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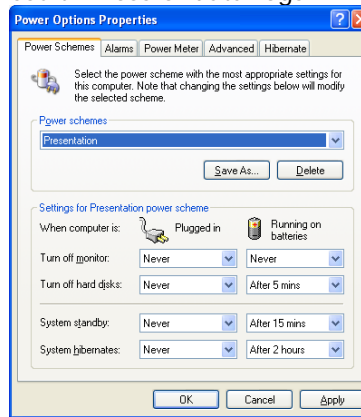
## 1. Cipher Requirements

### 1.1. Recommended PC/Laptop requirements

- Windows Server 03, XP, Vista, Vista x64
- 500 MHz or higher processor speed
- 256 MB RAM or higher memory
- 40MB free space for installation (Cipher – 2MB free space)
- USB port (1.1 or 2.0)

### 1.2. Recommended Power Management Settings

- Setting Power Scheme to Presentation
- Caution: Hibernate can result in loss of data-logs.



## 2. Software Installation

2.1. Please read Cipher Requirements.

2.2. Insert Cipher CD-ROM and run "Cipher Installer Vx\_x.exe"

2.3. Cipher requires the following Microsoft programs:

- Microsoft installer version 3.1 or higher
- Microsoft .NET framework v3.0 or higher.
- Microsoft Visual C++ Runtime libraries.

2.4. If any of the above programs are not found, the UpRev installer will launch the Microsoft installer to install the needed programs. Please follow the install wizard instructions if any come up.

## 3. Using Cipher

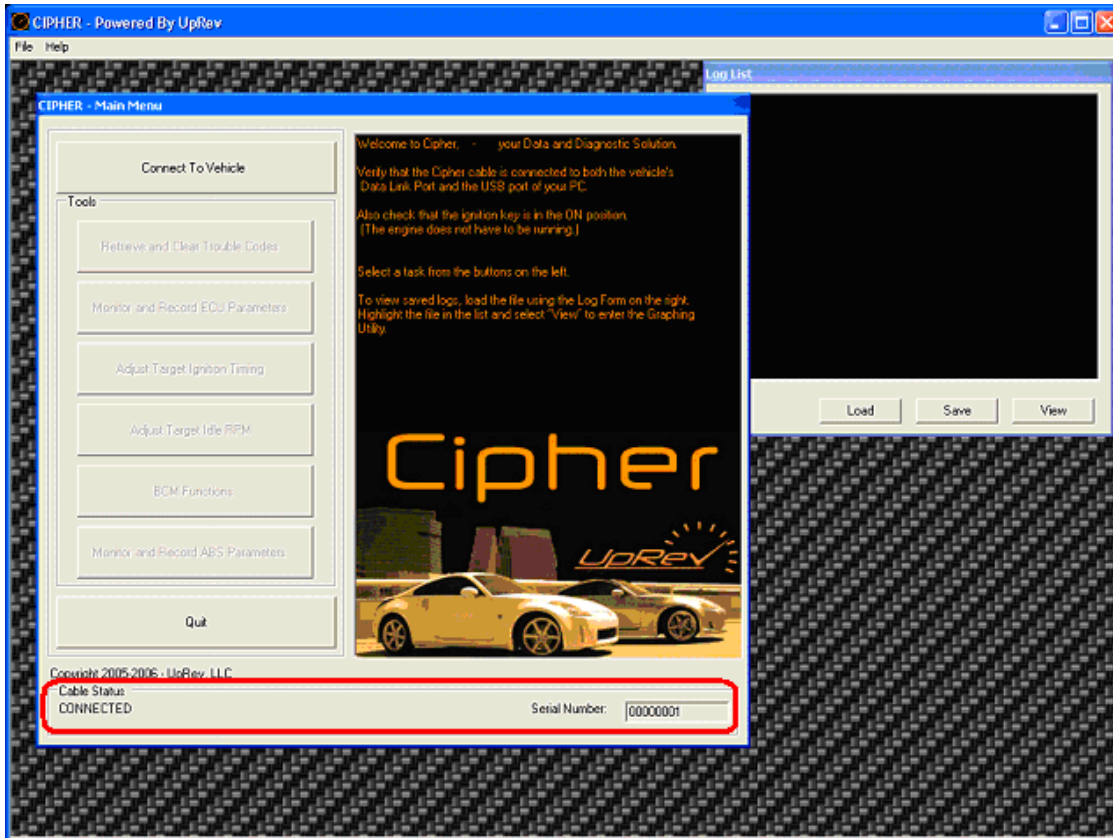
3.1. Run Cipher.exe either from the start menu or from the UpRev directory.

3.2. Connect Cipher diagnostic port end of cable to the vehicle's OBDII Data Port.

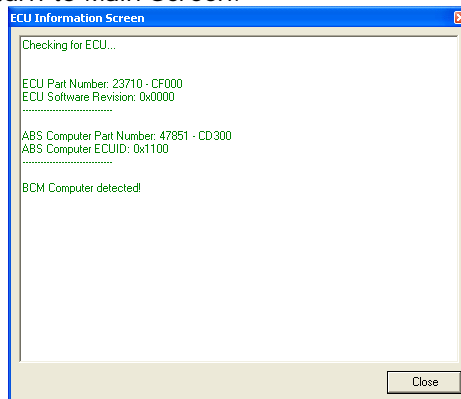


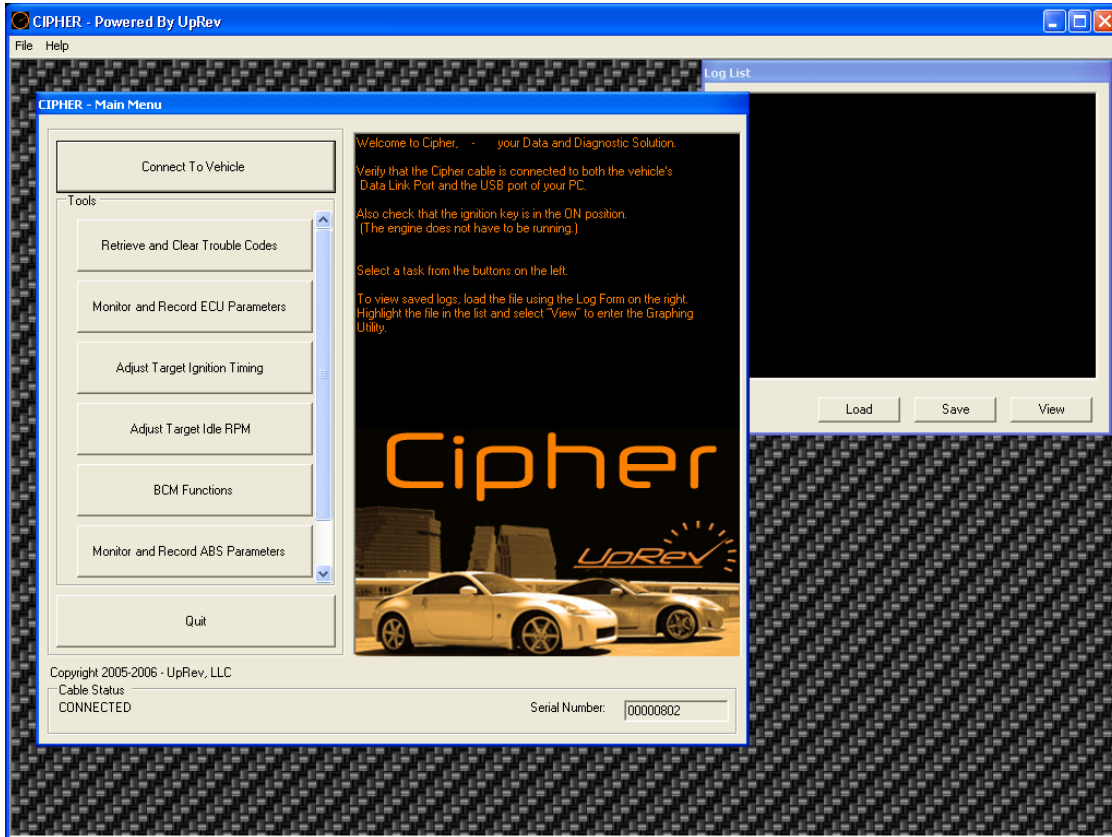
Diagnostic port connector

- 3.3. Connect Cipher USB end of cable to the PC/Laptop.
- 3.4. The lower bar on the main screen will tell you the status of the interface and your interface serial number.



