



POWER COMMANDER III USB CONTROL CENTER SOFTWARE USER GUIDE

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Power Commander III USB Control Center User Guide

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SPECIFICATIONS AND INSTALLATION

Power Commander III USB Control Center is the specialized Dynojet software used to program your Power Commander and accessories. Dynojet strives to give you the power to get the maximum performance from your vehicles. Whether you are new to the benefits of the Power Commander product line or an experienced performance leader, Dynojet provides you with professional results.

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In this chapter:

- Introduction, page 1-2
- Specifications, page 1-3
- Installing the Software, page 1-4
- Using This User Guide, page 1-9




INTRODUCTION

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Before you begin using your Power Commander III USB Control Center software, read this guide for software installation instructions and program features.

CONVENTIONS USED IN THIS USER GUIDE

The conventions used in this user guide are designed to protect both the user and the equipment.

example of convention	description
	The Caution icon indicates a potential hazard to your equipment. Follow all procedures exactly as they are described and use care when performing all procedures.
Bold	Highlights items you can select on in the software interface, including buttons and menus.
▶	The arrow indicates a menu choice. For example, “select File ▶ Open ” means “select the File menu, then select the Open choice on the File menu.”

TECHNICAL SUPPORT

For assistance, please contact Dynojet Technical Support at 1-800-992-4993, or write to Dynojet at 2191 Mendenhall Drive, North Las Vegas, NV 89081.

Visit us on the World Wide Web at www.powercommander.com where Dynojet provides state of the art technical support, on-line shopping, and press releases about our latest product lines.



SPECIFICATIONS

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Your Power Commander III USB (PCIII USB) is model specific. It has been programmed to work correctly with your specific vehicle model. Some of the software features may appear differently from the screens shown in this user guide depending on the characteristics of your vehicle.

COMPUTER SPECIFICATIONS

You will need to provide a computer system to run the software.

minimum system requirements	recommended systems requirements
• Microsoft® Windows 2000/XP	• Microsoft® Windows 2000/XP
• Pentium 800 MHz Processor	• 2.4 GHz Processor or greater
• 256 MB of available RAM	• 256 MB of available RAM or greater
• one USB port	• one USB port, more for other accessories
• 800 x 600, 256 color monitor (SVGA)	• 1280 x 1024 256 color monitor (SVGA) or better
• 1.2 gigabyte hard drive	• 1.2 gigabyte hard drive
• CD ROM and floppy disk drive	• CD ROM and floppy disk drive



INSTALLING THE SOFTWARE

.....

Follow these steps to install the software on your computer.

Note: It is strongly recommended that you exit all other programs before running the install program.

- 1 Insert the CD in your CD-ROM drive. The setup program will launch automatically showing the Power Commander 3 USB Setup Wizard, see Figure 1-1.

Note: If auto-run is disabled on your computer, click **Start** on the Windows® task bar, then click **Run**. Type *D:\setup.exe* into the input box, where D is the letter that corresponds to your CD-ROM drive.

- 2 Click **Next** to continue.



Figure 1-1: Setup - Power Commander 3 USB



- 3 Click **Next** to accept the default of `c:\pwrctrl` as the location to install the software or click **Browse** to select a different location.

Note: Dynojet recommends accepting the default location.



Figure 1-2: Installation Location

- 4 Click **Next** to create shortcuts for the program in the Start Menu folder named Power Commander 3 USB or click **Browse** to select a different Start Menu folder.



Figure 1-3: Start Menu Shortcut Location



- 5 Click to show a check mark next to the options for the shortcuts to create.
- 6 Click **Next** to prepare to install the software.



Figure 1-4: Select Icons to Create

- 7 Click **Install** to install the software.



Figure 1-5: Click Install to Perform the Installation

The indicator bar will show that the software is installing.



- 8 Click **Finish** to exit the install program. Your software installation is complete.
Note: If the Launch Power Commander 3 USB box is checked, the software will start when it is finished installing.



Figure 1-6: Click Finish to Complete the Installation

STARTING THE SOFTWARE



Double-click the Power Commander 3 USB icon from your computer's desktop or click **Start** ► **All Programs** ► **Power Commander 3 USB** ► **Power Commander 3 USB** from the start menu.

The software appears on your screen.



Figure 1-7: The Start Up Screen



DEVICE NOT COMMUNICATING WITH THE SOFTWARE

In order for your PCIII USB to work, it must be powered on and be communicating with the computer via the USB connection. If you see the Device Not Communicating message when you start the software, refer to your installation manual to verify that your PCIII USB has the power and USB cable properly connected.

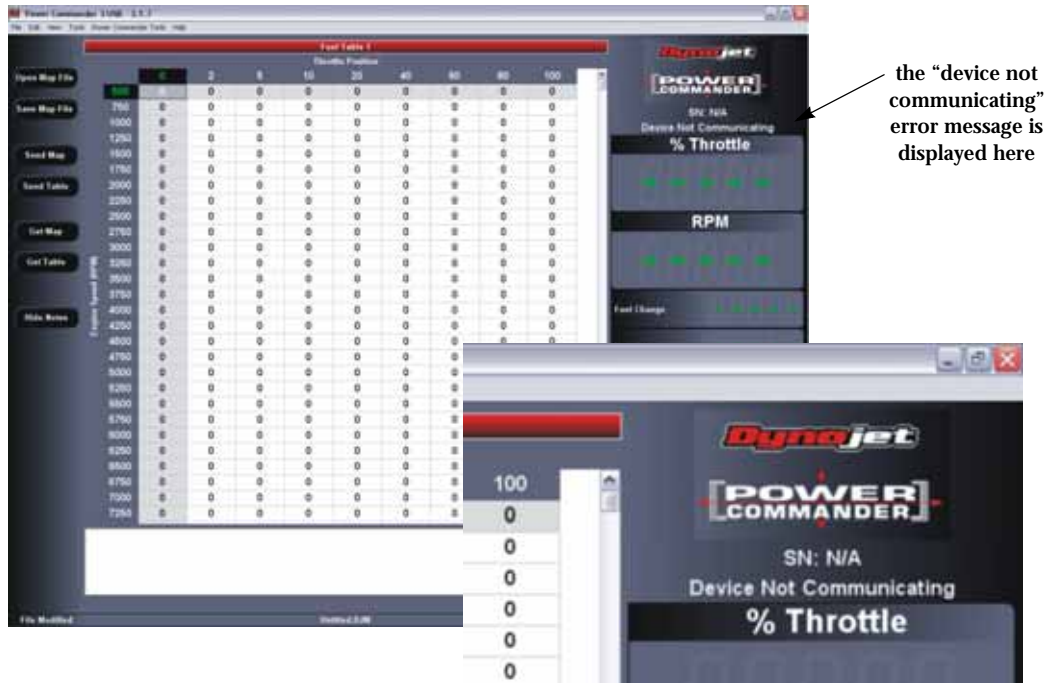


Figure 1-8: PCIII USB is Not Communicating with the Software



USING THIS GUIDE

.....

Click **Help** ► **User Guide** to show this user guide as *.pdf* file. You can also visit www.powercommander.com to download this user guide and for technical support.

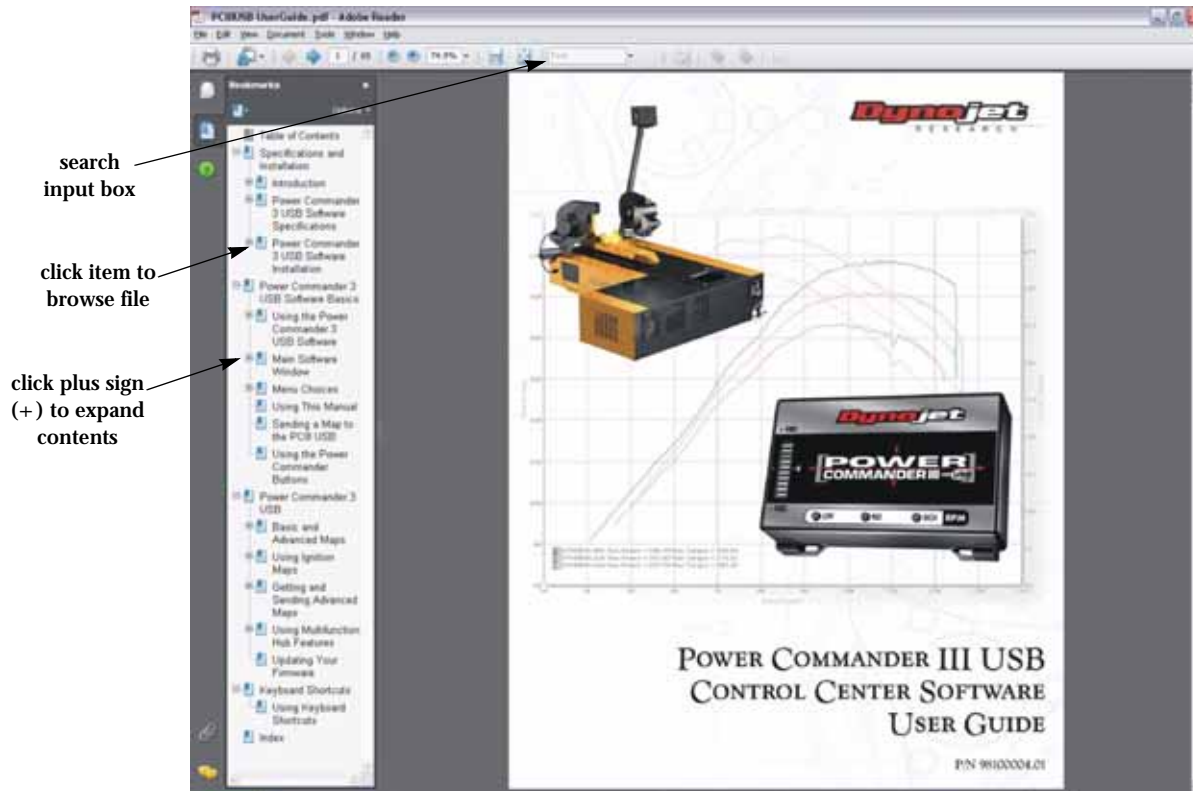


Figure 1-9: Adobe Reader Showing the User Guide

Note: To display the user guide, you must have a program capable of displaying *.pdf* files installed. Dynojet recommends Adobe Reader 6.0 or higher.



SEARCHING THE USER GUIDE

Use the Search input box or in older versions click the **Search icon** (which looks like a pair of binoculars) to search the on-line user guide. You can also use the keyboard shortcut **Ctrl+F**. The search window opens on your screen similar to Figure 1-10.

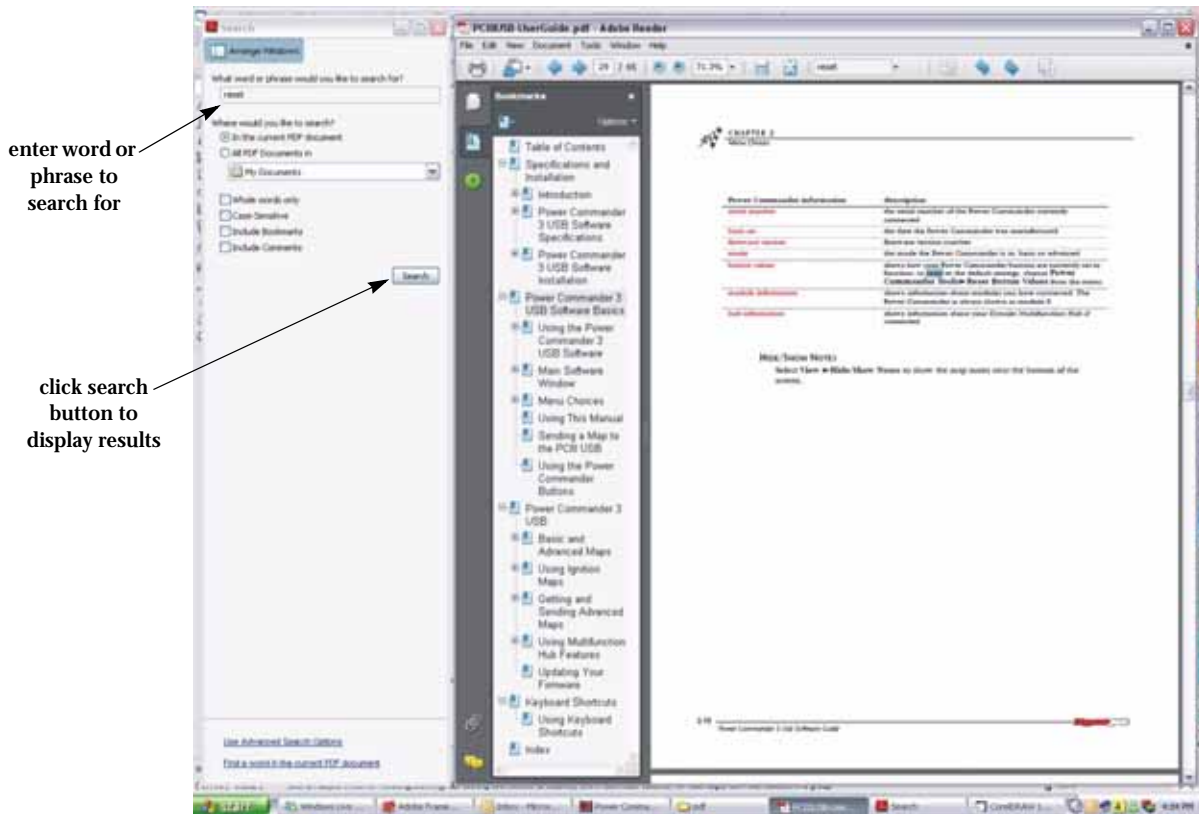
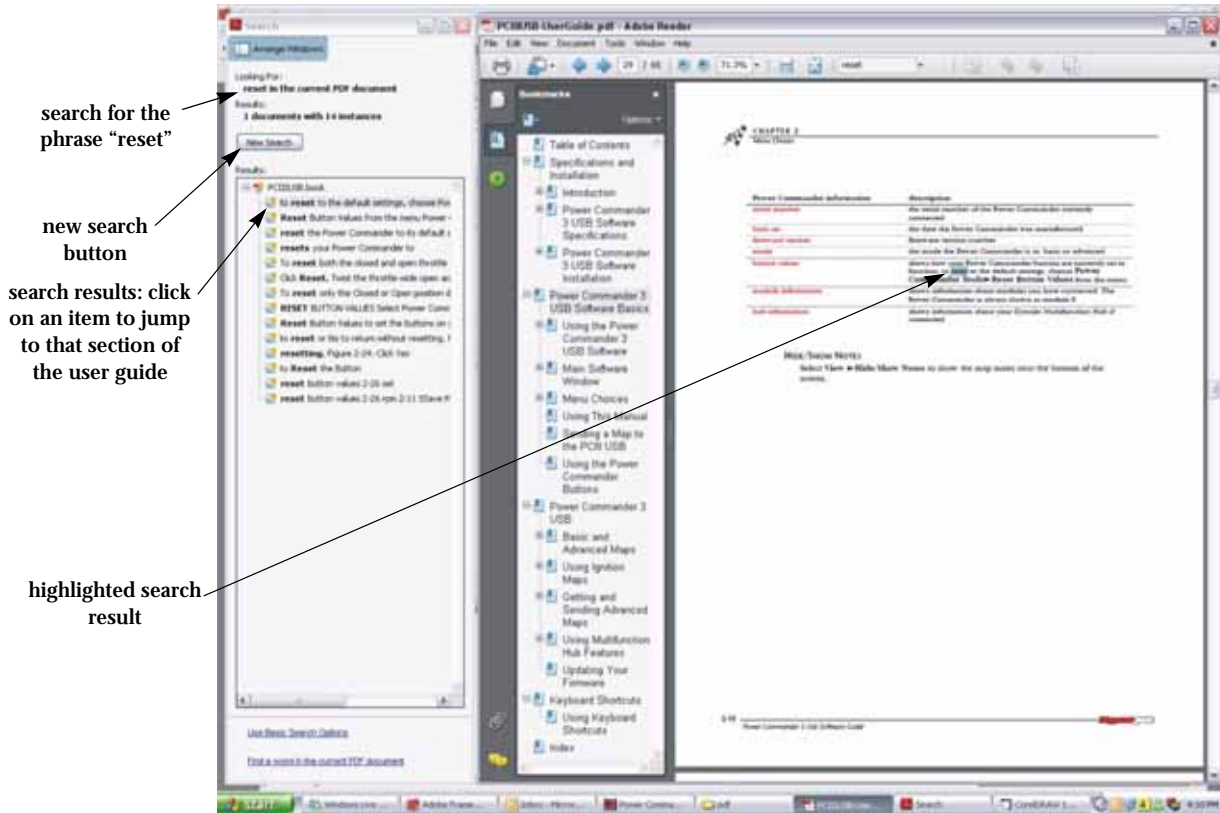


Figure 1-10: Search the User Guide

- 1 Enter your search in the input box for, “What Word or Phrase Would You Like to Search For?”
- 2 Click the **Search button** or press the **Enter** key. The results of your search will be displayed as shown in Figure .



- 3 Click on the items displayed in the right hand column under Results in order to jump to that section of the user guide. Figure shows the results when searching for the phrase “reset”.



Search Results

CHAPTER 2



SOFTWARE BASICS

This chapter explains the basic organization of your software.

In this chapter:

- Using the Software, page 2-2
- Main Software Window, page 2-10
- Menu Choices, page 2-14
- Sending a Map to the PCIII USB, page 2-26
- Using the PCIII USB Buttons, page 2-27



USING THE SOFTWARE

Power Commander III USB software commands generally conform to Microsoft Windows® conventions. If you are new to Windows®, consult the documentation resources provided with your computer for information on using the Windows® operating system.

Your PCIII USB is specifically designed for the make and model of your vehicle. Custom maps you create using the software let you fine tune your vehicle's performance.

When you start the software, the main window appears on your screen. When no PCIII USB is connected the map area appears empty as shown Figure 2-1. When you connect a PCIII USB to the computer and launch the software, the map installed in your PCIII USB will be automatically displayed.

Note: If you disconnect one PCIII USB and connect another, the map and notes from the connected unit will be retrieved and the screen updated.

