



MAX ENERGY POWER PROGRAMMER
PART #52001/52501

**REFERENCE GUIDE AND INSTALLATION MANUAL
ADDENDUM**

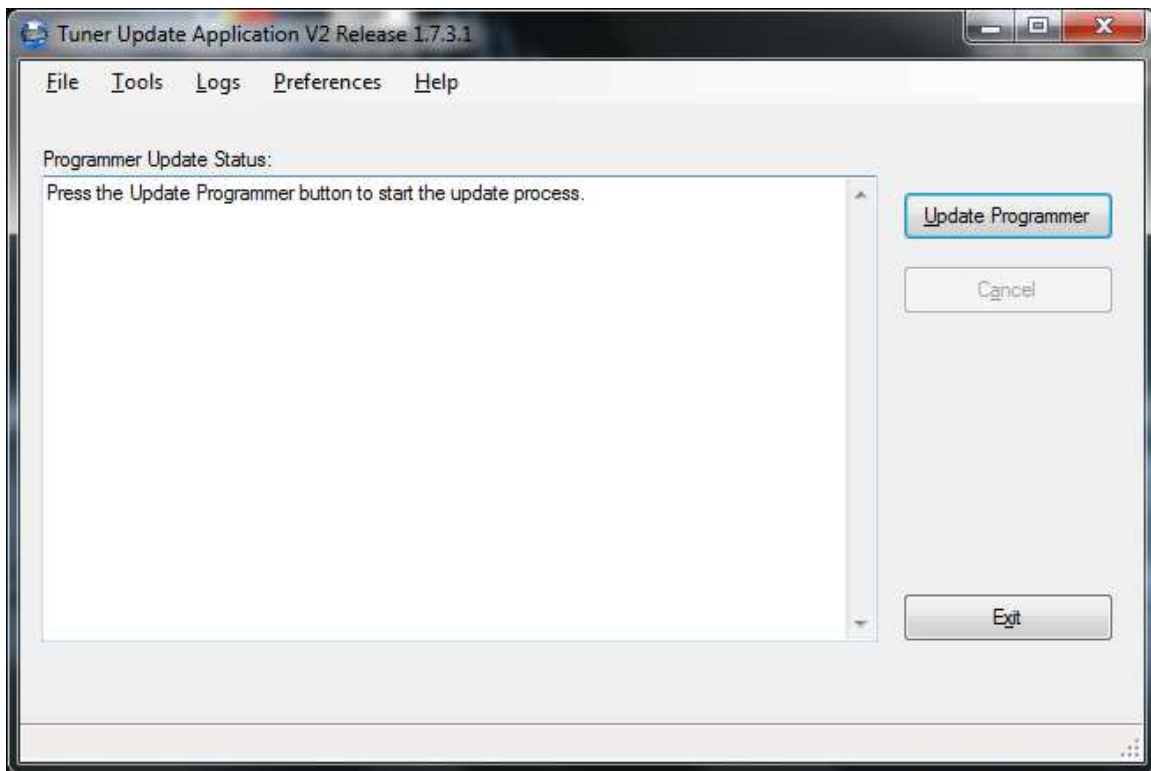
**2007-2010 JEEP WRANGLER WITH
ENHANCED OFF-ROAD FEATURES**

The following is a step by step guide for installing and using the Max Energy Jeep Enhanced Off Road Features.