- 4. Connect to Vehicle  
**WARNING: YOU SHOULD NOT CONNECT TO VEHICLE WHILE THE VEHICLE IS MOVING.**
  - 4.1. Select – **Connect to Vehicle** from Main Screen.
  - 4.2. ECU Information Screen appears and confirms communicate between Cipher and ECU.
  - 4.3. Select – **Close** to return to Main Screen.





Note: Available options will depend on your particular vehicle configuration.

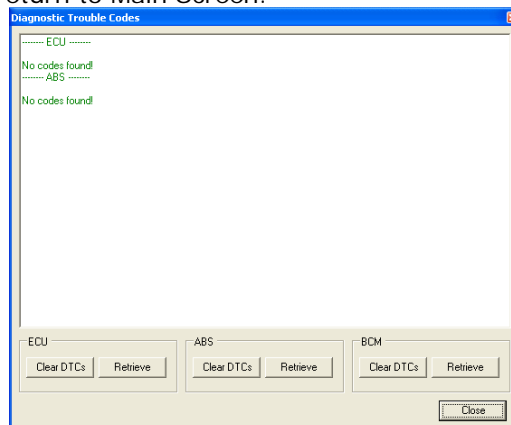
5. Retrieve and Clear Trouble Codes

5.1. Select – **Retrieve and Clear Trouble Codes**

Note:

- Cipher will automatically scan for troubles codes (ECU only).
- ECU, ABS, and BCM can be retrieved and cleared independently.

5.2. Select – **Close** to return to Main Screen.



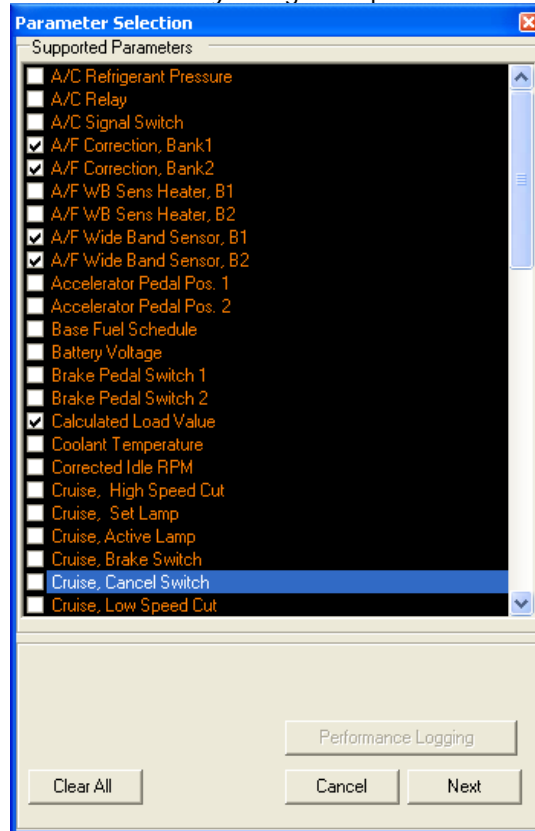
6. Monitor and Record ECU Parameters

6.1. Select – **Monitor and Record ECU Parameters** to display ECU parameter selection screen or **Monitor and Record ABS Parameters** to display ABS parameter selection.

6.2. Select the parameters to view and/or data-log by double clicking on the check boxes next to the desired parameter.

Note:

- Cipher has a maximum selection of approximately 20 parameters.
- Cipher will remember previously selected parameters.
- Parameters can also be selected by using the up/down arrows and the space bar.



6.3. Select – **Next** to view and/or data-log.

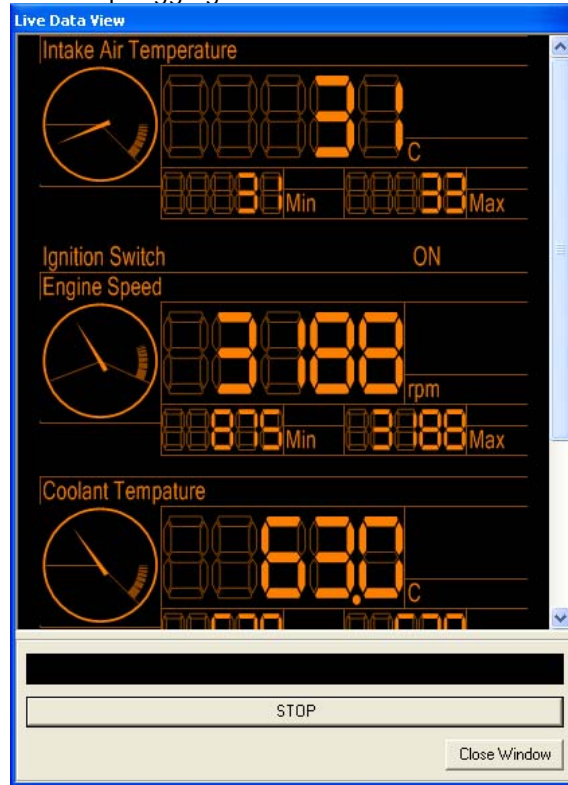
6.4. Live Data View screen appears with desired parameters.

Note:

- All analog gauges are collapsible by clicking on the parameter name or gauge itself.
- Live Data View can be resized to display data in multiple columns.



- 6.5. Select – **Start Logging** to begin data-log.  
Note: Start Logging will toggle to Stop Logging once selected.
- 6.6. Select – **Stop Logging** to stop data-log. Once a log has been started, you can use spacebar to start and stop logging.



