

International
Software ONLY!

MINI MAXX

STREET TUNER



INSTALLATION/OPERATION MANUAL

FORD | GM | DODGE



Rev. 10.17.13

Revision Date

These instructions are current as of 10/17/13. Revisions may apply, and are available at www.hsperformance.com

WARNING!

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DISCLAIMER OF LIABILITY

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INTERNET UPDATES:

H&S Performance regularly issues free internet updates and custom tunes for the Mini Maxx. Please check to see if there are any available for your truck by going to the updates section at: www.hsperformance.com

TROUBLESHOOTING:

Please read and understand all installation instructions before proceeding with the installation. If you have questions during the installation of this product, please call H&S Performance support at 1-888-628-1730

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-This warranty is null and void after 90 days for an unregistered product.

www.hsperformance.com/product-registration/

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www.hsperformance.com/unauthorized-dealers/

-This warranty is null and void for any products sold as USED or REFURBISHED.

-This warranty is null and void for any products purchased below the H&S UNILATERAL PRICING POLICY

www.hsperformance.com/pricing-policies/

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If the buyer does not agree to the terms of this limited warranty or the disclaimer of liability, the buyer may return this product to the SELLER in a new and unused condition, along with dated proof of purchase, within 30 days of purchase, for a full refund.

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To register your product online, visit www.hsperformance.com/register or scan the QR code.

Benefits to registering your product include:

- Guarantee full warranty coverage.
- Get entered into drawings for free H&S products and prizes.
- Get notified of software updates and upcoming features.



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BILL OF MATERIALS

The list below includes by name the major parts included in your Mini Maxx package.

1. Mini Maxx
 - Micro SD Card (in Mini Maxx)
2. Mini Maxx Power Cable
3. OBD II Adapter
4. Windshield Mount
5. Mini USB Cable
6. HDMI Cable
7. USB Adapter

1.



2.



3.



4.



5.



6.



7.



PARTS DESCRIPTION

This section describes each of the parts in the Bill of Materials, the descriptions provide a physical set of attributes and a purpose for each part. The parts descriptions also list everything that is included in each assembly.

The Mini Maxx Head Unit

The main component is the Mini Maxx Head Unit. The Head Unit is the interface in which you control vehicle performance parameters. It is also the brains that will save vehicle activity and defuel a vehicle. Notice that the head unit has seven total buttons, five on the left side and two on the right, a large color screen, and an electronic plug for docking on the back. Note that this is the last piece that you will install.



Note: Mini Maxx includes a micro SD card inserted in the side of the Head Unit.

Power Cable

The Power cable connects the OBD II Adaptor Plug to the vehicle fuse box to supply power to the Mini Maxx. It is optional to use as there are two ways to power up your Mini Maxx



1. (Recommended) Use this power cable and wire it to the designated location specified later in this manual.
2. The OBD II port provides constant 12V+ power, so your Mini Maxx can power off of the OBD II port alone. But in this situation the Mini Maxx will not turn on and off with the ignition. There is a switch on the OBD II adapter plug in order to turn the Mini Maxx on and off.

OBD II Adapter Plug

The OBD II Adapter is a communication hub for the Mini Maxx. The OBD II Adaptor plugs directly into the vehicle OBD II port. Notice the OBD II Adaptor has many ports to support various other functions of the Mini Maxx.



Universal Windshield Mount

This universal windshield mount is used to install the Mini Maxx firmly onto the windshield, it is a suction cup mount that will work on any vehicle windshield. Check our web site for other mounting options, the Mini Maxx is adaptable to a range of other mounting styles.



H&S Also offers custom vehicle specific solutions. See www.hsperformance.com for details.

Mini USB Cable

Use this cable to connect your Mini Maxx to your personal computer to install software updates. Visit www.hsperformance.com in the downloads section for product updates. Please find your product application and follow the posted instructions there to update your Mini Maxx.



HDMI Cable

The HDMI Cable connects the Mini Maxx to the OBD II Adapter Plug and acts as the main line of communication for the Mini Maxx.



USB to Micro SD Adapter

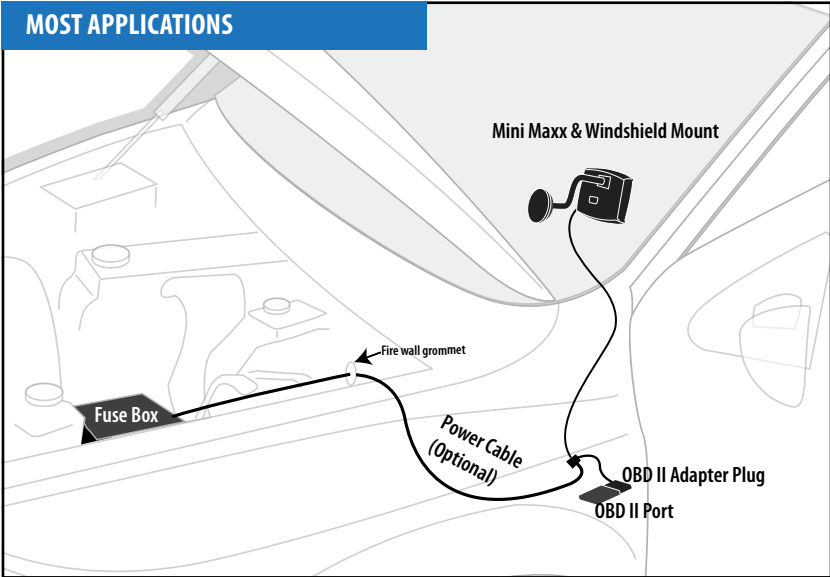
The USB to Micro SD Adapter is what you will use to update your Mini Maxx. You will take the Micro SD card out of the Mini Maxx and insert it into the adapter, then insert the adapter into your personal computer.