SECTION 1: UPDATING YOUR PROGRAMMER

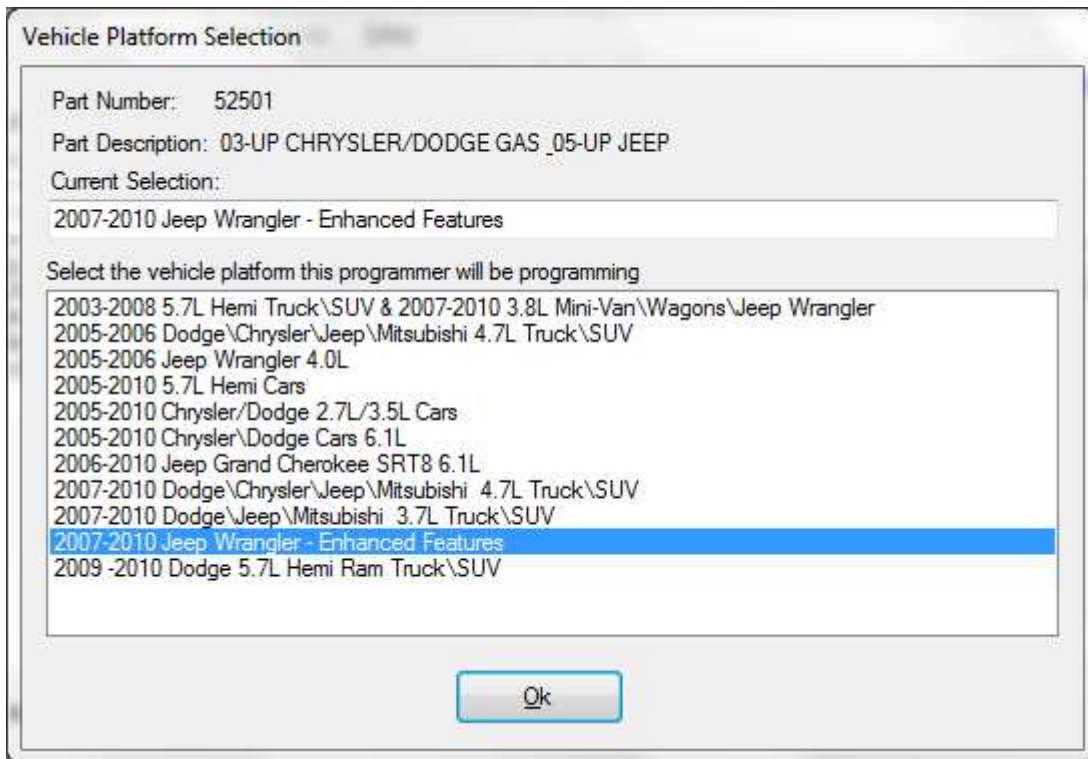
Your programmer will need to be updated to download the Enhanced Off Road Features. To update your programmer, you will first need to install the latest version of the Hypertech Tuner Update Software to your PC. The Tuner Update Software can be downloaded from the Hypertech website. For complete instructions on how to install the Update Software, click on the following link: <http://www.hypertech.com/support-update-software.aspx>.

Once you have installed the Tuner Update Software, click on the shortcut on your desktop, connect the programmer with the included USB cable, and click on the "Update Programmer" button.

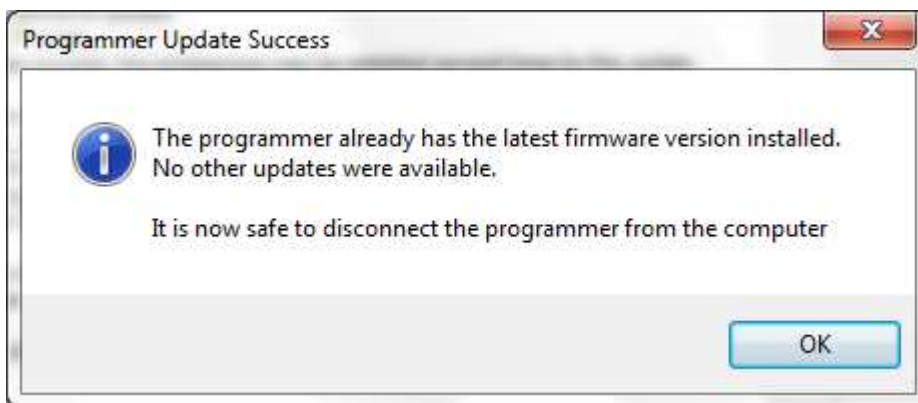


NOTE: The programmer must be returned to stock before it can be updated. For instructions on how to program your vehicle back to stock, see the Max Energy Installation Manual on the CD that came with your programmer, or on the Hypertech website at <http://www.hypertech.com/ProductManuals/maxenergy.pdf>.

