

# POWER VISION

## Quick Start Guide

### PARTS LIST



1	POWER VISION UNIT	4	CABLE TIES
1	DIAGNOSTIC CABLE	1	MOUNTING KIT
1	USB CABLE	1	QUICK START GUIDE

PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION



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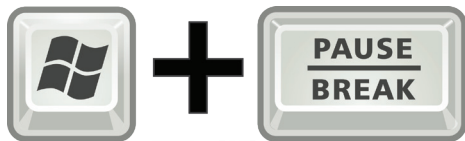
**LEGEND**

# NOTICE!

## BEFORE INSTALLING SOFTWARE Determine Your Operating System

You must determine which version of the Windows (32-bit vs. 64-bit) operating system you are running before installing the Power Vision Software.

To open the System Window on **ALL VERSIONS** of the Windows operating system, on your keyboard press the **WIN key** and **Pause/Break key** together to open System Window.



### WINDOWS XP

For a 32-bit operating system:

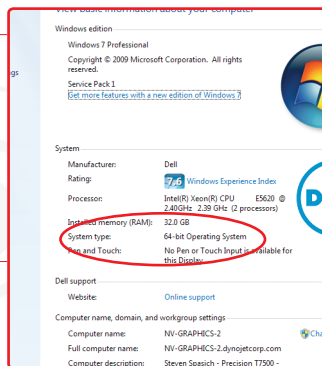
**Windows XP Professional Version<Year>**  
appears under **System**.

For a 64-bit version operating system:

**Windows XP Professional x64 Version<Year>**  
appears under **System**.

### WINDOWS VISTA, 7, 8, 8.1 AND 10

Under the **System** heading verify if **System Type** is a **32-bit or 64-bit** operating system .



## !!!---WARNING---!!!

### • FOR RACING VEHICLE USE ONLY •

Note: This product is not for use on roads or vehicles subject to emission control requirements and is not legal for use or installation on motor vehicles operated on public highways in the State of California or other States where similar emission and decibel regulation laws may apply. The user shall determine suitability of the product for his or her use. The user shall assume all risk and liability in violation of regulations and any incurred financial obligations due to vehicle inspections or emissions tests.

## CONTENTS

- 1 Power Vision Unit
- 1 Diagnostic Cable
- 1 USB Cable
- 4 6" Cable ties
- 1 Mounting kit  
(4 x M4 x .7 x 8mm bolts and washers)
- 1 Quick Start Guide



**MOLEX 8 PIN VEHICLE  
INTERFACE CONNECTION**

**USB MINI-B PORT**



**INTEGRATED AMPS 4 HOLE  
THREADED INSERTS FOR MOUNTING**  
(MOUNTING SCREWS INCLUDED)

**DYNOJET  
CAN-LINK  
EXPANSION  
PORT**



**VEHICLE DIAGNOSTIC  
INTERFACE CABLE**

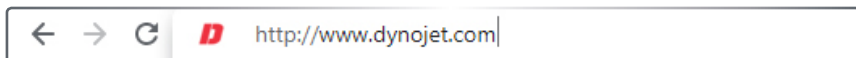


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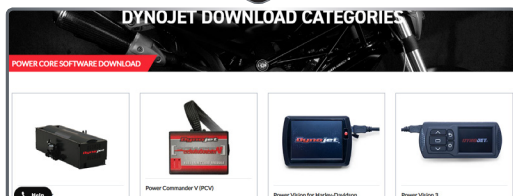
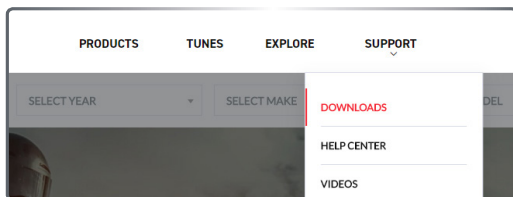
**DYNOJET®**

# WINPV SOFTWARE INSTALLATION

## INSTALLATION FROM DOWNLOAD



- To Download the latest WinPV software visit [www.dynojet.com](http://www.dynojet.com).
- From the top navigation menu, select **SUPPORT** then select **DOWNLOADS** from the fly-out menu.
- On the download page select **POWER VISION FOR HARLEY-DAVIDSON**.



