THROTTLE-UP INDUSTRIES

HP Tuners Version 4.X Made Simple

Welcome to EFI Tuning with HP Tuners - Tutorial Introduction - (GM)

Introduction

Welcome and congratulations on purchasing what we believe to be the most innovative and interactive training tutorial available on the market today for HP Tuners. Whether you are new to tuning or experienced, it is not a beginners, intermediate or advanced course…it is a complete course for everyone. It's the only tutorial you will need to buy. It's a 345+ page tutorial full of information, pictures, videos, PowerPoint presentations and tuning tips based on your EFI systems, their sensors and how they work. This information, while specific to a GM V8 platform is also somewhat generic in nature and can be applied to the Ford and Dodge platforms as well. It can also be applied to EFI Live as well as other standalone tuning systems.

Tuning Tutorial Overview

The Throttle-Up Industries Tuning Tutorial approach to learning is to start with the basics and understand what and how the components operate. From there we formulate a solid foundation to build on. You will learn the how and why.....not just what to put where. You will be able to recognize situations of good and bad, and know how to formulate corrective action to correct the situation(s). We believe you will be prepared to take on any tuning and even mechanical problem identification/solving with what they call in the engineering field "root cause and corrective action"… What really is happening? What is causing the issue/negative result and based on a good understanding of how it works, what needs to be done to make it right?

The tutorial is made up of 11 Modules in PDF format that is completely downloadable and can be saved to your computer. You will need **Adobe Acrobat Reader** to view the tutorial. If you don't already have it installed on your computer, it can be downloaded here: https://acrobat.adobe.com/us/en/acrobat/pdf-reader.html

Modules included in the tutorial:

1. Basics to EFI Tuning.
2. EFI Sensors and Open/Closed Loop.
3. Fuel Supply and injectors.
4. Wideband Setup.
5. Ignition and Spark.
6. HP Tuners VCM Editor Overview and Features.
7. HP Tuners VCM Scanner Overview and Features.
8. Gen III/IV Adaptive Idle.
9. Enhanced OS.
10. Start-Up Tune File.
11. A Tuning Strategy.

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- Six (6) **PowerPoint** presentations detailing the specific procedure steps associated with the tuning process.

- For those who don't have PowerPoint on their computers, you can download a free **PowerPoint Viewer** here:

- https://download.cnet.com/PowerPoint-Viewer/3000-2075_4-75450958.html

- Presentations include:

    1. Advanced EFI and Tuning – supports the above 11 Course Modules.
    2. Wideband Setup – supports and adds detail to Module 4.
    3. Scanner Filter – supports numerous modules as far as logging and filtering for accurate street tuning.
    4. Strategy and Base Tune Development; perhaps the most valuable part of this course…table by table review and approach to tuning. ☺
    5. MAF Tuning; detailed procedures for MAF tuning and scanner use.
    6. VE/VVE Tuning; detailed procedures for VE/VVE tuning and scanner use.

Also included in this tutorial are embedded videos which will walk you through selected course subject material to further embellish your goals and objectives of learning HP Tuners. We also utilize PowerPoint presentations to also support your training. If you do not have PowerPoint on your computer, the link is above for downloading.

We want to warn you that this is not a tutorial that will tell you what values to put in what table based on some arbitrary platform configuration. This is not how you learn! Our intent is to mentor you in the detailed theory of operation of an EFI system and its PCM, so you can formulate a tune strategy and values. Additionally, we integrate detailed operational instructions on the HP Tuners VCM Editor and Scanner so they become yet another important tool in your box to identify, isolate, diagnose, develop updates and finally verify your results.

What this means is you will be able to observe a situation and based on the knowledge learned from this tutorial, you will understand what is happening as well as why. Once you are armed with that detailed knowledge, the corrective action becomes intuitive.

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Tutorial Modules 1-9 will take you on a fantastic journey to:

- EFI systems review: sensor discussions, Fuel /injector system design/verification and use
- Alcohol effects in fueling, using E85; now you will have to tune in Lambda ☺
- Ignition timing and spark control; street tuning approach for power
- MAF/VE airflow including math the PCM is using to derive its fueling
- Wideband selection and setup; analog, serial and OBD II interfaced to Standard and Pro MPVI's
- Injector selection and tune data input; the good, the bad and the ugly……
- End Of Injection Timing – calculate new cam events and Injection points for that big cam
- 2 huge sections on HP Tuners Editor and Scanner walk through, discussions and use; detailed table by table review and all commands available to use
- Gen III vs. GEN IV comparisons and similarities
- Scanner filter design, implementation and verification
- Virtual Volumetric Efficiency tuning
- Virtual Torque Model tuning
- Torque Management
- Adaptive Idle – everything you ever wanted to know but were afraid to ask…
- Forced Induction options
- HP Tuners Enhanced Operating systems; their description. Selection and activation
- HP Tuners patches; how to get rid of some of those nagging nits…..
- Tuner lock
- Detailed Step by Step procedure for modifying a Tune File
- And much more…….but that's not all……..

What you actually bought the tutorial for…..Tuning!

Tutorial Modules 10 and 11 are the final modules and the ones that will pull it all together. In Module 10 we begin the base tune development based on all the knowledge we have accrued through the first 9 modules. Module 11 we actually get in the vehicle and begin the Idle, MAF, VE and WOT tuning as well as detailed logging with the HP Tuners VCM Scanner.