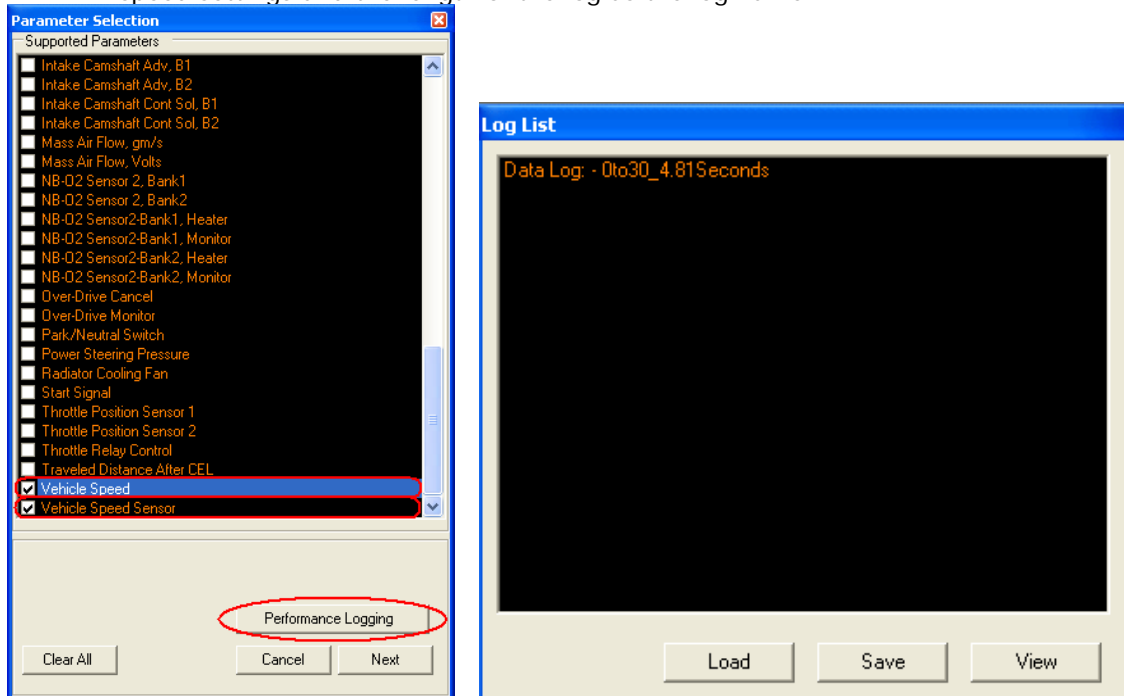
- 6.7. To select different parameters to view and/or data-log, select – **Close Window** to return to the Main Screen.

6.8. Another method of capturing data logs is to use the "Performance Logging" function. When using Performance Logging function, Cipher will automatically trigger the start and stop based on the speed sensor.

6.8.1. To use Performance Logging a Vehicle Speed (sensor) must be a selected parameter. The simply click "Performance Logging" instead of "Next".

6.8.2. Logging will be started when the speed sensors begin to rise above "0", and the log will be stopped when the speed sensor reaches the set speed setting in the options window (see sec 12 for options set up).

Note: Logs made with the Performance Logger function will show up in the log list with the speed settings and the length of the log as the log name.

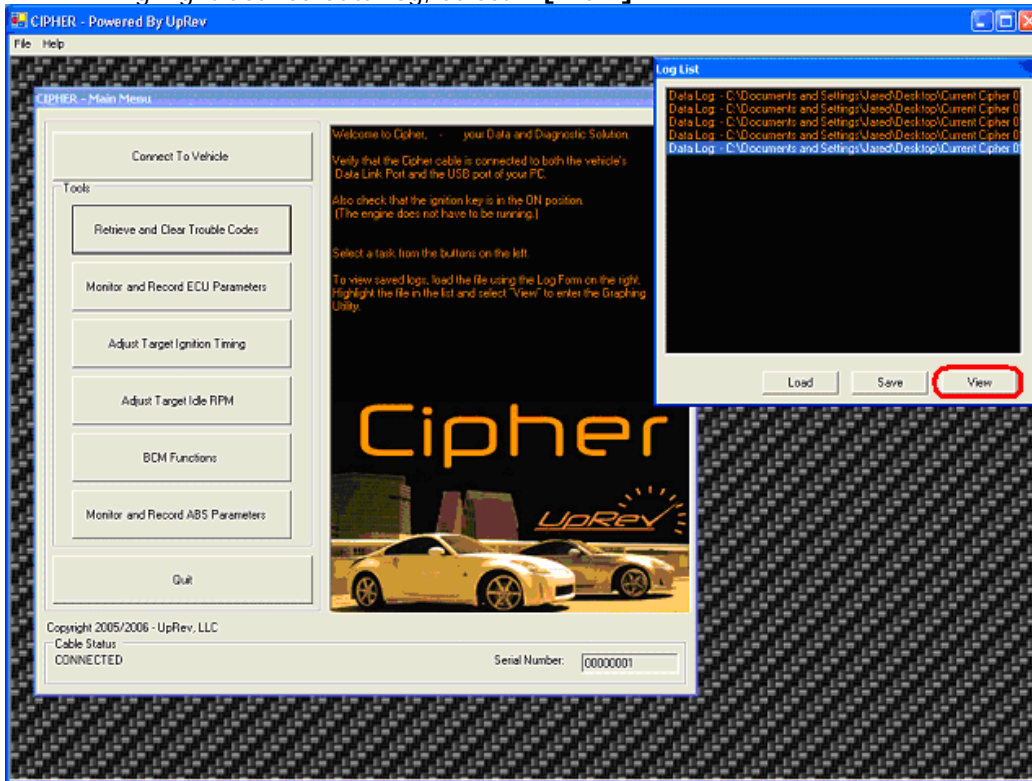


7. View, Save and Load Data-logs

7.1. View Data-logs

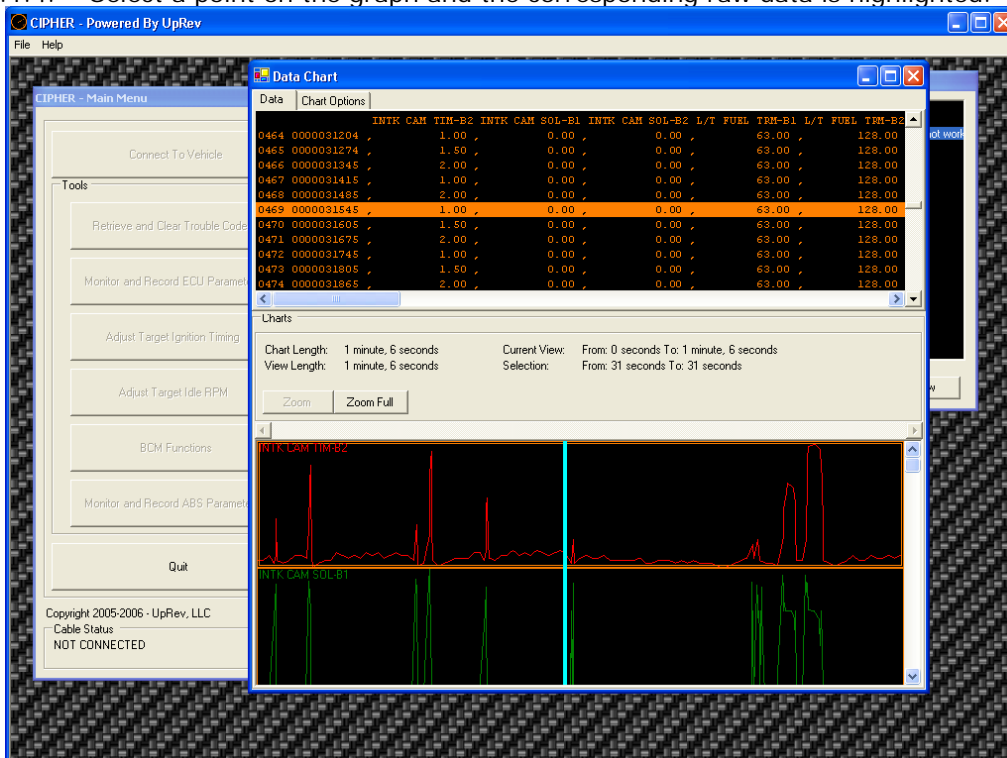
7.1.1. Locate Log List on Main Screen.