SOFTWARE			^
DESCRIPTION	SIZE	DOWNLOAD	
Power Vision Software 32-Bit Version Windows XP, 7, 8, 10 - Version 2.0.26	21.08 MB		
Power Vision Software 64-Bit Version Windows XP, 7, 8, 10 - Version 2.0.26	21.17 MB		

- Select the download link on the right and be sure to download the proper installer for your operating system.

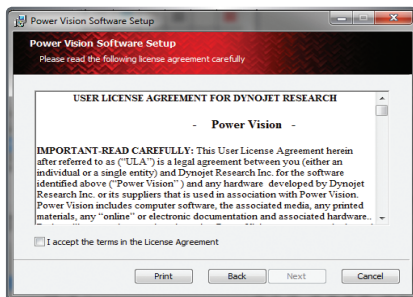
*Note: The Zip File Compressed option is just a compressed version for faster downloading. This file will need to first be extracted with the appropriate software before installation.*

- Save the downloaded file in a convenient location such as your desktop.
- Once downloaded, double click on the file to begin installation of the WinPV software.

# WINPV SOFTWARE INSTALLATION

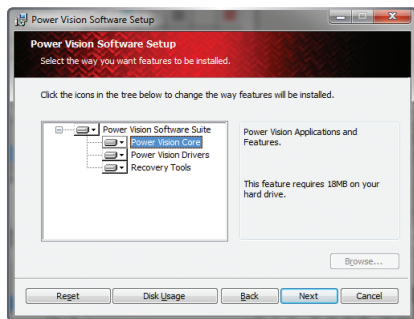


- Read the Welcome window and click **Next** to continue.



- Carefully read the WinPV license agreement, check the accept box, and click **Next** to continue.

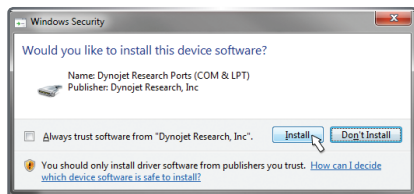
*Note: To install WinPV, you must accept this agreement. If you do not, Setup will close.*



Next you are given the option to modify what applications and features the installer will install.

*Note: Dynodejet recommends that you do not change any of the default options or default locations.*

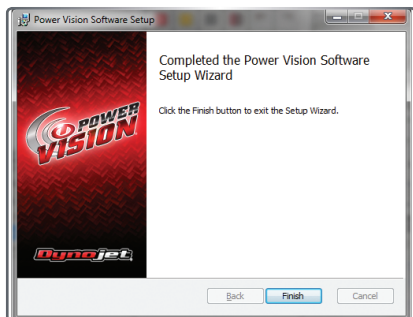
- Read the summary of your settings and click **Next** to continue.



## Windows Vista and later

A Windows Security warning will pop up during the installation process. This is normal and will install the Power Vision Device Drivers.

- Click **Install** to continue.

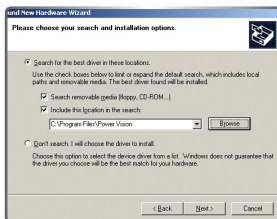
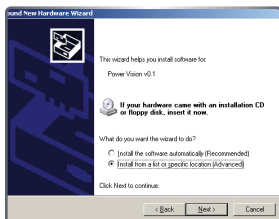


- Click **Finish** to complete the installation.

Continue with the Power Vision Driver Installation.

# POWER VISION DRIVER INSTALLATION

## WINDOWS XP DRIVER INSTALLATION



- Using the USB cable, connect the Dynojet Power Vision to your computer.
- The Found New Hardware window will open.
- Select **Yes, this time only** and click **Next**.
- Select **Install from a list or specific location** and click **Next**.
- Select **Search for the best driver in these locations**.
- Verify the location points to your Power Vision folder in Program Files.
- Click **Next**.
- Click **Finish** to close the wizard.
- Continue with Checking the WinPV Update Client.

