

# **ZFG Racing LLC HP Tuners Custom Tuning Guide**

## ZFG RACING LLC

### COMPLIANCE WITH EMISSIONS REGULATIONS

U.S. motor vehicle emissions standards are intended to help achieve and maintain air quality goals that benefit human health and the environment. U.S. laws and regulations prohibit operation on public roads any motor vehicle that violates applicable emission standards. The U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and other regulatory agencies are responsible for implementing and enforcing applicable emission standards. In particular, the U.S. Clean Air Act (CAA) prohibits “tampering”, i.e., the alteration of certified production vehicles to modify, remove, or render inoperable emissions control hardware or software. Tampering with motor vehicles emissions control systems is punishable by substantial monetary penalties. Consumers are responsible for complying with laws prohibiting tampering, and for ensuring that modified vehicles are operated in compliance with applicable U.S. laws.

It is ZFG Racing LLC’s (“ZFG,” “we,” “our”) policy not to manufacture, offer for sale, sell, convey, or otherwise transfer any product, including Handheld Devices, Pre-Loaded Tunes, or Calibrations that contain features to bypass, defeat or render inoperative the following: EGR, Rear Oxygen Sensors, SCR, DPF, NAC, DOC, or any diagnostic trouble codes (DTCs) associated with these emission controls. Products and calibrations sold by ZFG shall retain the full operation and functionality of the On Board Diagnostic System (OBD) and continue to satisfy applicable emissions requirements.

Although ZFG offers for sale products with CARB EO certifications, we maintain a site-wide policy of NO SALES TO CALIFORNIA.

In an effort to help consumers maintain compliance with emissions regulations, product descriptions on this site may include emissions-related warnings and notices. This page summarizes the emissions-related information that you may see in this website/catalog. The process of adding these descriptions is done in good faith and is a work in progress.

#### [Products With a California Air Resources Board Executive Order \(CARB EO\) Number](#)

Products within this category are identified on ZFG’s website with the corresponding California Air Resources Board (CARB) Executive Order (EO) number and the following description:

CARB EO: XXXXX

Such products are considered “Street Legal” because they have an EO from CARB. The manufacturer demonstrated through emissions testing that the use of these parts does not adversely affect vehicle emissions.

Parts with a CARB EO may be installed in accordance with the product specifications, and such vehicles may be driven on public roads. Products within this category should be installed and used properly in order to maintain compliance with emissions standards.

### Products With a Reasonable Basis Determination - Emissions Testing Verified to Have No Adverse Effect on Emissions

The EPA's longstanding view is that conduct that may be prohibited by CAA § 203(a)(3) does not warrant enforcement if the person performing that conduct has a documented, reasonable basis for knowing that the conduct does not adversely affect emissions.

Products within this category have been determined -- by ZFG or the original manufacturer -- to be unlikely to adversely affect emissions of a certified production vehicle, so long as such products are installed and used in accordance with the product specifications. Emissions testing for these products, unless otherwise noted, was performed by an independent testing facility, with guidance from SEMA Garage Emissions Compliance, using good engineering judgment to test the worst-case scenario tune on the worst-case vehicle (in accordance with product specifications).

Such products are identified on ZFG's website with the following notice:

ZFG Racing LLC Reasonable Basis File Number: XXXXX

Products within this category, to the best of ZFG's knowledge and understanding, demonstrate a reasonable basis that they do not adversely affect vehicle emissions and retain the full operation and functionality of the On-Board Diagnostic System (OBD) Emissions Related Items, and will continue to satisfy emissions requirements, such as meeting standards within useful life or maintaining emissions performance outside useful life. Such labeling does not indicate products are 50 state legal. Consumers are advised to make sure that such parts are installed and used properly in order to maintain compliance with emissions standards.

Reasonable Basis testing under the guidance of SEMA Garage Emissions Compliance for reasonable basis often coincides with CARB EO pending. Additional documentation available upon request.

### Competition Use Only Products

Products labeled or marked as "Competition Use Only" or "Track Use Only" are products manufactured by Company or others, which are not intended for use on any vehicle driven on public roads, and such products are marketed and sold by Company for installation on vehicles to be used solely for competition motorsports ("Competition Use Only Products").

All Competition Use Only Products sold after October 1, 2021, require a signed Competition Use Waiver before the order can be processed and shipped. The Competition Use Waiver must be completed for every order containing Competition Use Only Products. The Competition Use Waiver can be found here <link to wavier> and is submitted via our portal.

Competition Use Only Products will be accompanied by the following warning:

**WARNING:** This is a Competition Use ONLY Product manufactured and sold for installation on vehicles to be used solely for competition motorsports, which, once such product is installed, may never be used, or registered or licensed for use upon a public road or highway. Any other use, including recreational off-road use, may be in violation of local, state, and Federal laws. ZFG Racing LLC does not implicitly or explicitly confirm the legality of using any products it sells on public roads; that is entirely the responsibility of the consumer. If a Competition Use Only Products is installed on a vehicle and that vehicle is used on a public road or highway, it may be considered in violation of the Clean Air Act and personally subject to substantial civil penalties.

#### Other Items

Parts that are not accompanied by any of the above notices are either considered by the manufacturer to be unlikely to affect motor vehicle emissions in most vehicle applications, when properly installed and used OR are products that do not require a CARB EO as identified by California's Bureau of Automotive Repair (BAR.CA.gov) OR have an emissions status that is not known by ZFG. Any and all questions regarding products that are not accompanied by any of the above notices and are related to emission shall be directed to the original equipment manufacturer.

## Table of Contents

Introduction and Tuning Process .....	7
How does the custom tune process work? .....	7
The Basic Tuning and Data logging Methods .....	7
Before you tune .....	7
Compatible Tuning Devices .....	8
TDN Mobile App Based Tuning .....	10
Getting Started .....	10
Tune Delivery Network Application Setup .....	10
Linking Your App to Your Tuner .....	11
Reading Your Factory Calibration/Tune .....	12
TDN Requests .....	13
Writing a Calibration/Tune .....	14
Creating Data Logs .....	15
Reading Diagnostic Trouble Codes (DTCs) .....	17
Laptop Based Tuning .....	18
Reading the Stock Ecu Calibration – RTD Devices .....	18
Loading the Custom Calibration – RTD Devices .....	22
Reading the Stock Ecu Calibration – MPVI Devices .....	25
Loading the Custom Calibration – MPVI Devices .....	29
Laptop Based Data Logging .....	32
Preparing for Data Logging .....	32
Recording Data .....	34
Checking DTCs .....	36

Part Number	Application	OEM Brand	Reasonable Basis File #
ZFG-20-EXPLORER-3.0-CT001	2020+ Explorer 3.0l Custom Tune	FORD	RBF-001
ZFG-20-AVIATOR-3.0-CT001	2020+ AVIATOR 3.0l Custom Tune	LINCOLN	RBF-001
ZFG-20-EXPLORER-3.0-CT002	2020+ Explorer 3.0l DMS Custom Tune	FORD	RBF-001
ZFG-20-AVIATOR-3.0-CT002	2020+ AVIATOR 3.0l DMS Custom Tune	LINCOLN	RBF-001
ZFG-15-EDGE-2.7-CT001	2015-2018 EDGE SPORT 2.7l Custom Tune	FORD	RBF-001
ZFG-19-EDGE-2.7-CT001	2019+ EDGE ST 2.7l Custom Tune	FORD	RBF-001
ZFG-17-FUSION-2.7-CT001	2017-2020 FUSION SPORT 2.7l Custom Tune	FORD	RBF-001
ZFG-19-NAUTIUS-2.7-CT001	2019+ Nautilus 2.7l Custom Tune	LINCOLN	RBF-001
ZFG-16-MKX-2.7-CT001	2016-2018 MKX 2.7l Custom Tune	LINCOLN	RBF-001
ZFG-17-MKZ-3.0-CT001	2017-2020 MKZ 3.0l Custom Tune	LINCOLN	RBF-001
ZFG-17-CONTINENTAL-3.0-CT001	2017-2020 CONTINENTAL 3.0l Custom Tune	LINCOLN	RBF-001
ZFG-17-CONTINENTAL-2.7-CT001	2017-2020 CONTINENTAL 2.7l Custom Tune	LINCOLN	RBF-001
Part Number	Application	OEM Brand	Reasonable Basis File #
ZFG-17-RAPTOR-3.5-CT001	2017-2020 Raptor 3.5L Custom Tune	FORD	RBF-002
ZFG-21-RAPTOR-3.5-CT001	2021+ Raptor 3.5L Custom Tune	FORD	RBF-002
ZFG-21-F150-3.5-CT001	2021+ F150 3.5L Custom Tune	FORD	RBF-002
ZFG-21-F150-3.5PB-CT001	2021+ F150 3.5L POWER BOOST (HYBRID) Custom Tune	FORD	RBF-002
ZFG-21-F150-2.7-CT001	2021+ F150 2.7L Custom Tune	FORD	RBF-002
ZFG-17-F150-3.5-CT001	2017-2020 F150 3.5L Custom Tune	FORD	RBF-002
ZFG-15-F150-3.5-CT001	2015-2016 F150 3.5L Custom Tune	FORD	RBF-002
ZFG-22-EXPEDITION-3.5-CT001	2022+ EXPEDITION 3.5L Custom Tune	FORD	RBF-002
ZFG-18-EXPEDITION-3.5-CT001	2018-2021 EXPEDITION 3.5L Custom Tune	FORD	RBF-002
ZFG-15-EXPEDITION-3.5-CT001	2015-2017 EXPEDITION 3.5L Custom Tune	FORD	RBF-002
ZFG-18-F150-2.7-CT001	2018-2020 F150 2.7L Custom Tune	FORD	RBF-002/RBF-001
ZFG-15-F150-2.7-CT001	2015-2017 F150 2.7L Custom Tune	FORD	RBF-002/RBF-001
ZFG-21-BRONCO-2.7-CT001	2021+ BRONCO 2.7l ZFG Racing Custom Tune	FORD	RBF-002/RBF-001
ZFG-21-BRONCO-3.0-CT001	2022+ BRONCO RAPTOR 3.0l ZFG Racing Custom Tune	FORD	RBF-002/RBF-001
ZFG-24-RANGER-3.0L-CT001	2024+ RANGER RAPTOR 3.0l ZFG Racing Custom Tune	FORD	RBF-002/RBF-001
ZFG-22-NAVIGATOR-3.5-CT001	2022 NAVIGATOR 3.5L Custom Tune	LINCOLN	RBF-002
ZFG-18-NAVIGATOR-3.5-CT001	2018-2021 NAVIGATOR 3.5L Custom Tune	LINCOLN	RBF-002
ZFG-15-NAVIGATOR-3.5-CT001	2015-2017 NAVIGATOR 3.5L Custom Tune	LINCOLN	RBF-002

## Introduction and Tuning Process

### How does the custom tune process work?

Here are the basic steps of the process:

- 1) Once you place your order, we will ship your tuning hardware.
- 2) You will set up the hardware and use it to read the stock calibration file (*tune*).
- 3) You will send the stock calibration back to us alongside a request that tells us your file is ready for review.
- 4) Your stock file will be used to build a baseline tune tailored to the information you provided during checkout and/or in your request (i.e. fuel type and tune goal).
- 5) You will receive an email notifying you when a new tune is ready to write (*apply*). You will use the same hardware from step 2 to write all calibration files.
- 6) You will record specific types of driving using the same hardware (*data logs*).
- 7) You will send those data logs to us, and adjustments will be made.
- 8) Rinse and Repeat until the best tune for you and your vehicle is attained.