INSTALLATION OVERVIEW

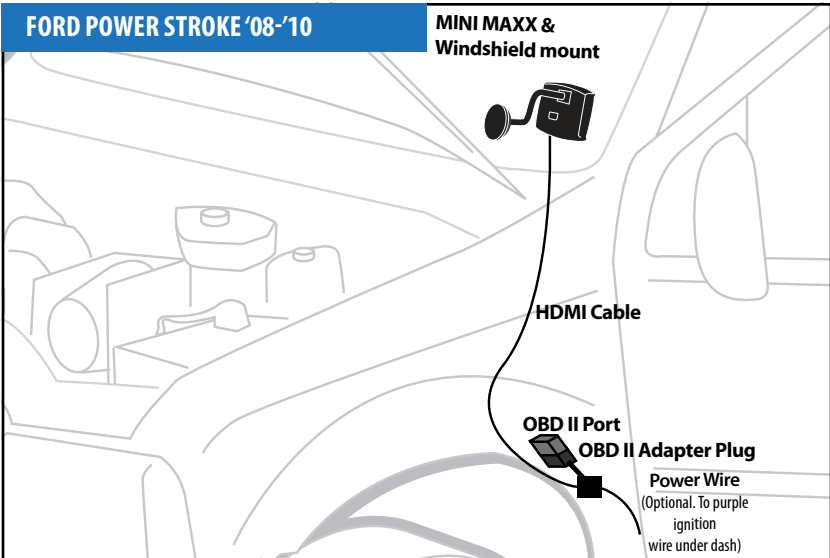
The installation overview illustrates a totally installed and functional Mini Maxx system. This overview is meant to help reference the general location of installed parts and pieces of the Mini Maxx. Notice that there are different overview diagrams. Use the correct diagram for your truck. For more complete wiring diagrams and instructions, please see vehicle specific features starting on page 27.

MOST APPLICATIONS



FORD POWER STROKE '08-'10

MINI MAXX & Windshield mount



MINI MAXX INSTALLATION INSTRUCTIONS

SECTION 1: MOUNTING THE MINI MAXX

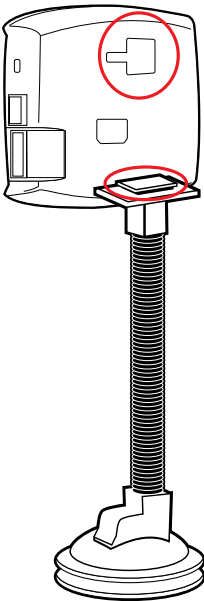
In this section you will decide where to mount the Mini Maxx Cradle, so you are essentially choosing the location for the Mini Maxx inside the vehicle cab. First, decide which mounting style you will choose for the Mini Maxx; we offer two different styles of mounting:

1. Windshield mounting
2. Custom Pod mounting (Refer to the instructions included with your custom pod)

Visit www.hsperformance.com for custom options

WINDSHIELD MOUNTING

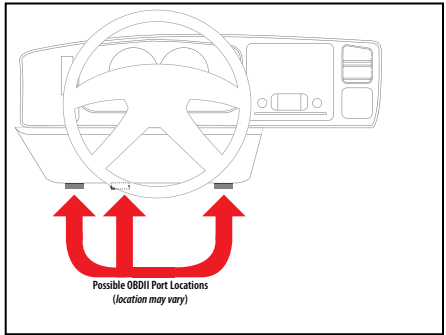
1. Locate the T-shaped mount socket on the back side of the Mini Maxx.
2. Notice that the top of the universal mount will fit into T-shaped socket and slide forward to secure the Mini Maxx to the mount.
3. With the Mini Maxx connected to the mount use the windshield mount to secure the Mini Maxx to the wind- shield. Be sure that the position of the Mini Maxx does not obstruct the view of the road or distract the driver from their primary responsibility, which is driving responsible.



SECTION 2: OBD II ADAPTER PLUG

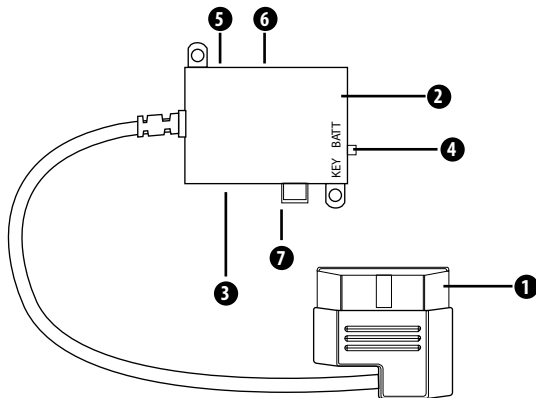
This step involves locating the vehicle's OBD II port and then simply plugging the OBD II Adapter Plug into the OBD II port.