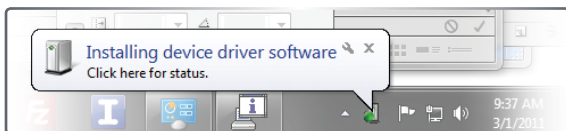
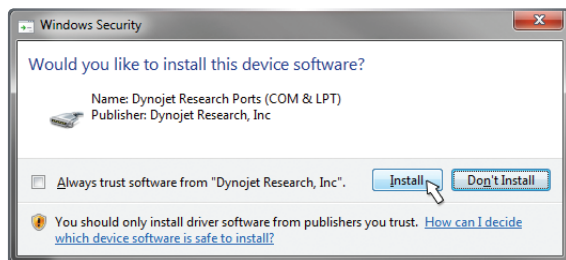
## WINDOWS VISTA AND LATER DRIVER INSTALLATION

Power Vision Device Drivers will be installed during Software installation.

A Windows Security warning will pop up during this process.

- Click **Install** to continue.

*Note: during this process, a notice on the bottom of your screen will appear letting you know the status of the device driver installation progress.*



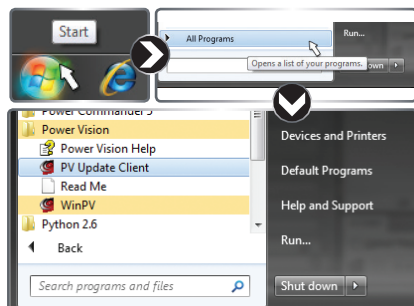
## CHECKING THE WINPV UPDATE CLIENT

The PV Update utility will automatically check for any applicable updates.

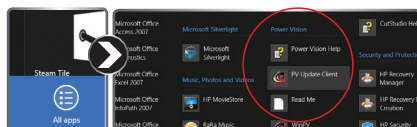
The latest versions of the Firmware, Software, Tune Database and any Critical Updates will be displayed in the right column. Your currently installed version will be displayed in the left column.

**PLEASE READ the Update Messages on the top of the window for any critical updates and follow any direction given there first.**

- Using the USB cable, connect the Dynojet Power Vision to your computer.

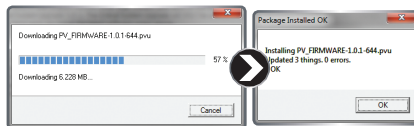
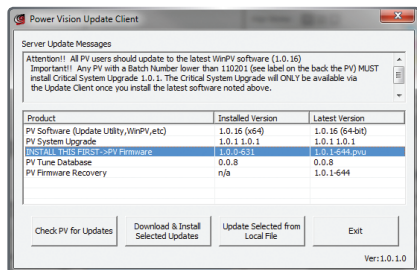


### For Windows 8 only



- Right Click** on the Metro Start Screen.
- Select **All apps** in the Lower Right corner.
- Navigate to the Power Vision Heading and Select **PV Update Client**.

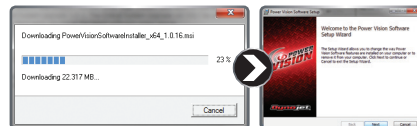
- Click **Start** on the Windows task bar and click **All Programs**.
- Select **PowerVision > PV Update Client**.
- Select the desired update to install.
- Click the **Download and Install Selected Updates** Button to begin the update process.



For firmware and Tune database updates:

Once the selected downloads are installed into the Power Vision, a message will display if the update was successful or not.

- Click **OK** to complete.



For Software and Update Client updates;

Once the updates download, the software install wizard will be started to install the newer version of the software.