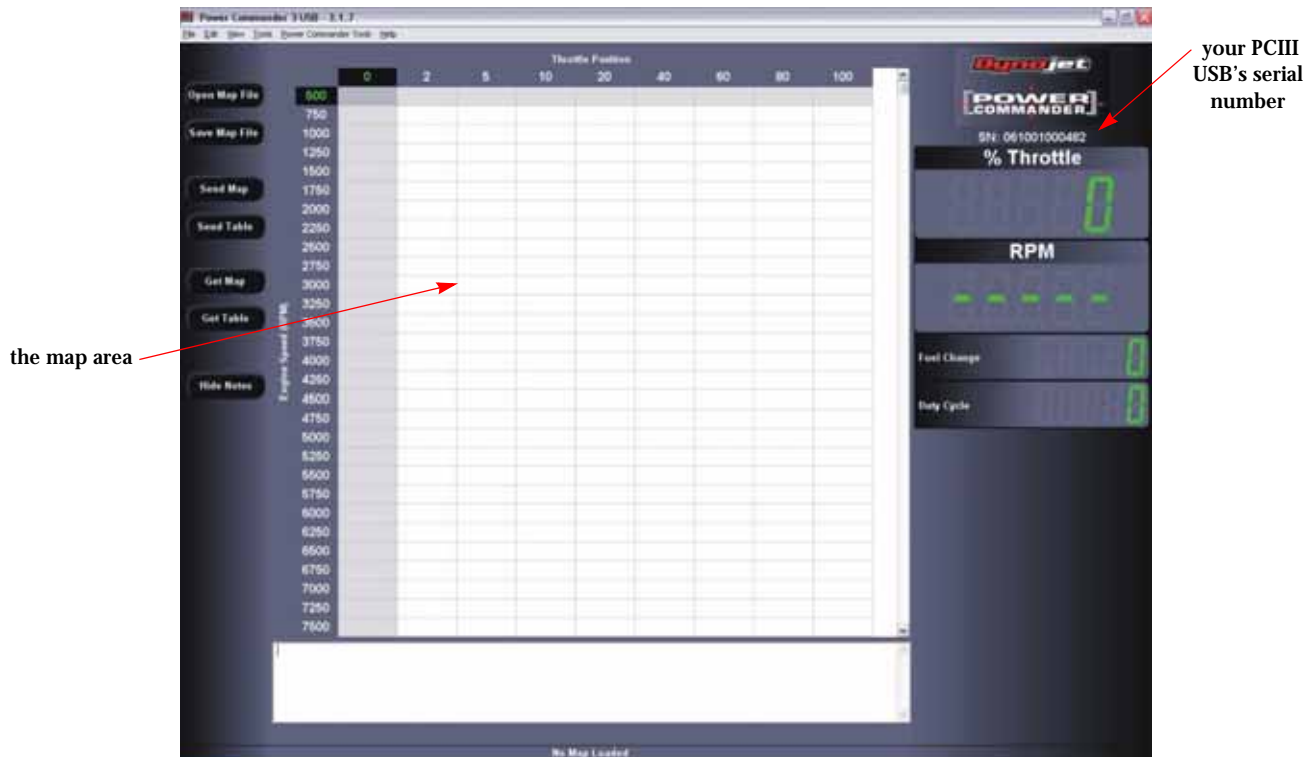


Figure 2-1: The Main Software Window



FUEL MAPS

A central function of the software is to create a fuel map that can be sent to your PCIII USB to control your vehicle's fuel injectors. Controlling your vehicle's fuel precisely through the range of engine rpm and throttle position helps you achieve maximum performance!

You will probably want to have a custom fuel map created for your vehicle from an Authorized Power Commander Tuning Center. There they will use Dynojet Tuning Link and a Dynojet dynamometer to accurately measure your vehicle's performance and air/fuel ratio to create an optimal fuel and/or ignition map for use with your PCIII USB.

In addition to tuning centers you can do the following.

- Create your own custom fuel map, if you can log air/fuel data.
- Download a fuel map for the make, model and exhaust system of your vehicle from www.powercommander.com.



DOWNLOADING MAPS FROM WWW.POWERCOMMANDER.COM

Use the Windows Internet Explorer or the web browser of your choice to navigate to www.powercommander.com.

- 1 Navigate to the list of fuel maps available for download.
- 2 Select your vehicle make, model and year to find the maps for your vehicle.
- 3 Select on the map for the exhaust system and filter used for your vehicle.
- 4 Click to **Save** the map file to your computer.

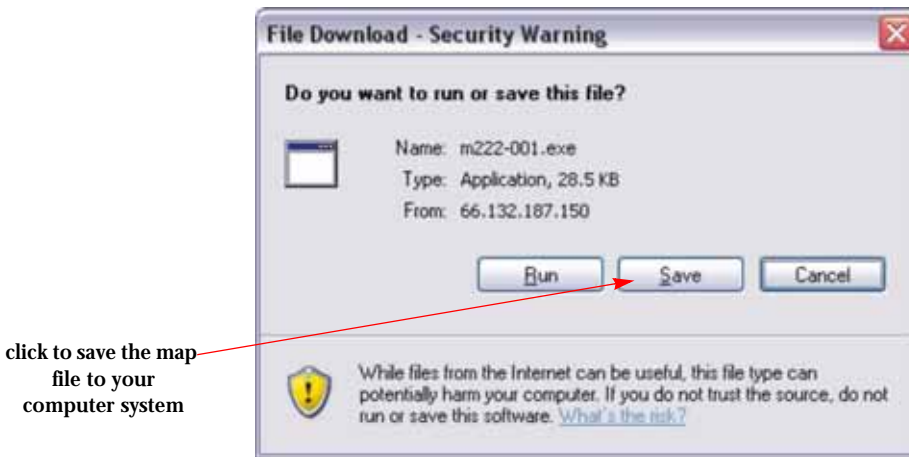


Figure 2-2: Use the File Download Dialog Box to Save the Map

- 5 Click **Save** to save the map file to your computer.



Figure 2-3: Use the Save As Dialog Box to Manage Your Downloaded File



UNZIPPING A DOWNLOADED MAP

Maps downloaded from www.powercommander.com are stored in a compressed or “zipped” format. Before you can use them you must extract or “unzip” the file.

- 1 Double-click the downloaded file.
- 2 Click Run to extract the compressed mapfile.



Figure 2-4: Unzip the Downloaded File

- 3 Click **OK** to send the extracted files to the default location *c:\pwrcomdr*.



Figure 2-5: Read the Message About Storing Files in the Default Location



- 4 Click **Unzip** to extract the files to the default location *c:\pwrcommandr*.
- 5 Click **OK** at the “1 file(s) unzipped successfully” message.
- 6 Click **Close** to exit the dialog box.

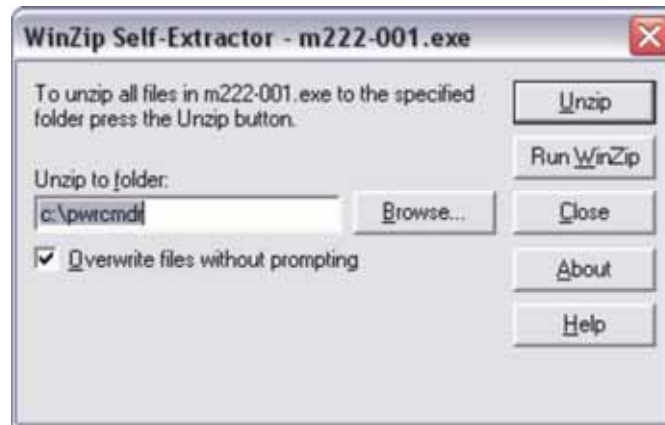


Figure 2-6: Unzip the Downloaded File to the Default Location



LOADING A MAP

When you first start the software the map from your PCIII USB is automatically loaded if it is powered on and connected to the computer. If not, you will see a blank map area.

Use the following steps to load an existing map that has been previously saved to your computer.

1 Click Open Map File button or select File, Open Map File

The Open Power Commander File dialog box appears on your screen. You can use it to navigate to the location where your existing PCIII USB fuel map files are stored, typically *c:\pwrcomdr*.

2 Select a file.

3 Click Open.

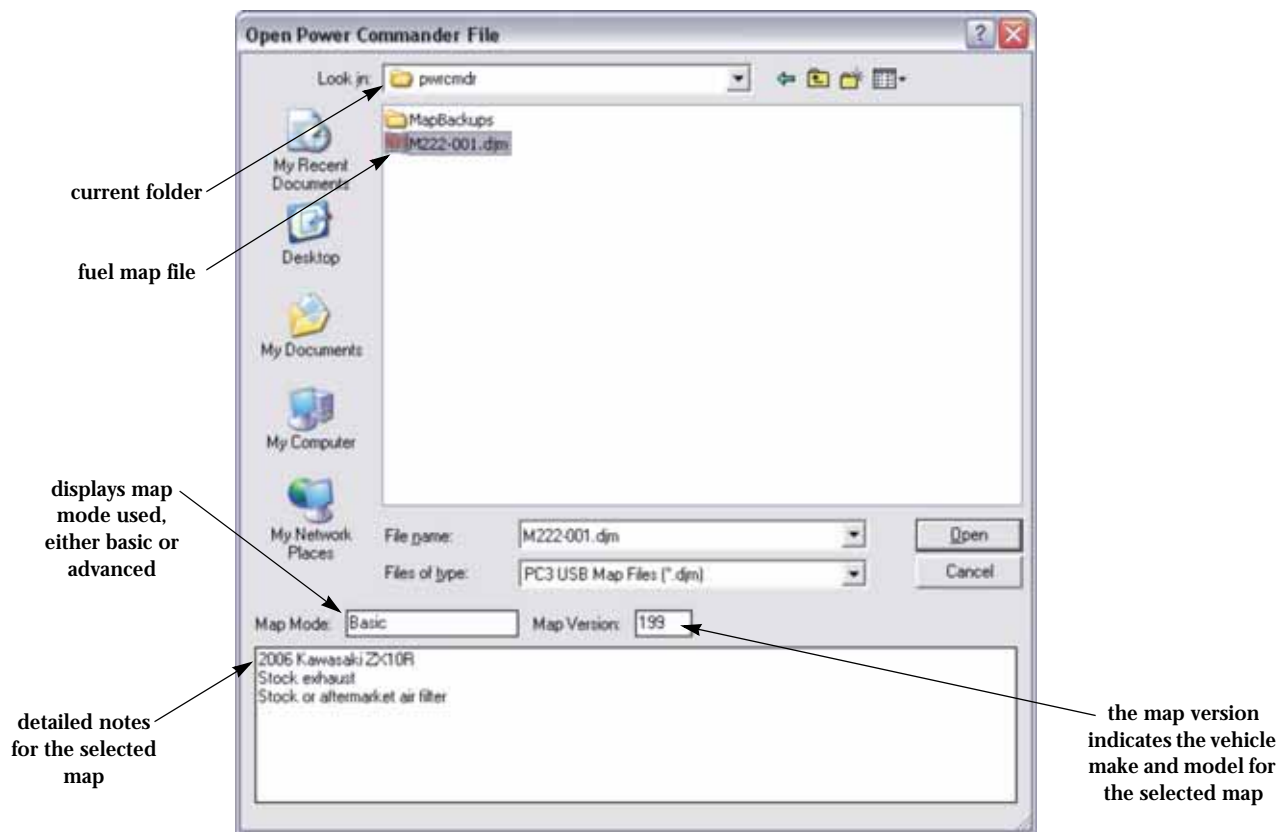


Figure 2-7: Open Power Commander File Dialog Box



UNDERSTANDING A FUEL MAP

Figure 2-8 shows the software with a fuel map loaded.

The PCIII USB lets you adjust the fuel being delivered by the fuel injectors (and also the ignition timing if you have an Ignition Module).

Duty cycle is the percentage of time a fuel injector is open during the fuel cycle. Without a PCIII USB this value is determined solely by the vehicle's ECU.

A PCIII USB fuel map adds or subtracts from the fuel injector duty cycle to performance tune your vehicle, providing more or less than stock fueling.

The fuel map allows you to control the duty cycle for your vehicle's fuel injectors at different throttle and rpm values.

The screenshot shows the Power Commander III USB software interface. On the left, there is a menu with options: Open Map File, Save Map File, Send Map, Send Table, Get Map, Get Table, and Hide Notes. The main area displays a fuel map table for 'Fuel Table 1' with 'Throttle Position' on the x-axis (0, 2, 5, 10, 20, 40, 60, 80, 100) and 'Engine Speed (RPM)' on the y-axis (500 to 7250). A cell at 3250 RPM and 20% throttle is highlighted. Below the table, it shows '2006 Kawasaki ZX10R' and 'Stock with/without Stock or aftermarket air filter'. On the right, there are several displays: '% Throttle' (0), 'RPM' (0), 'Fuel Change' (0), and 'Duty Cycle' (0). A notes area at the bottom right displays details about the current fuel map.

Annotations with red arrows point to various elements:

- axis labels
- fuel map
- clicking in a cell highlights that cell's throttle position and rpm value
- percent throttle display
- rpm display
- percent fuel change
- duty cycle display
- the notes area displays details about the current fuel map

Figure 2-8: A Fuel Map Loaded into the Software



Axis Labels—identify the scales for throttle position and rpm values.

Cell Values—indicate a percentage increase or decrease of the fuel injector duty cycle at that throttle position and rpm. A positive number indicates a percentage added to the duty cycle delivering more fuel; a negative number is subtracted from the duty cycle, providing less fuel.

% Throttle—uses sensor information from your vehicle to show the percentage the vehicle's throttle is open on a scale of 0 to 100 percent.

RPM—uses sensor information from your vehicle to show the engine's rpm value.

Fuel Change—displays the percentage value for fuel change based on the current throttle position and rpm from the map.

Duty Cycle—displays the percentage of time the fuel injectors are open. If the duty cycle is at 100 percent, the fuel injector is fully open during the entire fueling cycle. If your vehicle's duty cycle reaches 80 to 85 percent you may need to consider using different fuel injectors or raising the fuel pressure.



MAIN SOFTWARE WINDOW

The software starts up showing the main window. You manage your maps using the commands available from the main window.

MENUS

There are three ways to select commands in the software. The menu bar, located across the top of the screen, and the buttons such as Open Map File, Save Map File, Send Map, Send Table, Get Map, Get Table and Hide Notes available from the left side of the screen, and a convenient pop-up menu when you right-click your mouse.

The menu bar displays the six menus available: File, Edit, View, Tools, Power Commander Tools, and Help. Each menu contains groups of related commands. Some commands will be disabled depending on which modules (such as the Ignition Module) you have connected to your PCIII USB. See “Menu Choices” on page 2-14 for more information.



Figure 2-9: Main Window Features



BUTTON FUNCTIONS

Open Map File—loads a preexisting map file.

Save Map File—saves the current map.

Send Map—sends the entire map to the PCIII USB.

Send Table—sends the current tab of the map, helpful for updating advanced maps quickly. Refer to “Basic and Advanced Maps” on page 3-2 for more information.

Get Map—retrieves the entire map from the PCIII USB.

Get Table—retrieves the current table of an advanced map from the PCIII USB.

Show/Hide Notes—will show/hide the map notes that appear at the bottom of the screen.

POP-UP MENU

Right-click in the map area to show the pop-up menu.



Figure 2-10: Right-Click in the Screen Area to Show the Pop-up Menu



CHANGING MAP VALUES

You can change map values by typing into a single cell or by changing an entire row or column at one time.

CHANGING ONE CELL

- 1 Click in a cell to select it.
- 2 Type a new value into the cell corresponding to that rpm and throttle position. A positive number increases fuel. A negative number decreases fuel.

The screenshot shows the 'Fuel Table 1' window in the Power Commander III USB Control Center software. The window displays a grid of fuel values for various engine speeds (RPM) and throttle positions. The y-axis represents Engine Speed (RPM) from 500 to 8500. The x-axis represents Throttle Position from 0 to 100. The grid is currently filled with zeros. A red arrow points to the cell at 4000 RPM and 10% throttle, which contains the value '5'. A text label 'click to select a cell' is positioned to the left of the arrow. On the right side of the window, there are several digital displays: '% Throttle' (0), 'RPM' (0), 'Fuel Change' (0), 'Duty Cycle' (0), 'Current Map' (1), 'Current Gear' (0), 'Speed' (0), and 'Trim Voltage' (0.00). The Dynojet logo is visible in the top right corner.

Figure 2-11: Increase Fuel by 5 Percent When RPM is 4000 and Throttle is 10 Percent



CHANGING A RANGE OF CELLS

- 1 You can select multiple cells using the following methods:
 - Click on a row or column to select the entire range of cells.
 - Click and drag while holding the mouse button down to select a group of cells.
 - Click in the upper left corner of the map area as shown in Figure 2-12 to select the entire map.
- 2 Type a value and press enter to change the selected range.