7.1.2. Highlight desired data-log, select – **[View]**



7.1.3. Data Graph Screen appears with raw data shown above the graphs.

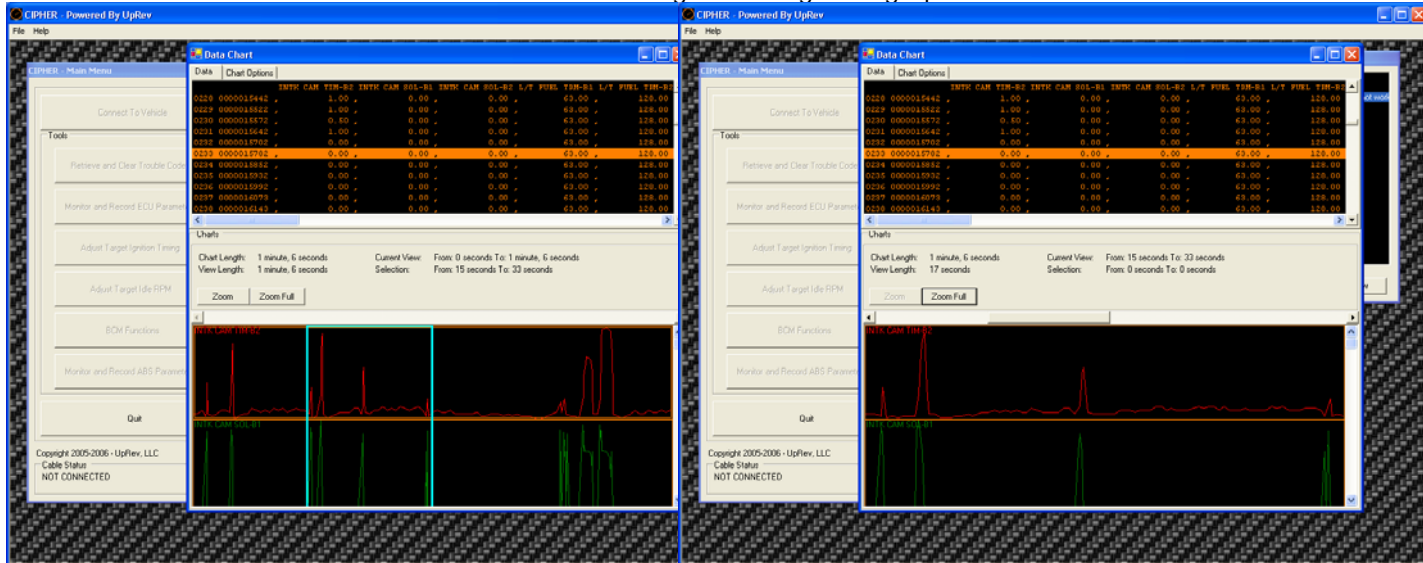
7.1.4. Select a point on the graph and the corresponding raw data is highlighted.





- 7.1.5. To zoom in on a specific area of the graph; select the desired range by click and drag.
- 7.1.6. Select – **[Zoom]**

Note: Use the scroll bar to navigate through the graph in either direction.



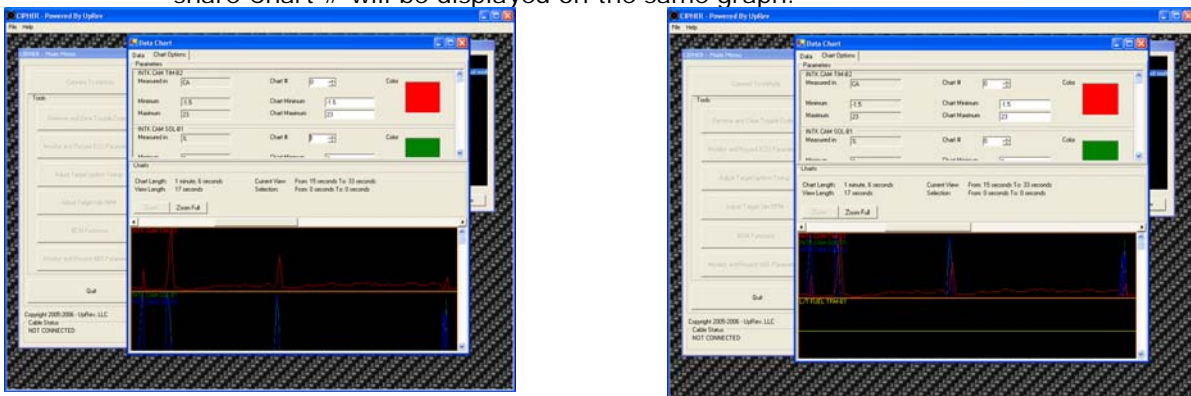
Before Zoom - Display

After Zoom - Display

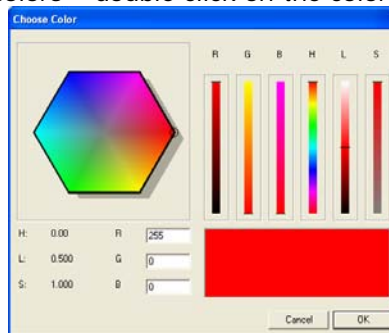
- 7.1.7. Select – **Zoom Full** to return to full graph display.

7.2. View Data-logs – Chart Options

- 7.2.1. Select – **Chart Options** Tab.
- 7.2.2. Combine graphs by changing the Chart # of the desired parameter. Parameters that share Chart # will be displayed on the same graph.



- 7.2.3. To change graph colors – double click on the color to display the color palette.



### 7.3. Save Data-logs

- 7.3.1. Locate Log List on Main Screen.
- 7.3.2. Highlight desired data-log, select – **Save**.
- 7.3.3. Enter desired filename and save to desired location.