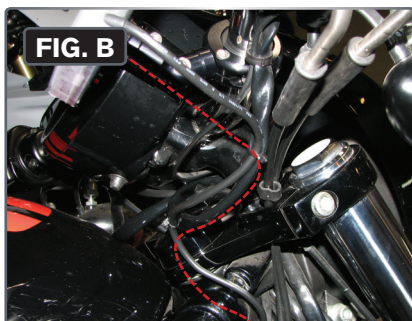
See page 5 for further details.

The update client will need to be restarted for any further updates.



## INSTALLING THE POWER VISION

This installation was done on a 2009 Harley-Davidson Night Rod. Your bike and set-up may vary.



- Connect the Power Vision to the ECM's diagnostic port.

*Note: The Power Vision may be damaged if installed improperly.*

*The location of the diagnostic port varies depending on model, so please refer to a service manual or contact Dynojet for the exact location.*

*Use caution, many models use the same style connector for accessories, your Power Vision MUST be connected to the diagnostic port.*

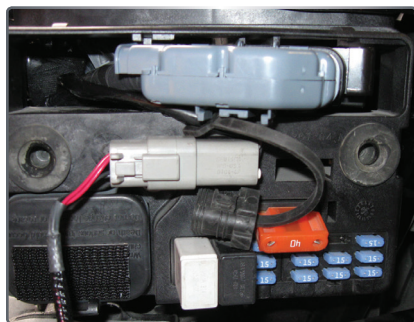
- Route the Power Vision cable away from any moving or hot parts.

Dynojet recommends using zip ties to secure the cable to existing non-moving components.

- The Power Vision module may be mounted to the bike's handlebars using mounting hardware.

The Power Vision does not need to remain on the bike.

## DIAGNOSTIC CONNECTOR LOCATIONS

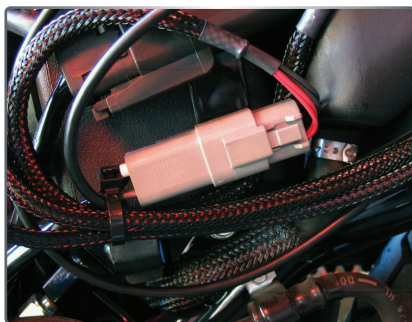


### 2004-2017 Dyna Models

Diagnostic connector is located behind the Left hand side cover. Connector is Light Grey in color with black rubber plug installed.

*Note: 2001-2011 models are J1850 using the PV-1.*

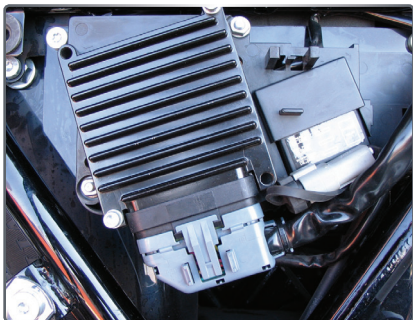
*Note: 2012-2017 models are CAN, using the PV-2.*



### 2007-2020 Sportster Models (including XR Models)

Diagnostic connector is located behind the Left hand side cover. Connector is Light Grey in color with black rubber plug installed.





### **2002-2007 Touring Models**

Diagnostic connector is located behind the right hand side cover. Connector is Light Grey in color with black rubber plug installed.

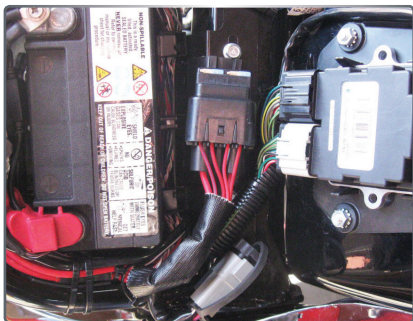
*Note: Requires removing the Right side saddle bag.*



### **2008-2020 Touring Models**

Diagnostic connector is located behind the left hand side cover. Connector is Light Grey in color with a black rubber plug installed.