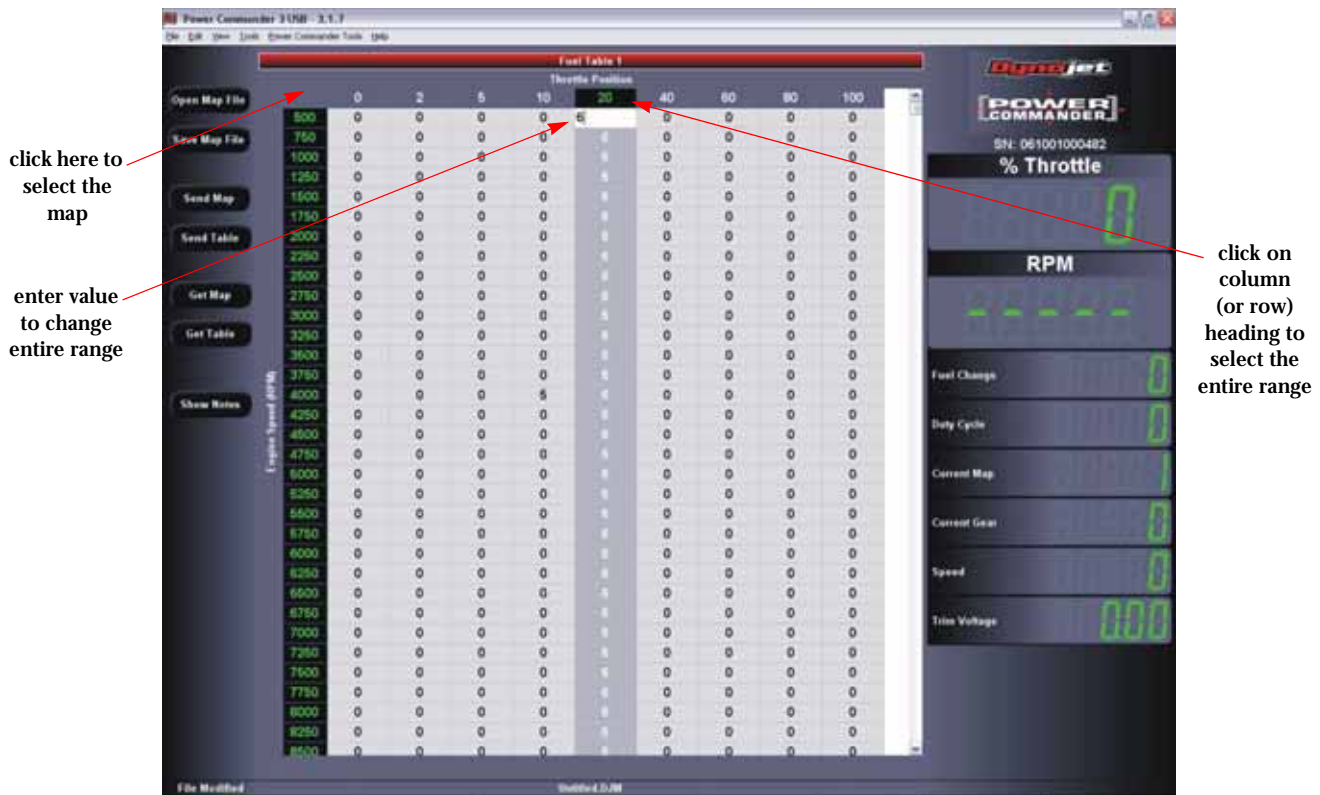


Figure 2-12: Increase Fuel by 6 Percent When Throttle Position is 20

INCREASING AND DECREASING USING THE KEYBOARD

Press the **Page Up** key to increment the selected range of cells by one.

Press the **Page Down** key to decrement the selected range by one.

Note: In order for map changes from the software to take effect on the PCIII USB connected to your vehicle, you must choose **Send Map**.



MENU CHOICES

.....

You access menu choices from the main window to perform software operations.

FILE MENU

Select **File ►Open Map File** to open an existing map. Map files for the software use a file extension of .djm after their filenames.

Select **File ►Close Map File** to close the current map.

Select **File ►Import Map File** to bring an existing .map file extension map in as the current map. Older Power Commanders stored their data in files using the .map file extension. These files cannot be opened directly using the software, but they can be imported using **File ► Import Map File**.

Select **File ►Save Map File As** to save the open map to a new name or location on your computer.

Select **File ►Setup Printer** to show the windows printer dialog box where you can select your printer and control the paper size and orientation.

Note: If your printer does not appear on the list use the Windows Control Panel to add your printer.

use the pull down list to select your printer

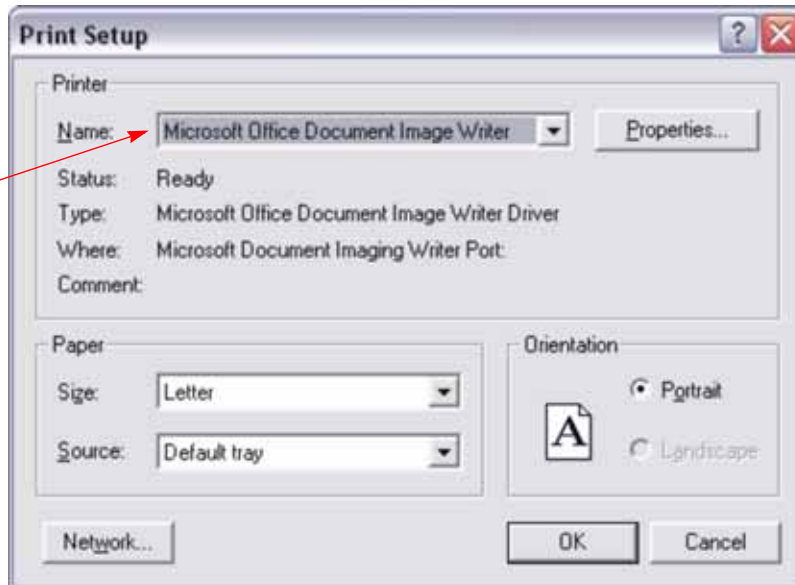


Figure 2-13: The Print Setup Dialog Box

Select **File ►Recent** and click on a fuel map name to quickly select from a list of files you have used recently.

Select **File ►Exit** to exit the software.



EDIT MENU

Select **Edit** ► **Copy** to copy individual cells or the entire current map to the Windows Clipboard.

Select **Edit** ► **Paste** to paste individual cells or the entire current map from the Windows Clipboard to your cursor location.

Select **Edit** ► **Select All** to select all of the current map.

VIEW MENU

POWER COMMANDER INFORMATION

Select **View** ► **Power Commander Information**

The Power Commander Information window allows you to view your PCIII USB's information.

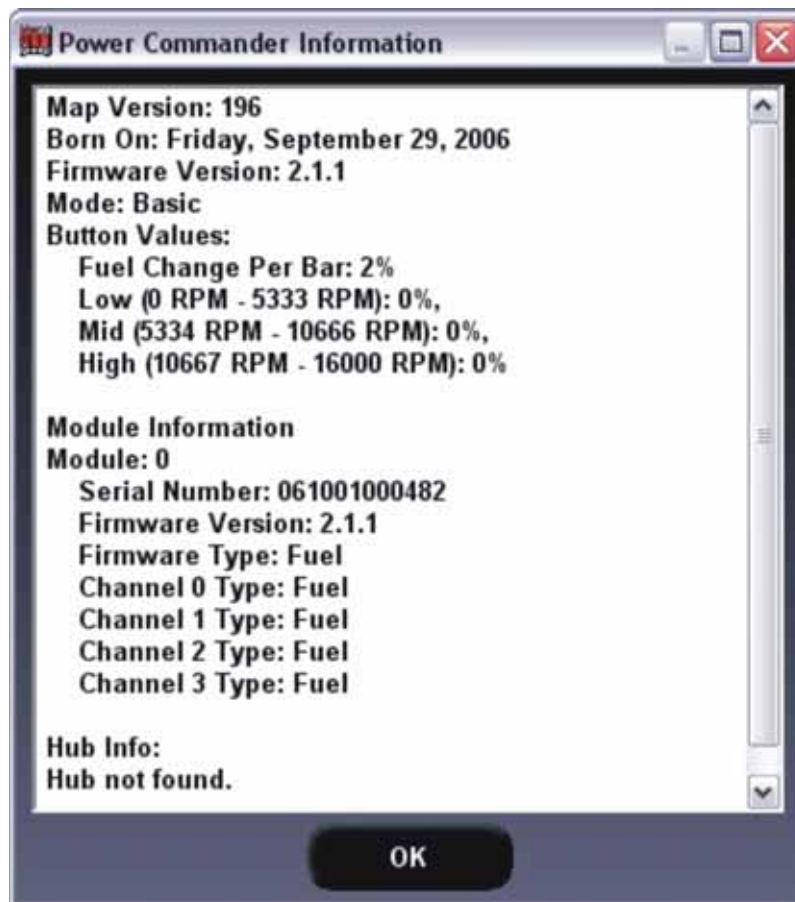


Figure 2-14: Power Commander Information



Power Commander information	description
serial number	the serial number of the PCIII USB currently connected
born on	the date the PCIII USB was manufactured
firmware version	firmware version number
mode	the mode the PCIII USB is in, basic or advanced
button values	shows how your PCIII USB buttons are currently set to function; to reset to the default settings, choose Power Commander Tools►Reset Button Values from the menu
module information	shows information about modules you have connected; the PCIII USB is always shown as module 0
firmware type	shows either fuel or harley; PCIII USB models for Harley Davidson models have an integrated ignition module
hub information	shows information about your Dynojet Multifunction Hub if connected

HIDE/SHOW NOTES

Select **View ►Hide/Show Notes** to show the map notes near the bottom of the screen.



TOOLS MENU

MAP COMPARE

- 1 Select **Tools** ► **Map Compare** to show the Map Compare Dialog.
You use it to compare the values in two different maps

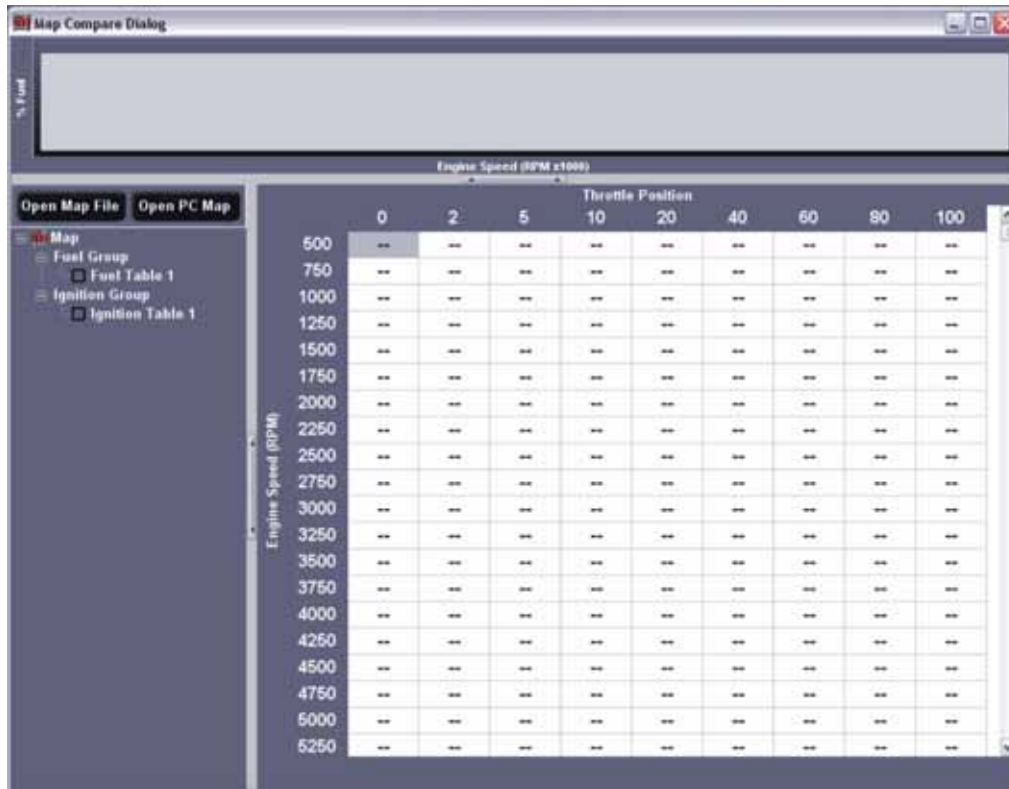


Figure 2-15: The Map Compare Dialog

- 2 Click **Open Map File** to load a map stored on your computer.
- 3 Click **Open PC Map** to load the map currently stored on your connected PCIII USB.
- 4 Select the **Fuel Table1** check boxes from both maps to compare fuel tables.
- 5 Select the **Ignition Table1** check boxes to compare ignition tables if you have an Ignition Module.



COMPARING FILES

The comparison between the two maps shows in the central area of the Map Compare Dialog. Cells which do not contain the same value in both maps are highlighted in red.

Note: This example compares a map from the PCIII USB with a stored map. You can also compare stored maps without the PCIII USB connected.

click either of the open maps listed here to display their values

click to show the difference or average between the two table values

buttons let you open files for comparison

map from the PCIII USB

map stored on computer

select to compare fuel map values

red highlighting indicates cells which have differing map values

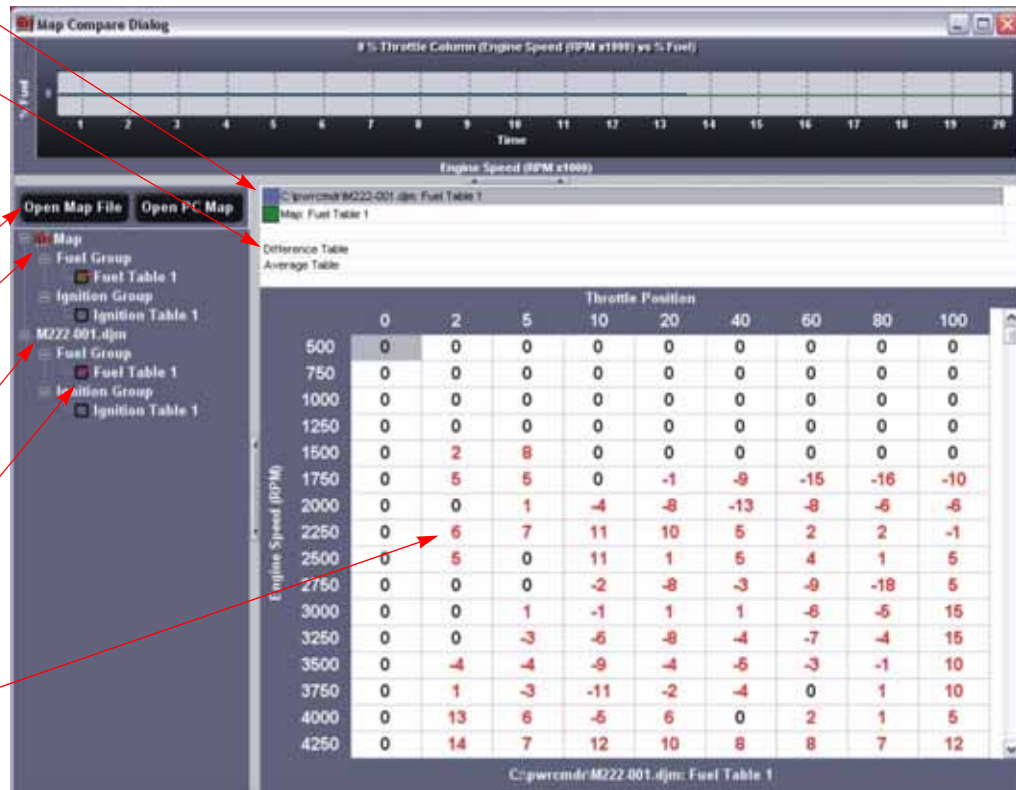


Figure 2-16: The Map Compare Dialog Showing the Difference Between Two Tables

Difference Table—shows the difference between the values in the two maps being compared.

Average Table—shows the average of the values in the two maps being compared.



COMPARING GRAPHS

You can graph map values using the Map Compare Dialog box.

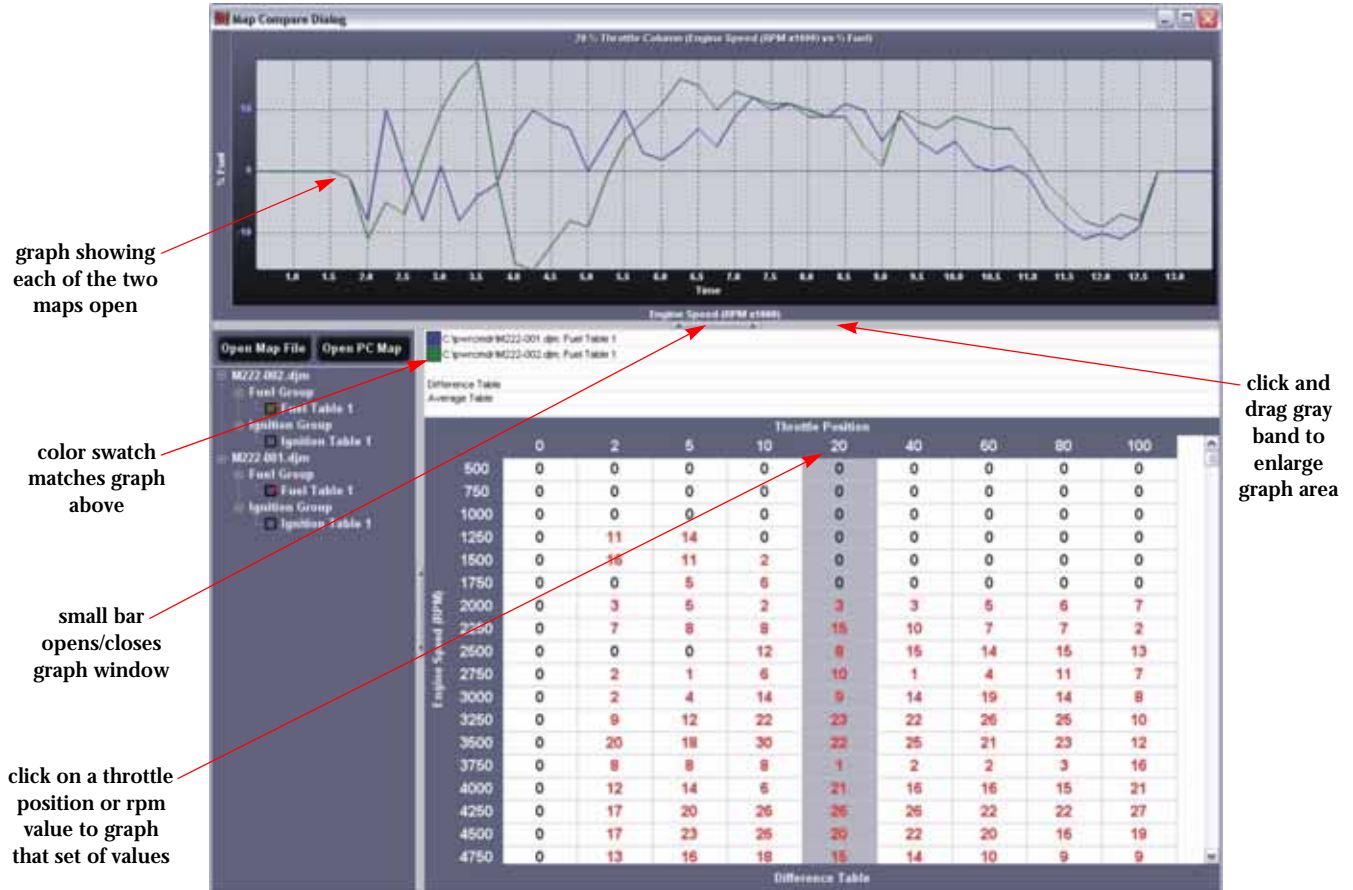


Figure 2-17: Graph of Fuel Map Values with Throttle Position at 20 Percent



MAP SEARCH

Select **Tools** ► **Map Search**.

