OBD2 All-In-One Scan Tool Instructions

This package includes 3 items: an OBD2 All-In-One unit, an OBD2 cable, and a RS-232 serial cable. This unit is intended to be used with 1996 and newer cars and trucks that are OBD2 or EOBD compliant (The US required OBD2 on all 1996 and newer passenger cars, light-duty trucks, and medium-duty vehicles). For more detailed information on any aspect of the OBD2 All-In-One unit, you can read information at www.obd2allinone.com

To use the OBD2 All-In-One unit you will need a computer, and an OBD2 software package on that computer that is compatible with the OBD2 All-In-One unit. The computer can be a laptop PC, a desktop PC, or some type of handheld or Palm PC with a working RS-232 serial port, commonly know as a COM port. If your PC does not have a RS-232 serial port built in, and only has a USB port, you can buy our OBD2 All-In-One USB unit or buy a USB to serial adapter. The USB to serial converter that has been reported to work best is the Belkin F5U103 adapter, and these can be found on Ebay for about $10.

You will need a software package loaded onto your PC in order to collect data, and see and clear trouble codes. There are many software packages available on the included CD-ROM or for download from the Internet, both free and paid versions, that work with the ELM327 processor chip used in this unit. You can check the www.obd2allinone.com home page for the various packages available, as new ones are developed over time.

In-Car Operation

In car operation is fairly straightforward. Plug the OBD2 cable connector into your OBD2 port under the dash and then plug the other end into the OBD2 All-In-One unit.

The green power light for the OBD2 All-In-One unit should be on. Next, plug the provided serial cable into the other end of the OBD2 All-In-One unit and then the other end of the RS-232 serial cable into your PC.

Turn on your PC and start whatever data collection software you have downloaded, and turn the car key forward to light up the dash and start the communication between your cars ECU/PCM and the PC. Various programs offer different ways to reset or initialize the unit, and this should be done when you start the program. You should see the lights on the unit blinking, showing communication between the car and the PC. A short video showing these steps is available at www.obd2allinone.com

We have found in car operation to be more reliable by using a DC to AC inverter to power the PC while doing data collection runs. Small inverters can usually be purchased at a Costco or Sam's club type store for $20 or less.

New software packages will be developed over time that are compatible with the OBD2 All-In-One unit. These new packages will have more features, and will have the capability to run at higher speeds. The OBD2 All-In-One unit is able to operate at 2 different communication speeds, 9600 and 38400 baud. The unit as shipped is set to operate at 9600 baud, to offer compatibility with currently available software packages. If you download a new software package in the future for your PC that has the ability to run at 38400 baud, the OBD2 All-In-One unit can be changed to run at this speed via an internal jumper switch.
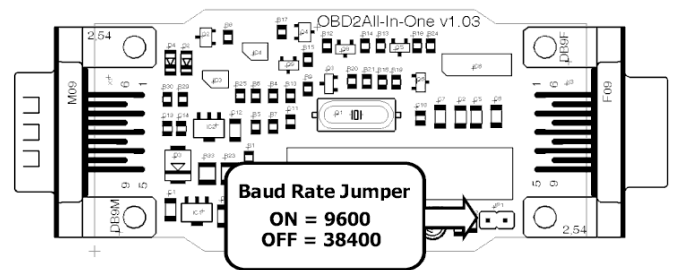
The case of the OBD2 All-In-One unit can be carefully pried open with a screwdriver or other tool, revealing the internal circuit board. On the top side of this circuit board is a single black jumper switch. Lift up to remove this small black plastic jumper from the 2 pins it is on, and slide it down over just one of the pins (or remove it from the case completely if you'd like) and this will enable the unit to operate at the higher 38400 baud speed.

Troubleshooting: If all the cables are connected, but you are still not seeing data, there are a number of things to check. First make sure your cables are connected properly and that the green power light is lit on the OBD2 All-In-One unit. Make sure your

car key is turned forward to light up your dash, or the vehicle is running.

To see if communication is taking place between the OBD2 All-In-One unit and the PC, you can use the HyperTerminal program on Windows PC's. Start up the HyperTerminal program (usually under Start > Programs > Accessories), select a COM port (usually COM1), and select a baud rate of 9600 (or 38400 if you changed the jumper), Flow Control none. A window should appear with a prompt in it that looks like this: >

Type ATZ at this prompt and you should see a response from the unit showing ELM327. At the same time you should see the lights blinking on the unit. If you now type 0100 at the prompt, you should see a response of some numbers and letters. This shows communication with your cars ECU/PCM. At that point you know that proper communication is taking place between your OBD2 All-In-One unit, the PC, and the car. Any of the software packages should function properly for you.

This HyperTerminal test has got to work, or else the PC is not talking properly with the car's ECU/PCM. If you are using a USB to serial adapter, many brands of these will not work properly. The USB to serial converter that has been reported to work best is the Belkin F5U103 adapter, and these can be found on Ebay for about $10. You can also try to borrow a PC with a standard serial port.

If you are still having problems after the HyperTerminal test, check under the device manager of the system control panel on your PC to make sure your COM ports are active and have not been disabled. If you don't see any COM ports enabled, or see red x's or yellow circles, then you may need to go in to your computer's BIOS and enable them. This is done as the computer boots, and you may need to read the instructions for your particular computer to see how to do this. Usually hitting the delete, F1, or F2 works, but check for your specific computer.

Next, if your COM ports are enabled properly and it still doesn't work, try this test. Take a paperclip, and short pins 2 and 3 of the RS-232 port together on your PC with the HyperTerminal program open as before. While the pins are shorted, hit any key on the keyboard. If you see characters appearing on your HyperTerminal screen, then your serial port is working fine. If you don't, then your serial port is not working. You may not have selected the correct serial port, you may have software interference (possibly Palm Pilot Hot Sync), or your serial port may be disabled in the BIOS. Check all these things. If all of this fails, your serial ports may be bad and you should try another computer.