*Note: Requires removing the Left side saddle bag.*



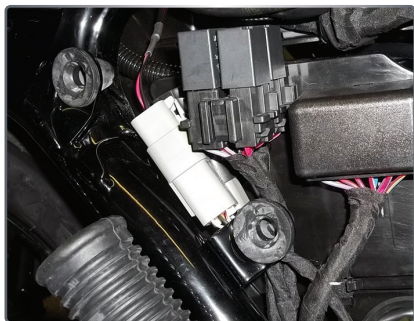
### **2001-2020 Softail Models**

Diagnostic connector is located under the seat, attached to the frame by the rear fender. Connector is Light Grey in color, with black rubber plug installed.

*Note: Requires removing the seat.*

*Note: 2001-2010 models are J1850 using the PV-1.*

*Note: 2011-2017 models are CAN using the PV-2.*



### **2015-2017 Street 500 and 750 Models**

Diagnostic connector is located behind right hand side cover. Connector is Light Grey in color with black rubber plug installed.

### **2002-2017 V-Rod Models- Shown on Page 8**

Diagnostic connector is located behind the Right Front frame cover. Connector is Light Grey in color with black rubber plug installed.

*Note: Tools required to access.*

## POWER VISION TUNE FILE MANAGEMENT

There are three types of tunes that can be flashed to your ECM with the Power Vision:



### 1. Dynojet Pre-Configured Tunes



### 2. Custom Tunes



### 3. Load Copy

#### IMPORTANT:

Flashing your ECM with any one of these types of tunes will automatically save a backup of your Original Tune, and will permanently lock the Power Vision to your bike's ECM.

You can flash your ECM with tunes as many times as you like, but the Power Vision will only be permitted to flash tunes to the ECM it's locked to for life. The Power Vision's other features, like datalogging / monitoring, diagnostics, clearing adaptive values, etc. will still be available to be used on any bike it was designed for, as well as the bike it's locked to.



#### NOTE:

Any combination of the three types of tune files can be placed in the Tune Manager. There are 8 "slots" in the Tune Manager, and you can occupy a single slot or all eight if you choose.

For example, you could have a Dynojet Pre-Configured Tune in Slot 1, a Custom Tune in Slot 2, and a Copy of Original Tune in Slot 3. You can think of the Tune Manager as an area that "holds" the tunes, or "stages them" prior to the Power Vision flashing them to your ECM. You can overwrite the tunes that occupy the various slots at any time, or manage your tune files in the Tune Manager by using the WinPV software.



## FLASHING A DYNOJET PRE-CONFIGURED TUNE FILE



The Power Vision is loaded with Pre-Configured Tunes developed by Dynojet when it leaves our facility. Dynojet makes every effort to have a tune file available for your specific combination when you receive your Power Vision (pre-loaded in the device), but in some cases you'll need to use the Update Client to ensure you have the latest tunes available from Dynojet.

You can also visit <http://www.dynojet.com> to search our tune database and download a tune for your combination.

## FLASHING A DYNOJET PRE-CONFIGURED TUNE FILE

Use the following steps to flash a  
Dynojet Pre-Configured Tune to the ECM:



- Select **Program Vehicle**.



- Select **Load Tune**.

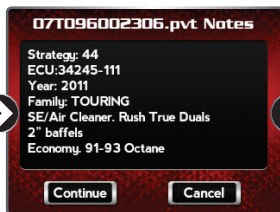


- Select **Dynojet Pre-Configured Tunes**.

The Power Vision will automatically search for compatible tunes.



- Select a Dynojet Pre-Configured Tune File to flash.
- Touch **Select**.



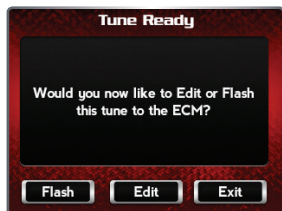
- Verify the tune information. If the tune information is correct, touch **Continue**.



- Select a slot to save the selected tune file.

*Note: If there is any data in the selected slot, it will be overwritten.*

- Touch **Select**.



**The tune is now ready.**

- Select **Flash** to flash this tune to the ECM.

