



***OBD2 PCM PROGRAMMER  
QUICK START GUIDE***

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## ***Introduction***

The Wester's Garage PCM Programmer is a utility program that allows you to identify, read, and program most GM OBD2 PCMs (Powertrain Control Modules) and VCMs (Vehicle Control Modules).

## ***Minimum PC Requirements***

While the OBD2 Tuner program will run on virtually any PC running Windows 95 or later, we recommend the following minimum PC specifications:

Pentium 266	Windows 98
64 MB RAM	600 x 800 display resolution
20 MB free hard drive space	1 serial port

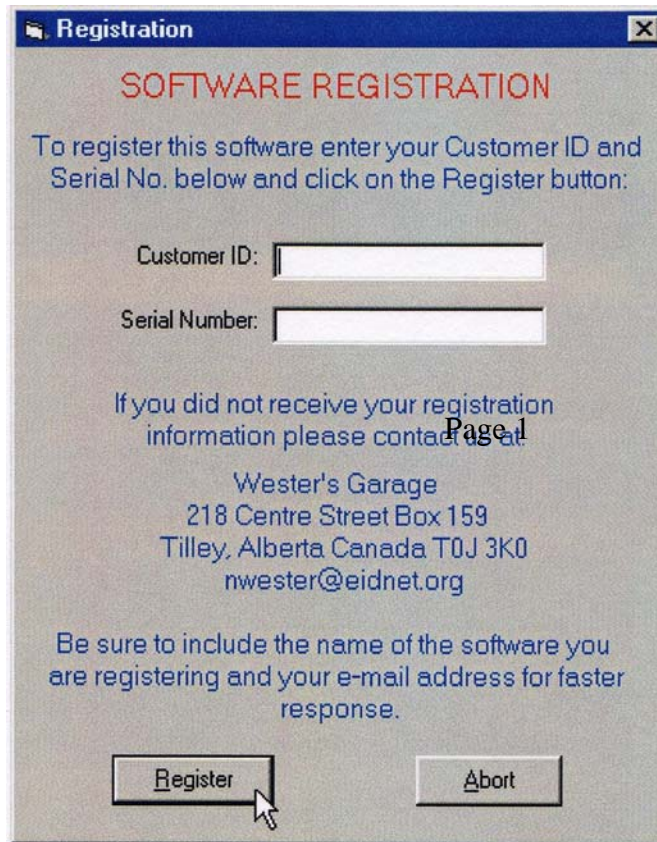
## ***Program Installation***

To install the OBD2 PCM Programmer, insert your Wester's Garage PCM Programmer CD into your CD ROM drive and run the setup program in the root folder (pf\_setup). This setup program will install the OBD2 PCM Programmer on your PC. Follow the on-screen directions to complete the installation. Run PCM4.exe.

## Program Registration

To use this program you will need to register it first. Your registration information is located on the label on the back of the CD case or is emailed to you.

To register, run the program. When the program starts up, the registration screen will be displayed. Updates on Dealer Page on Wester's website.



The screenshot shows a window titled "Registration" with a blue title bar. The main text reads "SOFTWARE REGISTRATION" in red. Below this, it says "To register this software enter your Customer ID and Serial No. below and click on the Register button:". There are two input fields: "Customer ID:" and "Serial Number:". Below the fields, it says "If you did not receive your registration information please contact us at" followed by contact details: "Wester's Garage", "218 Centre Street Box 159", "Tilley, Alberta Canada T0J 3K0", and "nwester@eidnet.org". At the bottom, it says "Be sure to include the name of the software you are registering and your e-mail address for faster response." There are two buttons: "Register" and "Abort". A mouse cursor is pointing at the "Register" button.

Enter your Customer ID and serial Number from the label on the CD case into the appropriate boxes and click on the 'Register' button to complete the registration. If you have entered the information correctly, you will receive a message saying that the registration has been successful.