After clicking on the "Update Programmer" button, the following screen will appear.



Select the “2007-2010 Jeep Wrangler- Enhanced Features” platform from the list of options, and click “OK”. When the update process is complete, you will see the following screen.



Click “Ok”, and disconnect your programmer. It is now updated for the new features, and ready to use!

PLEASE READ BEFORE USING PROGRAMMER:

The installation process is very easy and should not take long for programming and installation to be accomplished. To avoid problems with installation, observe the following recommendations.

It is very important in the programming process that the vehicle's battery is fully charged and there is no drain on the battery. DO NOT program with a battery charger connected to the vehicle.

Keep all doors closed, eliminating interior lights and alarms. If it's hot outside, please roll down windows BEFORE programming. TURN OFF all electrical accessories (radio, heater/AC blower, wipers, etc.) that will power up when the key is in the "Run" position.

Do not operate any electrical accessories during the programming process. Vehicles equipped with aftermarket electrical equipment, such as stereos and amplifiers MUST have the fuses removed in order to disable those devices PRIOR to and during the programming process.

Unplug all accessories from cigarette lighter or any other auxiliary power port on the vehicle BEFORE programming (cell phone chargers, GPS, etc.)

After inspection of the vehicle and removal of the fuse(s) that operate any Aftermarket accessories, continue with the installation of the programmer.

Once the programmer cable has been connected to the vehicle's diagnostic port and to the programmer, DO NOT remove or disturb the cable during the ENTIRE programming process. Only remove the cable from the diagnostic port when the installation is complete.

DO NOT leave the vehicle unattended during programming. The programmer screen will display instructions for you to follow i.e., turning the key to the On position (but NOT starting the engine), and you will be asked to select certain engine tuning and vehicle adjustment features.

During the installation and programming if an error should occur, an error code and/or message will be displayed on the programmer screen, along with a phone number. Write down the error code or message and contact the Hypertech Tech Support Department on the provided telephone number from 8am - 5pm, Central Time, Monday-Friday. Have the part number and serial number from the programmer, and your vehicle's VIN ready when you call.

Most programming errors are caused by electrical interruptions. Please see the addendum in the Max Energy installation manual with more information for troubleshooting programming problems.

SECTION 2: GETTING STARTED

Set the parking brake and turn the key to the RUN position. DO NOT start the engine.

Connect the small end of the provided cable to the programmer. Plug the other end of the programmer cable into the diagnostic port, located under the driver's side of the dash. Make sure the cable is plugged in completely to ensure a good connection.

DO NOT disturb the cable once it is connected to the diagnostic port.

The programmer will show applications and copyright information and identify the vehicle, and then the main menu will appear.

Navigating: The questions have been replaced with menus, similar to cell phones and other high end electronics. Moving around the menus is simple:

Up – Go to the next item.

Down – Go to the previous item.

Yes – Go to the next level or select the item.

No – Go to the previous level of the menu or exit without selecting the item.

Press the UP or DOWN arrows to select the following menu options.

DTCS: This option accesses the *Diagnostic Mode*.

TUNING: This option accesses the *Programmable Features*.

VEHICLE OPTIONS: This option accesses the *Off Road Quick Commands*.

PREFERENCES: This options accesses the *Programmer Display Options*.

EXIT: This option shuts off the programmer.

SECTION 3: DIAGNOSTIC MODE

The following options are selected from the “**DTCS**” menu option. This option allows you to read and clear any DTC's (Diagnostic Trouble Codes) that may be present in your vehicle's computer.