### The Basic Tuning and Data logging Methods

- 1) The mobile app method uses the TDN (*Tune Delivery Network*) in conjunction with your tuning hardware to complete all steps required for tuning via your phone. The TDN App is both IOS and Android compatible. The app is free and will allow you to load/flash all calibration files, or record data logs, from anywhere as long as you have an internet connection (wifi or cellular data). Note: A *TDN Request* is required to be completed any time a new file is uploaded to the TDN App. You can find TDN Requests in [Tuning Central](#).
- 2) The laptop Data Logging method is for advanced users and complicated builds. The laptop method uses VCM Suite on your windows-based laptop to data log the vehicle. The files are submitted through [Tuning Central](#).

### Before you tune

It's essential that your vehicle be in excellent condition before you tune. This includes but is not limited to ensuring your vehicle is free from DTCs (diagnostic trouble codes), free from mechanical defects, that general maintenance items are up to date, and making sure that all fluids levels are within normal ranges. **Note: fluid levels such as oil level and transmission fluid level should be at the very top of the full range. It's very important that fluid levels be checked often as it is normal for the EcoBoost to burn/lose oil between oil changes.**

## Compatible Tuning Devices

### Laptop Based Tuning Devices

- MPIV2
- MPVI2+
- MPVI3
- RTD
- RTD+
- RTD3

### Android Based Tuning Devices

- MPIV2
- MPVI2+
- MPVI3
- RTD
- RTD+
- RTD3

### IOS Based Tuning Devices

- MPVI2+
- MPVI3
- RTD+
- RTD3

### Laptop Based Tuning Devices

- MPIV2
- MPVI2+
- MPVI3
- RTD
- RTD+
- RTD3



Application	Laptop Tuning Device	TDN Tuning Device
2020+ Explorer 3.0l Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2020+ AVIATOR 3.0l Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2020+ Explorer 3.0l DMS Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2020+ AVIATOR 3.0l DMS Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2015-2018 EDGE SPORT 2.7l Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2019+ EDGE ST 2.7l Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2017-2020 FUSION SPORT 2.7l Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2019+ Nautilus 2.7l Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2016-2018 MKX 2.7l Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2017-2020 MKZ 3.0l Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2017-2020 CONTINENTAL 3.0l Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2017-2020 CONTINENTAL 2.7L Custom Tune	RTD Devices Only	All MPVI/RTD Devices
Application	Laptop Tuning Device	TDN Tuning Device
2017-2020 Raptor 3.5L Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2021+ Raptor 3.5L Custom Tune	MPVI Devices Only	All MPVI/RTD Devices
2021+ F150 3.5L Custom Tune	MPVI Devices Only	All MPVI/RTD Devices
2021+ F150 3.5L POWER BOOST (HYBRID) Custom Tune	MPVI Devices Only	All MPVI/RTD Devices
2021+ F150 2.7L Custom Tune	MPVI Devices Only	All MPVI/RTD Devices
2017-2020 F150 3.5L Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2015-2016 F150 3.5L Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2022+ EXPEDITION 3.5L Custom Tune	MPVI Devices Only	All MPVI/RTD Devices
2018-2021 EXPEDITION 3.5L Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2015-2017 EXPEDITION 3.5L Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2018-2020 F150 2.7L Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2015-2017 F150 2.7L Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2021+ BRONCO 2.7l ZFG Racing Custom Tune	MPVI Devices Only	All MPVI/RTD Devices
2022+ BRONCO RAPTOR 3.0l ZFG Racing Custom Tune	MPVI Devices Only	All MPVI/RTD Devices
2024+ RANGER RAPTOR 3.0l ZFG Racing Custom Tune	MPVI Devices Only	All MPVI/RTD Devices
2022 NAVIGATOR 3.5L Custom Tune	MPVI Devices Only	All MPVI/RTD Devices
2018-2021 NAVIGATOR 3.5L Custom Tune	RTD Devices Only	All MPVI/RTD Devices
2015-2017 NAVIGATOR 3.5L Custom Tune	RTD Devices Only	All MPVI/RTD Devices

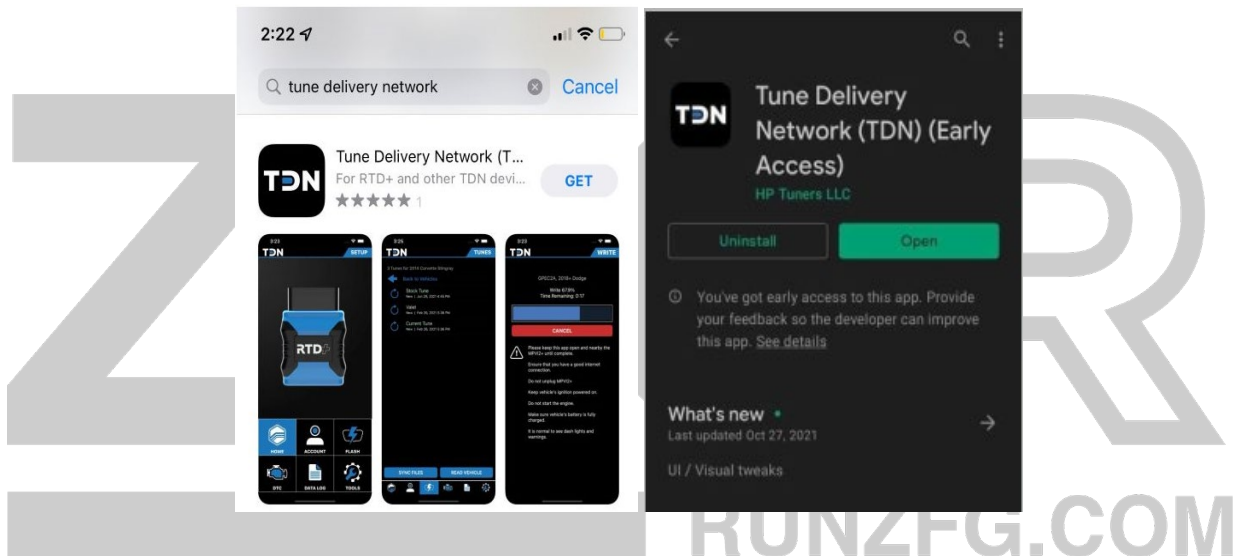
## TDN Mobile App Based Tuning

### Getting Started

Visit [www.tunedbyzfggracing.com/hp-tuners](http://www.tunedbyzfggracing.com/hp-tuners) for the latest version of these instructions. They are updated on an as-need basis.

To start, we'll talk about the TDN App (*Tune Delivery Network*). Apple & Android OS users are able to Read/Write and Data Log from their wireless mobile device [verify phone/tuning device compatibility on Pg.8].

If you're on Apple/Android, you can begin by downloading the "*Tune Delivery Network (TDN)*" application from the Apple App Store or Google Play Store.

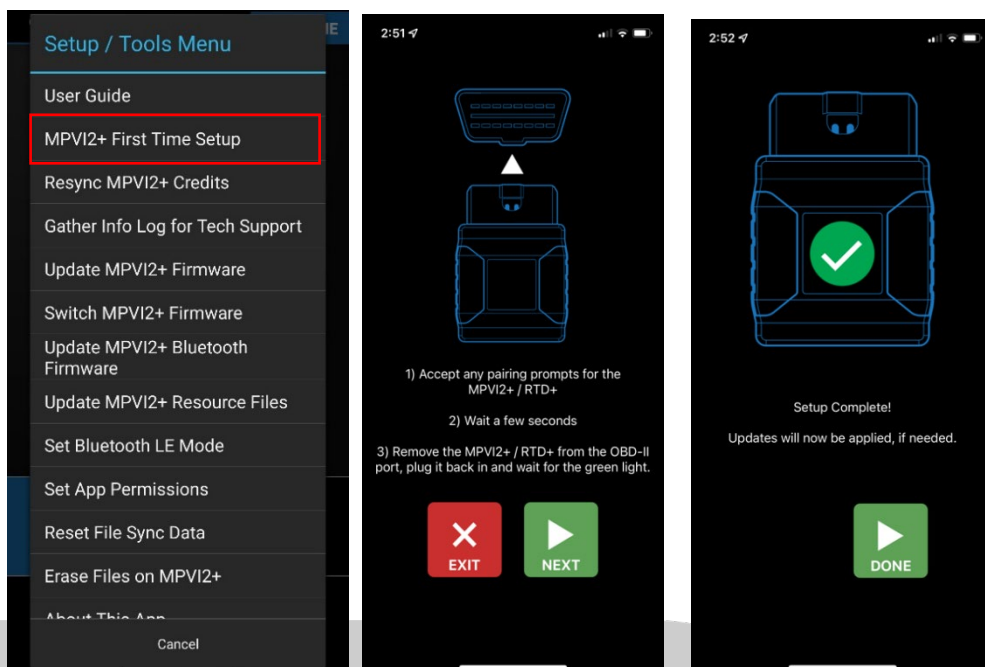


### Tune Delivery Network Application Setup

Now that you've downloaded and installed the TDN application on your mobile device, you'll need to run through the *First Time Setup*.