If you receive a message that says the registration was not successful, double check your registration information and try again.

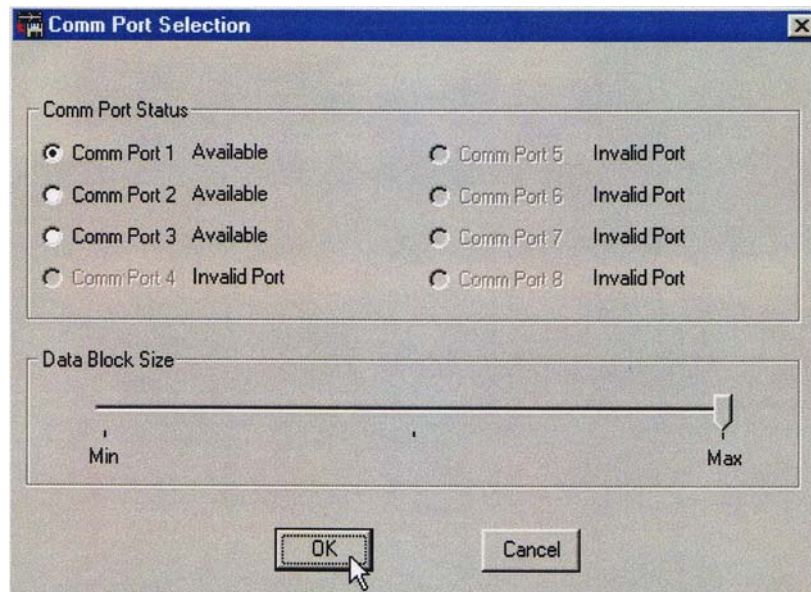
Remember that both the Customer ID and Serial Number are case-sensitive.

## Program Setup

Before proceeding, be sure you have specified the correct Comm port that you will be using to communicate with the PCM. To set the correct Comm port, select 'Comm Port' from the 'Setup' menu.



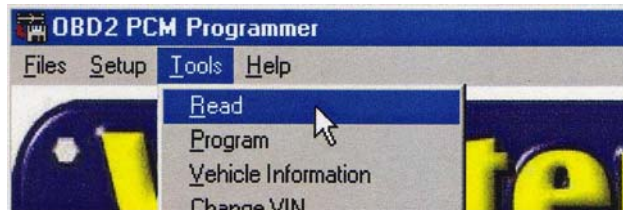
This will display the following screen:



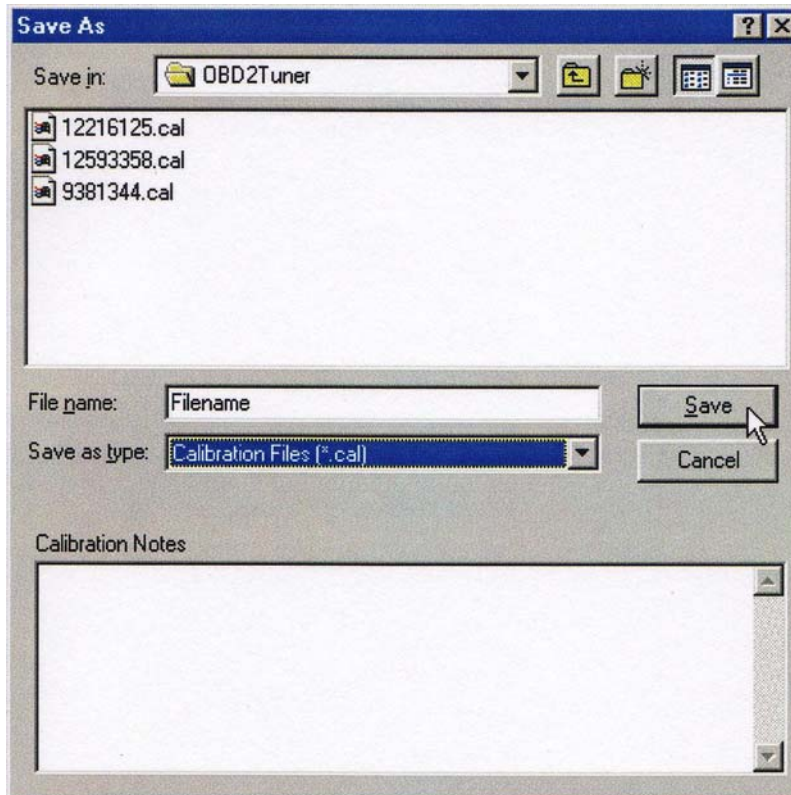
Select the Comm port you wish to use and click 'OK'. The program will save this selection so you don't have to set the Comm port again unless you want to change to a different port.