Map Search allows you to search for PCIII USB maps using defined variables or specific words.

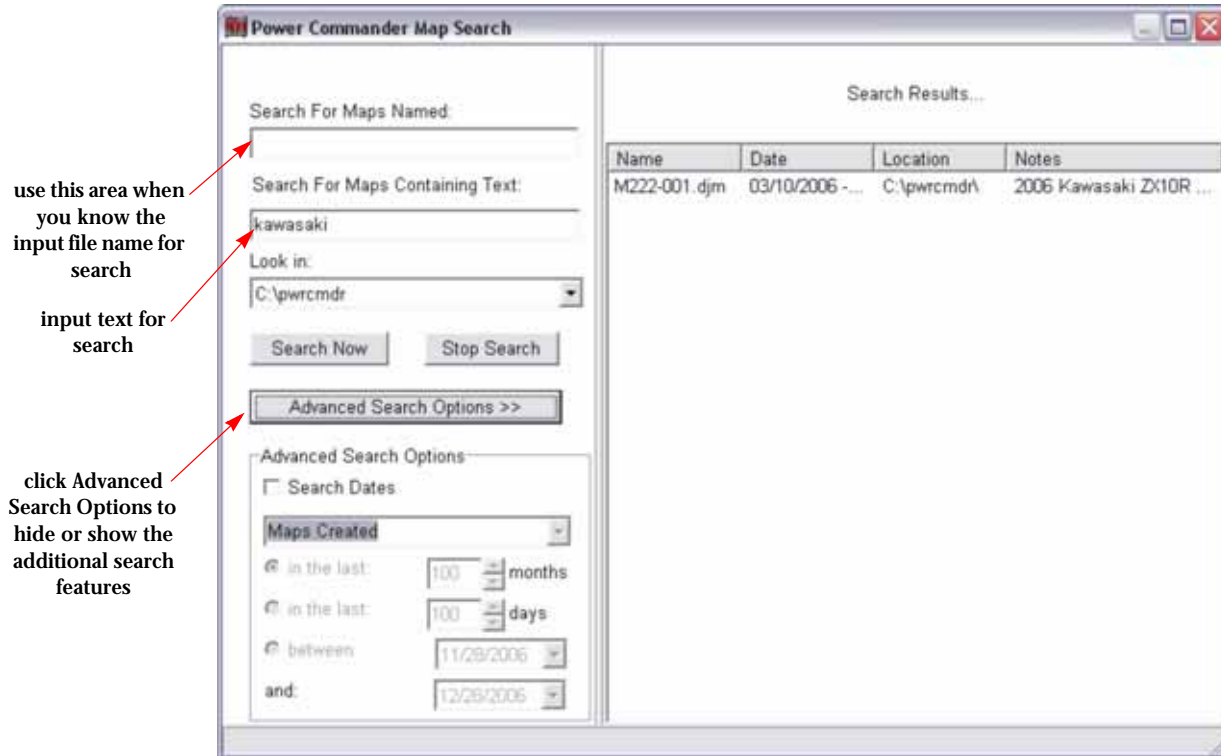


Figure 2-18: Power Commander Map Search for the Text “kawasaki”



EMAIL CURRENT MAP

Select **Tools ► Email Current Map**.

The mail program automatically launches with the map file attached as shown.

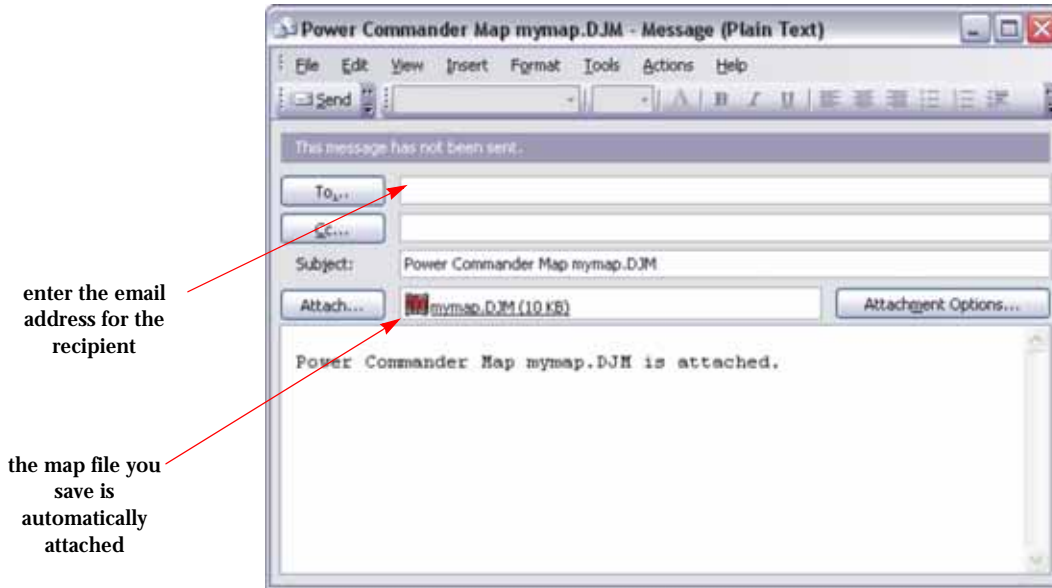


Figure 2-19: The Map File is Automatically Attached When You Select to Email the Current Map

MAXIMIZE MAP RESOLUTION

Select **Tools ► Maximize Map Resolution**.

The map shown on your screen adjusts to provide additional intermediate axis divisions if it is not already at the maximum level.

PROMOTE MAP TO ADVANCED

Select **Tools ► Promote Map to Advanced**.

Note: Promote Map to Advanced causes a map to allow separate tables for each individual cylinder. Promoting/Demoting maps only changes the mode in the software. For the change to take effect, you must send the map to the PCIII USB. Depending on the number of cylinders for your vehicle, you will see two or four tabs, one per cylinder. For more information on using advanced maps refer to “Basic and Advanced Maps” on page 3-2.

DEMOTE MAP TO BASIC

Select **Tools ► Demote Map to Basic**.

Demote Map to Basic allows you to change an advanced map to a basic map. You will be asked to use either values from a single fuel table or the average of all the advanced map fuel tables. For more information on using advanced maps refer to “Basic and Advanced Maps” on page 3-2.



Demoting a map only changes the mode in the software. For the change to take effect, you must send the map to the PCIII USB.

ENVIRONMENT OPTIONS

Select **Tools > Environment Options**.

The Environment Options window allows you to control options such as automatic saving preferences, software appearance, default map opening and to reset the PCIII USB to its default settings.

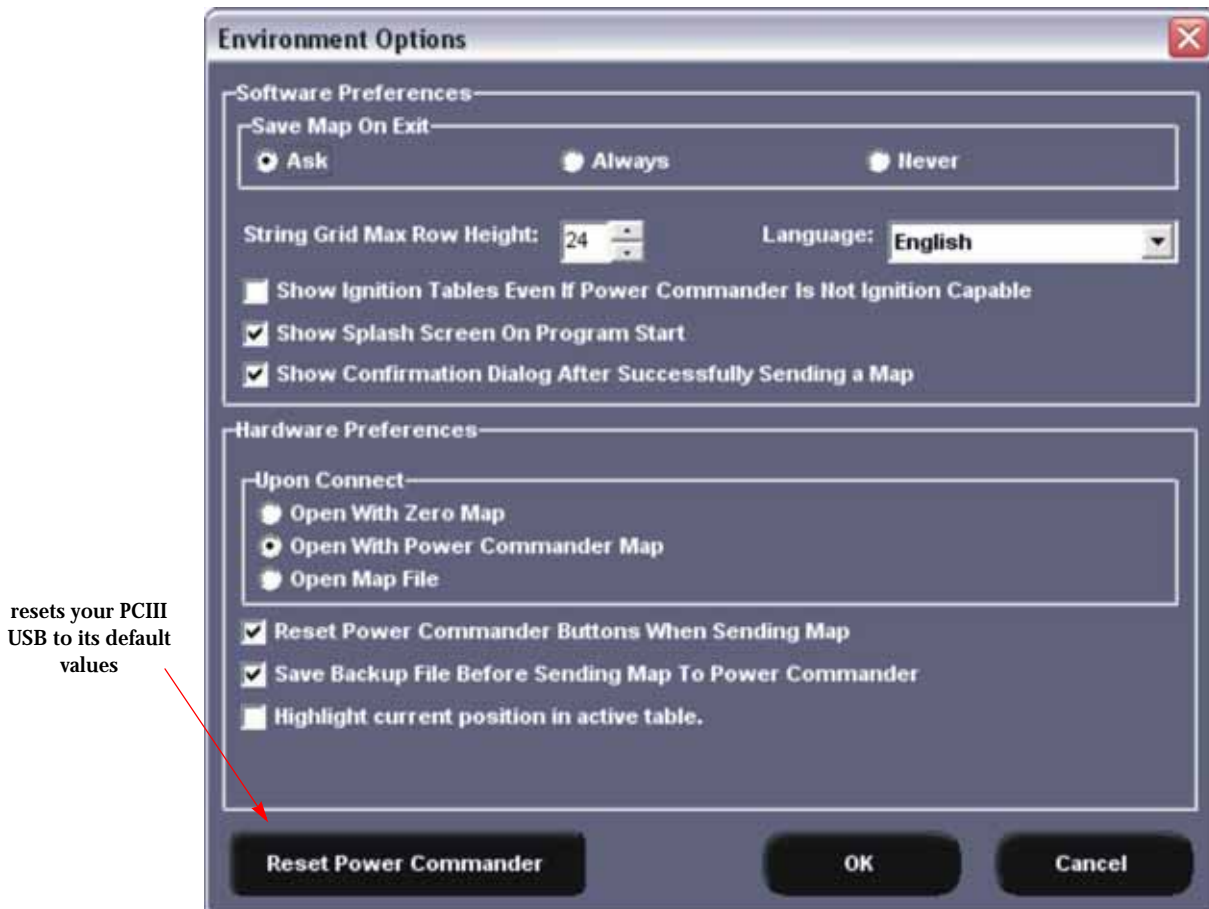


Figure 2-20: Environment Options



POWER COMMANDER TOOLS MENU

TRIM CYLINDERS

Select **Power Commander Tools** ► **Trim Cylinders** to adjust fuel to one or more cylinders without using an advanced map. Use the slider bars or type in a value from negative 5 percent to positive 5 percent to decrease or increase the fuel to that cylinder as compared the map value.



Figure 2-21: Trim Cylinders



SET THROTTLE POSITION

Select **Power Commander Tools** ► **Set Throttle Position**

The Set Throttle Position window allows you to re-calibrate your throttle position if needed.

To reset both the closed and open throttle positions, ensure that the PCIII USB is powered up and connected to the computer via the USB cable, then do the following.

- 1 Click **Reset**.
- 2 Twist the throttle wide open and release.
- 3 Click **OK**.
- 4 To reset only the Closed **or** Open position do the following.
- 5 Click the arrow next to the Closed box or the Open box
- 6 Click **OK**.



Figure 2-22: Set Throttle Position

RESET BUTTON VALUES

Select **Power Commander Tools** ► **Reset Button Values** to set the low, mid, and high buttons on your PCIII USB back to zero. For more information see “Using the PCIII USB Buttons” on page 2-27.

Click **Yes** to verify that you want the button values to reset or **No** to return without resetting.



Figure 2-23: Click Yes to Reset the Button Values



HUB CONFIGURATION

Select **Power Commander Tools ►Hub Configuration** to set up Dynojet Multifunction Hub functions. For more information refer to “Using Multifunction Hub Features” on page 3-10.

SET NUM MAPS

Select **Power Commander Tools ►Set Num Maps** to set the number maps used with the map select switch. For more information refer to “Using Two Maps” on page 3-11.

UPDATE FIRMWARE

Select **Power Commander Tools ►Update Firmware** if it is necessary to update your PCIII USB’s firmware version. For more information refer to “Updating the PCIII USB Firmware” on page 3-23.

HELP MENU

HELP

For the latest help and tutorials go to www.powercommander.com.

ABOUT POWER COMMANDER 3 USB SOFTWARE

Select **Help ►About Power Commander 3 USB Software** to view the software version number.

USER GUIDE

Click **Help ►User Guide** to show this user guide as a Public Document Format (.pdf) file that you can browse and search.



SENDING A MAP TO THE PCIII USB

Click **Send Map** (while a map is open in the software) to send the map to the PCIII USB.

Note: The PCIII USB must be powered up to in order for it to receive a map. This can be done using the supplied 9 volt “power up” adapter or with your vehicle running.

Note: In order for map changes from the software to take effect on the PCIII USB connected to your vehicle, you must choose **Send Map**.



Figure 2-24: Use the Send Map Button to Transfer the Open Map to the PCIII USB



USING THE PCIII USB BUTTONS

.....

You can quickly adjust your fuel settings beyond what is stored in your fuel map through using the buttons on the faceplate of your PCIII USB. Each button controls a range of rpm values. The button ranges are determined by taking the rpm range for your vehicle and dividing it into thirds. The buttons adjust fuel for all throttle positions within the specified rpm range.

low button—from 0 to the bottom third of the rpm range.

mid button—the middle third of the rpm range.

high button—the upper third of the rpm range.

USING BUTTON MODE TO INCREASE OR DECREASE FUEL

To use button mode:

- 1 Depress all three buttons (low, mid, and high) on the PCIII USB front panel simultaneously while powering up.
The middle two LEDs will light showing that the PCIII USB is set to button mode with zero fuel adjustment.
- 2 Press the low button once to add more fuel when your vehicle is operating in the low range.
The LED above the zero position in the positive (+ fuel) direction will light showing more fuel is being added.
- 3 Press the button again to add additional fuel in that range.
- 4 Hold the button (low, mid, or high) down steadily to decrease the amount of fuel.
You will see the LEDs light in the negative (- fuel) direction indicating that fuel is decreased.
- 5 Repeat the steps for each button.



6 Wait until the bottom LED lights to indicate that the changes are complete.



Figure 2-25: Use Your PCIII USB Buttons For Easy Fuel Control

SETTING THE BUTTON RANGES

To display the ranges for the buttons, press one of the buttons on the PCIII USB while it is connected to the computer. The range for that button shows highlighted on the screen.



Note: The fuel that is added or subtracted using the button settings is in addition to the fuel adjustment from the map stored on the PCIII USB.

hold down a PCIII USB button to highlight the range of values set by that button

The screenshot displays the 'Power Commander 3 USB' interface. It features a 'Fuel Table 1' and an 'Ignition Table 1'. The Fuel Table has columns for Throttle Position (0, 2, 5, 10, 20, 40, 60, 80, 100) and rows for Engine Speed (RPM) from 3000 to 11000. The Ignition Table has columns for Throttle Position (0, 2, 5, 10, 20, 40, 60, 80, 100) and rows for Engine Speed (RPM) from 3000 to 11000. A red arrow points to the 'Send Map' button on the left side of the interface. The right side of the interface shows various engine parameters: % Throttle, RPM, Fuel Change, Duty Cycle, and Ignition. The status bar at the bottom indicates 'File Modified' and 'Loaded_BASIC_BASIC.dja'.

Figure 2-26: PCIII USB Button Ranges Show on Screen



VERIFYING BUTTON VALUES

Select **View ► Power Commander Information** to show the current button settings and to show the fuel adjustment per bar (each LED advance or decrease).

button values
and fuel
adjustment
value per bar

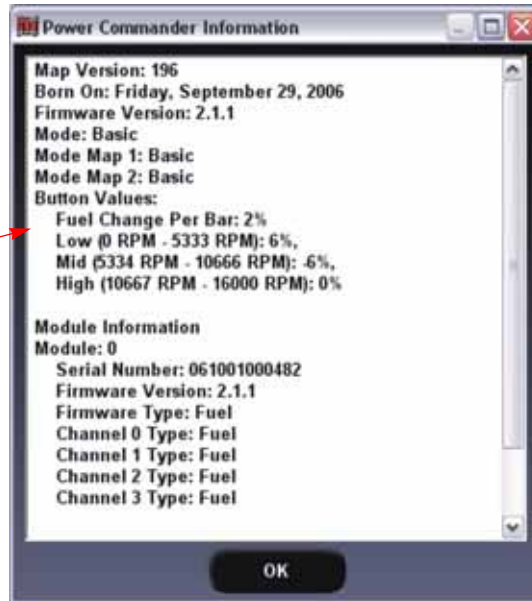


Figure 2-27: Button Information

CHAPTER 3



ADVANCED FEATURES

Your software allows for advanced map functions as well as control of an Ignition Module and Multifunction Hub if you have these items connected to your PCIII USB. This chapter provides information on how to use these functions.

In this chapter:

- Basic and Advanced Maps, page 3-2
- Using Ignition Maps, page 3-6
- Getting and Sending Advanced Maps, page 3-8
- Using Multifunction Hub Features, page 3-10
- Updating the PCIII USB Firmware, page 3-23
- Effective Use of Technical Support, page 3-29



BASIC AND ADVANCED MAPS

There are two types of maps that the PCIII USB uses: basic and advanced.

Basic map—adjusts the fuel and/or ignition timing for all of the cylinders of your vehicle as a group.

Advanced map—allows fuel and/or ignition timing adjustment for each cylinder individually.

BASIC MAPS

The basic fuel map shown below has only one tab. It uses the same map value for all of your vehicle's cylinders.