1. As the illustration below shows, OBD II ports are always located somewhere under the drivers side dash. The OBD II port is a male receiver that will have the same shape as the end of the OBD II Adaptor plug.
2. Once the OBD II port is located, then simply plug the OBD II Adaptor plug into the OBD II port.



OBD II ADAPTER PLUG DIAGRAM

1. **OBD II Male end:** this is the part of the adapter plug that plugs into the vehicle OBD II port.
2. **Main harness port:** the main harness will plug into the Mini Maxx and into this port during installation.
3. **Power wire port:** the power wire will run from this port to the vehicle fuse box during installation. Plug into the Mini Maxx and into this port during installation.
4. **Power supply switch:** use this switch to change power from battery power to keyed power for a powered supply for the Mini Maxx.
5. **Four pin usb:** This port is used if an H&S pyrometer kit is purchased for the Mini Maxx.
6. **Five pin usb**
7. **Adapter plug fuse**



Note: On some vehicles it is recommended to move the OBD II port to a safer location. Because the Mini Maxx will remain plugged in, the adapter can be kicked/bumped and broken. Please move your OBD II connection to a safer location if you feel it is in a position that may allow it to get damaged.

SECTION 3: INSTALLING THE POWER WIRE (*OPTIONAL)

*The OBD II port provides constant 12V+ power, so your Mini Maxx can power off of the OBD II port alone. But in this situation the Mini Maxx will not turn on and off with the ignition. There is a switch on the OBD II adapter plug in order to turn the Mini Maxx on and off.

In this section you will run the Power Wire coming from the Mini Maxx Cradle to the vehicle fuse box and connect it to the fuse locations specified below. The fuse location for the Power Wire is different on each vehicle application.

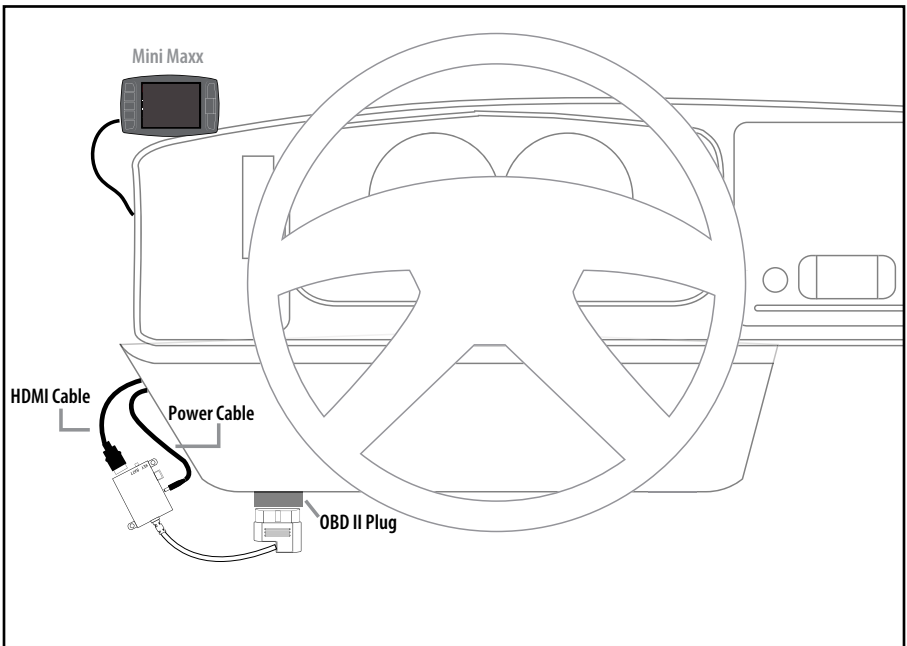
CONNECTING THE POWER WIRE:

1. Route wire to location shown in pictures found in the [Vehicle Specific Sections starting on page 27](#)
2. Remove the fuse, indicated in the pictures, and insert the fuse jack. Make sure that the fuse jack is placed on the dead side of the fuse to ensure that the Mini Maxx is protected by the fuse. Use a volt meter to verify the dead side of the fuse. With the fuse pulled and the truck powered on but not started, the volt meter should read 0 volts on the fuse jack to ground. Problems that can occur if the incorrect fuse is used for this connection: the power may stay on continuously even with the key off; or, the Mini Maxx can receive power at the incorrect time of the power-on/starting cycle of the vehicle.
3. Run the power wire through the fire wall before preparing the Power Wire. Prepare the Power Wire by stripping the end of the wire about ¼". Connect the blue 90° connector to the end of the Power Wire using crimping pliers.
4. Connect the Power Wire to the fuse jack, place the fuse back into the slot, and close the fuse box.

SECTION 4: RUN MINI MAXX HDMI CABLE

In this section you will connect the Mini Maxx HDMI cable to the OBD II Adaptor plug and then run the other end of the HDMI cable up the side of the vehicle dash and connect it to the back of the Mini Maxx.

1. Plug one end of the HDMI cable into the Main Harness port on the OBD II adaptor plug.
2. Run the other end of the HDMI cable up through the vehicle dash on the drivers side so that the end of the cable emerges from the dash near the vehicle A-pillar. It may be necessary to temporarily remove the vehicle weather stripping and dash panel to achieve an installation where the HDMI cable cannot be seen.
3. Plug the HDMI cable into the back side of the Mini Maxx, make sure that there is enough slack in the cable to accommodate mounting the Mini Maxx to the windshield.