## Reading the PCM

To read the calibration currently stored in the PCM, select 'Read PCM' from the 'Tools' menu.



The program will then ask for a file name to give to the calibration file that will be created when the PCM is read.

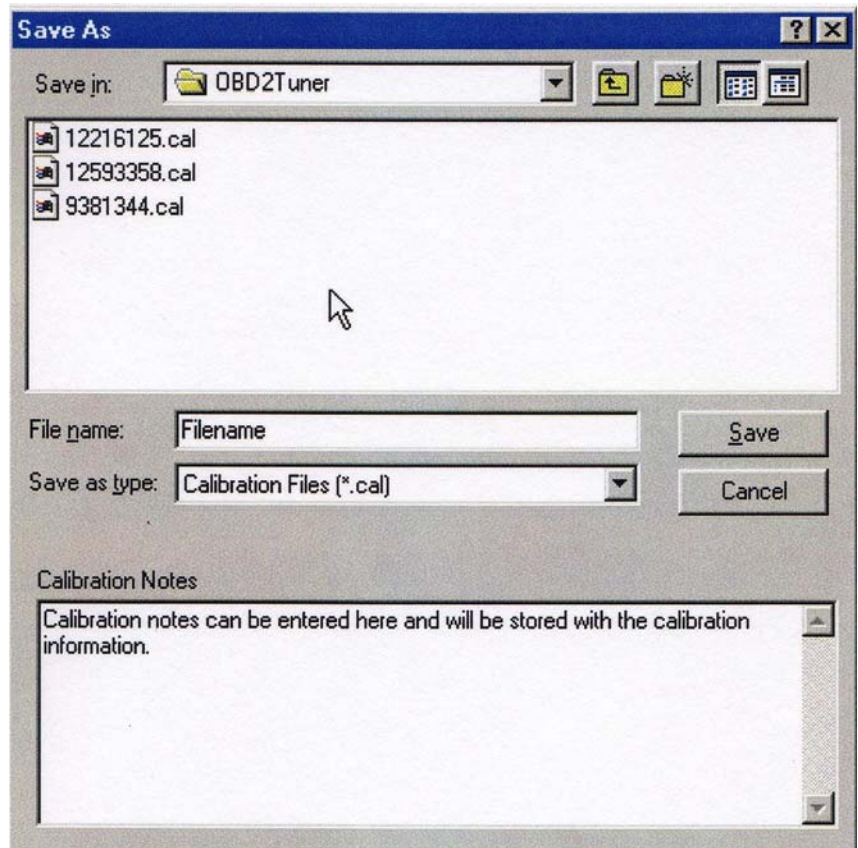


Type in a valid name for your calibration file into the 'File name:' box and click on the 'Save' button to continue.

You can add calibration notes to your calibration file by typing the notes into the 'Calibration Notes' box in the lower half of the screen before clicking on the 'Save' button. These notes will be saved with the calibration information.

Before proceeding:

1. Turn off all power consuming devices such as day time running lights, interior lights, entertainment systems, etc.
2. Make sure your battery is fully charged. Do not attempt to read the PCM with a battery charger connected.
3. Disable the OnStar system if installed. Pull radio, IPC/DIC and Info fuses.