From the main menu, press the UP or DOWN arrows until “DTCS” appears. Select “Y” to enter this mode.

READ: This option checks the vehicle for any diagnostic trouble codes (DTCs). If no DTCs are found, the programmer will return to the DTCS menu.

If any DTCs are found, they will appear on the bottom of the screen, along with the current, and total number of DTCs on the top.

Press the UP or DOWN arrow to view DTCs. Once all DTCs have been viewed, press Y or N to go back to DTCS menu.

CLEAR: This option clears all DTCs at once. All DTCs must be cleared in order to install the Programmable Features. **Select Y to clear DTCs. Select N to go back to DTCS menu.**

SECTION 4: PROGRAMMABLE FEATURES

The following options are selected from the “**TUNING**” menu option. These options are programmed into the vehicle’s computer, and require the engine to be OFF, and key in the RUN position. (Review programming procedures at the beginning of this instruction guide).

Symbols:

When selecting tuning options, current status is displayed on the right hand side using the following symbols:

- “I” – option currently installed
- “L” – Last option installed before going back-to-stock.
- “S” – option you just selected.
- “HT” – option recommended by Hypertech.

From the main menu, press the UP or DOWN arrow until “TUNING” appears. Select “Y” to enter this mode. Scroll up from this menu and press “Y” to select the following options:

LOAD USER TUNE: The programmer keeps track of up to four user-defined tunes to make switching between special, off-road tunes and regular tunes a little easier. The tunes are created when you program your vehicle (see INSTALL TUNING), but are loaded using this option.

Selecting this option allows you to choose from the tunes you have saved. Once a tune has been selected, you may go directly to “INSTALL TUNING” to program these changes into your vehicle or you may change individual options before installing. **Scroll up or down and press “Y” to select the desired option.**

ENGINE TUNING: This option selects the Hypertech optimized engine tuning, based on what octane fuel you are using. **Scroll up or down and press “Y” to select the desired option.**

- Regular Fuel (87): +8 HP/+15 Ft-Lbs*
 - Premium Fuel (91 or higher): +11 HP/+24 Ft-Lbs*
 - Stock: Factory stock engine tuning*
- Press “Y” to confirm choice.**

TOP SPEED: This option raises or lowers the maximum speed limiter from the factory setting. The number listed in the programmer is the actual speed the vehicle will be limited to. **Scroll up or down and press “Y” to select the desired option.**

- 25- 75 MPH in 5 MPH increments*
 - 81- 255 MPH based on tire speed rating*
- Press “Y” to confirm choice.**

REV LIMIT: This option raises or lowers the maximum engine speed (RPM) from the factory setting. **Scroll up or down and press “Y” to select the desired option.**

- Adjustable +/- 500 RPM in 100 RPM increments. Press “Y” to confirm choice.*

THERMOSTAT: This option adjusts the temperature that the auxiliary cooling fan turns on. This option is used when a cooler than stock thermostat is installed.

Scroll up or down and press “Y” to select the desired option.

Stock: Select if using stock temperature thermostat

180: Select if using a 180° thermostat

195: Select if using a 195° thermostat

Press “Y” to confirm choice.

IDLE RPM: This option allows custom idle speed settings for different situations. Each setting is adjustable from 700-1800 RPM in 50 RPM increments. **Scroll up or down and press “Y” to select idle speed for each option.**

4LO: Scroll up or down to select the desired engine idle RPM while in 4Lo only. **Press “Y” to confirm choice.**

NORMAL: Scroll up or down to select the normal engine idle RPM (2WD/4HI). **Press “Y” to confirm choice.**

WINCH: Automatically adjusts the idle speed when there is a greater draw on the charging system. Reverts back to normal idle RPM when charging system draw is reduced. Scroll up or down to select the desired idle RPM. **Press “Y” to confirm choice.**

THROTTLE BODY: This option corrects DTCs and engine idle problems caused by installing the Viper throttle body. **Scroll up or down and press “Y” to select desired option.**

VIPER: Select if you have installed the Viper throttle body.