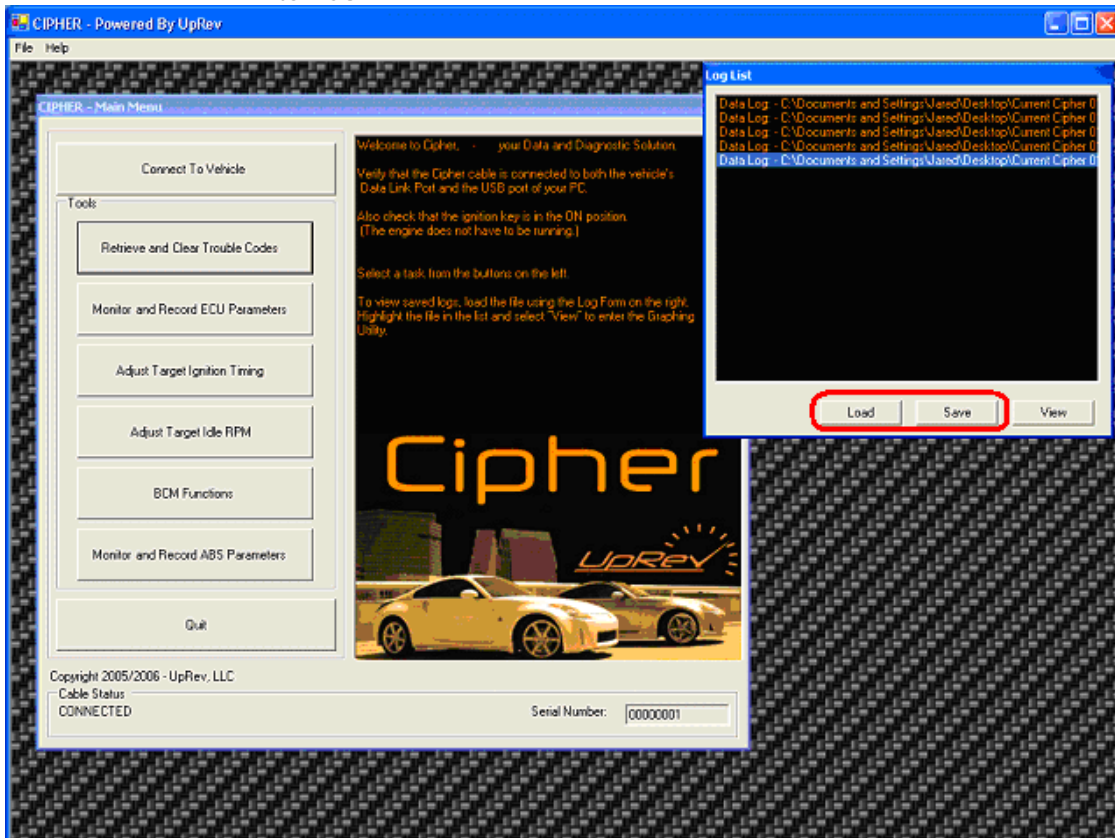
Note: Cipher data-logs are saved as a Comma Separated Value (CSV) format.

### 7.4. Load Data-logs

- 7.4.1. Locate Log List on Main Screen.
- 7.4.2. Select – **Load**.
- 7.4.3. Select desired data-logs to be loaded.

Note:

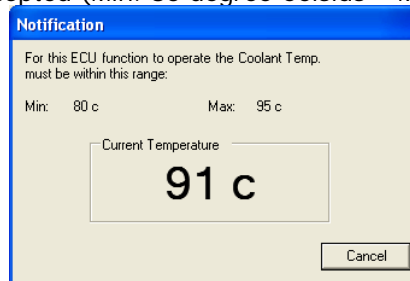
- Loaded data-logs will appear in the Log List in the order it was loaded.
- Cipher does load and view previously saved data-logs without connecting to ECU.



8. Adjust Target Ignition Timing

8.1. Select – **Adjust Ignition Timing**

Note: Cipher will verify Coolant Temperature within range to ensure changes will be accepted (Min. 80 degree Celsius – Max. 95 degree Celsius).

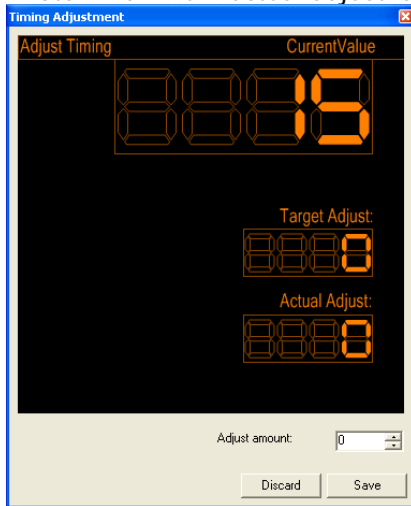


8.2. Select – **Cancel** to end verification check and return to Main Screen.

8.3. Once Coolant Temperature is in specified range, Timing Adjustment window appears.

8.4. Select desired Adjust amount.

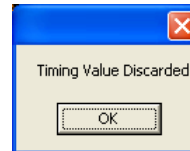
Note: Maximum actual adjust is +/- 2 deg.



Select – **Save** to save changes



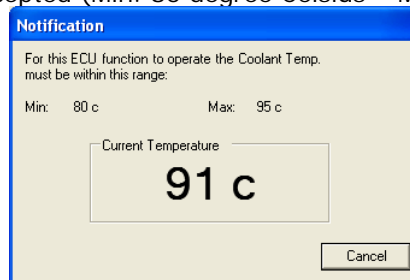
Select – **Discard** to discard changes



9. Adjust Target Idle RPM

9.1. Select – **Target Idle RPM**

Note: Cipher will verify Coolant Temperature within range to ensure changes will be accepted (Min. 80 degree Celsius – Max. 95 degree Celsius).

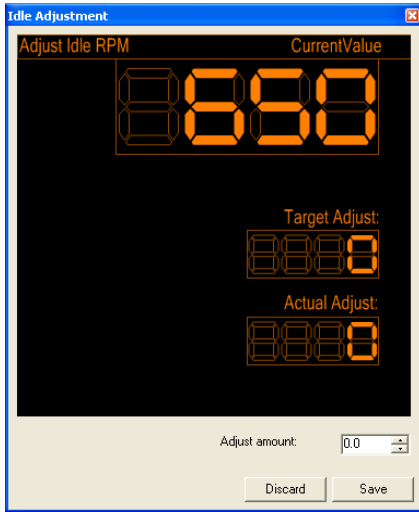


9.2. Select – **Cancel** to end verification check and return to Main Screen.

9.3. Once Coolant Temperature is in specified range, Idle Adjustment appears.

9.4. Select desired Adjust amount.

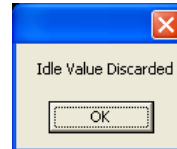
Note: Maximum actual adjust is 250.