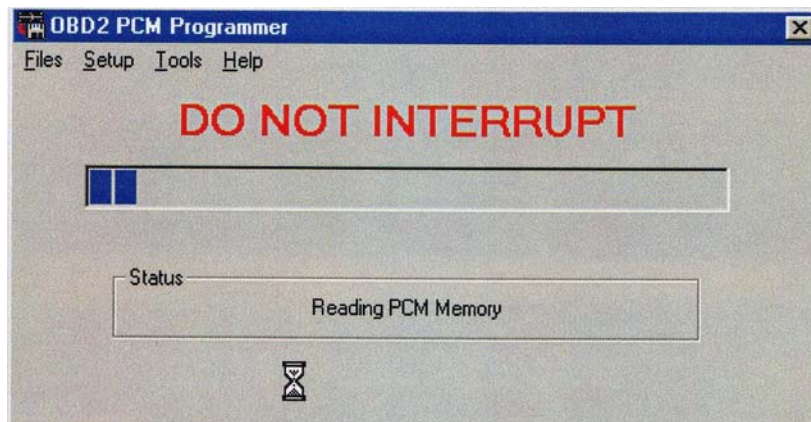
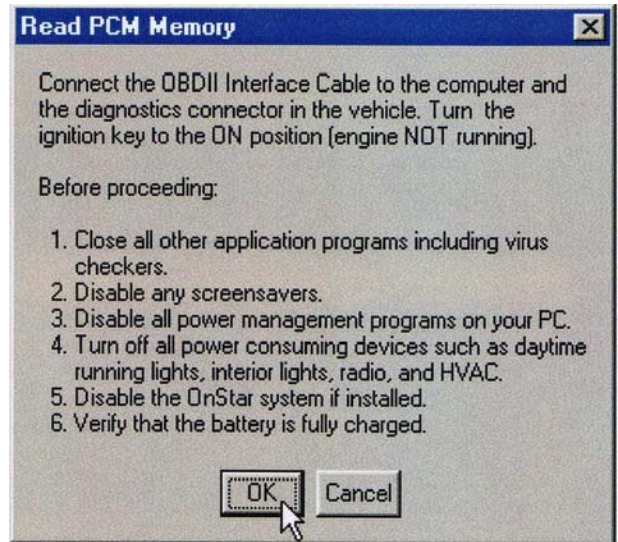
After clicking on the 'Save' button, the read PCM start screen will appear.

Before proceeding, connect the RS-232 to OBD2 converter interface to the Comm port on your PC. If your PC has more than one Comm port, make sure you connect the converter to the Comm port that you specified on the Comm port Setup screen.

Connect the other end of the converter to the ALDL diagnostics connector on the vehicle.

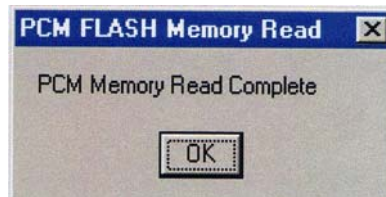
Once the cable is connected, turn the ignition key on but DO NOT start the engine. After turning on the ignition, wait about 10 to 15 seconds to clear the GM security delay before proceeding with reading.

Now click on 'OK' to begin the PCM read process. If all the connections have been properly made, the program will begin communicating with the PCM, sending the necessary instructions to start the memory read process. The following status window will be displayed during the read process:



The progress meter shows the progress on the reading of the PCM as it proceeds and the Status window describes what part of the process is currently underway. Depending on the type of vehicle and the PC you are using, the read will usually take about four minutes.