Almost Done!

You need to install the download now. Read the next section for Install Download procedure.

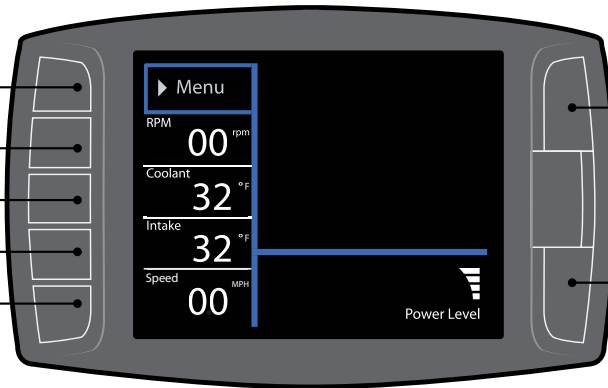
MINI MAXX OPERATING INSTRUCTIONS

These operating instructions are split into sections:

- **SECTION 1:** Button Navigation
- **SECTION 2:** Install Download
- **SECTION 3:** Exploring the Main Screen
- **SECTION 4:** Exploring the Menu System
- **SECTION 5:** Vehicle Setup
- **SECTION 6:** Other Mini Maxx Features
- **SECTION 7:** Vehicle Specific Features
- **SECTION 8:** Unplugging the Head Unit

SECTION 1: BUTTON NAVIGATION

Press the top left button to enter the Main Menu, also use this button to exit menus.



Press any of the four buttons on the left to select items on the screen that are adjacent to the button position.

In general these buttons work as up and down buttons, they may also be used to select items on the screen adjacent to these buttons.

SECTION 2: INSTALL DOWNLOAD

The Install Download option is used to install tuning onto a vehicle, or return a vehicle to stock.

1. **Press Menu:** To get into the Mini Maxx main menu.

2. **Select Install Download:** You may have to "Arrow Down" or "Arrow Up" to find this option.

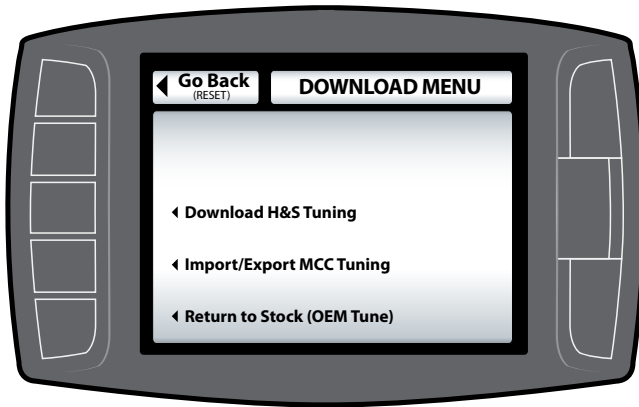
3. **Install a download onto a stock vehicle:** If the vehicle is stock and you enter the install download menu, simply follow the screen prompts to install a download on the vehicle. This is the point in which you may come across the tire size calibration menu, and the vehicle speed limiter menu

Download H&S Tuning: This option will install the H&S Performance tuning to your truck. Custom tuning options can be downloaded from H&S or may be available as options during the installation process.

Import/Export MCC Tuning: This option will allow import or export of MCC software tuning files. Some vehicle may not have this option. See www.hsperformance.com/mcc for more info.

Return to stock (OEM tune): This option will return the vehicle to its factory software level and unlock the H&S device. This is highly recommended if taking the vehicle in for service or maintenance..

NOTE: Returning to stock is required in order to install your tuner on another vehicle.



This Mini Maxx screen shot shows what you will see if a download has already been entered into a vehicle.

Before installing the download:

- Make sure that the Mini Maxx is properly plugged in.
- Make sure that the harness is properly installed.
- The vehicle battery is fully charged.
- The vehicle is warmed up to operating temperature.

THE MICRO SD CARD MUST BE INSERTED IN THE SIDE OF THE MINI MAXX TO DOWNLOAD TO A VEHICLE.

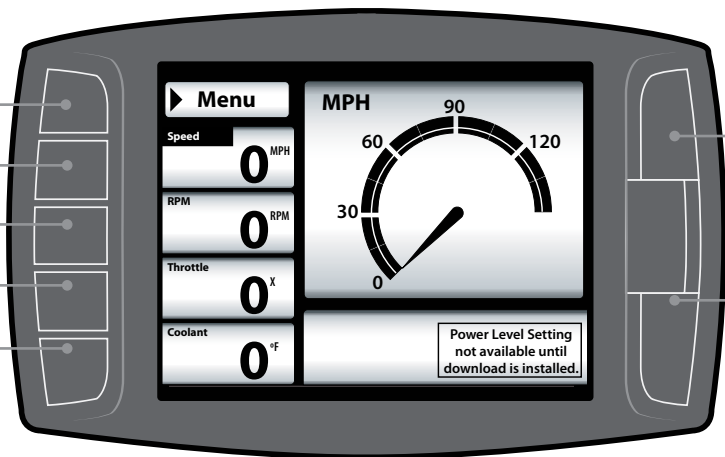
SECTION 3: EXPLORING THE MAIN SCREEN

The Main Screen is where you view all of the vehicle activity. In this section you will learn how to navigate the Main Screen and learn about all of the different parts of the Main Screen.