*Note: During the flash process, do not turn off the bike. Once complete, you will be prompted to turn the bike off for 10 seconds.*

- Select **Edit** to edit this tune.
- Select **Exit** to exit the screen without any changes.



*Note: You can edit any tune that's loaded in the Tune Manager prior to flashing your ECM. The Power Vision allows you to make basic adjustments to your tunes directly on the device without using a computer. In order to gain full access to your tune files, you'll need to download them from the Power Vision to WinPV, our custom tuning software.*

Custom Tunes may or may not be pre-loaded from a reseller that specializes in custom tuning. Dynojet does NOT load custom tunes in the Power Vision when it leaves our facility (we load Dynojet Pre-Configured Tunes). You may also receive Custom Tunes via email that can be uploaded to the Power Vision using WinPV, our custom tuning software.

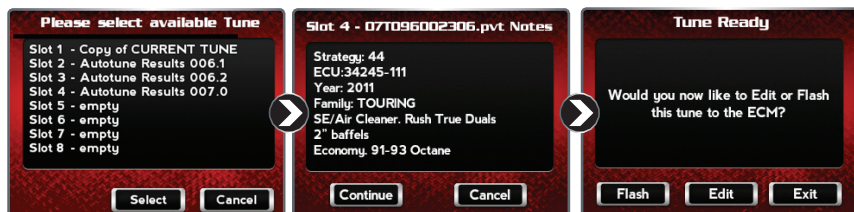
### Use the following steps to flash a Custom Tune file to the ECM:



▪ Select **Program Vehicle**.

▪ Select **Load Tune**.

▪ Select **Custom Tunes**.



▪ Select a Custom Tune File to flash.

▪ Touch **Select**.

▪ Verify the tune information. If the tune information is correct, touch **Continue**.

**The Tune is now ready.**

▪ Select **Flash** to flash this tune to the ECM.

*Note: During the flash process, do not turn off the bike. Once complete, you will be prompted to turn the bike off for 10 seconds.*



▪ Select **Edit** to edit this tune.

▪ Select **Exit** to exit the screen without any changes.

*Note: You can edit any tune that's loaded in the Tune Manager prior to flashing your ECM. The Power Vision allows you to make basic adjustments to your tunes directly on the device without using a computer. In order to gain full access to your tune files, you'll need to download them from the Power Vision to WinPV, our custom tuning software.*

## LOADING A COPY OF THE ORIGINAL TUNE FILE, OR A COPY OF THE CURRENT TUNE FILE

LOAD  
COPY

The Power Vision will allow you to use either a **COPY OF ORIGINAL** tune or a **COPY OF CURRENT** tune files.

The COPY OF ORIGINAL tune file is a copy of the tune that was present in your ECM when the Power Vision first locked to your ECM. In other words, it is a copy of the backup file that was created and stored in the Power Vision. This is a great way for those who are happy with the way their bike runs, but want access to their existing tune in order to make a few adjustments.

The COPY OF CURRENT tune file is a copy of the CURRENT tune that has been flashed to your ECM.

**Use the following steps to load and flash either a Copy of Original tune or a Copy of Current tune file to the ECM:**



- Select **Program Vehicle**.



- Select **Load Tune**.

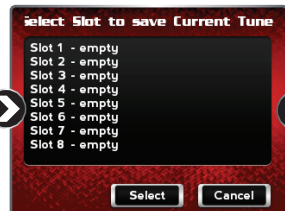


- Select **Load Copy**.



- Select the type of tune you want to copy.

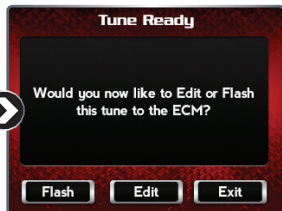
You may either select to Load a Copy of the Current Tune or a Copy of the Original Tune into the tune manager.



- Select a slot to save the Copy of Original tune file.

*Note: If there is any data in the selected slot, it will be overwritten.*

- Touch **Select** to continue.