When the FLASH read process is complete, the message shown below will be displayed:



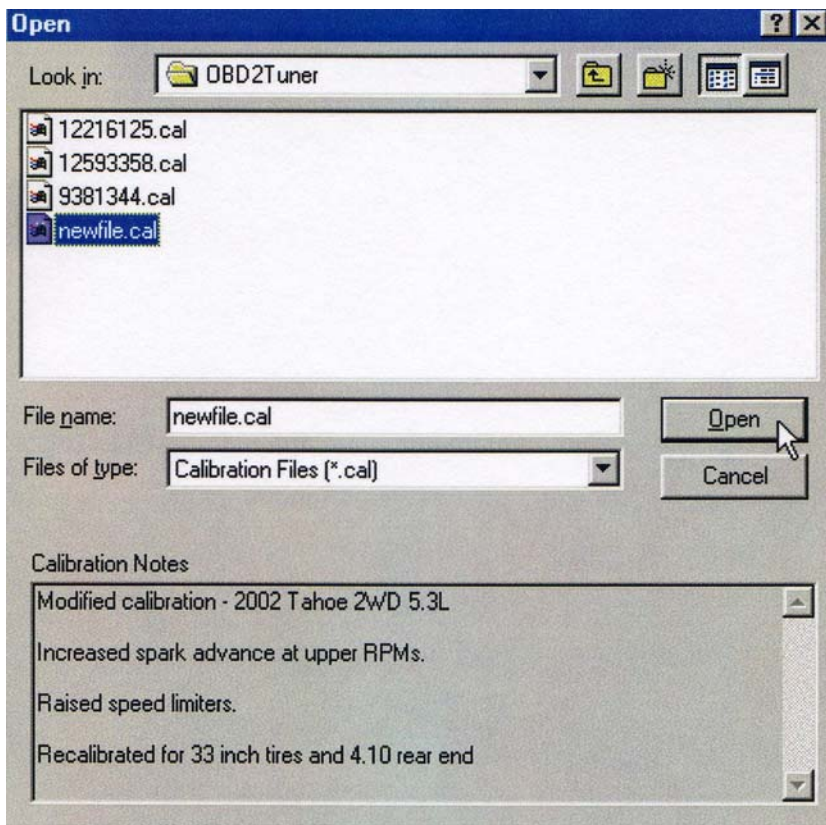
Click 'OK' to complete the PCM read and close the Read Complete message box. The calibration information from your PCM will now be stored on your PC.

Email us the file you read out for modification. [nwester@eidnet.org](mailto:nwester@eidnet.org)

## Programming the PCM

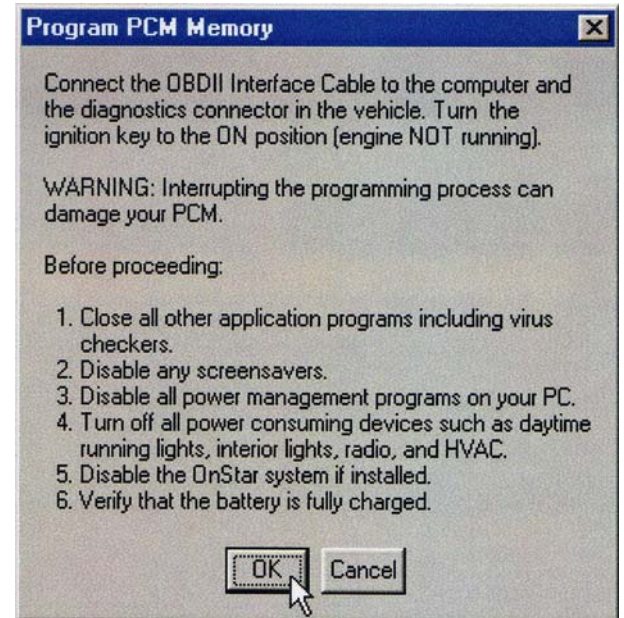
To install a new calibration, you need to program the new calibration into your vehicle's PCM. This is done using the Program PCM function.

Click on the 'Tools' menu and select 'Program PCM' from the drop-down list.



An Open File dialog screen will then be displayed.