Select – **Save** to save changes



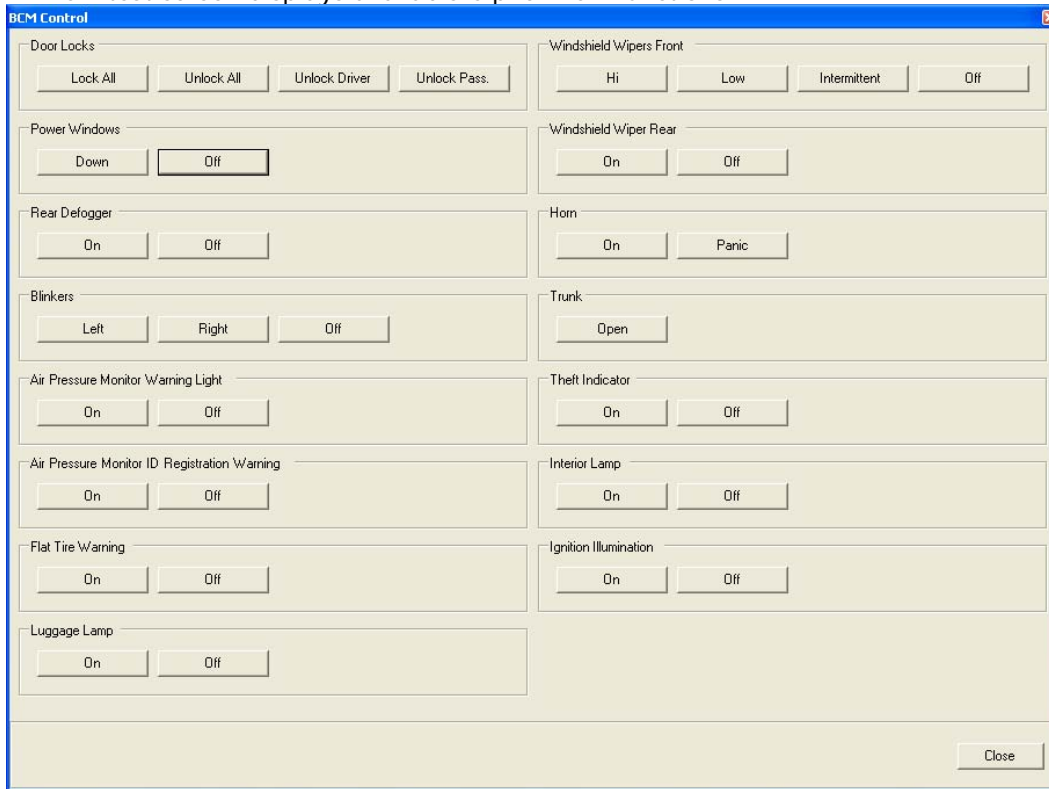
Select – **Discard** to discard changes



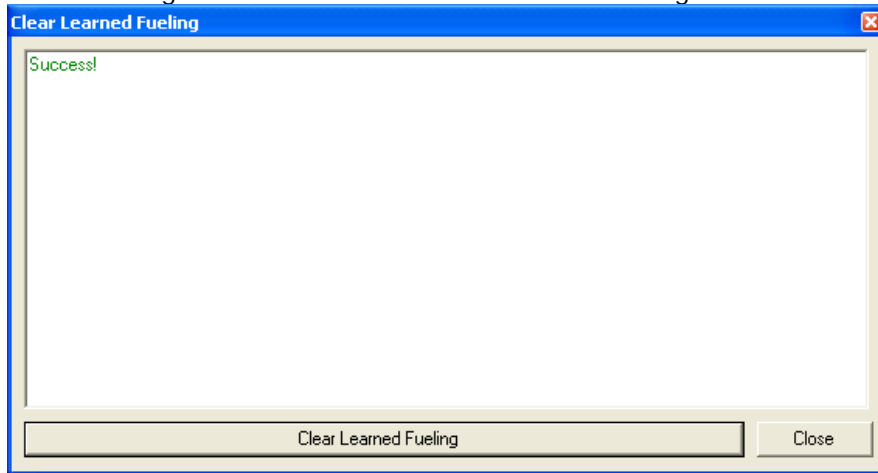
## 10. BCM Functions

10.1. Select – **BCM Functions**

10.2. BCM test screen displays available Cipher BCM functions.

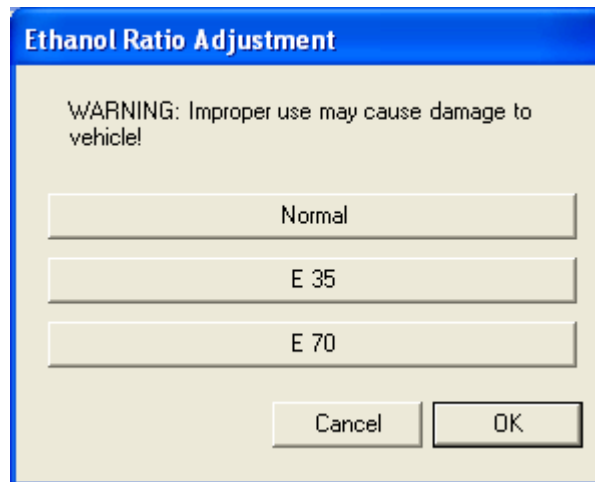


11. Clear learned fuel settings will reset all the ECU learned fuel settings.



12. Adjust Ethanol Mixture Ratio

- 12.1. Nissan ECUs that were designed for use with ethanol have the ability to learn what fuel you put in the tank, but by telling the ECU what fuel you plan to run you will vastly shorten the ECU learning time and greatly improve fuel economy and power.
- 12.2. Select – **Ethanol Mixture Ratio Adjustment**. After doing so the window pictured below will appear along with a live data monitor window.  
Note: The live data monitor window will always tell you what the current setting is set to.
- 12.3. Click on the button for the most accurate mixture, and verify that the mixture ratio reading has changed on the live data view window.
- 12.4. Click OK to save settings and exit, or click Cancel to disregard the settings and exit.



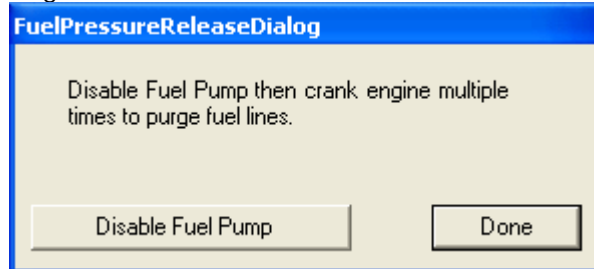
13. Cylinder Power Test

- 13.1. Select – **Cylinder Power Test**
- 13.2. Once Cipher has verified that the vehicle is running at normal operating temperature, the Cylinder Power Test window will appear.
- 13.3. Click on the buttons for the cylinders that you would like to shut down to toggle them from **ON** to **OFF**.
- 13.4. Click **Start Test** to apply the settings. Click **Stop Test** to return all the cylinders to **ON** status.



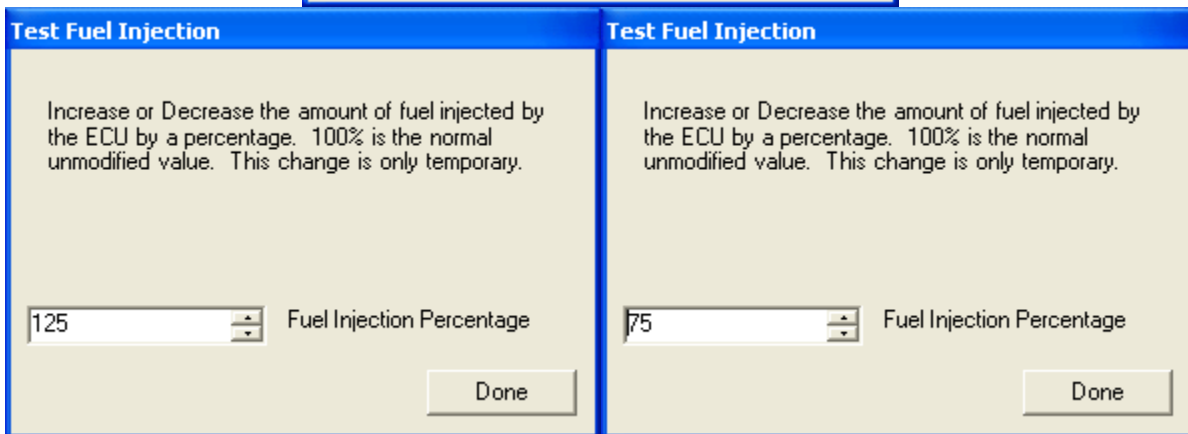
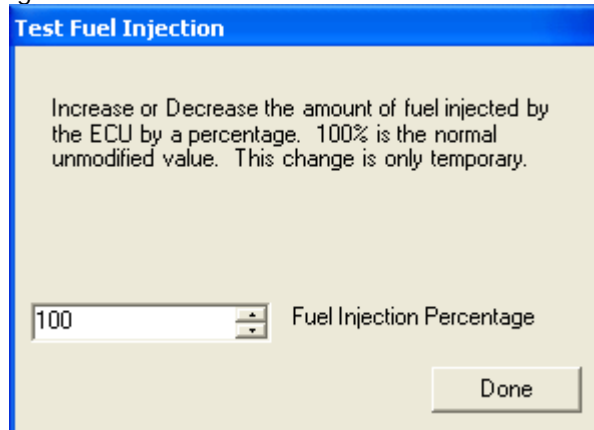
14. Fuel Pressure Release

- 14.1. Select – **Fuel Pressure Release**
- 14.2. Make sure the engine is not running.
- 14.3. To release the fuel system pressure, click the **Disable Fuel Pump** button and then turn the key to crank the engine over a few times. The pressure will release through the fuel injectors as the engine cranks.