**The Tune is now ready.**

- Select **Flash** to flash this tune to the ECM.

*Note: During the flash process, do not turn off the bike. Once complete, you will be prompted to turn the bike off for 10 seconds.*



- Select **Edit** to edit this tune.
- Select **Exit** to exit the screen without any changes.

*Note: You can edit any tune that's loaded in the Tune Manager prior to flashing your ECM. The Power Vision allows you to make basic adjustments to your tunes directly on the device without using a computer. In order to gain full access to your tune files, you'll need to download them from the Power Vision to WinPV, our custom tuning software.*



### TARGET TUNE

Dynojet's new Target Tune is an exciting new product that can add a new dimension to your Harley-Davidson's® ECM. When paired with a Target Tune specific calibration flashed by a Power Vision, your ECM will run closed loop fuel control based on wideband O2 sensors.

The Power Vision delivered calibration changes the coding in the ECM to "understand" the wideband signal (from Target Tune) and allows the ECM to accurately achieve the target AFR.



## THERE ARE THREE VERSIONS OF THE AUTOTUNE PROCESS FOR THE POWER VISION.

AUTOTUNE BASIC		AUTOTUNE PRO		TARGET TUNE	
SENSOR TYPE	Factory Narrow Band	SENSOR TYPE	Dynojet Wide Band	SENSOR TYPE	Dynojet Wide Band
H-D MODELS	2007 and Newer	H-D MODELS	2001-2006 (EFI Models)	H-D MODELS	2007 and Newer
DESCRIPTION	Included FREE with each Power Vision. Uses the Autotune function with the stock narrow band O2 sensors. Good for minor adjustments within range of stock O2 sensors.	DESCRIPTION	Additional accessory includes Control Module and two Wideband O2 sensors. Use Autotune to make tune adjustments on the Power Vision and re-flash the ECM with the edited tune version.	DESCRIPTION	Additional accessory includes Control Module and two Wideband O2 sensors. Includes all functions of Autotune Pro with the addition of FULL TIME CLOSED LOOP control!

## POWER VISION VISOR AND QUICK CLIP SYSTEM

This optional accessory will result in better screen visibility and a provision to quickly detach the Power Vision from your bike. Made from high quality, tough ABS plastic with a chrome or flat black finish on the visor, this optional accessory is a functional enhancement that looks great as well. The embedded "NutSerts" allow you to securely attach the Visor / Quick Clip accessory to a mounting system with an AMPS 4-hole pattern.



## VIDEO TUTORIALS

Visit [dynojet.com](http://dynojet.com) for the latest video tutorials on the Power Vision and accessories.

**Power Vision Featured Video**

**Introduction to Power Vision**

Playlist: Power Vision Tutorials (20 videos)

[Click here for more Power Vision video tutorials](#)

**Dynojet Power Vision**

To watch a power vision video simply select from the playlist below.

How to use Power Vision's Autotune Feature

2001-2013 Softail Diagnostic Connector Location

2008-13 Touring Diagnostic Connector Location

2002-07 Touring Diagnostic Connector Location

2004-2013 Dyna Diagnostic Connector Location

2002 Drag Lock

2007-2013 Sportster Diagnostic Connector Location

Introduction to Power Vision

How to use the Power Vision WIPV Update Client

Loading a tune with the Power Vision

Standard Features and Mounting Accessories

What is Auto Tune

Tuning Licenses and Unlock Codes

The Dynojet Power Vision What's Included

The Dynojet Power Vision Basic Installation

Flashing a Tune Using the Dynojet Power Vision

How to Read and Clear Diagnostic Trouble Codes Using Dynojet Power Vision

How to Monitor Fuel Consumption Using the Dynojet Power Vision

# WWW.DYNOJET.COM





# **PUSH THE LIMIT**

**2191 MENDENHALL DRIVE, NORTH LAS VEGAS, NV 89081 - 800-992-4993 - [DYNOJET.COM](http://DYNOJET.COM)**

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