Click on the file you want to use to program the PCM and then click on the 'Open' button. This will display the Program PCM connect message.



### WARNING

If the programming process does not complete successfully it is possible to damage the PCM. Under no circumstances should you interrupt the programming process once it is started.

The following are recommendations for the successful programming of your PCM:

- Before programming the PCM, make sure you can successfully read the PCM. This is a very similar process and if that is successful, then the programming should also work fine. YOU CAN NOT DAMAGE YOUR PCM BY READING IT.



- Make sure the car battery is in good condition and fully charged. DO NOT try to program the PCM with a battery charger connected to the car battery. The correct range of the battery voltage for PCM programming is relatively narrow.
- If you're using a laptop, make sure the laptop battery is fully charged.
- Make sure you have good connections between the PC, ALDL connector and the interface cable and that they are not likely to be unintentionally disconnected during the programming process.
- Disable all power management functions on your PC.
- Disable all screen savers on the PC.
- Make sure there are no other applications (programs) running on your PC, including virus checkers.
- Turn off all power consuming devices such as daytime running lights, interior lights, entertainment systems, etc.
- Make sure your battery is fully charged. Do not attempt to program the PCM with a battery charger connected.
- Disable the OnStar system if installed.

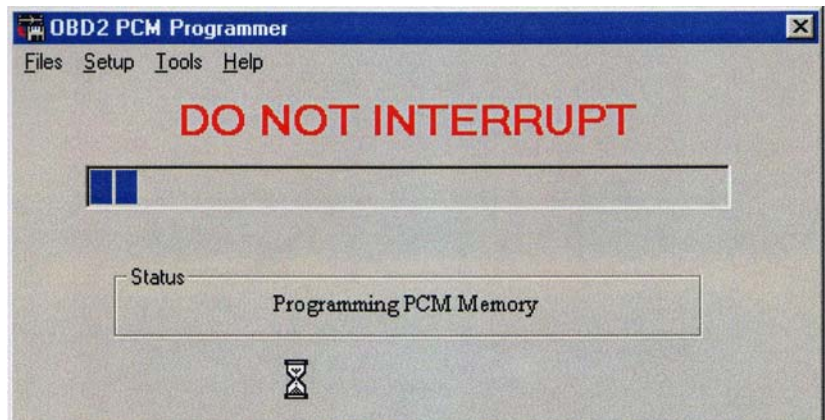
Before proceeding, connect the RS-232 to OBD2 converter to the Comm port on your PC. If your PC has more than one Comm port, make sure you connect the converter to the Comm port that you specified on the Comm Port Setup screen. If you get a USB device, load the USB drivers.

Connect the other end of the converter to the ALDL diagnostics connector on the vehicle.

Once the cable is connected, turn the ignition key on but DO NOT start the engine. After turning on the ignition, wait about 10 to 15 seconds to clear the GM security delay before proceeding with programming.

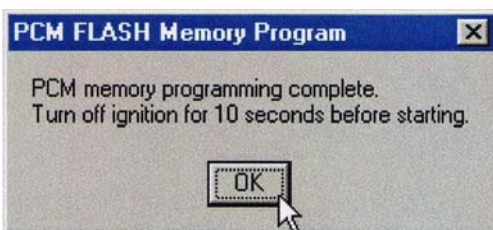
Now click 'OK' to begin the PCM programming process. If all the connections have been properly made, the program will begin communicating with the PCM, sending the necessary instructions to start the memory programming process.

The programming status screen will then be displayed.



The process meter shows the progress on the programming as it proceeds and the Status window describes what part of the process is currently underway. Depending on the PC you are using, the programming will usually take a minute or two.

When the programming process is complete, the message shown below will be displayed:



Click 'OK' to complete the PCM programming and close the Programming Complete message box. Your PCM is now programmed with the new calibration and ready for testing.

Shut the key off – wait 30 seconds before starting engine.

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