STOCK: Select if you have the stock throttle body.

Press “Y” to confirm choice.

THROTTLE RESP: This option allows custom settings for throttle response for different speed ranges. Throttle response will adjust automatically based on the selections for each range. **Scroll up or down and press “Y” to select the range.**

Each range is independently adjustable from -50% to +50%, in 5% increments.

HYPERTECH: Press “Y” to select a Hypertech recommended throttle response settings for each range. **Press “Y” to confirm choice.**

4LO: Scroll up or down to select the % throttle response when 4Lo is engaged. **Press “Y” to confirm choice.**

LO: Scroll up or down to select the % throttle response less than 10 MPH. **Press “Y” to confirm choice.**

MID: Scroll up or down to select the % throttle response from 11-40 MPH. **Press “Y” to confirm choice.**

HIGH: Scroll up or down to select the % throttle response from 41 MPH – up. **Press “Y” to confirm choice.**

TPMS: This option allows adjustment of the minimum tire pressure thresholds for the TPMS (Tire Pressure Monitoring System) warning for Front, Rear, or All Tires. **Scroll up or down and press “Y” to select tires.**

All options adjustable from 2 PSI to 100 PSI

ALL TIRES: Scroll up or down to select the same minimum pressure for all 4 tires. **Press “Y” to confirm choice.**

FRONT TIRES: Scroll up or down to select the minimum pressure for Front tires separately. **Press “Y” to confirm choice.**

REAR TIRES: Scroll up or down to select the minimum pressure for Rear tires separately. **Press “Y” to confirm choice.**

TIRE SIZE: This setting recalibrates the speedometer and odometer, and corrects the shifting on automatic transmission vehicles, when the tire size has been changed from the factory setting.

Adjustable from 22.5" to 44" tires in .25" increments

AXLE RATIO: This setting recalibrates the speedometer and odometer if you have installed different rear end gearing.

Adjustable from 2.82:1, 3.07:1, 3.21:1, 3.42:1, 3.55:1, 3.73:1, 3.92:1, 4.10:1, 4.56:1, 4.88:1, 5.13:1, 5.38:1

INSTALL TUNING: This option starts the programming process. The screen will scroll all the selections that have been made. Watch the selections scroll by on the screen. If all the selections are correct, press 'Y' to start programming the vehicle. If changes need to be made to any of the selection(s), press the 'N' button to go back to the main menu.

Once you have agreed to the options, the programmer asks if you want to save this tune. Press the 'Y' key, and then select to either create a new tune or write over a tune that you had previously saved. New tunes will need to be given an 8-character name using any combination of letters, numbers or spaces. For example, if the options you have selected are for off-road use, you might want to name the tune "OFF ROAD" or "DIRT1 " (note the 3 spaces at the end of DIRT1). The programmer can save up to 4 tunes and can reload them using the **LOAD USER TUNE** menu.

Follow all of the prompts on the programmer screen during the entire programming process for the vehicle. The programmer will prompt you to turn the key to the 'RUN' and 'OFF' position during this process. When turning the key to the 'RUN' position, it is important to make sure that you turn the key to the most forward position possible WITHOUT starting the vehicle.

IMPORTANT NOTE

While the unit is programming, the following is EXTREMELY IMPORTANT:

DO NOT leave the vehicle while programming is in process.

DO NOT unplug or disturb the cable, or turn the key off (unless instructed to by the programmer).

DO NOT START THE VEHICLE AT ANY TIME WHILE THE PROGRAMMER IS CONNECTED!

If the unit stops programming or is interrupted, please make a note of any message(s) that appear on the programmer screen and call the provided tech service line.

IMPORTANT NOTE

On certain applications, the instrument panel message center may light up, and random code information such as **REDUCED ENGINE POWER**, and other warning lights may display. This is a **NORMAL** step during the programming process for certain applications.