MAIN SCREEN NAVIGATION

Below are descriptions of how all of the Mini Maxx buttons work and what they do while in the Main Screen. The buttons perform different functions while in a menu or submenu.

Press the top left button to enter the Main Menu, also use this button to exit menus.



Press any of the four buttons on the left that coincide with the four vehicle parameters to display that particular vehicle parameter on the large gauge in the upper right side of the screen. Hold a button down to view the different graph types for the large gauge.

Power Level Up
Power Level Down
Use the power level buttons to control power levels on-the-fly only while in the main screen

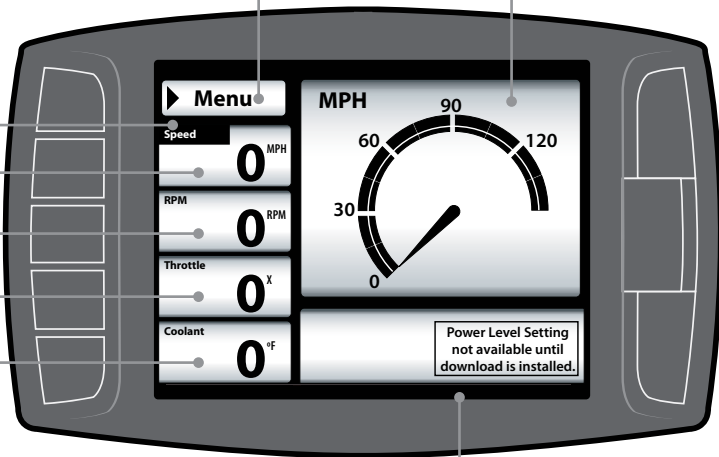
MAIN SCREEN PARTS DESCRIPTION

This section will describe all of the different parts of the Main Screen.

The black bar: The black bar highlights the title of one of the four displayed vehicle parameters to indicate that vehicle parameter is also being displayed on the large gauge.

Menu button: press to enter the main menu.

Large Gauge



Vehicle parameters: To change which vehicle parameter is displayed in the large gauge area simply press one of the four buttons next the preferred vehicle parameter.

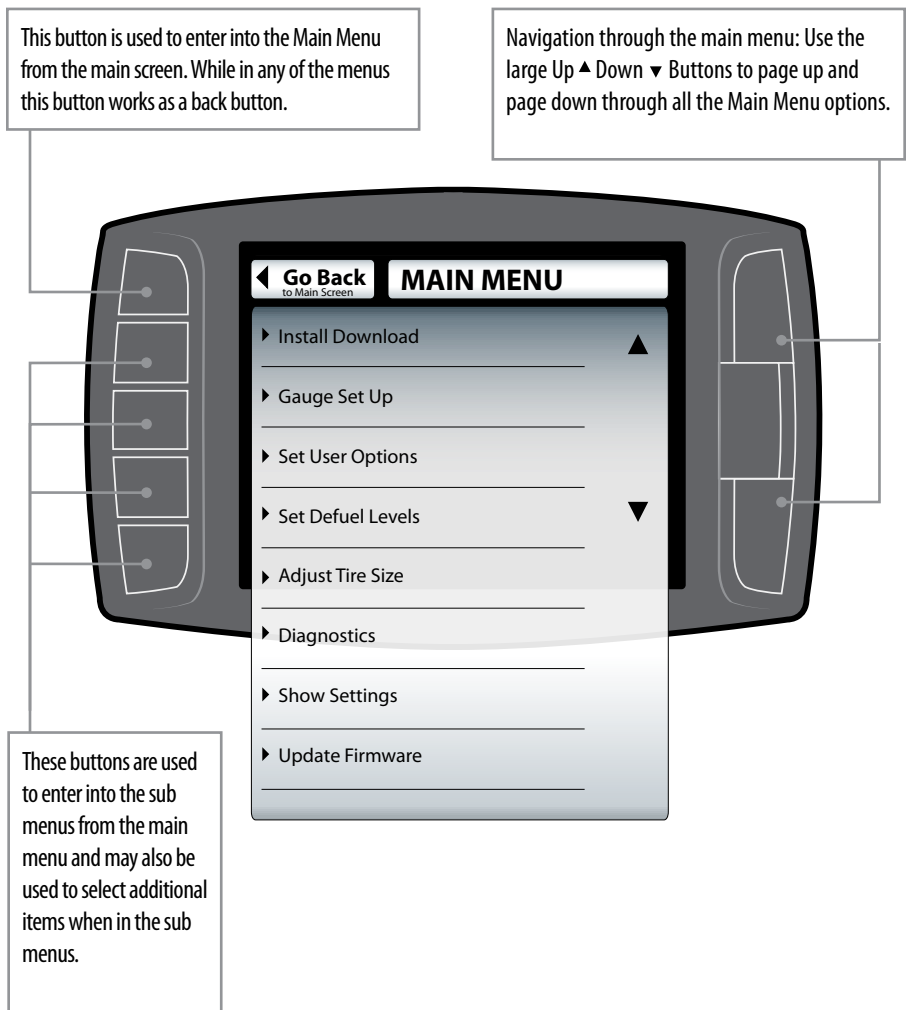
By pressing and holding the button next to your displayed gauge, you can change the display style in the large gauge area.