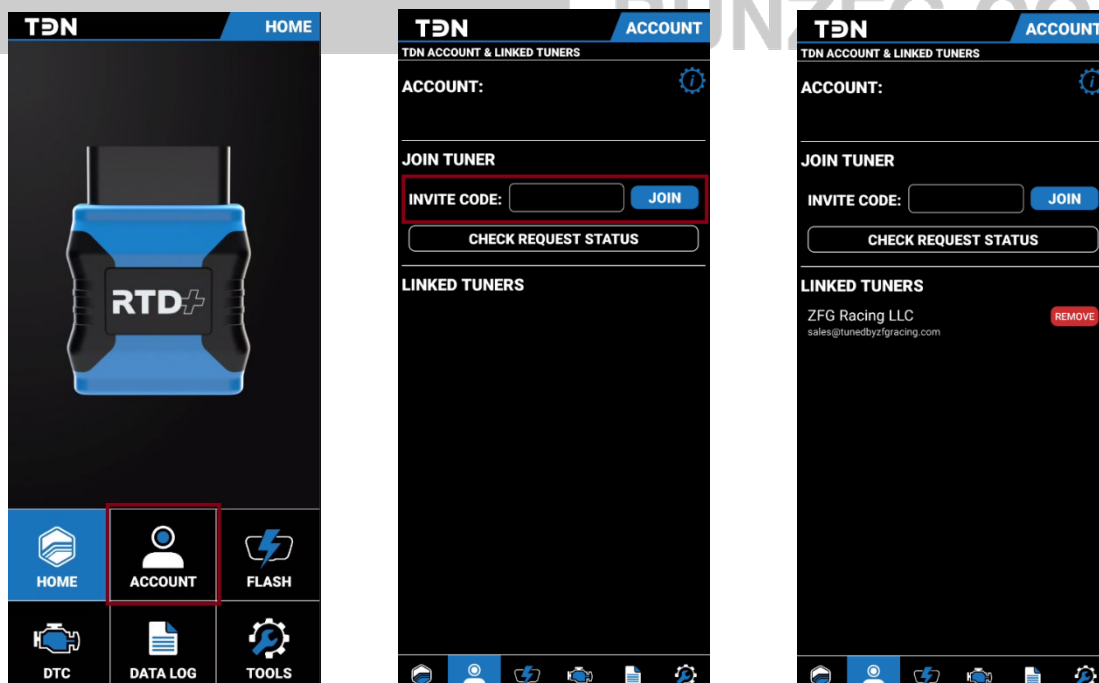
**IMPORTANT:** You must have a good internet connection during this process; to limit chances of disrupting the process and/or experiencing data loss, **do not minimize the app during the update process.**

- 1) Connect your [compatible tuning device](#) to your vehicle and turn your key to the "run" or "accessory" position, but do not start the engine.
- 2) Open the TDN App and click **TOOLS > First Time Setup** (See screenshots below)



## Linking Your App to Your Tuner

Once *First Time Setup* is complete, you'll need to add your Tuner. To do this, open the TDN App, click **ACCOUNT** and log in to your HP Tuners account. (Your Hp tuners account is different from your account on the ZFG Racing website and may need to be created yet). Once logged in, please input your "**Invite Code**" – **TFWP-6913** and click "**JOIN**".



## Reading Your Factory Calibration/Tune

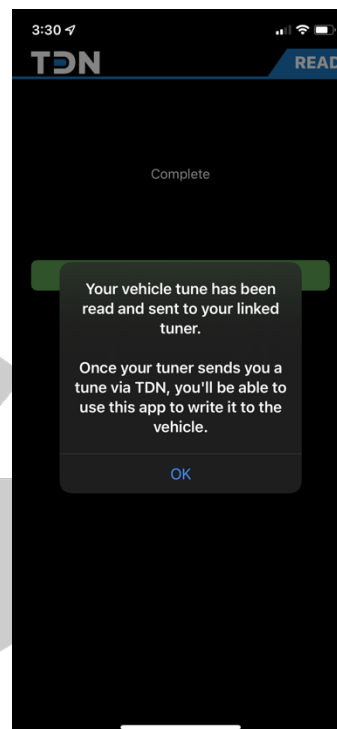
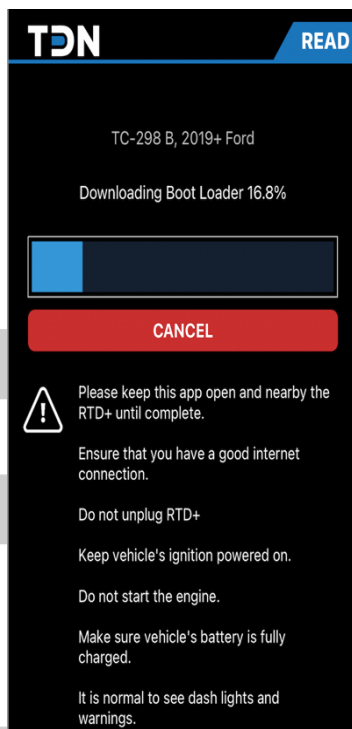
The next step is to read your vehicles *Stock Calibration* and send it to your tuner. This will allow them to build a baseline tune and return it to you.

To do this, open the TDN App, click **Flash**, then select **Read Vehicle**.

Note: The reading process can take several minutes; requires key on / engine off.



Once the read process has completed. You will need to ensure the file has sync'd and has the green check mark next to it. If it does not, you will need to click the blue arrow next to the file and follow the prompts to sync the file.



**IMPORTANT:** After completing this step, you must submit a TDN request for “*Stock Calibration*” via [Tuning Central](#) (see screenshots on next page).

Please note: If you have purchased a **DMS tune**, you must submit a *DMS specific request*.

## TDN Requests

A [TDN Request](#) is required **each time** your tune needs action.

TDN Requests are what notify us that a file is ready for review and what to do with the file. A brief description is provided for each type of TDN Request, and you should submit the type that most closely aligns with your current needs. TDN Requests are processed in the order they are received. Please allow 2-5 business days to process your request.

**Please note:** You will receive two emails when a new calibration file is ready.

One will be from HP Tuners notifying you that a new tune has been added to your TDN account ([TDN-Updates@HPtuners.com](mailto:TDN-Updates@HPtuners.com)). Another will be from ZFGR with instructions for data logging ([Calibrations@tunedbyzfgracing.com](mailto:Calibrations@tunedbyzfgracing.com)).

**ZFG<sup>R</sup>**  
RUNZFG.COM

DOWNLOAD  
THE ZFG RACING RTD/MPVI  
TUNING GUIDE

**ZFG<sup>R</sup>**  
RUNZFG.COM

TDN  
TDN APP USERS  
CREATE A TDN REQUEST

**ZFG<sup>R</sup>**  
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DMS  
DRIVE MODE SPECIFIC  
CREATE A TDN REQUEST

DMS or Drive Mode Specific tunes are currently only available for the Explorer ST and Lincoln Aviator platforms. This is an item that must be purchased. Please only use this form if you have specifically purchased a DMS tune. If you did not purchase a DMS tune, please use the standard TDN form.

**Explorer and Aviator 3.0i  
TDN Custom Tune Form**

DMS TDN Request Type  
Stock Calibration

First Name  
Last Name  
Email  
Order Number  
Your Tuning Device  
Device Serial Number

Normal Mode Power Profile  
Sport Mode Power Profile  
Tow Mode Power Profile  
Slippery Mode Power Profile  
Eco Mode Power Profile  
Snow/Sand Mode Power Profile  
Trail Mode Power Profile

Comments

☐ I have read my stock file and sync'd it to the TDN prior to submitting this request

Submit

**TDN Request Form**

TDN Request Type  
Stock Calibration

First Name  
Last Name  
Email  
Order Number  
Your Tuning Device  
Device Serial Number

Comments

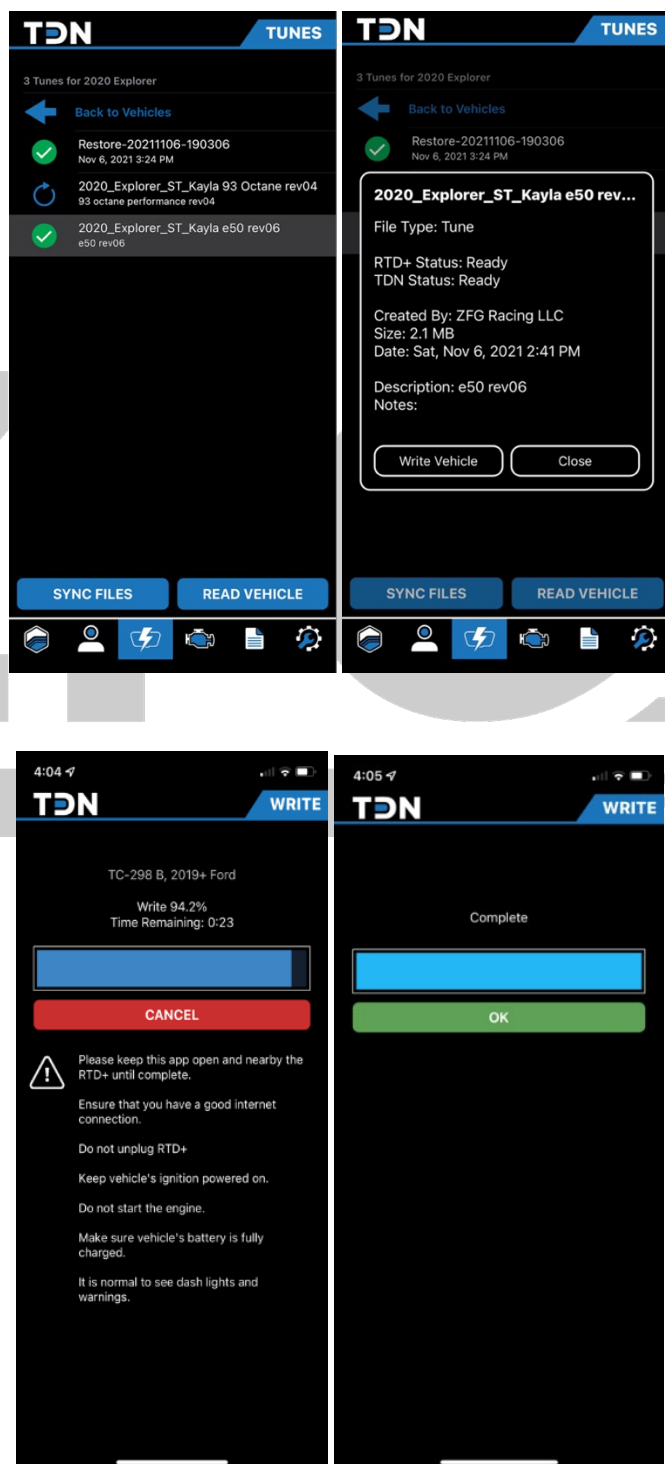
☐ I have read my stock file and sync'd it to the TDN prior to submitting this request

Submit

## Writing a Calibration/Tune

You can sync, review, and write all calibration files from the **FLASH** Menu.

Once in this menu, select a tune that you wish to apply, click **“Sync File”** if present, and once the green check mark is next to it, click **Write Vehicle**.