I know. It seems like a lot of boring reading and work to go through before even changing a table, but I'm sure you will thank us in the end. In Modules 10 and 11 we review and formulate your tuning strategy and how to go about the tune based on your platform build.

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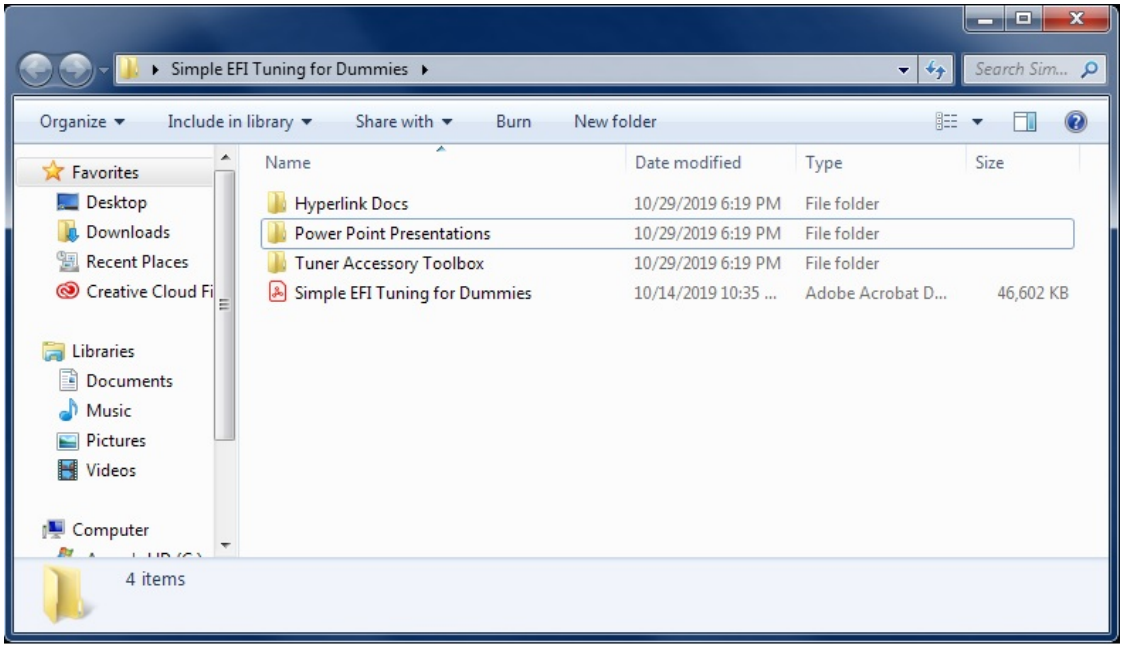
Tutorial Module 10 and 11 A step-by-step tuning guide with strategy.

- Throttle-Up Industries 10 Phases of Tuning – THE TUNING ROAD MAP TO FOLLOW!
- How to develop tuning strategies and why - Blended/MAF/ VE, open or closed loop etc.
- Open & Closed Loop - enable/disable with video.
- Long Term Fuel Trims - enable/disable with video.
- Wideband setup and programming - Standard vs Pro interface with video.
- MAF and VE tuning setup – Editor file and Scanner preparation with video.
- Scanner error data review and validation – Do we have good, steady-state data?
- Step-by-step procedures for tuning MAF and VE - Scanner operation and filter recommendations including GEN III VE and GEN IV/V Virtual Volumetric Efficiency.
- Scaling your tune; options … full blown scaling effort to a simple Double/Half technique.
- Fuel System Control Module (FSCM) tuning.
- Logging tips and a library of default scanner configurations.
- Step-by-step, table-by-table tuning to develop your base tune - prepare for in-car tuning.
- Tune Strategy recap - what is it, why use it and when to use it? Now into the car.....

How do I get this Training Tutorial?

Simply go to to www.throttleupindustries.com and purchase it for $149. Once you purchase the tutorial, a link will be immediately sent to your email for you to download the course material. You will download 2 separate files. The first one will be the actual .pdf tutorial itself and the second one will be a zipped folder containing all the support files needed for the .pdf tutorial. Once you download them both, you will extract the zip folder and simply place the .pdf tutorial inside the extracted folder. It's that simple! When complete, your folder should look like the picture below.



The above file structure will allow the hyper-links to work as designed. You begin with Module 1 and follow through with each subsequent module as well as links along the way. We recommend you go through the entire tutorial at least once, as jumping around may mean you missed some important prerequisites. This can make your tuning experience quite frustrating.

In closing, we rely heavily on word of mouth and ask that if you are happy with this tutorial to tell a friend, if not, please tell us. We strive to produce the best overall tuning learning product available today and make your learning process as painless as possible. Your feedback, good or bad, will help us achieve our goal in helping new tuners learn.

This training tutorial contains over 345+ pages of detailed information with almost 2 hrs of video and PowerPoint presentations. Pricing for the complete training tutorial is $149.

Visit our website at www.throttleupindustries.com for all your HP Tuners products and credits. We offer credits at $47.95 each.

Please be advised that your Training Tutorial will be stamped upon download with your name and email to prevent circulation and help protect our digital information from piracy. Please respect that we have hundreds of hours into this training tutorial for you and it cannot be shared or distributed without our approval. If we find it is, we will prosecute to the furthest extent of the law. Thank you for protecting your purchase and respecting the Throttle-Up team!

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