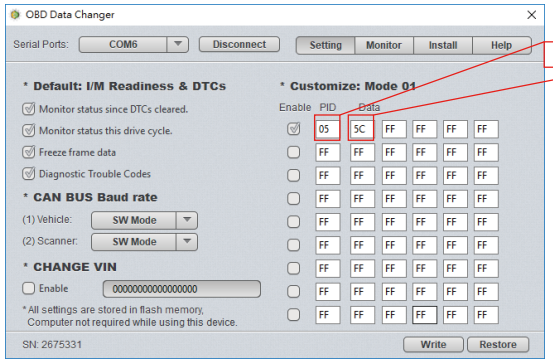


Table B.6 — PID $05 definition

PID (hex)	Description	Data byte	Min. value	Max. value	Scaling/bit	External test equipment SI (Metric) / English display
05	Engine Coolant Temperature	A	−40 °C	+215 °C	1 °C with −40 °C offset	ECT: xxx °C (xxx °F)
	ECT shall display engine coolant temperature derived from an engine coolant temperature sensor or a cylinder head temperature sensor. Many diesels do not use either sensor and may substitute Engine Oil Temperature instead.					

125

PID 05 = Engine Coolant Temperature
Formula: A-40

set ECT = 52°C

A-40 = 52 -> A=52+40=92

decimal 92 = hexadecimal 5C

You can get more information about PID definition from https://en.wikipedia.org/wiki/OBD-II_PIDs