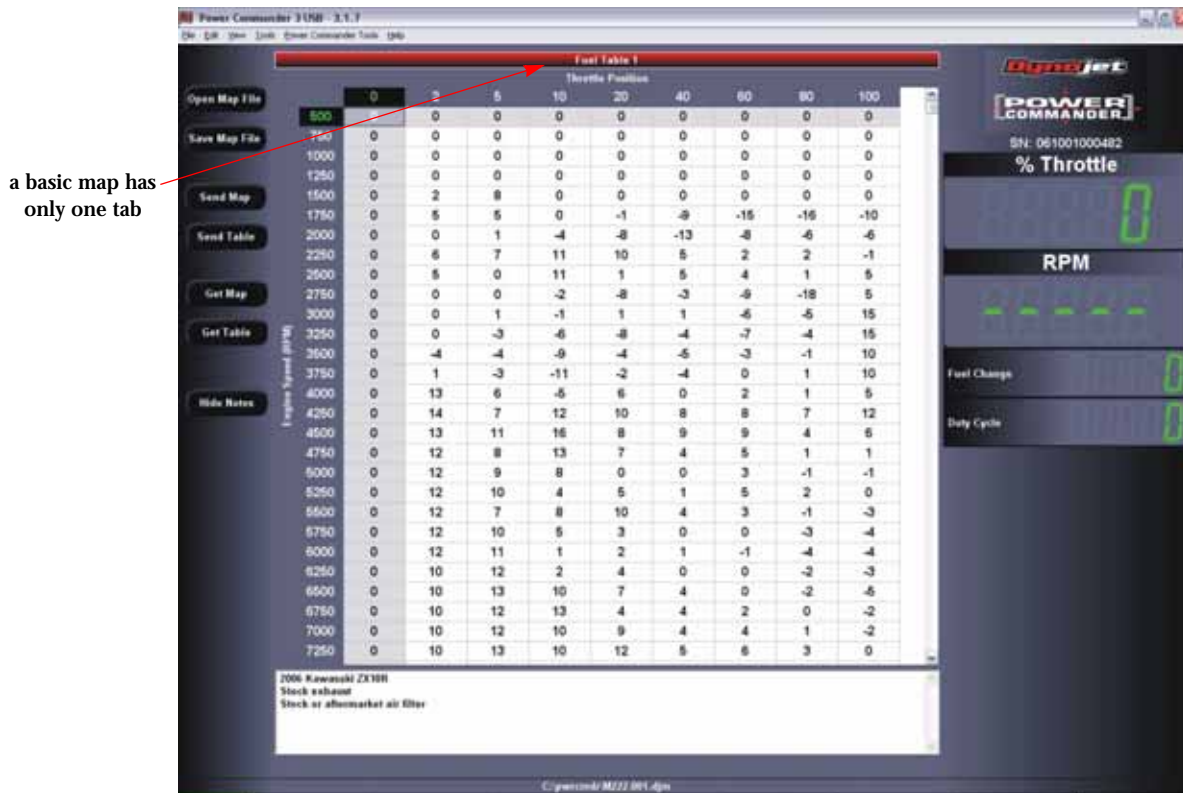


Figure 3-1: A Basic Fuel Map



ADVANCED MAPS

An advanced fuel map has a separate fuel table for each of the vehicle's cylinders. The number of cylinders is transmitted from the PCIII USB to the software. Tabs across the top of the map indicate which fuel table is active. The cell values on the specific fuel table control the settings for that cylinder.

CAUTION

Advanced mode should be used by advanced users with the proper equipment to monitor and adjust the parameters correctly.

Figure 3-2 shows a fuel map with Fuel Table 2 active. When this map is sent to the PCIII USB, it controls the amount of time the fuel injector for that cylinder is open at the throttle positions and rpm shown.

Note: The PCIII USB interpolates a fuel value when the rpm or throttle position is between the values shown in the table.

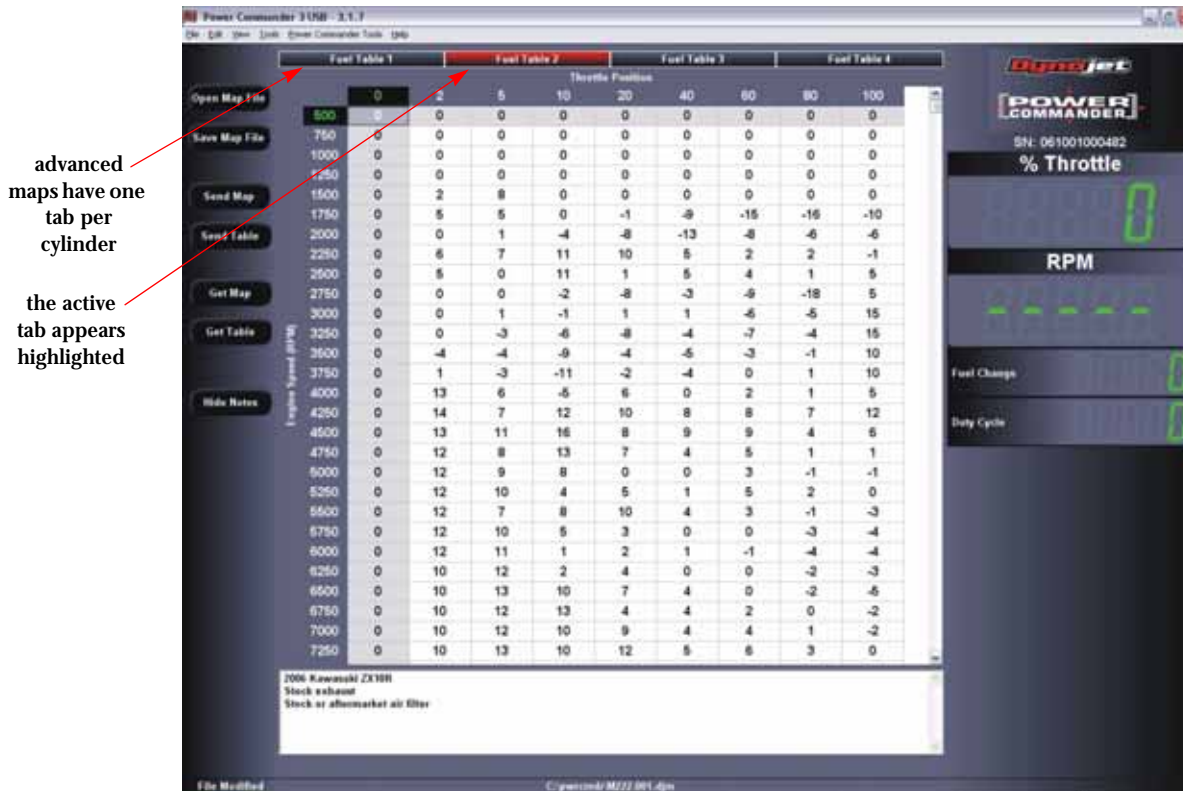


Figure 3-2: An Advanced Fuel Map



PROMOTING AND DEMOTING MAPS

Maps can be changed from basic to advanced and vice versa using the Promote Map to Advanced/Demote Map to Basic commands.

Note: Promoting/Demoting maps only changes the mode in the software. For the change to take effect, you must send the map to the PCIII USB.

PROMOTING A MAP

Select **Tools ► Promote Map to Advanced** to promote a map from basic to advanced.

Promote Map to Advanced causes a map to allow mapping for individual cylinders. Promoting a map only changes the map to an advanced map. Depending on the number of cylinders for your vehicle, you will see two or four tabs (one per cylinder) added to the map.

Note: This selection appears grayed-out when you have an advanced map open.



If you are using an Ignition Module, verify that it is connected before you promoting a map or sending an advanced map. Not doing so can cause the ignition tables to fail to update correctly.

DEMOTING A MAP

Select **Tools ► Demote Map to Basic** to demote a map from advanced to basic.

Demote Map to Basic causes a map to return to containing a single table to control all cylinders. Once a map is demoted, the map will only contain one fuel table (and one ignition timing table if you have an Ignition Module connected.)

Note: This selection appears grayed-out when you have a basic map open.

When you demote a map you have the option to specify which fuel table to use for the values in the basic map, or to use the average values from all fuel tables to create the basic map.



Click **Use Average of All Fuel Tables** to average the values for like cells in the fuel tables to use in creating the basic table



Figure 3-3: Demote Map to Basic Using the Averages of the Values

Click **Use Single Fuel Table** to select an individual fuel table to copy. Use the drop down list to select the Fuel Table values to use for the basic table.

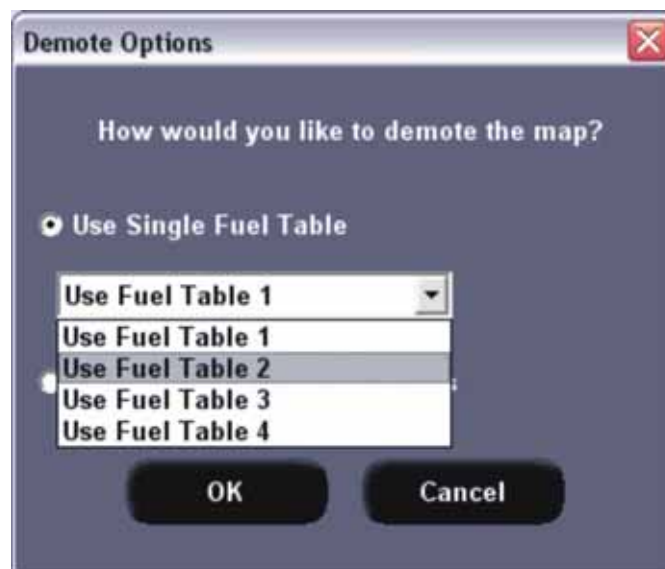


Figure 3-4: Select the Fuel Table Values to Use



USING IGNITION MAPS

An Ignition Module connected to your PCIII USB lets you use an ignition timing map to retard and advance ignition spark timing.

You cannot typically download ignition maps from the web. Optimal ignition timing varies based on your vehicle, fuel quality, and engine modifications, so Dynojet does not provide standard ignition timing maps. To have your ignition table fine tuned Dynojet recommends using an Authorized Power Commander Tuning Center. These centers have the necessary dynamometer equipment to performance tune your vehicle using the Ignition Module. Please visit www.powercommander.com to find the center nearest you.

BASIC IGNITION MAP

The software recognizes when an Ignition Module is connected to the PCIII USB and adds the appropriate items to control ignition timing.

The cells in the ignition table contain values showing the number of degrees to advance or retard ignition spark timing. The maximum value that can be used is 10 degrees advanced (+ 10), the minimum is 10 degrees retarded (-10).

Like fuel maps, ignition maps can be either basic or advanced. A basic ignition map controls the ignition timing for all of the cylinders using a single table of values to advance or retard the spark.

Note: Values outside allowable range highlight in red.



Figure 3-5: A Basic Ignition Map



ADVANCED IGNITION MAP

An advanced ignition map provides a separate table for control of each cylinder individually.

CAUTION

If you are using an Ignition Module, verify that it is connected before promoting a map or sending an advanced map. Not doing so can cause the ignition tables to fail to update correctly.

Like the basic map, cells in the advanced ignition map contain values for the number of degrees to advance or retard the ignition spark timing. The difference is that each individual table in the map provides a value to control ignition timing for one cylinder.

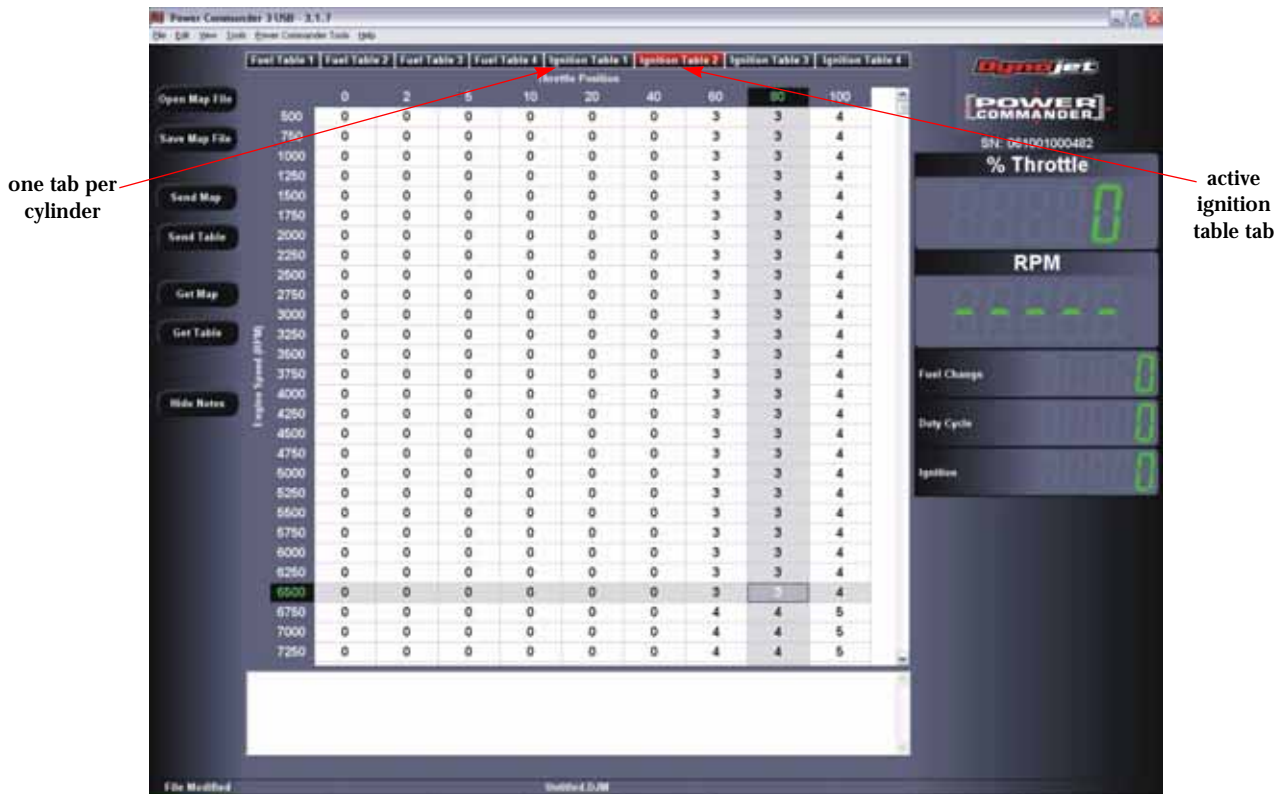


Figure 3-6: An Advanced Ignition Map



GETTING AND SENDING ADVANCED MAPS

Advanced maps contain multiple tables. To save time single tables as well as the entire map can be transferred to your PCIII USB.

Click **Send Map/Get Map** to send or get the entire advanced map.

SENDING ADVANCED TABLES TO THE PCIII USB

The buttons along the left side of the main window allow a single table from an advanced map to be sent to your PCIII USB. Sending the entire map takes longer than just sending the active table. If you have only made changes on one tab, you can save time by sending only your current table.

Note: If you click Send Table when using a basic map, it will send the entire map, as there is only one table.

Click **Send Table** to send the table from the active tab to the PCIII USB.

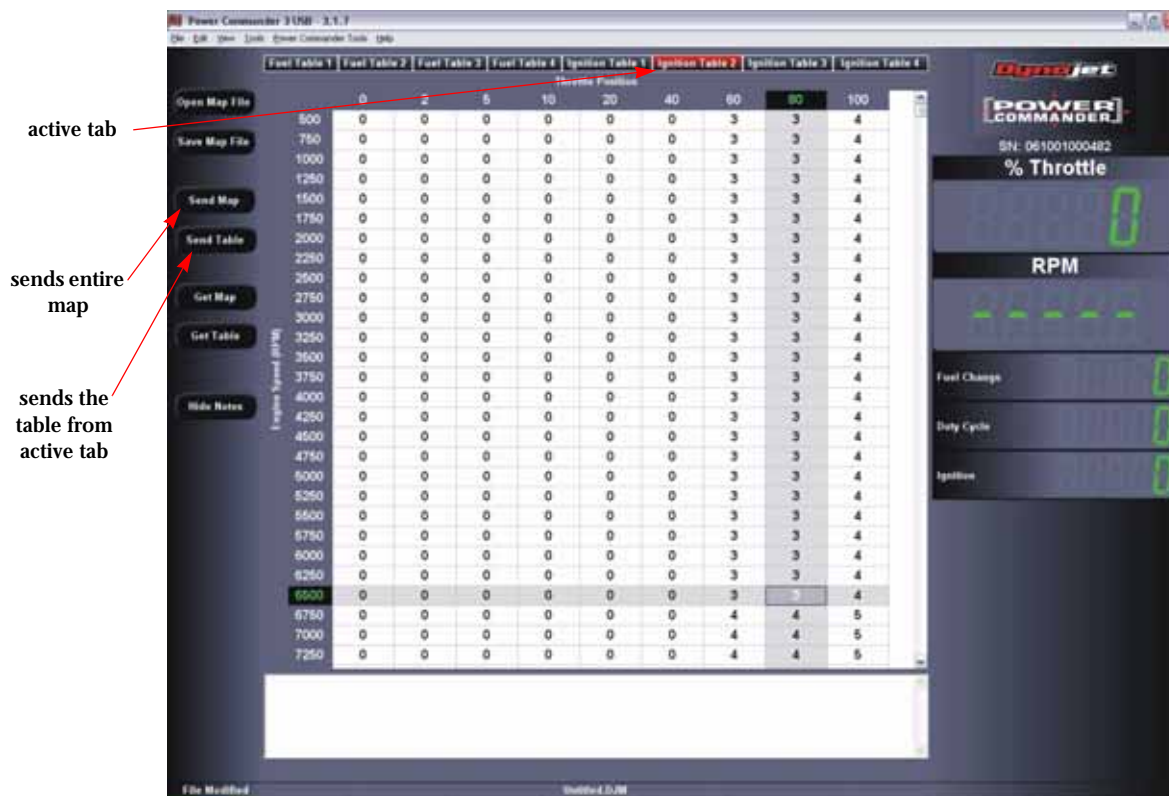


Figure 3-7: Sending a Table



GETTING ADVANCED TABLES FROM THE PCIII USB

Getting an advanced map from to your PCIII USB takes longer than just getting the active table. If you need changes only on one tab, you can save time by getting only your current table.

Note: In order to get a single table, you must have an advanced map loaded and have the tab active for the table you want to retrieve.

Click **Get Table** to get the table matching the active tab from the PCIII USB.