IMPORTANT NOTE

CALIBRATION NOT FOUND:

There is a possibility your vehicle has a factory program that is not recognized by the programmer. If this is the case, it cannot continue the programming process. If this happens, your programmer will display “CAL NOT FOUND”, and prompt you to update the tuner. This is perfectly normal, and will require you to update the programmer with the supplied Hypertech tuner update software. The programmer will store the calibration information, and upload it to our server once it is updated. Our engineers will then develop a specific Hypertech tune for that calibration. During the update process, you will be prompted to enter an email address. Once the updated calibration is supported, you will be notified to update your programmer. Then you will be able to use the programmer.

There can be many different factory tuning calibrations for the same year/make/model/engine vehicle. This is a normal part of the programming process, and allows us to gather information on any unknown OE calibrations that may exist, that need to be added to our tuning database.

Once the programming process is complete, the programmer will scroll the message “SUCCESSFULLY PROGRAMMED”. Press Y to end and return to the main menu.

SECTION 5: OFF-ROAD QUICK COMMANDS

Off-Road Quick Commands are non-programmable features that are accessible with the programmer plugged into the diagnostic port, while the vehicle is running. Programmer must be connected for features to work.

From the main menu, scroll up or down until “VEHICLE OPTIONS” appears. Select “Y” to enter this mode. Press the UP arrow from this menu to select the following options:

TPMS CONTROL: This feature allows you to turn the Tire Pressure Monitoring System (TPMS) off and on. For those of you that have non-factory rims, this means no more warning tones on startup and no more TPMS warning light. There is a slight downside – DTC B2204 (ECU Configuration Mismatch) from the Wireless Control Module. It doesn't set the Check Engine Light, but it will be there every time you read the DTCs.

IDLE OVERRIDE: This option allows instant adjustment of the engine idle speed (500 – 2000 RPM, in 50 RPM increments). Scroll up or down to select the desired idle speed. **Press “Y” to activate.**

FAN CTRL: Manually override the engine cooling fan operation. Turn ON or OFF, regardless of engine temperature. Scroll up or down to select option. Press “Y” to activate.

SWAYBAR: (Rubicon Only) This option extends the operation of the electric sway bar disengagement to 4Hi and 2WD modes up to 25 MPH. The Rubicon only allows for this feature in 4LO up to 18MPH. **Scroll up or down and press “Y” to select desired option.**

DISENGAGE: Select this option, then press the “SWAYBAR” button on the vehicle dash. Below 25MPH, the sway bar will be disengaged, above 25MPH, it will re-engage.

LOCKING CTRL: (Rubicon Only) The Rubicon allows the front and rear differentials to lock in 4LO only. Selecting this option locks the differential in all modes. For safety reasons this is limited by vehicle speed. Above 20MPH, the front disengages. Above 30MPH, the rear disengages. When the vehicle speed drops below these thresholds, they re-engage. **Scroll up or down and press “Y” to activate option.**

LOCK: Select this option, then press the locker-button on the dash: once to lock only the rear, twice to lock both front and rear.

TRACTION CTRL: This option eliminates the factory traction control. **Scroll up or down and press “Y” to activate option.**

DISABLE: Turns off traction control. The dash warning lights may stay on until the ignition is cycled again.

ENABLE: Turns on traction control.

SECTION 6: PROGRAMMER DISPLAY OPTIONS

The options under this menu allow you to customize the programmer.

UNITS: Determines whether tuning options such as Thermostat are displayed in English units (Fahrenheit) or Metric units (Celcius).

MENU WRAP: This option controls how the Up and Down Arrow keys work when the end of the menu is reached. For example, if this option is disabled and the programmer is displaying the first menu item, pressing the Up Arrow key again will not have any effect. However, if Menu Wrap is Enabled, then the pressing the Up Arrow key will take you down to the last menu item.

USER TUNES: This allows you to rename or remove tunes that you had previously saved.