Power level text: Displays which power level is active, whether it be: Stock, Tow, Street, or Hot.

Note: This will not be active if the Download has not been installed.

SECTION 4: EXPLORING THE MENU SYSTEM

The diagram below shows all of the Main Menu items and explains the Main Menu navigation.

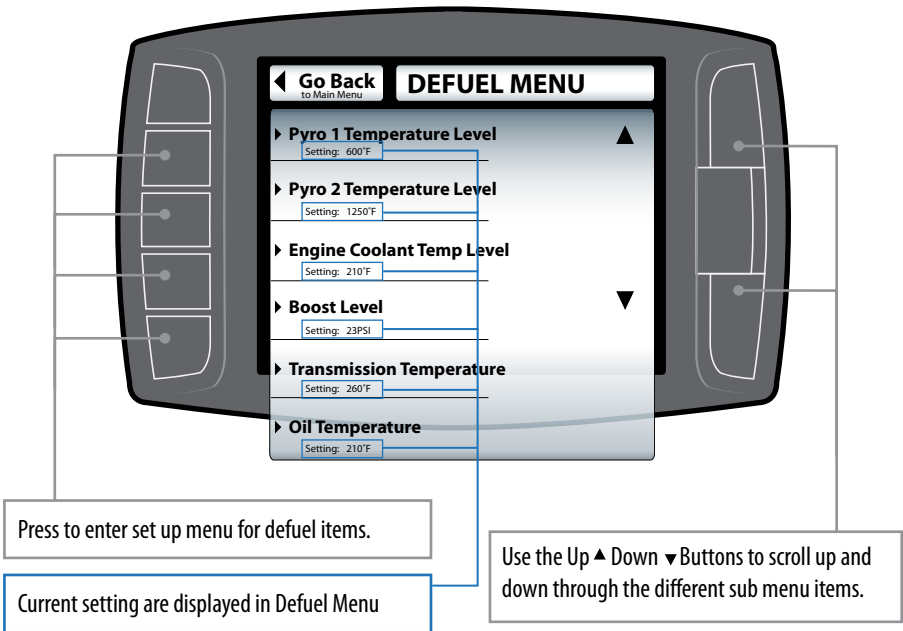


SECTION 5: VEHICLE SETUP

This section describes various non-vehicle specific features of the Mini Maxx

DEFUELING PARAMETERS

Set up defueling parameters based on a number of different vehicle parameters. In this menu you can also turn vehicle parameters off. The defueling parameters available are vehicle specific, so not all defueling parameters are available for every make and model.

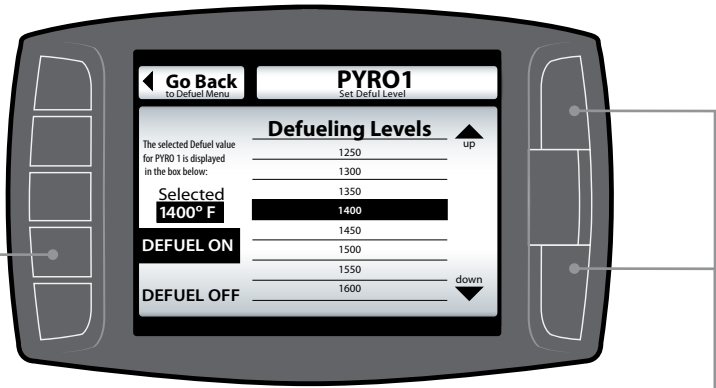


Default Defueling Settings	
Pyro 1 Temperature Level	1450°F
Pyro 2 Temperature Level	OFF
Engine Coolant Temp Hot	210°F
Engine Coolant Temp Cold (cold start protection)	OFF
Boost Level	OFF
Transmission Temp Level	OFF
Oil Temperature	OFF

Here is a list of all of the defueling capabilities for the Mini Maxx. All defueling options can be activated at the same time, all can be turned off, or a mix of on and off. Each defueling option is adjusted individually to be on or off and set to a particular defueling temperature.

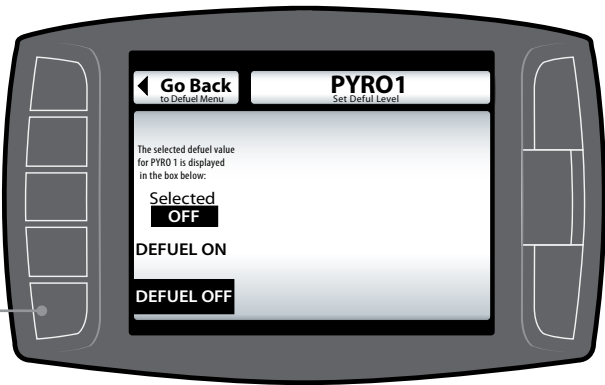
SET DEFUEL LEVELS

When entering a setup menu for any of the defuel options the menu will have a list of defuel levels to select from based on that specific defuel parameter. The selected value is displayed on the left, to select a defuel level you need only highlight the amount and then exit the setup menu. To turn any particular defuel parameter off press the bottom left button.