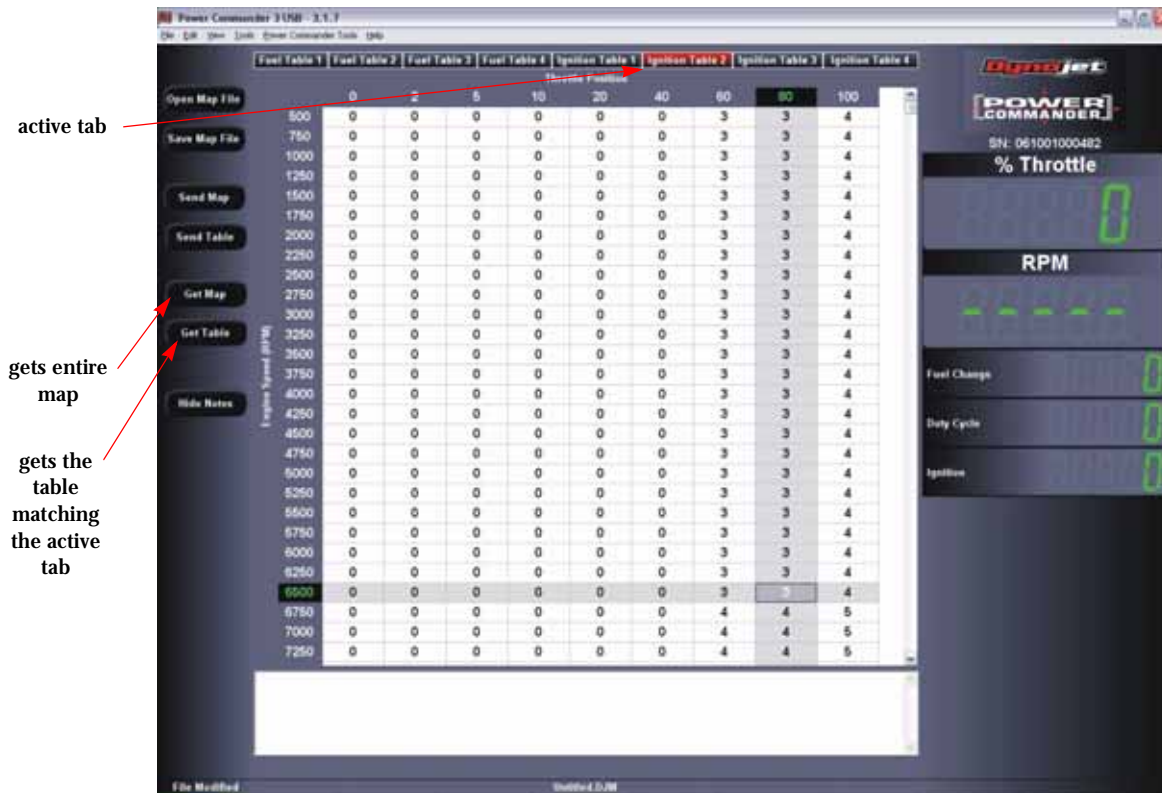


Figure 3-8: Getting a Table

If you do not have a map open and choose Get Table, you will see the message below. To remedy this click Yes.

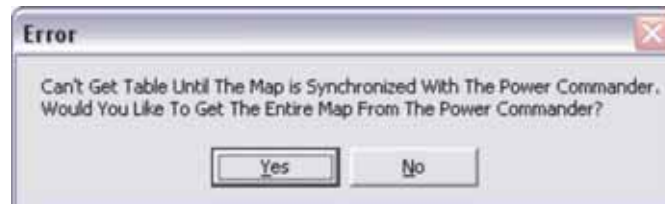


Figure 3-9: Map Must Be Synchronized Message



USING MULTIFUNCTION HUB FEATURES

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Connecting a Multifunction Hub to your PCIII USB allows access to advanced expansion features through a variety of harnesses for both input and output connectivity. With the Multifunction Hub connected you can:

- set up the Map Selection Switch to change between two maps stored in your PCIII USB.
- display speed and gear position.
- adjust your fuel curve based on gear position.
- set up and use pressure sensor inputs to add fuel which is especially useful for turbo-charged vehicles.
- set up two powered outputs, such as a solenoid, relay, or warning light that trigger based on data from the PCIII USB and the Multi-Function Hub.



Advanced features should be used by advanced users with the proper equipment to monitor and adjust the parameters correctly.

If you are unsure how to use the equipment and software described in this user guide, you should seek help from an Authorized Power Commander Tuning Center or Power Commander Technical Support.



USING THE MAP SELECTION SWITCH

The map selection switch allows you to switch between two different maps within the PCIII USB. For touring bikes this could be used to switch between a "fuel economy map" for long rides and a "full performance map." For sport bikes it could be used with applications such as "dry nitrous oxide" kits to switch to a richer fuel map when you activate the nitrous system. Additionally, if the PCIII USB has an Ignition Module connected it can switch to a less aggressive timing map at the same time.

USING TWO MAPS

To use the map switch you must set your PCIII USB to use two maps.

CAUTION

If you are using an Ignition Module, verify that it is connected before using two maps. Not doing so can cause the ignition tables to fail to update correctly.

CAUTION

It is important that both maps you use are the same mode, either both basic or both advanced. Your PCIII USB cannot use maps of two different types at the same time.

- 1 Click **Power Commander Tools** ► **Set Num Maps** ► **2 Maps** to send a second map to your PCIII USB.

the Multifunction Hub must be connected or commands will be grayed-out

click 2 maps to store a second map on your PCIII USB

Throttle Position	Ignition Table 1	Ignition Table 2	Ignition Table 3	Ignition Table 4
5	0	0	0	0
10	0	0	0	0
20	0	0	0	0
40	0	0	0	0
60	0	0	0	0
80	0	0	0	0
100	0	0	0	0

Figure 3-10: Setting Up the Use of Two Maps



- 2 Click **Yes** at the **Are You Sure** message box if you are certain you want to use two maps. Otherwise, click **No**.
- 3 Click **OK** to configure the use of two maps.

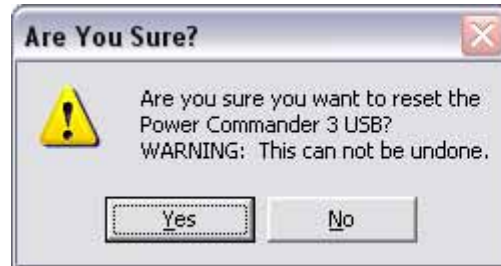


Figure 3-11: Are You Sure Message for Using Two Maps

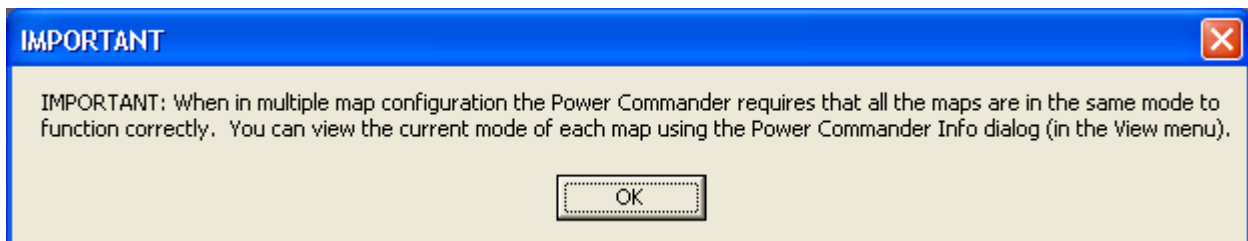


Figure 3-12: Important Caution: Both Maps Must Use the Same Mode



SENDING/GETTING TWO MAPS TO YOUR PCIII USB

Click **Send Map** from the left of the screen to send a map to the PCIII USB. (Use **Get Map** to retrieve a map from the PCIII USB.)

When you are using two maps, the pop-up menu will prompt for which map to use.

Having two maps to send and two map switch positions creates four possible combinations: Map 1 sent to map switch position 1, map 2 sent to map switch position 1, map 2 sent to map switch position 2, map 1 sent to map switch position 2.

Note: It may be helpful to save your map file before sending it in case you update the map you were not intending to change.

when an Ignition Module is connected each map has both a fuel and ignition table

choose which map to send to or get from

map switch position

Engine RPM	0	2	5	10	20	40	60	80	100
500	0	0	0	0	0	0	0	0	0
750	0	0	0	0	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0
1250	0	0	0	0	0	0	0	0	0
1500	0	0	0	0	0	0	0	0	0
1750	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0
2250	0	0	0	0	0	0	0	0	0
2500	0	0	0	0	0	0	0	0	0
2750	0	0	0	0	0	0	0	0	0
3000	0	0	0	0	0	0	0	0	0
3250	0	0	0	0	0	0	0	0	0
3500	0	0	0	0	0	0	0	0	0
3750	0	0	0	0	0	0	0	0	0
4000	0	0	0	0	0	0	0	0	0
4250	0	0	0	0	0	0	0	0	0
4500	0	0	0	0	0	0	0	0	0
4750	0	0	0	0	0	0	0	0	0

Figure 3-13: Select to Send/Get Map1 or Map2



USING THE MAP SWITCH TO CHANGE MAPS

Once you have sent two different maps to your PCIII USB, you can quickly switch between them just by pressing the map switch installed on your vehicle. The figures below show examples of a performance tuned map and a fuel economy tuned map that might be used with a map switch.

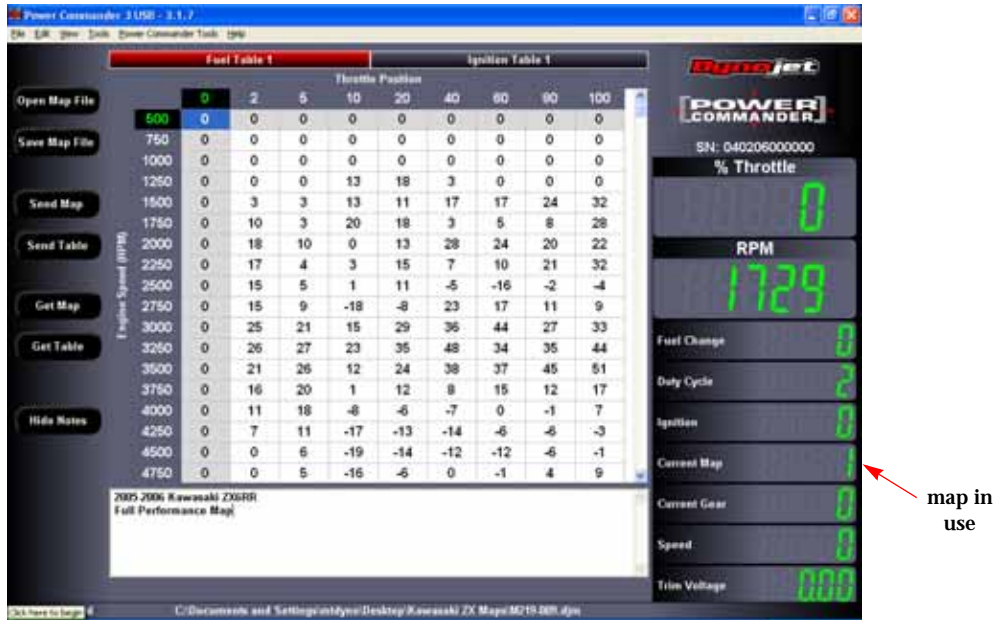


Figure 3-14: Example Performance Map

When you are using two maps, the pop-up menu will prompt for which map to use.

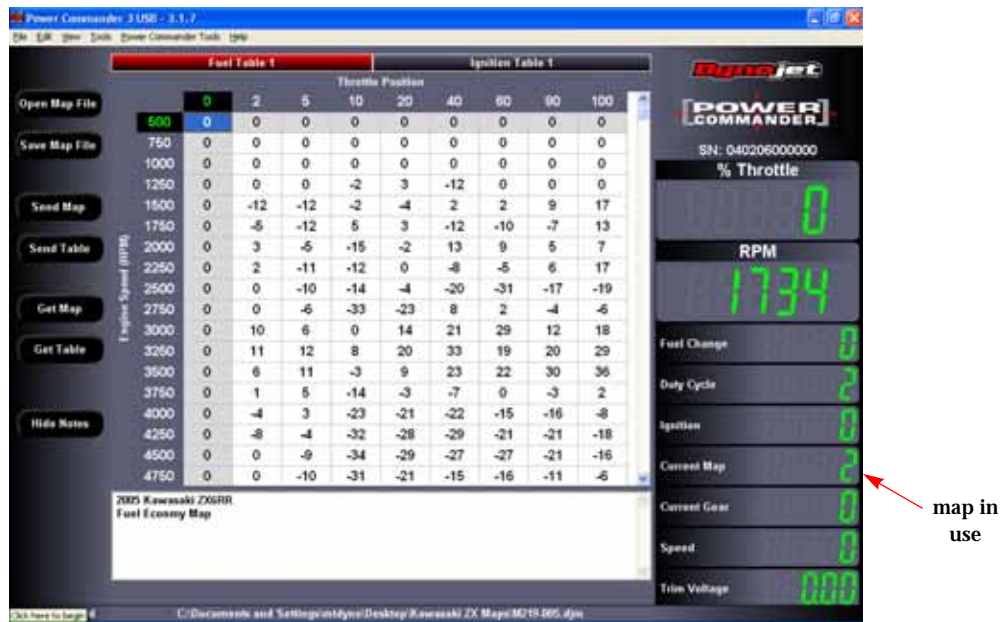


Figure 3-15: Example Economy Map



CONFIGURING THE MULTIFUNCTION HUB

CAUTION

Advanced features should be used by advanced users with the proper equipment to monitor and adjust the parameters correctly.

Click **Power Commander Tools ► Hub Configuration** to access the Hub Config Dialog box where you can set up PCIII USB functions that use the Multifunction Hub.

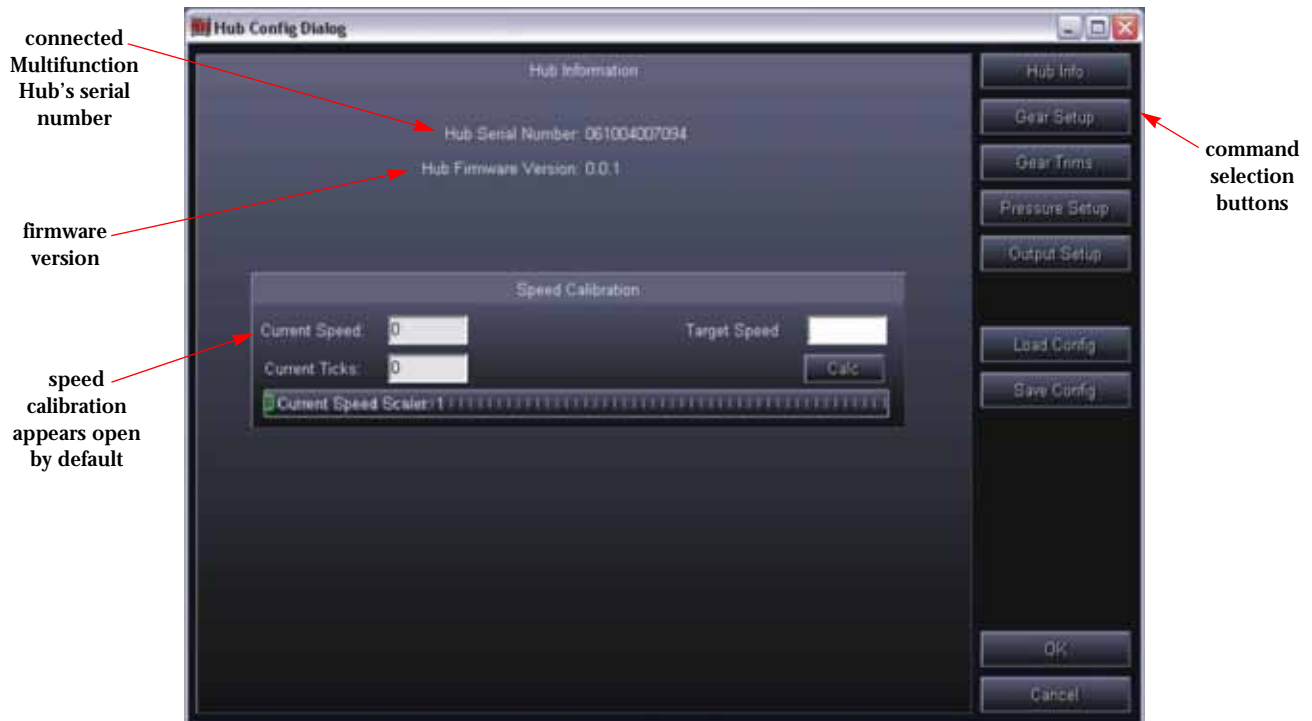


Figure 3-16: The Hub Configuration Dialog



CALIBRATING SPEED

The Speed Calibration dialog opens automatically when the Hub Config dialog box starts. Click **Hub Info** from inside the Hub Config dialog if you have selected a different command and need to show the Speed Calibration dialog box.

If you have not previously calibrated the speed, the speed calibration box will display zeros as shown in Figure 3-16.

You will probably want to visit an Authorized Power Commander Tuning Center if you are planning to use advanced hub features. There they can use a Dynojet dynamometer and other specialized equipment to performance tune your vehicle.

Use the following steps to calibrate vehicle speed:

- 1 Connect your Gear Position/Speed Wiring Harness (P/N 76950212) to the speedometer wires.
- 2 Connect the Gear Position/Speed Wiring Harness to the matching connector on the Multifunction Hub.
- 3 Make sure that the PCIII is connected to the computer and powered up.
- 4 Enter the target speed value in the input box.
Note: To get more accurate results use a target speed higher than 40 mph.
- 5 Using the dyno, run your vehicle up to the target speed using your speedometer.
- 6 Click **Calc** when your speedometer matches the target speed.

The software will calculate a speed scale using the number of speedometer clicks to produce the target speed. After this calibration has taken place the speed will be displayed in the software as shown in Figure 3-18.



Figure 3-17: The Speed Calibration Dialog Box



Figure 3-18: The Calibration Speed Value Shows to the Right of the Map



USING GEAR SETUP

Fuel and ignition timing (when using the Dynojet Ignition Module) adjustments can be made based on gear position. You can use this to advance the timing in lower gears while retarding it in higher gears.

Note: Before the gear ranges can be calibrated you must have calibrated the vehicle speed, refer to “Calibrating Speed” on page 3-16 if necessary.

Gear ranges are calculated using either of the following methods:

- Speed Calc uses the speedometer reading and rpm.
- Gear Positions uses the gear position sensor available on some vehicles.