15. Fuel Injection Test

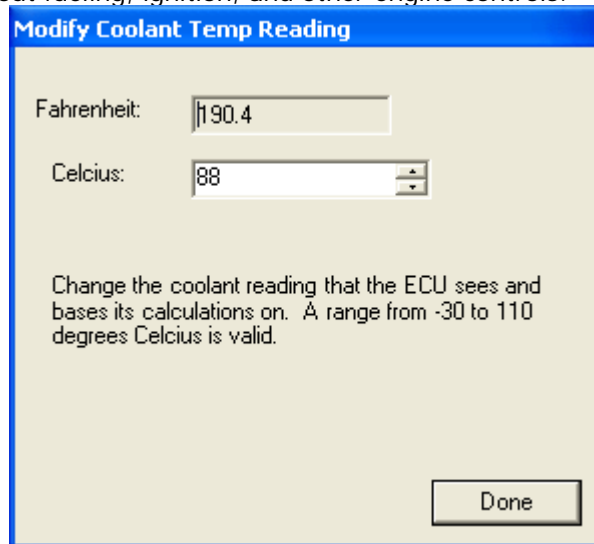
- 15.1. Select **Fuel Injection Test**
- 15.2. By using the up and down arrows you can change the amount of fuel that the ECU is trying to flow by a margin of +/- 25%



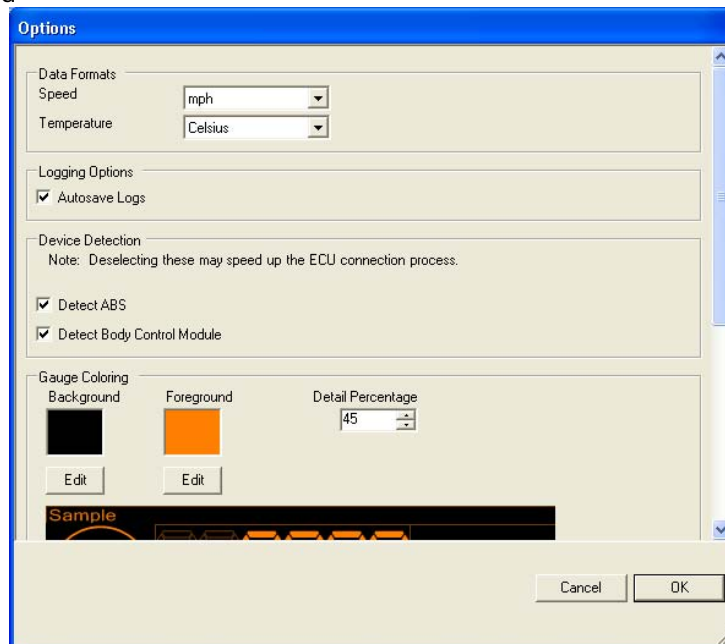
16. Coolant Test

16.1. Select – **Coolant Test**

16.2. Coolant test allows you to change the coolant reading that the ECU uses to make calculations about fueling, ignition, and other engine controls.



17. The Options Menu

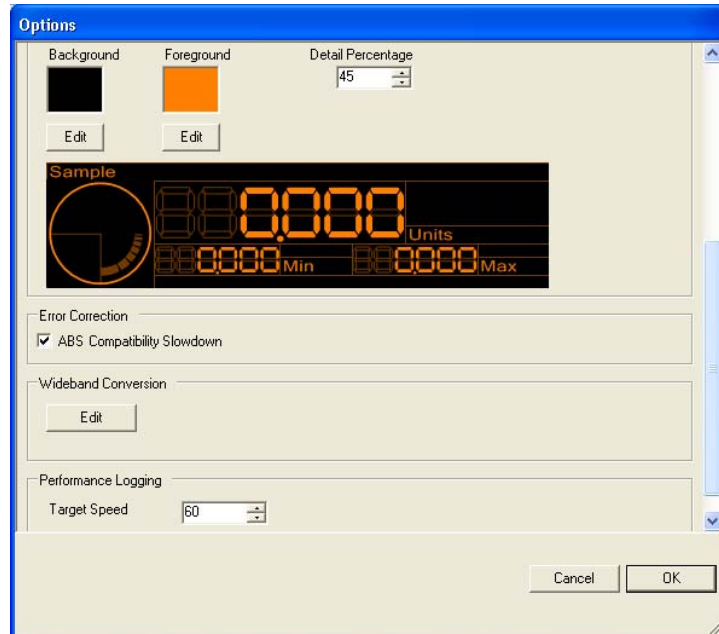


17.1. Data Formats - Lets you configure how speed and temperature is displayed. Miles per hour vs. Kilometers per hour and Celsius vs. Fahrenheit.

17.2. Autosave Logs – Every time you hit “Stop Logging” during a log, Cipher will save the log in the “logs” folder located under the Cipher directory.

17.3. Device Detection lets you tell Cipher not to scan for a given device. This can be helpful for devices that are not yet supported by Cipher, such as the BCM on 2003 350Z, or the ABS controller on the Altima SER. Will also reduce the time needed to connect to the vehicle.

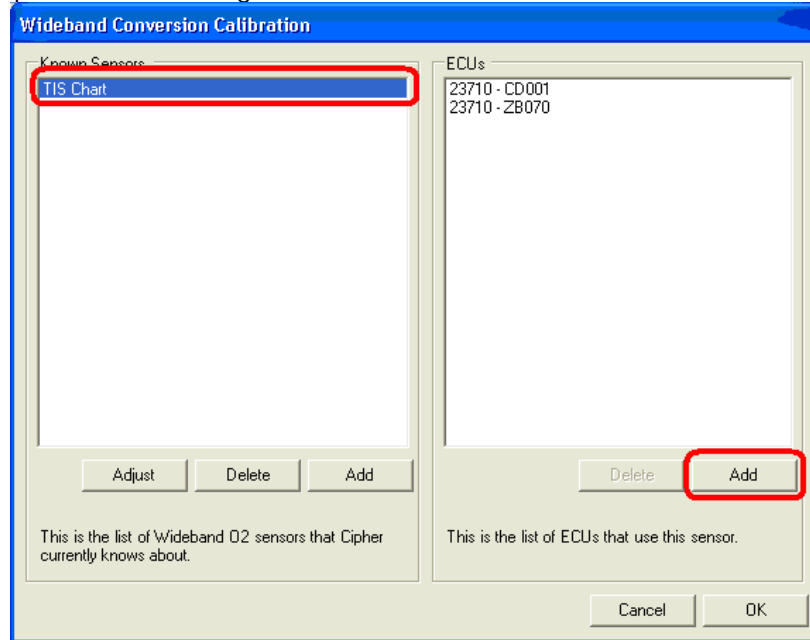




- 17.4. Gauge coloring – Allows you to adjust the color and background of the gauges for better visibility or personal preference. You can also adjust the transparency of the gauge details by adjusting the detail percentage.  
Note: A sample of what the gauge will look like when Cipher is running is displayed.
- 17.5. Error Correction - ABS compatibility slowdown adds a delay between messages so that various ABS computers will communicate with Cipher.  
Note: Enabling this error correction will also slow down Cipher's data sample rate on other computers in the car like to ECU and BCM. If your ABS computer will communicate without having this option set then it should be left disabled.
- 17.6. Performance Logging is where you can setup the speed that will trigger the end of the log when you are using the performance logging utility.