Use this button to turn the defueling on.

Use the large Up ▲ Down ▼ Buttons to scroll up and down through the different sub menu items.



Use this button to turn the defueling off.

SECTION 6: OTHER MINI MAXX FEATURES

This section describes all the customizing features of the Mini Maxx.

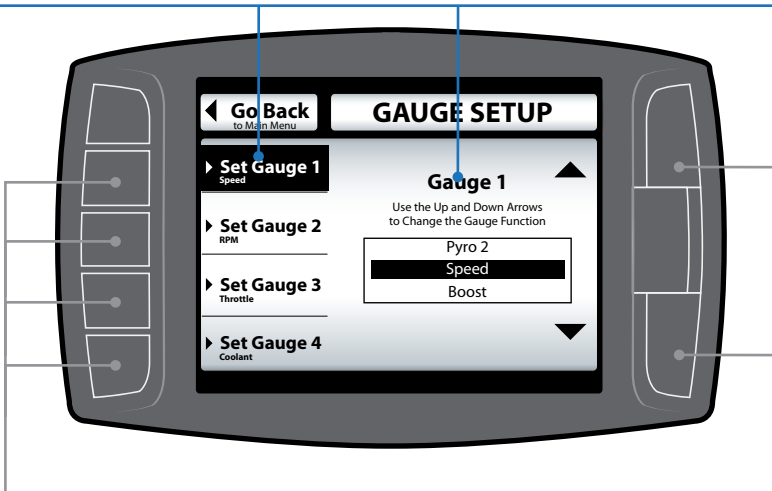
GAUGE SETUP

Enter to change the vehicle parameters displayed on the four gauge locations in the Main Screen. This is also where you can see all of the most up-to-date vehicle parameters available to your vehicle make and model after running an internet upgrade.

Selecting a vehicle parameter to display in a particular location is done by highlighting the gauge location and then highlighting the desired vehicle parameter.

Once the correct vehicle parameter for a gauge location has been highlighted, you do not need to press another button to select that vehicle parameter. Simply highlighting the vehicle parameter makes it active in that location.

Notice that upon entering the gauge setup menu that, Set Gauge 1, is highlighted in black. When a gauge location is selected it is highlighted in black on the left and it also appears above the vehicle parameter selection box.

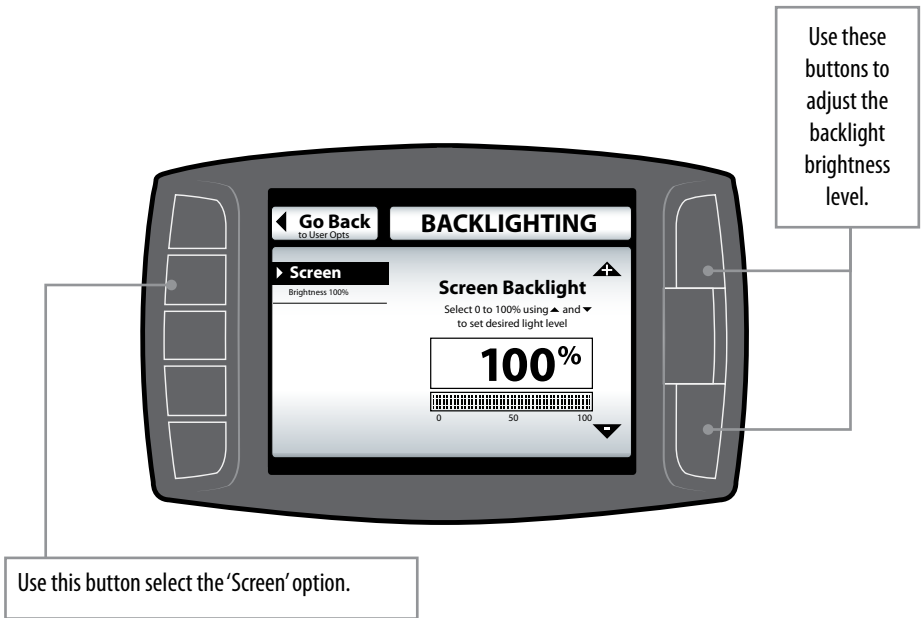


To highlight a different gauge location press the selection button that coincides with that gauge location. So to select gauge location 1, press the second button down on the left hand side of the Mini Maxx. To select the 4th gauge location press the bottom button or the 5th button down on the left side.

Use the large Up ▲ Down ▼ Buttons to highlight a particular vehicle parameter for any of the gauge locations.