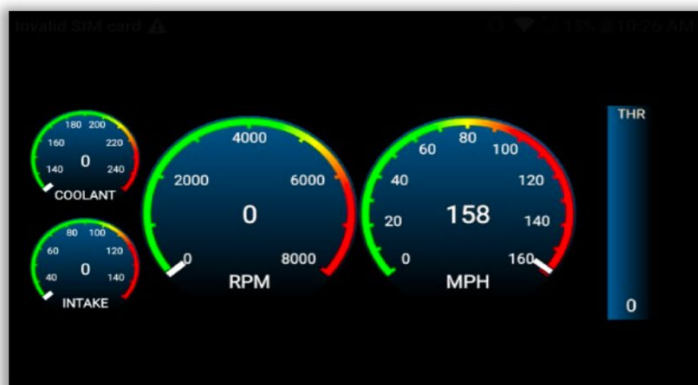
## Creating Data Logs

Data logging is the process of recording and storing data for your Tuner to review. To do this, follow the below instructions:

1. Open the TDN App
2. Tap on the **DATA LOG** button on the **Navigation Bar**.



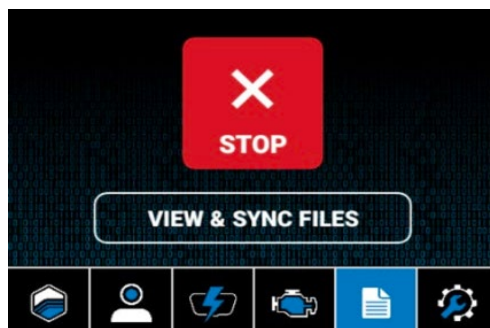
3. Tap in the 'i' gear icon near the top right to choose an appropriate time limit for this logging session.
4. Connect your [compatible tuning device](#) to your vehicle and start the engine.
5. Tap the **Start** button to start the session. Pay attention to the status displayed, as there is a delay before logging starts.
6. Once the data logging process is underway, a screen with gauges will appear, allowing you to monitor your vehicles data in real-time. This screen can be displayed in both landscape and portrait views.



6. When complete, tap the **Stop** button to end the logging session.
7. There may be many log files stored on your device that may not be useful to your tuner. For this reason, *files will not be uploaded automatically*.
8. To upload a file to the TDN and send it to your tuner, click **View & Sync Files**. Tap on the desired file, and select **Upload**. [You can also add notes to your file from this screen before uploading]



9. **Note:** If you have any incomplete or aborted data logging sessions, you can remove them by swiping left, and then tapping on **Delete**.



**IMPORTANT:** After completing this step, you must submit a TDN request for “Data Log Review” via [Tuning Central](#).

**Please note:** If you have purchased a **DMS tune**, you must submit a *DMS specific request*.

A [TDN Request](#) is required **each time** your tune needs action.

TDN Requests are what notify us that a file is ready for review and what to do with the file. A brief description is provided for each type of TDN Request, and you should submit the type that most closely aligns with your current needs. TDN Requests are processed in the order they are received. Please allow 2-5 business days to process your request.

**Please note:** You will receive two emails when a new calibration file is ready.

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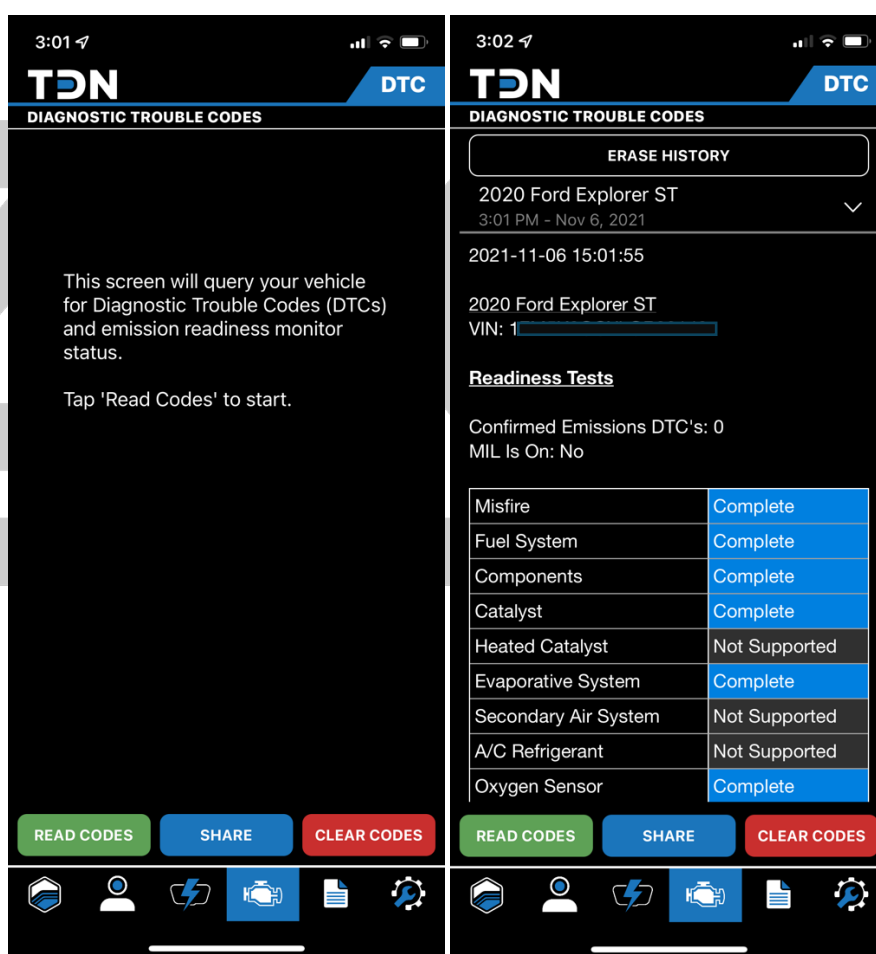
## Reading Diagnostic Trouble Codes (DTCs)

Another feature of the TDN App is READING and CLEARING DTC Codes. To do this, click **DTC > Read Codes**.

You will sometimes be asked to share these codes with ZFGR, and can do so any time you'd like by clicking **DTC > Read Codes > Share**

Once you've been given the "OK" to clear codes, do so using **Clear Codes**.

**Note:** If you're familiar with the codes that you're seeing and feel comfortable removing them at your own risk, you can do that using **Clear Codes**.



End of TDN/Mobile Tuning

## Laptop Based Tuning

**NOTE:** Laptop Based Tuning is only available through ZFG Racing on certain platforms with specific devices. Please see our [compatibility guide](#) to ensure that we support the laptop method of tuning for your platform.

### Reading the Stock Ecu Calibration – RTD Devices

[Compatible RTD Devices](#) require the RTD flasher program for reading and flashing tunes. For data logging you need to use VCM Scanner (BETA) which comes as VCM Suite (BETA)

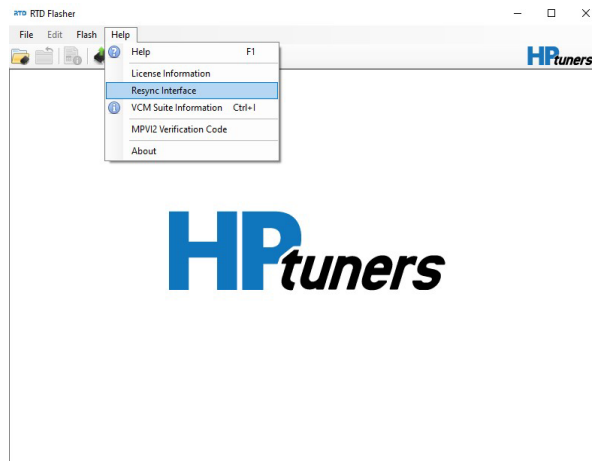
- 1) To Download and install both HP Tuners RTD Flasher and HP Tuners VCM Suite Beta, visit the ZFG Racing Website [www.tunedbyzfg.com/hp-tuners](http://www.tunedbyzfg.com/hp-tuners).



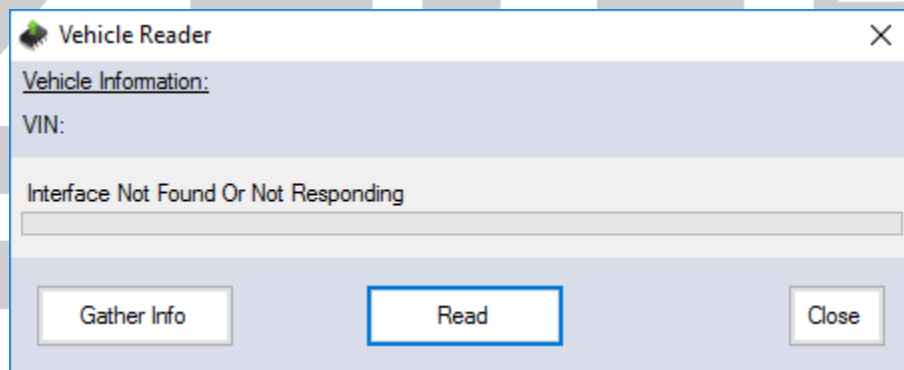
- 2) To get started on your custom tune we will need your stock file. This process will take approximately 20 minutes so please ensure your laptop/tablet is charged. We will use the RTD Flasher for tuning and VCM Scanner for data logging.

**Note:** During the tuning process, while opening a file, you may get a message that a file you are trying to open cannot be opened because it was created with a newer version of HP Tuners. If that is the case, please revisit our website and repeat the download and installation process of RTD Flasher. There is no need to remove the old program as the new install will write over the older version.