Use the following steps to calibrate the vehicle’s gear ranges:

- 1 Verify that the Gear Position/Speed Wiring Harness (P/N 76950212) is connected to the speedometer and Multifunction Hub.
- 2 Verify the PCIII USB with Multifunction Hub is connected to the computer and powered up.
- 3 Click **Gear Setup** from the Hub Config dialog.
- 4 Use the drop down list to select between Speed Calc or Gear Position methods.
- 5 Following all safety procedures, operate the vehicle in first gear (usually on the dyno).
- 6 Click **Auto** adjacent to the 1st gear range.

Repeat steps 5 and 6 as you move through each gear.

The software will calculate the vehicle’s gear ranges and display them as shown.

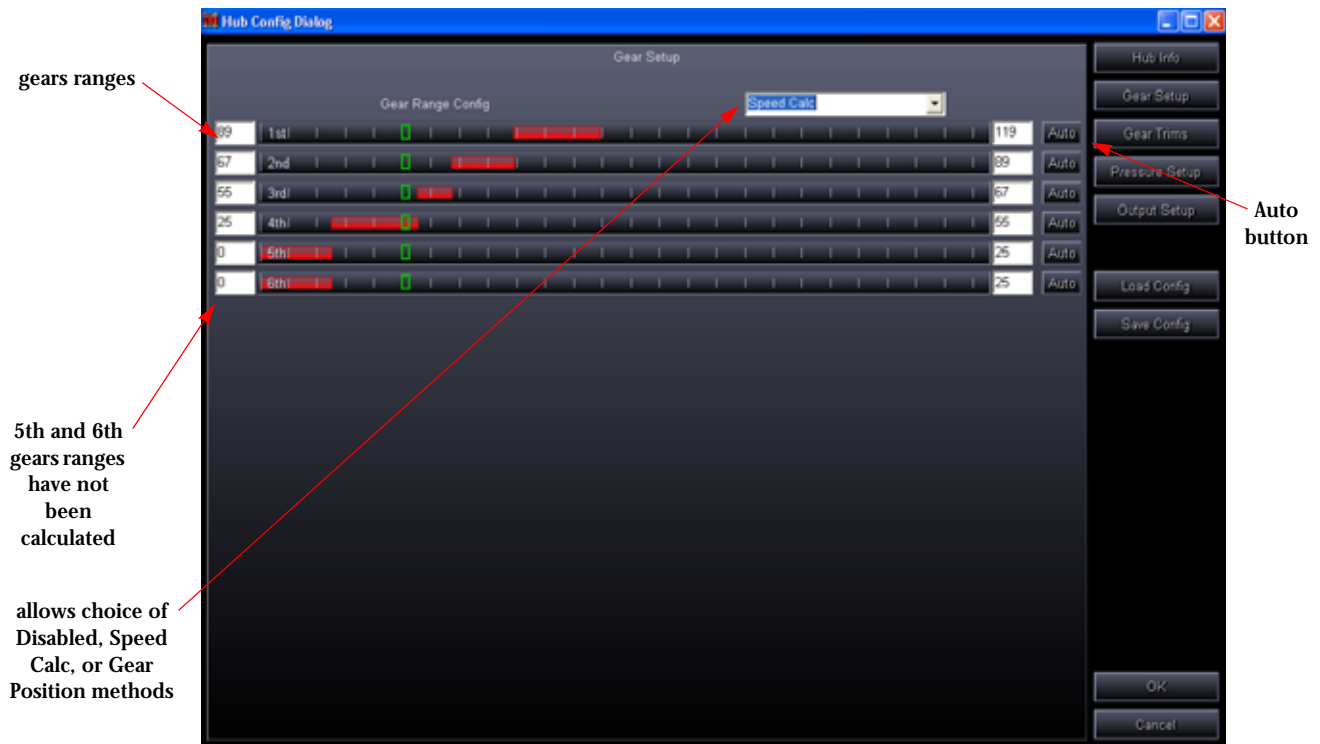


Figure 3-19: Setting Up Gear Ranges Using the Hub Configuration Dialog



SETTING GEAR TRIMS

The PCIII USB can adjust the fuel and ignition trim for each gear.

- 1 Click **Gear Trim** from the Hub Config dialog.
- 2 Use the slider bars to set Fuel Trim and/or Ignition Trim values for each gear range.

Dragging the slider above the midline increases the fuel (or advances the ignition timing) for that gear. Dragging it below the midline decreases the fuel (or retards the ignition timing) for that gear.

Note: The amount of fuel added (or subtracted) using trim is added (or subtracted) to the value in the map.

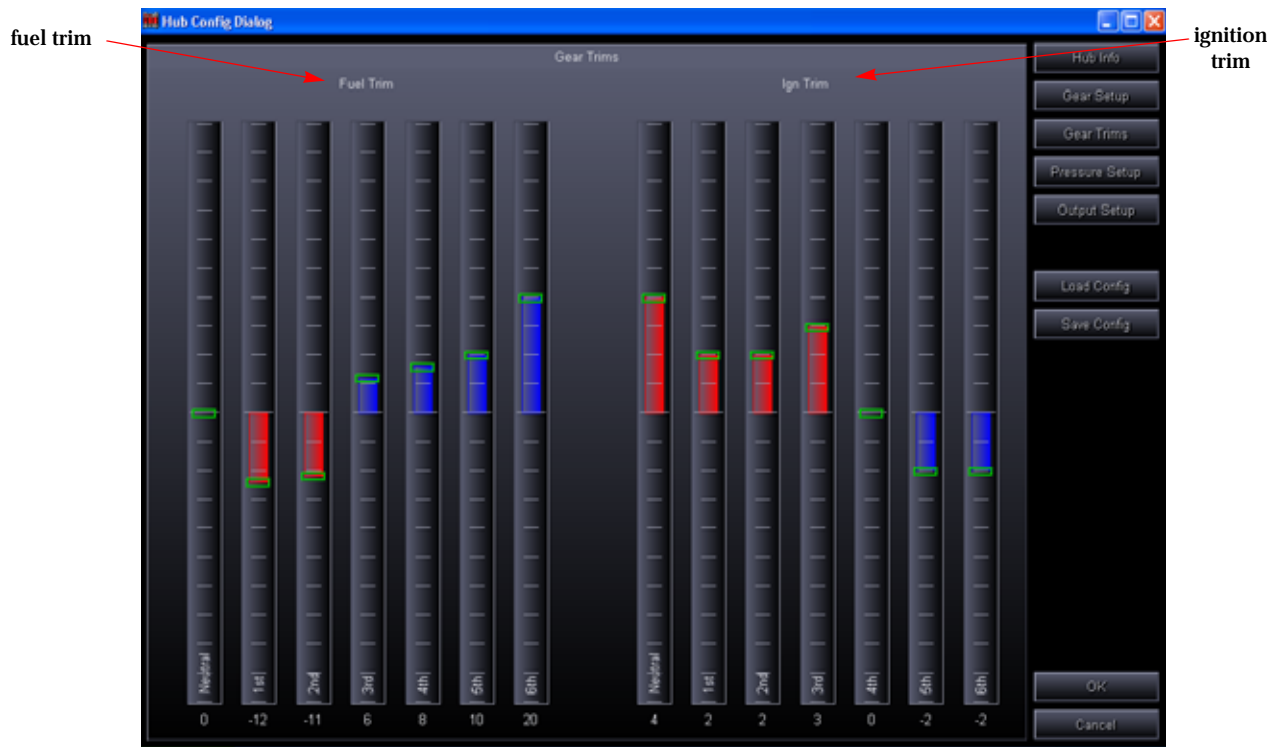


Figure 3-20: Setting Gear Trims Using the Hub Configuration Dialog



UNDERSTANDING GEAR TRIMS

The gear fuel trim values you set add or subtract fuel based on the vehicle's gear. The fuel adjustment from the gear trim is added or subtracted along with the value from the fuel map. Likewise the gear ignition trim values advance or retard ignition timing for each gear, along with the value in the ignition map.

Note: The software interpolates the fuel map value based on the actual rpm and throttle position values for values in between the cell values.

In the example below:

- the value for fuel trim in the gear trim dialog box was set to 20 percent for second gear.
- the vehicle is being operated on the dyno in second gear at near 2 percent throttle and 1761 rpm.
- the fuel is being increased by 18 percent based on the interpolated value from the cells in the fuel map.
- another 20 percent fuel being added based on the gear trim fuel setting.
- the total result adds 38 percent more time that the fuel injector is open than the vehicle's ECU would typically provide.



Figure 3-21: Gear Trim Values Are Added to Fuel Adjustment Already in Map



USING PRESSURE SETUP

The PCIII USB can also be used to adjust the fuel and ignition trim based on pressure the value input from a pressure sensor.

Note: When using a PCIII USB on turbo-charged applications, the Pressure Trim option makes it possible to have the fuel automatically increase with boost pressure. In situations where the user has an adjustable boost controller, this makes remapping each time the boost level is changed unnecessary.

Use the following steps to adjust fuel/ignition trims based on pressure values:

- 1 Verify that you have a Pressure Input Harness with pressure sensor (P/N 76950325) connected to your Multifunction Hub and installed so that its sensor is reading the pressure inside the vehicle's airbox.
- 2 Verify the PCIII USB with Multifunction Hub is connected to the computer and powered up.
- 3 Click **Pressure Setup** from the Hub Config dialog.
- 4 Use the slider bars to set Fuel Trim and /or Ignition Trim values for each pressure value.

Dragging the slider above the midline increases the fuel (or advances the ignition timing) for that pressure value. Dragging it below the midline decreases the fuel (or retards the ignition timing) for that pressure value.

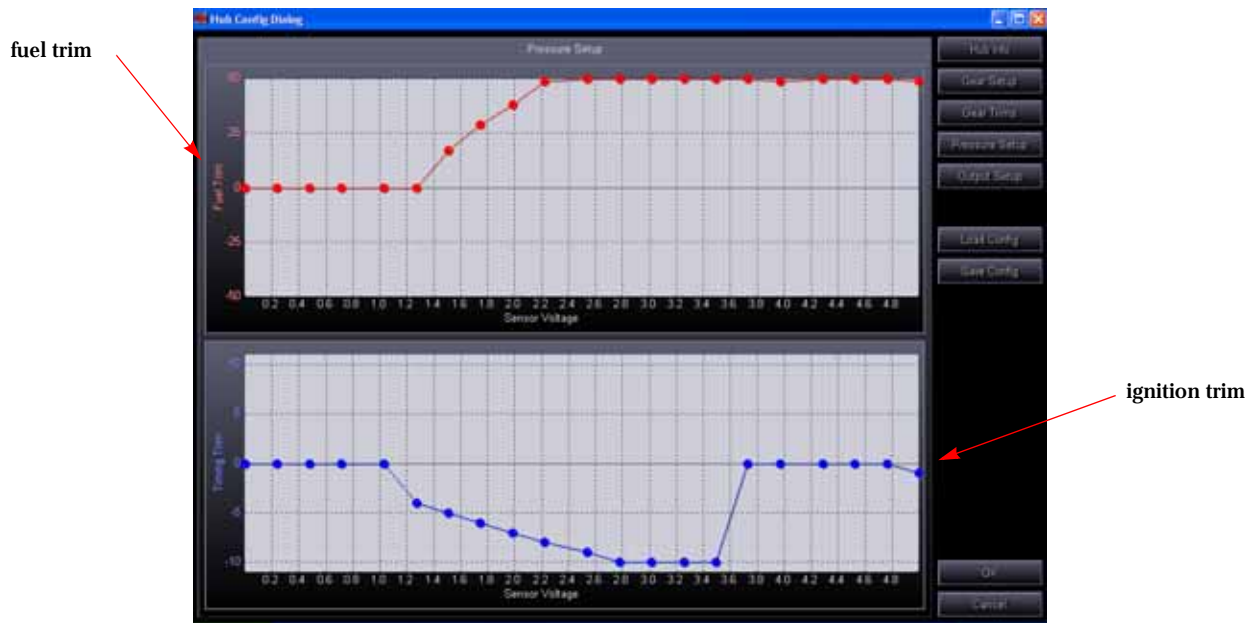


Figure 3-22: Performing Pressure Setup Using the Hub Configuration Dialog



UNDERSTANDING PRESSURE TRIMS

The pressure based fuel trim values you set add or subtract fuel based on pressure read from the sensor connected via the Pressure Input Harness. The fuel adjustment from the pressure trim is added or subtracted along with the value from the fuel map. Likewise the pressure based ignition trim values advance or retard ignition timing for each pressure setting, along with the value in the ignition map.

The pressure sensor produces different voltages based on the pressure change it senses. *Trim Voltage* is the value measured from the pressure sensor attached to the Pressure Input Harness.

In the example below:

- the value for fuel trim in the pressure setup dialog box was set to 20 percent at a value of 1.5 Volts pressure sensor.
- the vehicle is being operated on the dyno at near 0 (zero) percent throttle and 1650 rpm.
- the fuel is being increased by 0 percent based on the interpolated value from the cells in the fuel map.
- another 15 percent fuel being added based on the interpolated value from the pressure trim fuel setting.
- the total result adds 15 percent more time that the fuel injector is open than the vehicle's ECU would typically provide at that pressure, throttle, and rpm.



Figure 3-23: Pressure Trim Values Are Added to Fuel Adjustment Already in Map



SETTING UP OUTPUTS

Based on the data from the PCIII USB and the inputs from the Multi-Function Hub, a solenoid, relay, warning light, etc. can be triggered. This can be used to activate items such as a shift light, nitrous oxide system, or air shifter.

Use the pull-down list to select from following methods to trigger a device based on a threshold value. Output 1 and output 2 can be controlled independently.

- Throttle position less than (specify threshold value)
- Throttle position greater than (specify threshold value)
- Disable switching based on throttle position
- Rpm less than (specify threshold value)
- Rpm greater than (specify threshold value)
- Disable switching based on rpm

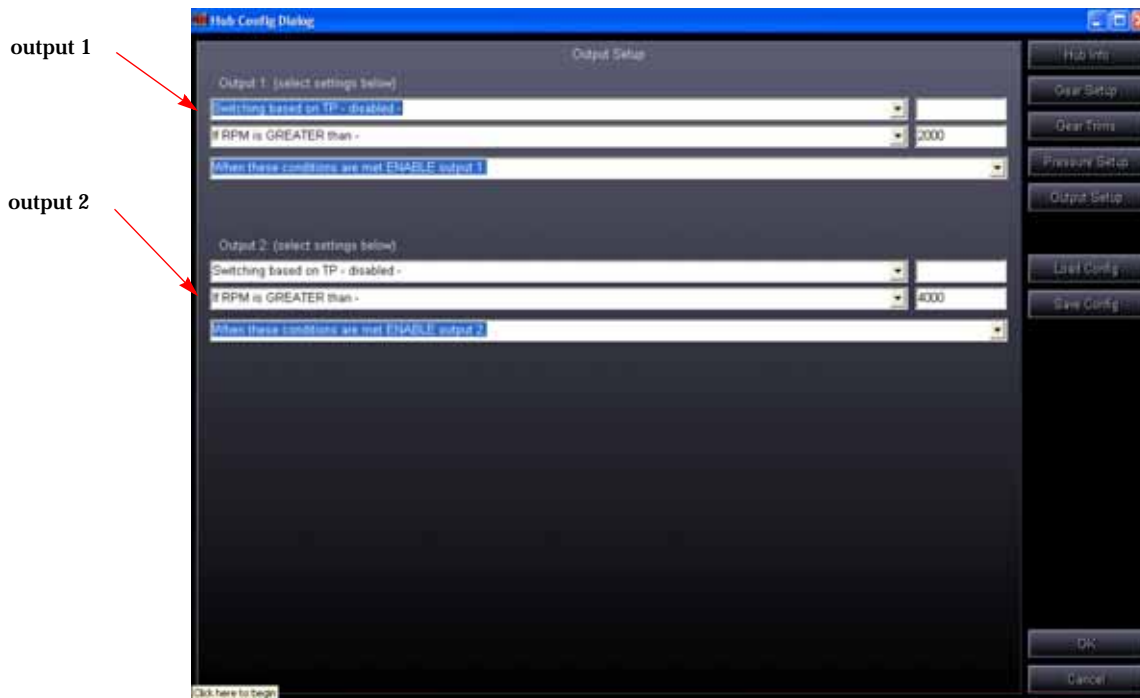


Figure 3-24: Configuring Outputs Using the Hub Configuration Dialog



UPDATING THE PCIII USB FIRMWARE

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New products ship with the latest firmware versions, however at Dynojet we strive to continuously improve our products and so firmware updates may be available.

VERIFYING THE PCIII USB FIRMWARE

- 1 Connect the USB cable from your computer to the PCIII USB.
- 2 Supply power to the PCIII USB by connecting the 9V adapter with a fresh 9V battery to the expansion port of the PCIII USB. You can also supply power to the PCIII USB by turning the vehicle on.
 - Click **View** ► **Power Commander Information**.



Figure 3-25: Power Commander Information

The PCIII USB is always listed as Module 0. The firmware type will be "Harley" for a Harley Davidson or "Fuel" for all other types.

Note: Verify the Ignition Module firmware version, if connected, as you may need to update this firmware as well. The Ignition Module is always listed as Module 1 and the firmware type will be "Ignition". Refer to "Updating the Ignition Module Firmware" on page 3-27.



UPDATING YOUR PCIII USB FIRMWARE—FUEL 1.0.0.20/HARLEY 2.1.1 OR LATER

- 1 Connect the USB cable from your computer to the PCIII USB.
- 2 Connect the 9V adapter to the expansion port of the PCIII USB.
- 3 Connect a fresh 9V battery to the adapter.
- 4 Click **Power Commander Tools** > **Update Firmware**. The Open dialog box will appear.
- 5 Browse to the location where you stored the firmware update.
Note: You can download firmware updates from www.powercommander.com or you may have a CD containing firmware updates you received when you purchased a new Dynojet product.
- 6 Double-click the **fscommand** folder.
- 7 Double-click the **PCIII** folder.
- 8 For Harley Davidson, double-click the **HarleyPC** folder.
- 9 Double-click the **fscommand** folder.
- 10 Click the firmware **.dfu** file.
- 11 Click **Open**.

Wait for the progress bar to finish. When the progress bar reads **Programmed Successfully**, your firmware is updated. If you get "Error Programming Module", disconnect the 9V adapter and reconnect to the PCIII USB. This will retry loading the firmware.