17.7. Wideband Conversion Calibration is a feature that will store various WB conversion data within Cipher.

Note: The default Wideband Conversion is available as an example only. A wideband calibration is highly recommended to ensure an accurate conversion data, especially before performance tuning.

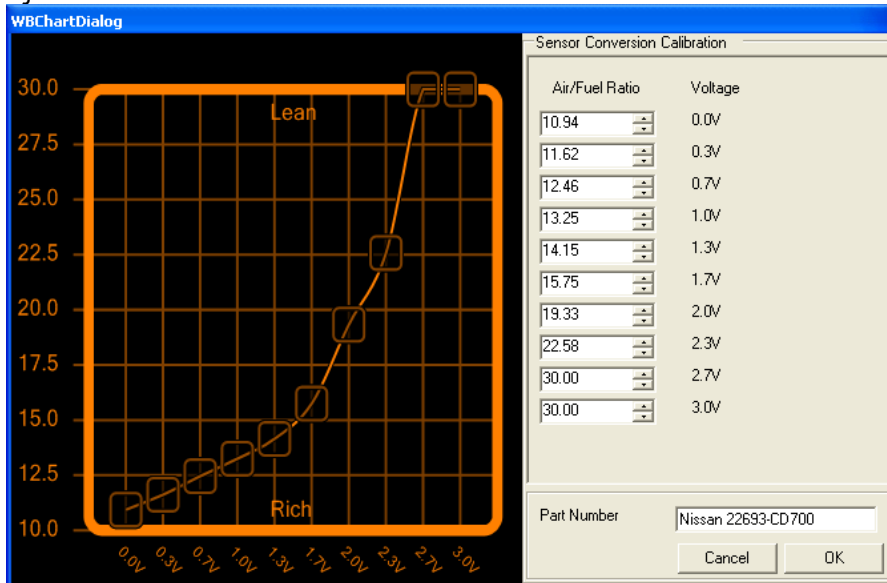


17.7.1. First add your sensor part number to the list (sensor part is not critical for conversion to work).

17.7.2. Then, with the sensor number highlighted, add the part number of your ECU to the list at the right.

Note: It is critical for the part number of the ECU to be correct for Cipher to link the calibration to your vehicle.

17.7.3. Adjustments can also be made to the calibration of the sensor by clicking on the "Adjust" button under the sensor list.



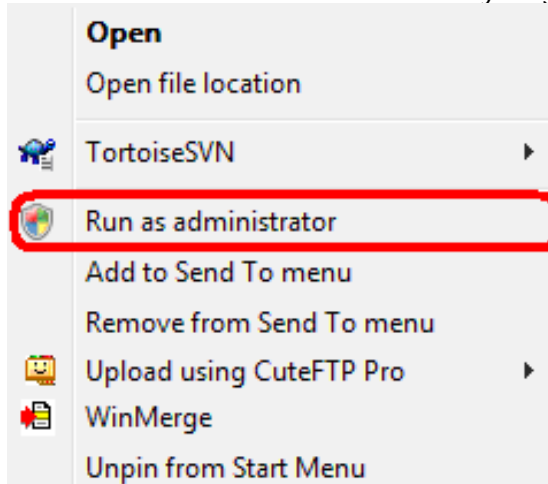
Note: Adjustments can be made either with your mouse in the left window, or numerically with the window on the right.

18. Exiting Cipher

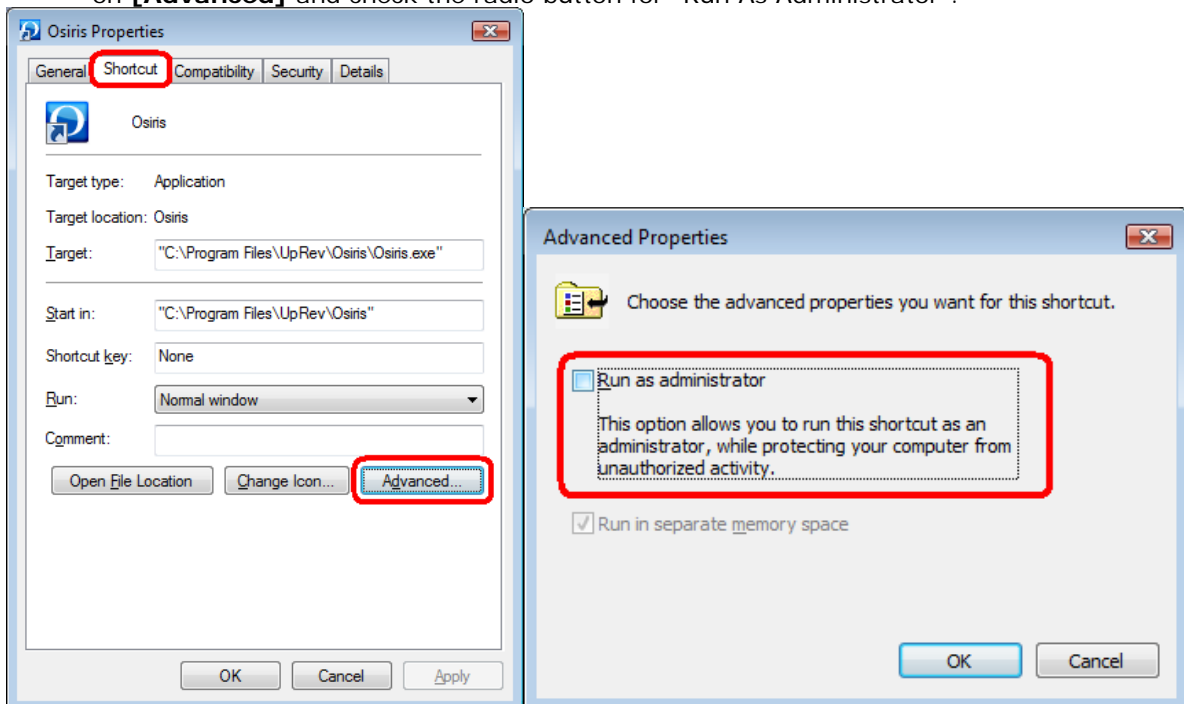
- 18.1. Save all data-logs before exiting Cipher.  
 Note: Data-logs will be lost, if not saved.
- 18.2. Select – **Quit** to exit Cipher.
- 18.3. Disconnect Cipher interface from PC/Laptop and OBDII Data Port.

19. Known Vista Compatibility Issue

- 19.1. Currently none of the UpRev Software is compatible with Windows Vista HOWEVER there is a work around to make the software run correctly. Instead of double clicking on the program icon to run the program, RIGHT-CLICK and select “Run As Administrator”. Doing running the program in administrator mode will make everything run the way it should.



- 19.2. You can also setup the program icon so that the program ALWAYS runs in administrator mode. Just right click the program icon. Select Properties. Go to the “Shortcut” tab. Click on **[Advanced]** and check the radio button for “Run As Administrator”.



- END -