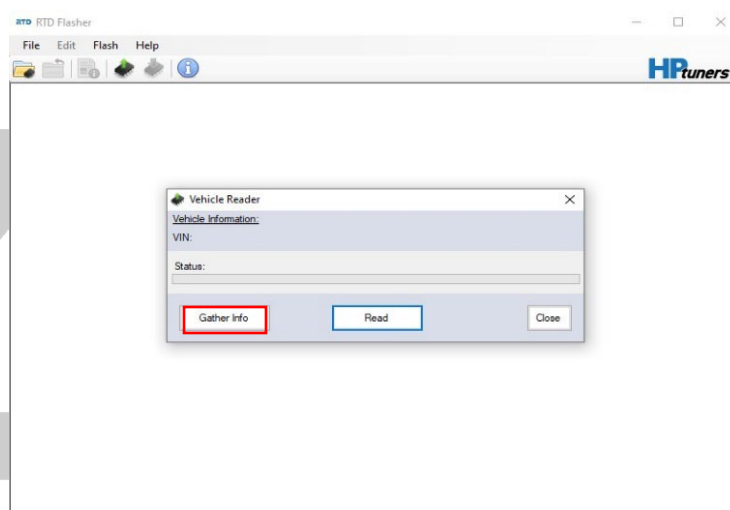
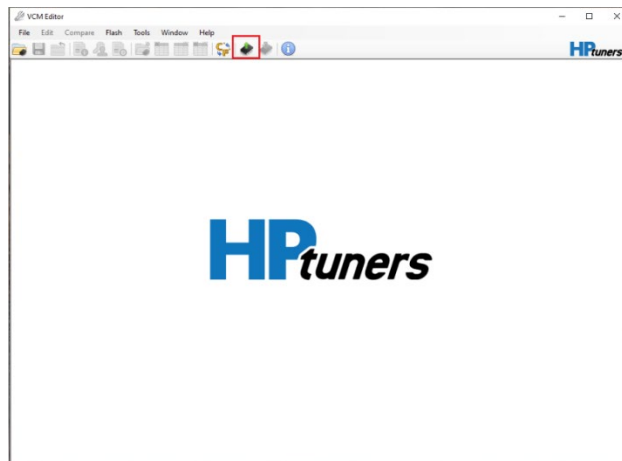
Before we read the stock tune, you will need to plug your RTD Flasher into the OBD2 Port of your vehicle using the supplied HP Tuners USB cable. Please connect from your Laptop/Tablet to the RTD Flasher. From within the RTD Flasher Software, please select the help menu and select resync interface; this will check for updates.



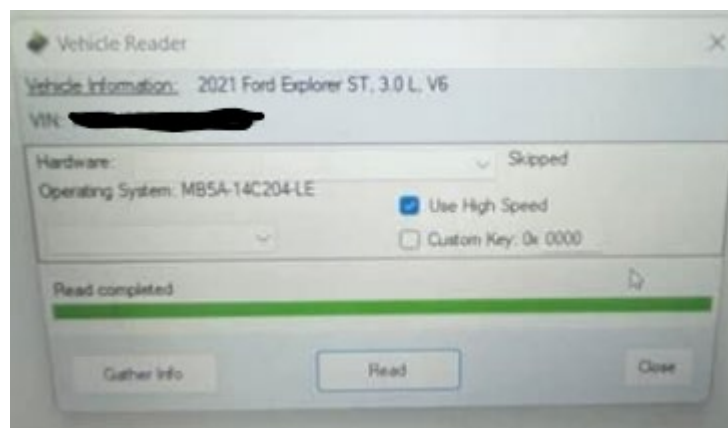
**Note:** If your device fails to connect, or you get a message saying your device cannot be found please download the MPVI drivers from [www.tunedbyzfggracing.com/hp-tuners](http://www.tunedbyzfggracing.com/hp-tuners)



- 3) After the resync is successful, turn your vehicle's key to the run position, but do not start the vehicle. If you have a push button start, this is completed by pushing the start button with your foot off the brake pedal.
- 4) Click the read vehicle button and the vehicle reader menu will appear. Press "gather" info and once the info is present, press read. Note: if you have a vehicle that has an ECU and TCU you may be asked to cycle the power in between the ECU and TCU hardware read.

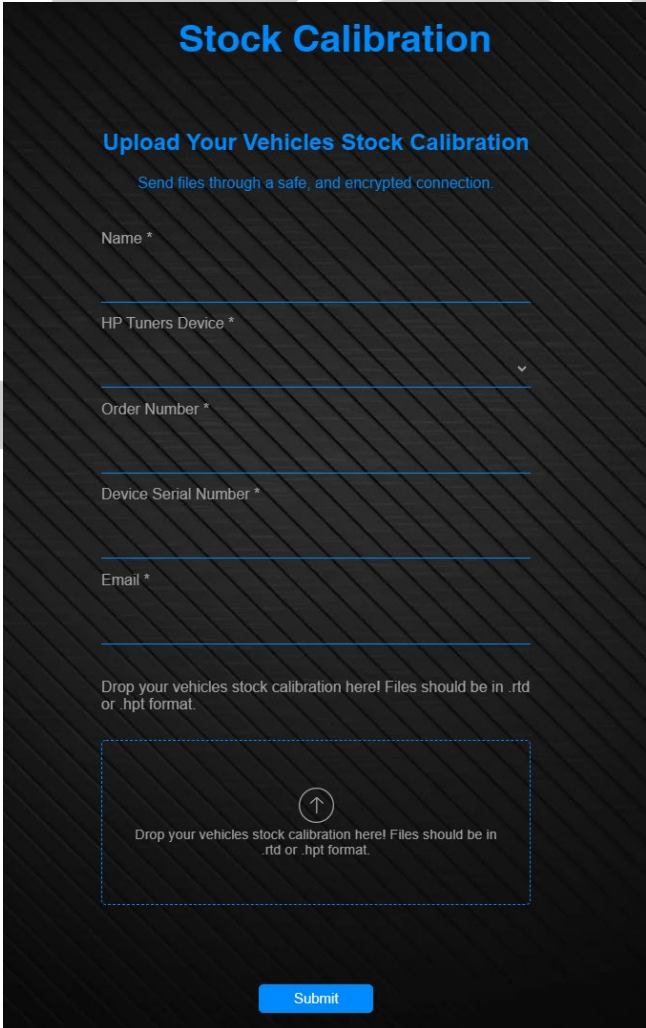


**Note:** If device hardware does not populate, please select TC298B from the drop-down menu.



- 5) This process can take over 20min to complete. Once completed, you will be asked to save the file. Please save the file as the year, make and model of your vehicle and you name. Ex. 2018 Ford F150 Adam Stock Tune. Once saved, please go to [www.tunedbyzfg.com/hp-tuners](http://www.tunedbyzfg.com/hp-tuners) and click “Tuning Central- Upload Your Data or submit a TDN request”.

**IMPORTANT:** After reading your stock file you must submit the file by clicking on “Tuning Central” from [www.tunedbyzfg.com/hp-tuners](http://www.tunedbyzfg.com/hp-tuners). All data including stock calibrations and data logs must be submitted through tuning central. Submitting this request is what notifies your tuner that a stock file, data log or misc. is ready to be completed. All requests are worked in the order they are received. Please allow 2-5 business days to process your request before contacting ZFG Racing LLC



**Stock Calibration**

**Upload Your Vehicles Stock Calibration**

Send files through a safe, and encrypted connection.

Name \*

HP Tuners Device \*

Order Number \*

Device Serial Number \*

Email \*

Drop your vehicles stock calibration here! Files should be in .rtd or .hpt format.

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Submit

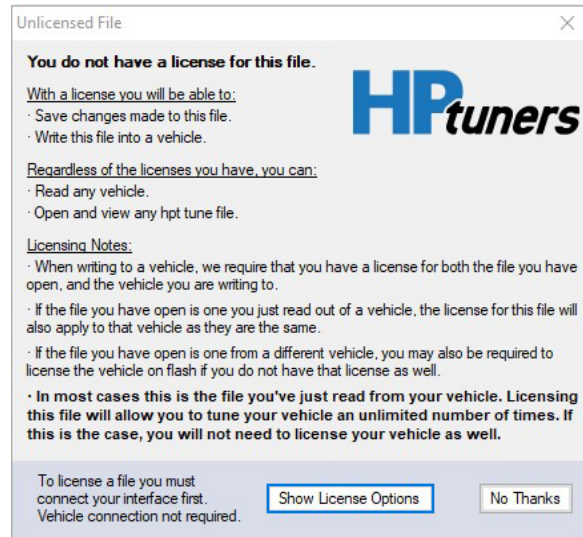
## Loading the Custom Calibration – RTD Devices

You will receive 2 files from [calibrations@tunedbyzfg.com](mailto:calibrations@tunedbyzfg.com). One will be the baseline tune and the other will be the channels for VCM Scanner.

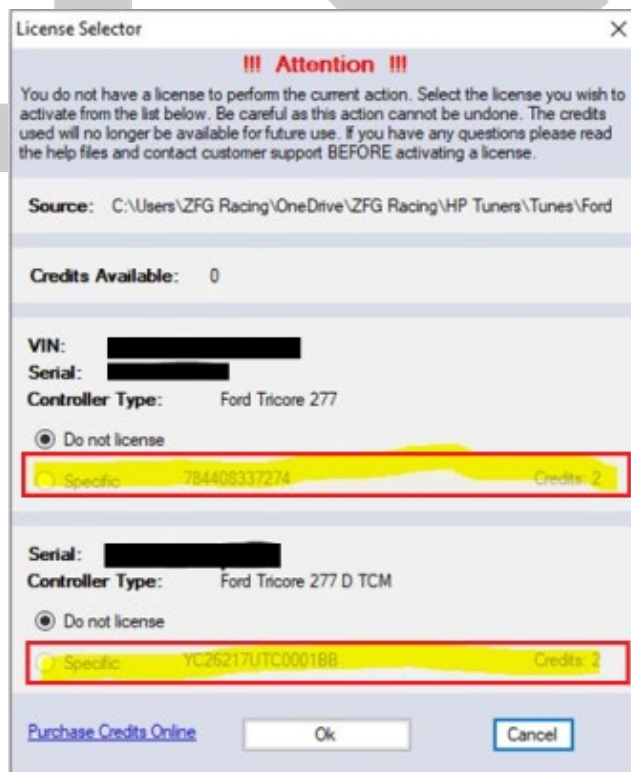
- 1) To load the custom tune on to your vehicle open the tune file in RTD Flasher.
- 2) With the RTD connected to the vehicles OBD2 Port and your Laptop/Tablet with the supplied HP Tuners USB Cable, place your vehicle into the “Run” position.
- 3) After locating the Tune File and selecting it, you’ll press the write button, outlined below.



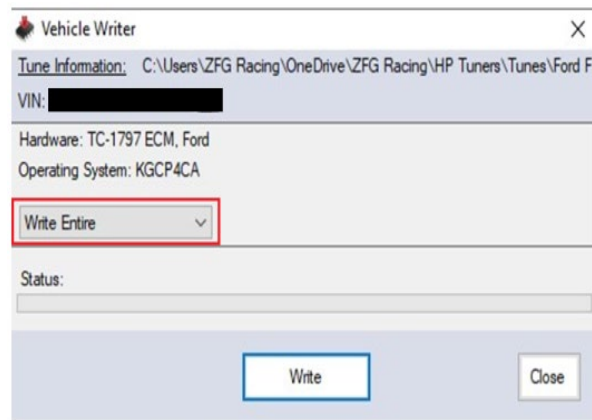
- 4) For the first time flashing only, please click the “Show License Options” button, as pictured below. Select Specific (it will be greyed out if you have already licensed this vehicle or if you have insufficient credits available to license the vehicle.)