- 12 Click **OK**.



UPDATING PCIII USB FIRMWARE—EARLIER THAN FUEL 1.0.0.20/HARLEY 2.1.1

You must have a programmer (P/N PCPROG) to complete the following steps. This programmer is included in some Ignition Modules or the HDREV kit. If you do not have a programmer, the programmer can be purchased and will allow you to update your PCIII USB and Ignition Module. If you do not want to purchase a programmer and cannot find a Tuning Center to update your PCIII USB, the PCIII USB can be sent to Dynojet to be updated. Please call 800-992-4993 for instructions.

- 1 Insert the CD containing the firmware update in your CD-ROM drive; the launch program will run automatically, or browse to the location where you stored the downloaded firmware update and double-click to start it.
- 2 Click **Power Commander Firmware Update**.
- 3 If you have a Harley Davidson, click **Power Commander for Harley Davidson Firmware Update**.
- 4 Connect the USB cable to the computer and to the programmer.
- 5 Connect the white male plug from the programmer to the expansion port on the PCIII USB.
- 6 Connect the 9 volt adapter to the female plug on the programmer.
- 7 Connect a fresh 9 volt battery to the adapter.

If everything is hooked up correctly, the light on the PCIII USB will either not be lit or you will have one light at the top and one at the bottom of the scale. If the PCIII USB lights are not lit, repeat steps 2-7.

- 8 The Update Firmware button will now be active.

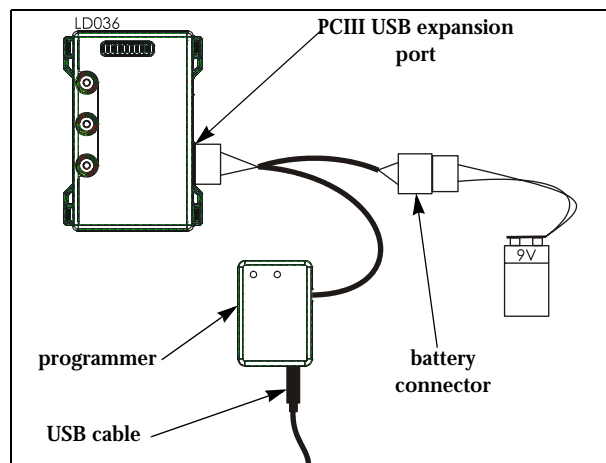


Figure 3-26: Connecting the Programmer to the PCIII USB



9 Click **Update Firmware**.

Wait for the blue scroll bar.

If you get a "Communication Error 8001", repeat steps 4-8.

10 Disconnect the USB cable from the programmer and connect it to the USB port on the PCIII USB.

11 Click **Update Settings**.

12 Once the PCIII USB is successfully updated, disconnect the programmer.

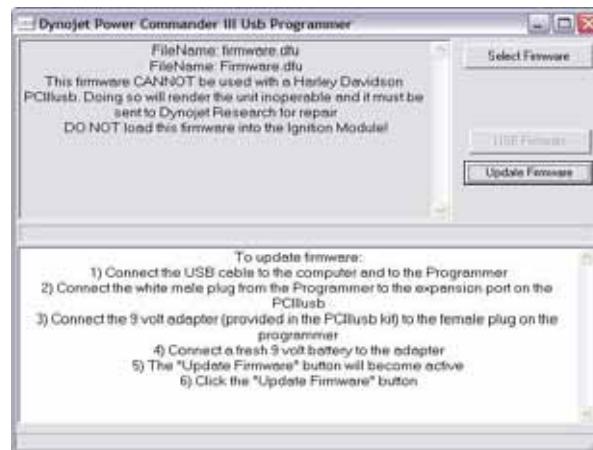


Figure 3-27: PCIII USB Programmer Dialog Box



UPDATING THE IGNITION MODULE FIRMWARE

If the Ignition Module firmware is earlier than 2.1.2, the firmware will need to be updated.

You must have a programmer (P/N PCPROG) to complete the following steps. This programmer is included in some Ignition Modules or the HDREV kit. If you do not have a programmer, the programmer can be purchased and will allow you to update your PCIII USB and Ignition Module. If you do not want to purchase a programmer and cannot find a Tuning Center to update your PCIII USB, the PCIII USB can be sent to Dynojet to be updated. Please call 800-992-4993 for instructions.



Do not follow these steps if you have a Harley Davidson. Harley Davidsons do not use a separate Ignition Module.

- 1 Insert the CD containing the firmware update in your CD-ROM drive; the launch program will run automatically, or browse to the location where you stored the downloaded firmware update and double-click to start it.

Note: The same software is used to update both the PCIII USB and the Ignition Module.

- 2 Click **Ignition Firmware Update**.
- 3 Disconnect the Ignition Module from the PCIII USB.
- 4 Connect the USB cable to the computer and to the programmer.
- 5 Connect the white male plug from the programmer to the white female plug on the Ignition Module.
- 6 Connect the 9 volt adapter to the female plug on the programmer.
- 7 Connect a fresh 9 volt battery to the adapter.

The Update Firmware button will now be active.

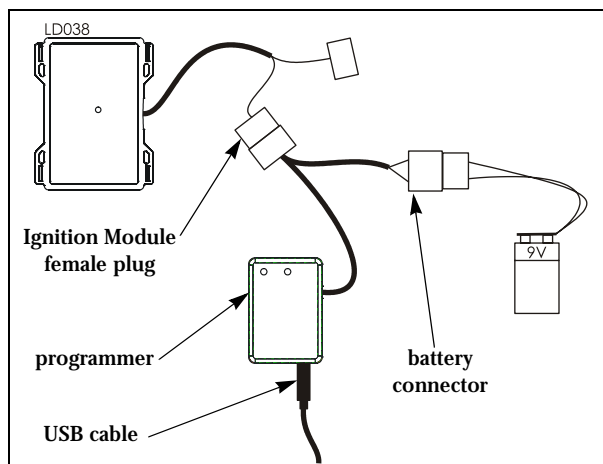


Figure 3-28: Connecting the PCIII USB Programmer with an Ignition Module



8 Click **Update Firmware**. Wait for the blue scroll bar.

If you get a communication error 0005, click **OK** and the firmware will continue to load.

Wait for the blue scroll bar to finish.

9 Disconnect the programmer from the Ignition Module.

10 Connect the Ignition Module to the PCIII USB.

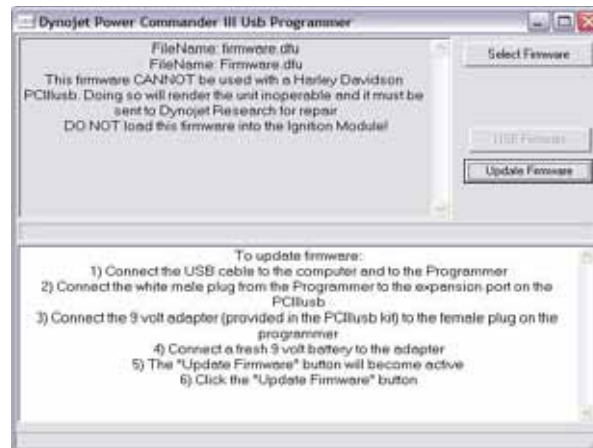


Figure 3-29: Update the Ignition Module Using the PCIII USB Programmer Dialog Box



EFFECTIVE USE OF TECHNICAL SUPPORT

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The friendly staff at Dynojet's Power Commander Technical Support are happy to assist you with any questions or problems you may have with your software or your PCIII USB.

Phone—1-800-992-4993

Web— www.powercommander.com.

Write—Dynojet at 2191 Mendenhall Drive, North Las Vegas, NV 89081, USA

To use your time most efficiently please have the following information available before calling. Most of the information you will need can be found by starting your software with the Power Commander connected and clicking **View ► Power Commander Information**.

Name	
Email	
Product <i>(Power Commander II, Power Commander III, Power Commander IIIr, Power Commander III USB, Ignition Module, Quick Shifter, LCD Display, Multi-function Hub)</i>	
Product Serial Number <i>Your serial number is a 12 digit number</i>	
Vehicle Make	
Model & Year	
Firmware	
Map Version	
Map Number	
Software Version	
Operating System Used <i>(Windows XP, Windows 2000, Windows ME, Windows 1998)</i>	
Country	
Type of Problem <i>(For example installation, map, software, hardware, vehicle issue, other problem)</i>	
Specify any replacement part in use	
Does the problem occur with a zero map?	
Does the problem occur without the Power Commander connected?	
Is there an FI indicated?	
FI code <i>(if any)</i>	
Provide Product Modifications/Relevant Details	

CHAPTER 4



SPECIAL FEATURES

This chapter explains how to set up and use special features such as the Accelerator Pump, Shift Kill, Rev X-tend and Start-Up Fuel.

In this chapter:

- Using Special Features, page 4-2
- Activating the Accelerator Pump Feature, page 4-3
- Menu Choices for Activated Features, page 4-2
- Configuring the Accelerator Pump, page 4-5
- Configuring Shift Kill, page 4-6
- Activating Rev X-tend and Start-Up Fuel Features, page 4-7



USING SPECIAL FEATURES

The PCIII USB provides the following special features which you can enable to provide additional capabilities.

Accelerator Pump—a free download which provides additional fuel adjustment for quick acceleration.

Shift Kill—cuts fuel for the specified amount of time when using a Quick Shifter allowing full throttle clutchless upshifting.

Rev X-tend—allows you to extend the rev limit without having to modify the bike's ECM; extends the rev limit to adapt for modified cams, heads, etc. This feature comes preinstalled for Harley Davidson Power Commanders. For other vehicles contact Dynojet Technical Support for more information.

Start Fuel—increases the amount of fuel injected into the engine during cranking when extra fuel is required to ease starting; especially helpful for heavily modified and/or large displacement engines (eg. 124 cubic inch). This feature comes preinstalled for Harley Davidson Power Commanders. For other vehicles contact Dynojet Technical Support for more information.

MENU CHOICES FOR ACTIVATED FEATURES

Once a feature is activated, it is added to the Power Commander Tools menu as shown in Figure 4-30.

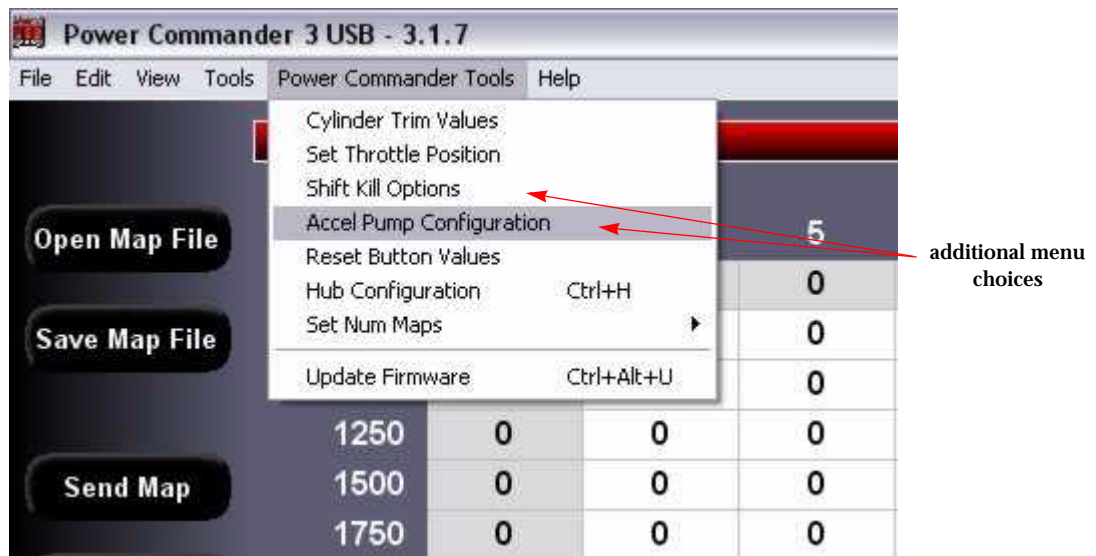


Figure 4-30: Power Commander Tools Menu with Added Features



ACTIVATING THE ACCELERATOR PUMP FEATURE

The Accelerator Pump feature allows you to adjust the fuel curve for improved acceleration. This feature is a free upgrade for USB Power Commanders which you can download from www.powercommander.com. Using the Accelerator Pump you can:

- adjust the amount of fuel to add
- determine the number of engine revolutions during which fuel is added
- adjust the sensitivity of throttle movement under which the accelerator pump is activated.

Use the following steps to install and activate this feature.

- 1 Download the Accell Pump utility program from www.powercommander.com.
- 2 Connect your PCIII USB to your computer
- 3 Load and run the Accell Pump utility program.

The PC3 USB Accell Pump Utility will appear on your screen as shown in Figure 4-1.



4 Click **Enable Accell Pump Feature**.



Figure 4-1: The Accell Pump Utility Program

If you see the error message, "Error Opening Device 0" ensure that your PCIII USB is connected to your computer and try again.



Figure 4-2: Error Opening Device



CONFIGURING THE ACCELERATOR PUMP

Use the following steps to adjust the fuel curve for accelerator pump capabilities. Configuring the accelerator pump is not an exact science. Values preferred for one rider may not appeal to the next. Use this feature to customize your own preferences.

- 1 Start the PCIII USB Control Center software if it is not currently started.
- 2 Select **Power Commander Tools** ► **Accel Pump Configuration**.

The Accel Pump Configuration dialog box appears on your screen as shown in Figure 4-3.

- 3 Click **Sensitivity** slider bar and drag it to set the sensitivity for the accelerator pump. The higher the sensitivity value, the slower the throttle movement that activates the “pump”.
- 4 Set **Engine Revolutions** value using the input box at the lower right. Engine Revolutions determines the duration in revolutions for adding extra fuel.
- 5 Set **% Fuel Change** value using the input box at the bottom right. This sets the amount of fuel to be added when the throttle movement threshold is reached.

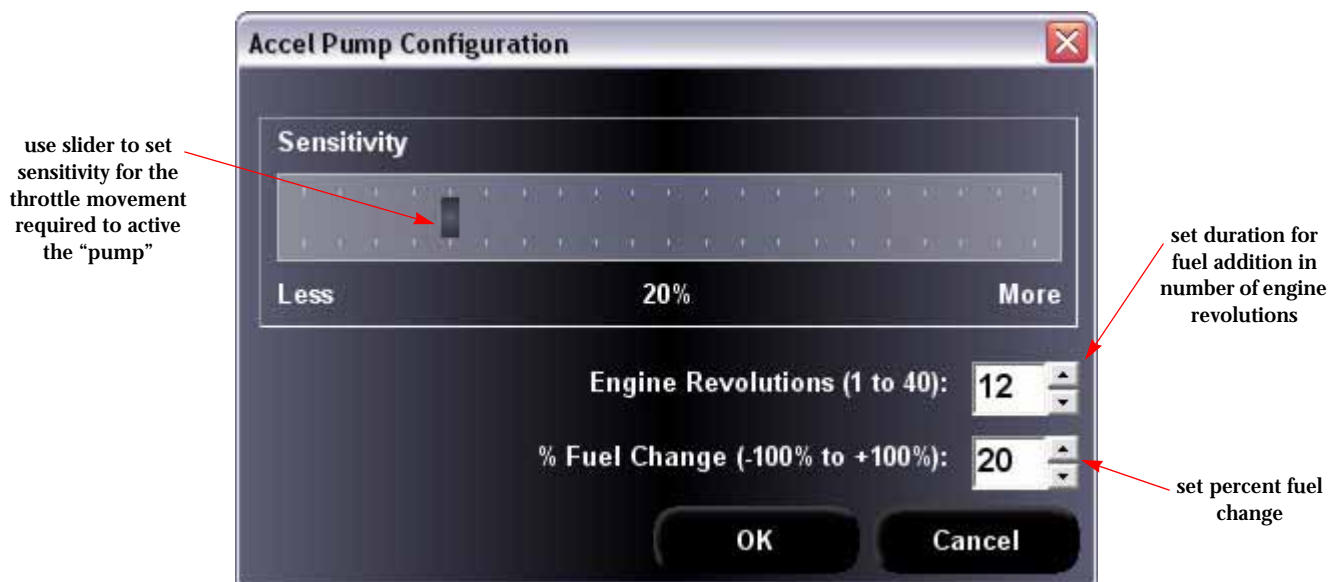


Figure 4-3: Accel Pump Configuration Box



CONFIGURING SHIFT KILL

Shift Kill cuts the fuel to the engine to allow "full throttle, clutch- less" upshifts when a Quick Shifter accessory is installed on the vehicle.

- 1 Select **Power Commander Tools** ► **Shift Kill**.

The Shift Kill Configuration box appears on your screen similar to Figure 4-4.

- 2 Input **Kill Time** value in milliseconds.
- 3 Input **Minimum RPM** that will enable the Quick Shifter.



Figure 4-4: Shift Kill Configuration Box



ACTIVATING REV X-TEND AND START-UP FUEL FEATURES

You activate the Rev X-tend and Start-Up Fuel features using the special Power Commander Features Dialog. These features can be turned on or off, but do not need to be configured.

- 1 Press **CTRL+f**

The Power Commander Features Dialog box appears on your screen.

- 2 Enter your feature key in the input box provided. You must get this key from Dynojet. If you have questions call Dynojet Technical Support.

- 3 Click **Add Feature**



Figure 4-5: Adding Features Using the Dialog Box

The features that you have activated appear in the upper portion of the dialog box.

- 4 Select the check box adjacent to the feature to activate.
- 5 Click **OK**.



Figure 4-6: Selecting Added Features Using the Dialog Box



KEYBOARD SHORTCUTS

This appendix lists the keyboard shortcuts available in the software.



KEYBOARD SHORTCUTS

.....

A description of the keyboard shortcuts available in the software follows.

USING KEYBOARD SHORTCUTS

to	do the following
select all objects	Ctrl + A
cut selected items to the Windows Clipboard	Ctrl + C
add feature dialog	Ctrl + F
configure hub	Ctrl + H
hide/show notes	Ctrl + N
open map file	Ctrl + O
print the current file	Ctrl + P
update firmware	Ctrl + Alt + U
paste items from the Windows Clipboard to the current cursor location	Ctrl + V
increment selected map value	page up
decrement selected map value	page down



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