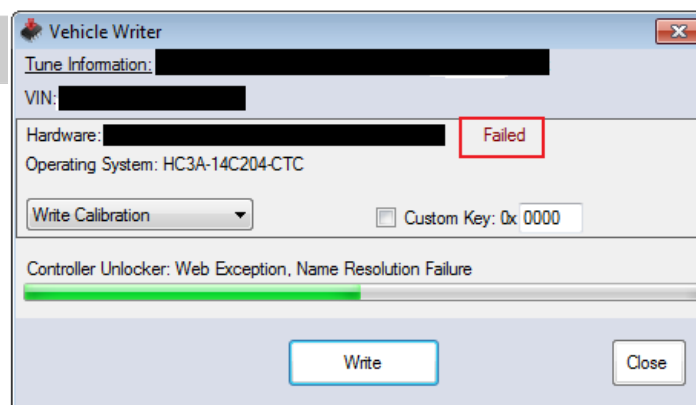
- 5) Change the selection to specific under each controller. **Note:** most vehicles will have only one controller, however some 10r80 equipped trucks will have 2.



- 6) Press okay, **you will not have to repeat this process.**
- 7) Next: The vehicle writer menu will appear; press write to begin the process. This process will take 2-8 minutes depending on your vehicle. **IMPORTANT: you must always perform a write entire, if write calibration is shown, please change the drop-down menu to write entire!**



- 8) Once complete, you will need to turn the key off (wait 3 seconds) and then back on. **Please note if you receive a Data Integrity "Check Failed" error message, that can be ignored. HP Tuners is aware of the error, but it has no bearing on the tune files you've loaded.**





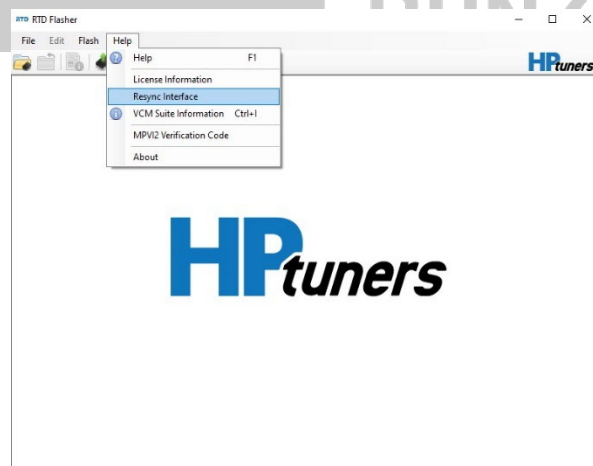
## Reading the Stock Ecu Calibration – MPVI Devices

Compatible MPVI Devices require the VCM Editor (BETA) program for reading and flashing tunes. For data logging you need to use VCM Scanner (BETA). Both programs come as part of VCM Suite (BETA).

- 1) To Download and HP Tuners VCM Suite (BETA), visit the ZFG Racing Website [www.tunedbyzfg.com/hp-tuners](http://www.tunedbyzfg.com/hp-tuners) .
- 2) To get started on your custom tune we will need your stock file. This process will take approximately 20 minutes so please ensure your laptop/tablet is charged. We will use the VCM Editor for tuning and VCM scanner for data logging.

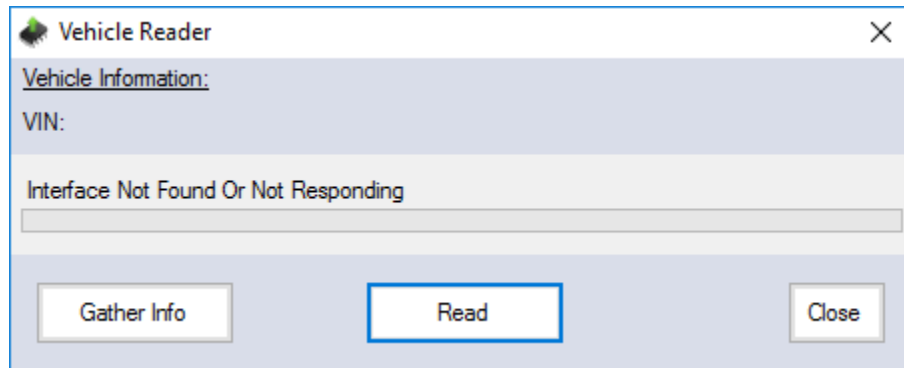
**Note:** During the tuning process, while opening a file, you may get a message that a file you are trying to open cannot be opened because it was created with a newer version of HP Tuners. If that is the case, please revisit our website and repeat the download and install process VCM Suite (BETA). There is no need to remove the old program as the new install will write over the older version

- 3) Before we read the stock tune, you will need to plug your MPVI into the OBD2 Port of your vehicle using the supplied HP Tuners USB cable. Please connect from your Laptop/Tablet to the MPVI. From within the VCM Editor Software, please select the help menu and select resync interface; this will

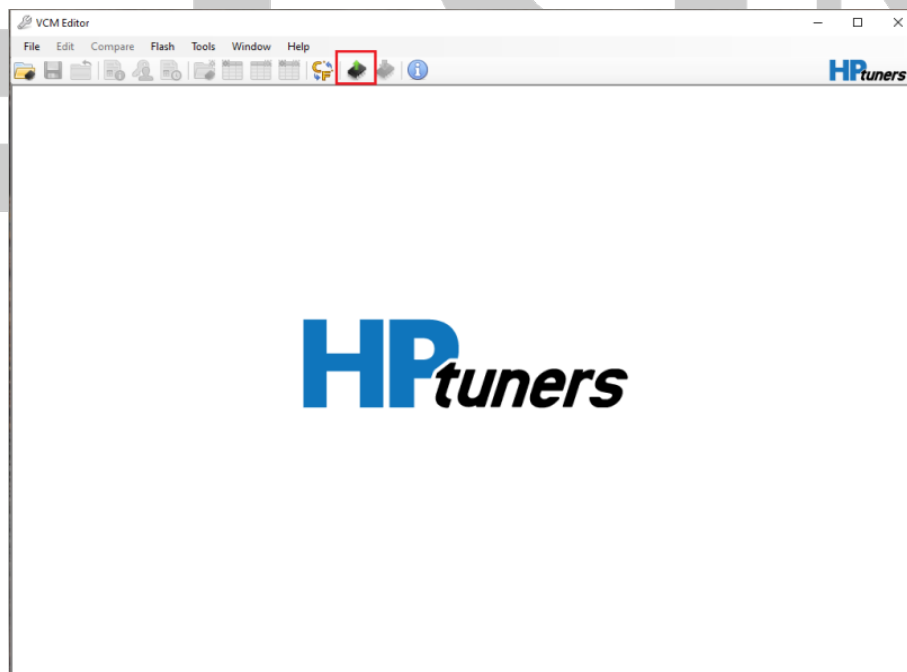


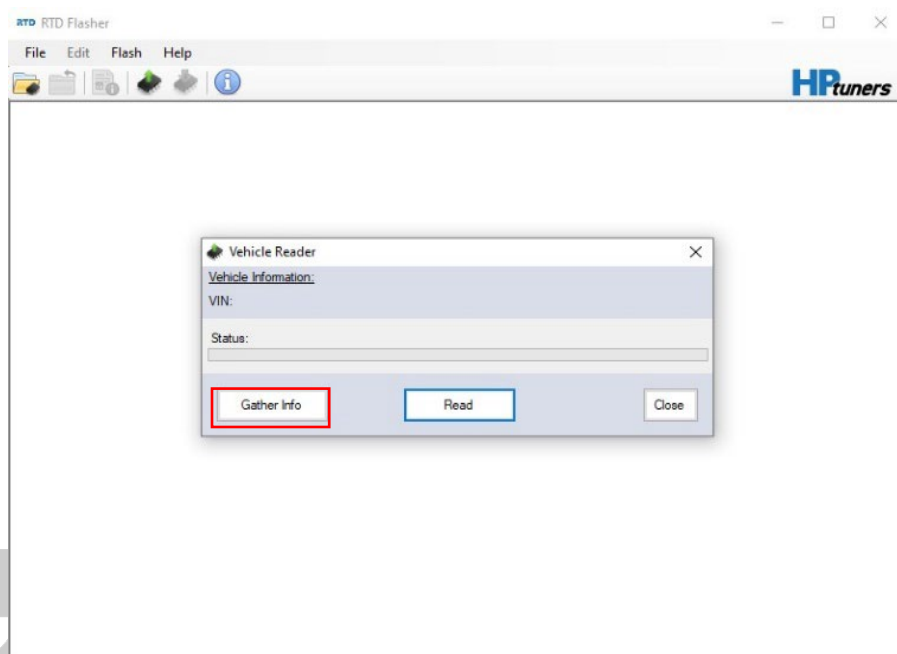
check for updates.

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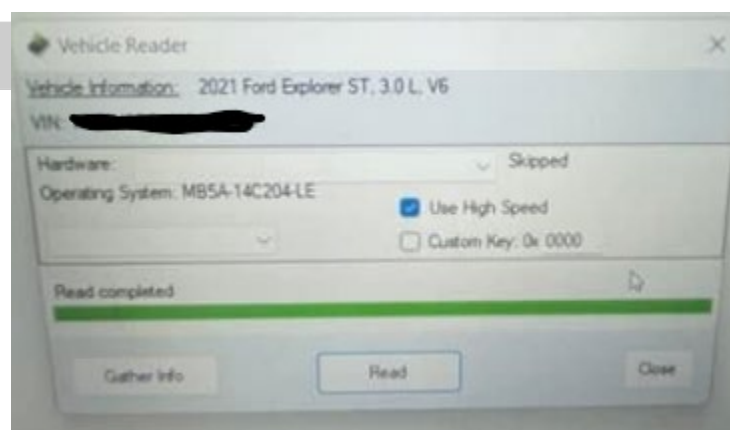


- 4) After the resync is successful, turn your vehicle's key to the run position, but do not start the vehicle. If you have a push button start, this is completed by pushing the start button with your foot off the brake pedal.
- 5) Click the read vehicle button and the vehicle reader menu will appear. Press "gather" info and once the info is present, press read. Note: if you have a vehicle that has an ECU and TCU you may be asked to cycle the power in between the ECU and TCU hardware read.



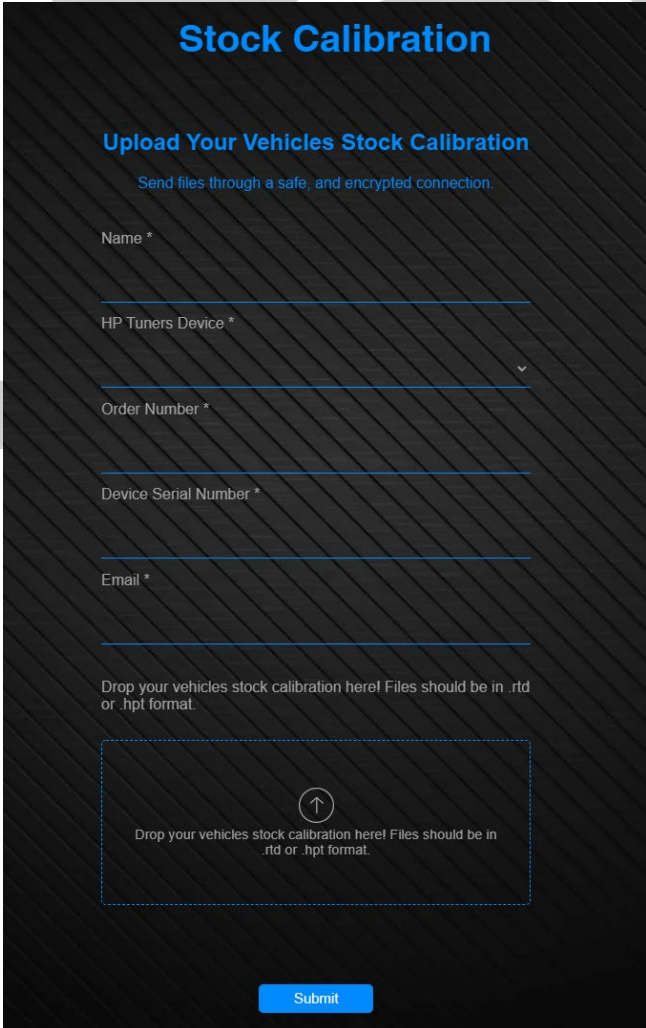


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- 6) This process can take over 20min to complete. Once completed, you will be asked to save the file. Please save the file as the year, make and model of your vehicle and you name. Ex. 2018 Ford F150 Adam Stock Tune. Once saved, please go to [www.tunedbyzfg.com/hp-tuners](http://www.tunedbyzfg.com/hp-tuners) and click “Tuning Central- Upload Your Data or submit a TDN request”.

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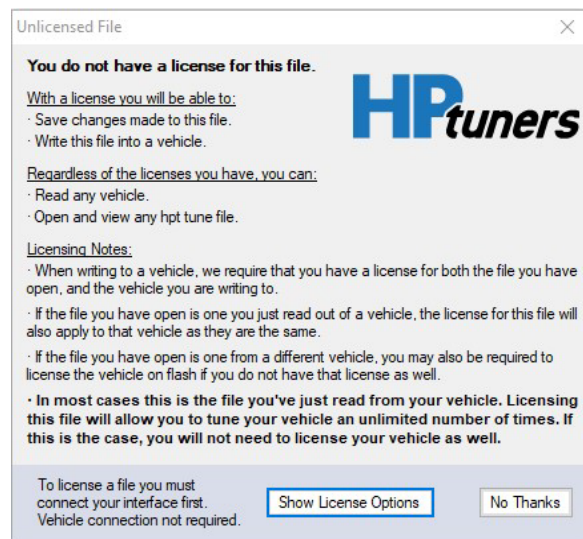
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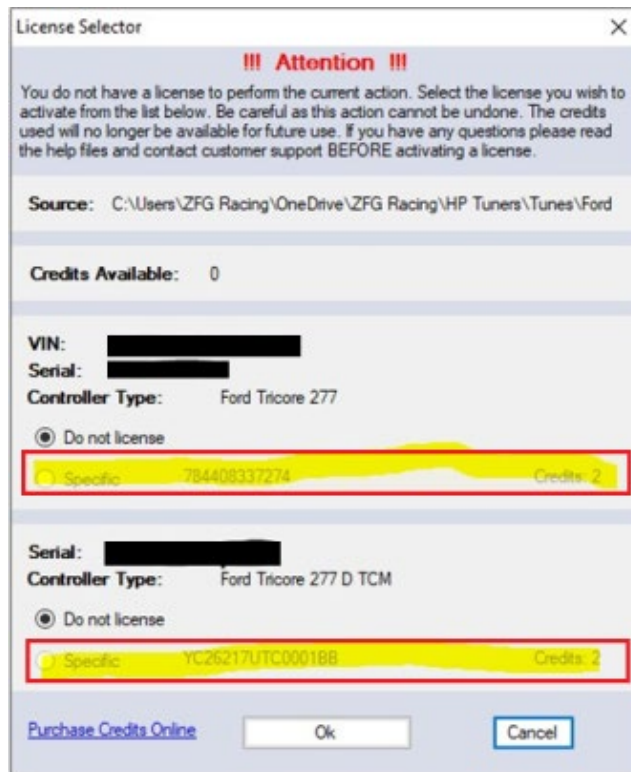
- 1) To load the custom tune on to your vehicle open the tune file in VCM Editor.
- 2) With the MPVI2 connected to the vehicles OBD2 Port and your Laptop/Tablet with the supplied HP Tuners USB Cable, place your vehicle into the “Run” position.
- 3) After locating the Tune File and selecting it, you’ll press the write button, outlined below.



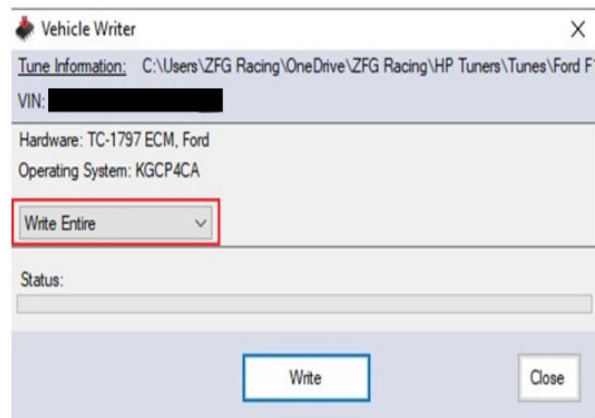
- 4) For the first time flashing only, please click the “Show License Options” button, as pictured below. Select Specific (it will be greyed out if you have already licensed this vehicle or if you have insufficient credits available to license the vehicle.)



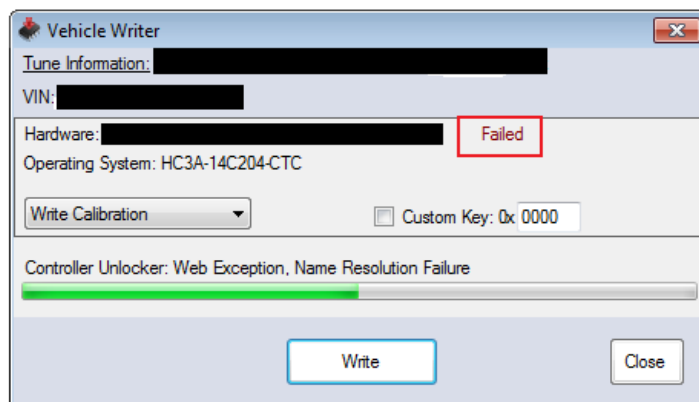
- 5) Change the selection to specific under each controller. **Note:** most vehicles will have only one controller, however some 10r80 equipped trucks will have 2.



- 6) Press okay, **you will not have to repeat this process.**
- 7) Next: The vehicle writer menu will appear; press write to begin the process. This process will take 2-8 minutes depending on your vehicle. **IMPORTANT: you must always perform a write entire, if write calibration is shown, please change the drop-down menu to write entire!**



- 8) Once complete, you will need to turn the key off (**wait 3 seconds**) and then back on.



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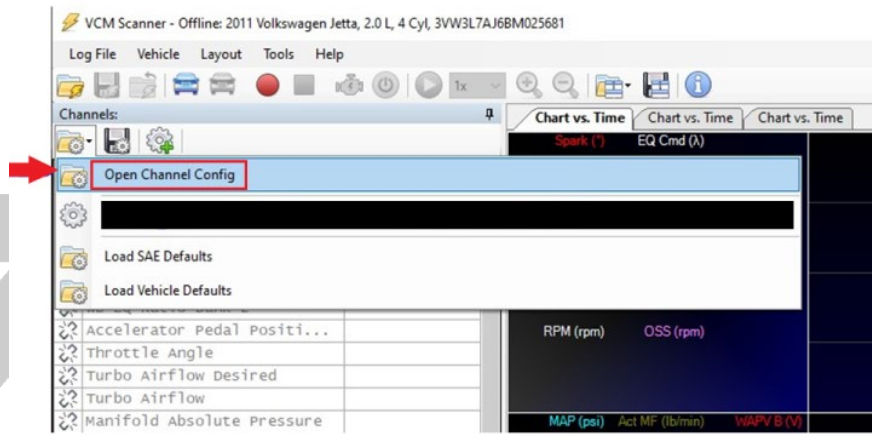


## Laptop Based Data Logging

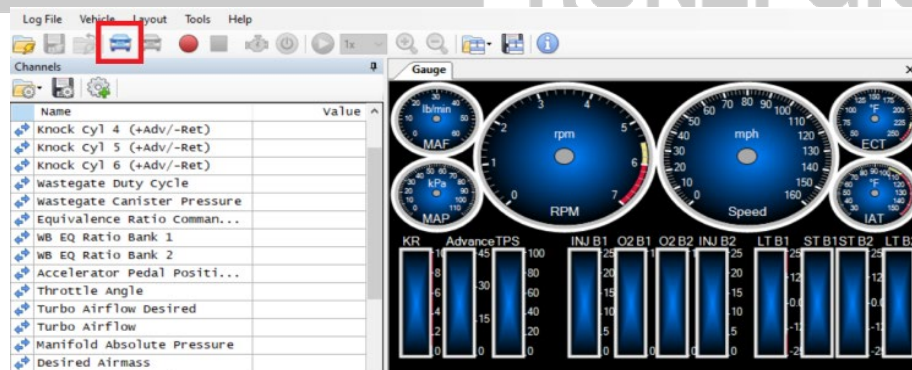
### Preparing for Data Logging

For all compatible devices data logging is done from within VCM Scanner which is part of VCM suite (BETA).

- 1) You will first need to load the channels file that was included in the email with you baseline calibration. This is accomplished by opening the .XML file from the channels section of scanner.

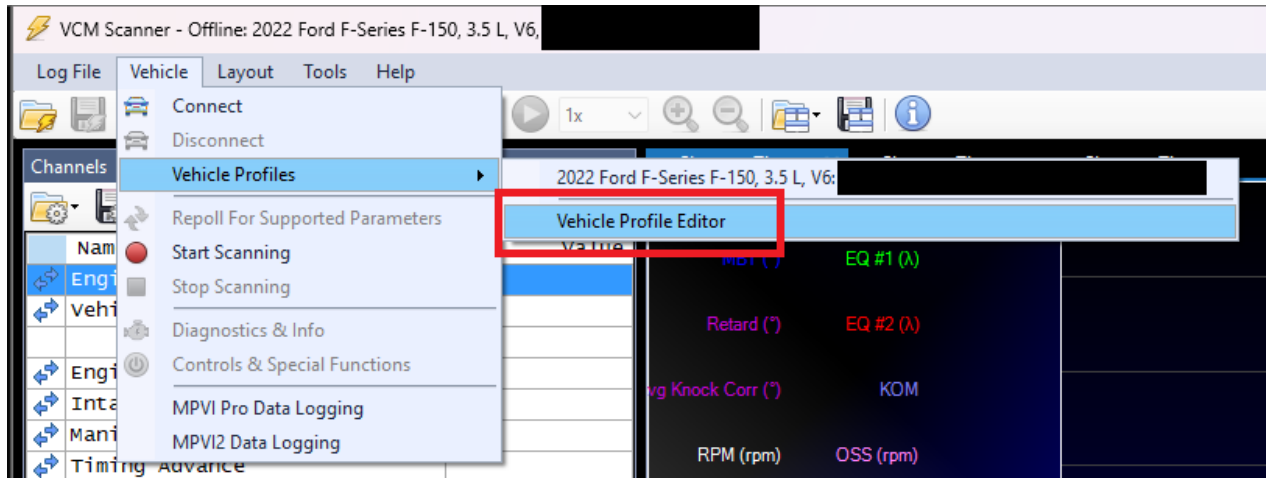


- 2) The Next Step is to connect to you vehicle. This is done by plugging your compatible device into the OBD2 Port of your vehicle and connecting your Laptop/Tablet to the RTD Flasher with the HP Tuners Supplied USB Cable.

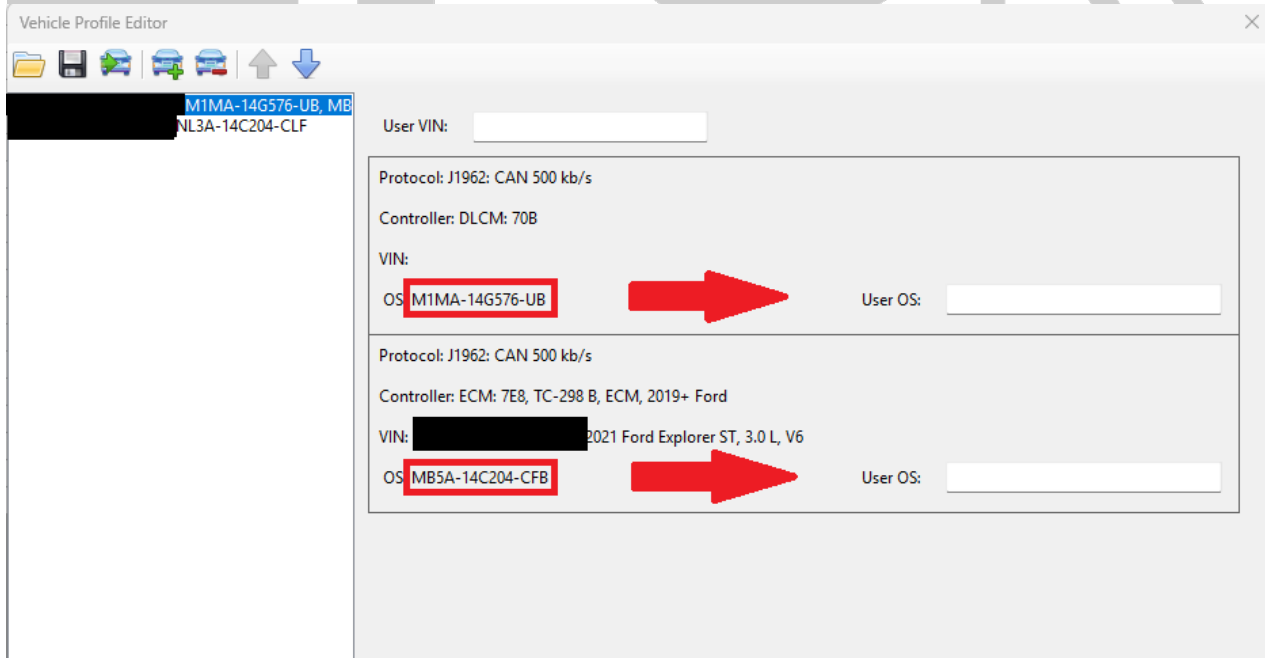




- 3) Once connected to the vehicle, you will need enter your vehicle profile and define the USER OS for your vehicle. This is done by clicking on vehicle, vehicle profiles and then clicking on vehicle profile editor.



- 4) Next you will enter your stock OS into the User OS field. Most vehicles will list one controller, however if your vehicle has more than one controller enter the stock OS in all of the fields. **IMPORTANT:** In order to see the stock OS you must be connected to the car while the STOCK tune is loaded. Also, depending on the situation you may be provided with a OS to enter in the User OS Field. In that case, you do not have to have the stock file loaded.



## Recording Data

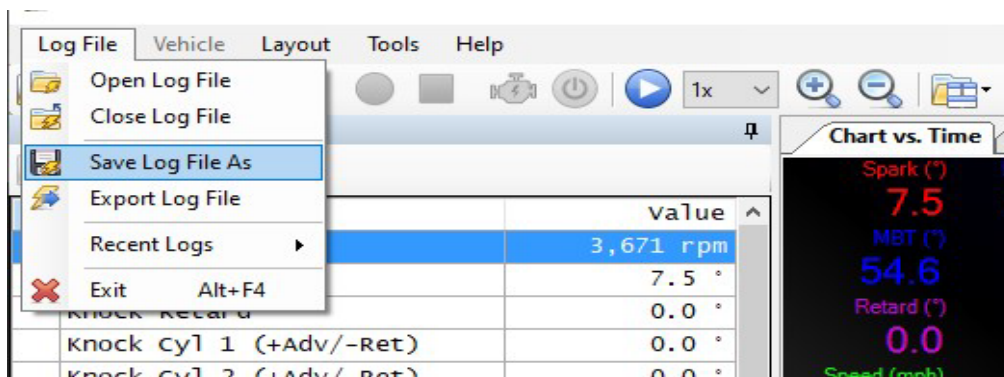
- 1) To start a data log, press the red record button. To stop a data log, press the blue stop button.



- 2) To stop a data log, press the blue stop button.



- 3) You will need to save the log file, to do so press Log File> Save Log As. Please include the tune type, the rev number, and a brief description in the name. **Ex E50 Rev01-3<sup>rd</sup> Gear Pull**

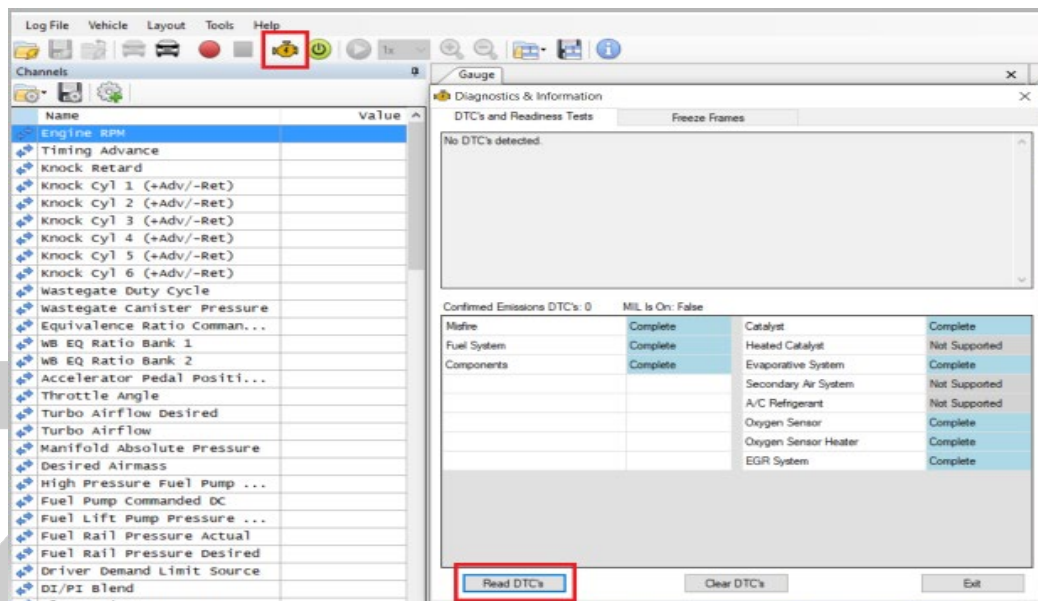


**IMPORTANT:** After data logging and saving your file you must submit the file by clicking on “Tuning Central” from [www.tunedbyzfg.com/hp-tuners](http://www.tunedbyzfg.com/hp-tuners). All data including stock calibrations and data logs must be submitted through tuning central. Submitting this request is what notifies your tuner that a stock file, data log or misc. is ready to be completed. All requests are worked in the order they are received. Please allow 2-5 business days to process your request before contacting ZFG Racing LLC

A screenshot of the 'Data Logs' submission form. The form is titled 'Data Logs' in blue text. It contains several input fields: 'Name \*', 'Order Number \*', 'Email \*', 'Tune Name and Revision Number \*', and a 'Comments' section with a text area. Below the text area is a dashed blue box containing an upload icon (a circle with an upward arrow) and the text: 'Drop your data logs here! Files should be in .hpl format. Hint: you can submit more than one file!'. At the bottom of the form is a blue 'Submit' button.

## Checking DTCs

Throughout the process you may be asked to check for Diagnostic Trouble Codes or DTC's. With the Compatible Tuning Device connected to your vehicle **but not taking a data log**, click the DTC button. A new window will appear, click the Read DTCs button at the bottom and report that information via email or in the comments when you submit your data log.



If one or more DTC's are detected, please be sure to notate them during your data log submission. If you're instructed to clear the DTC codes. Please do so by clicking the "Clear DTC's" button.

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