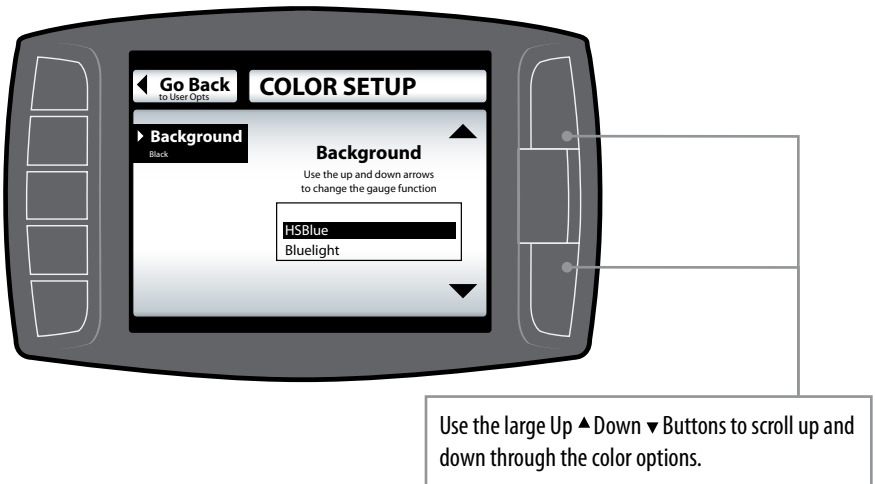
ADJUST BACKLIGHT

Highlight screen and use the up and down buttons to adjust the lighting to your preference.



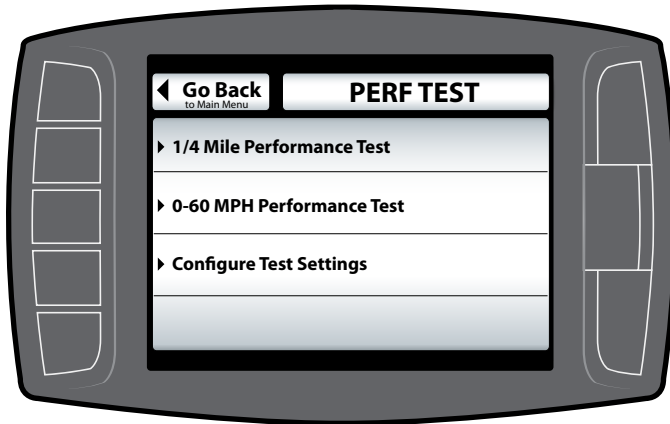
CHANGE BACKGROUND COLOR

Use the up and down buttons to select a background color. The Mini Maxx background will preview each color background as you scroll up and down through the color options. When the preferred color is highlighted, exit the menu to select the color.



PERFORMANCE TESTING

This sub menu allows you to run 1/4 mile and 0-60 MPH performance testing on your vehicle. You must accept the on screen disclaimer before entering the Performance Testing menu.



- **1/4 MILE PERFORMANCE TEST**

When selecting **Start Test** make sure that you are completely stopped. The testing will begin when vehicle reads speed. The testing will automatically stop when you have reached 1/4 mile. Test results and fastest times will be stored and viewable at any time.

- **0-60 MPH PERFORMANCE TEST**

When selecting **Start Test** make sure that you are completely stopped. The testing will begin when vehicle reads speed. The testing will automatically stop when you have reached 60 MPH. Test results will appear on screen.

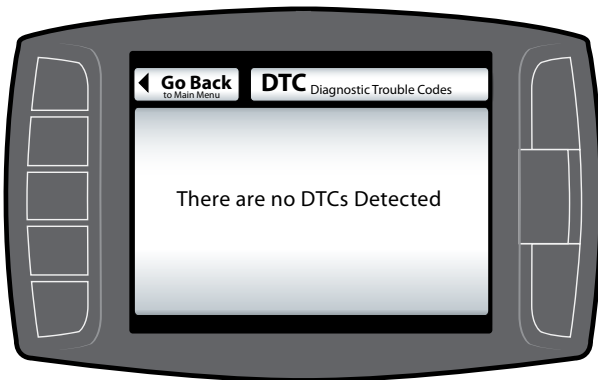
NOTE: *If running aftermarket tires or gearing, your speedometer must be calibrated correctly for performance testing to yield accurate results.*

DIAGNOSTICS

This function allows you to check vehicle diagnostics codes. Some models you will have an option to check Engine or Transmission diagnostics. Please select the desired module. Upon entering this menu, the Mini Maxx will automatically begin to check the vehicle for DTCs and it will then display those DTCs on the Mini Maxx screen. Once it displays the DTCs value and description on the screen it will allow you to erase the DTCs from the vehicle.



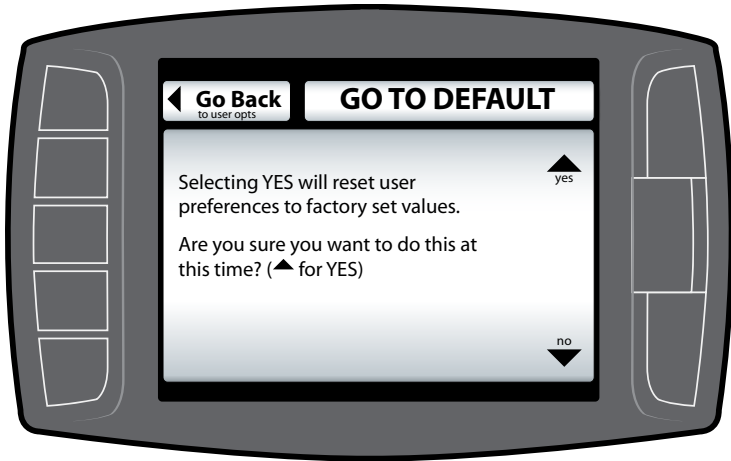
If no DTCs are displayed you can simply press the Go Back button to return to the main menu. For a complete list of DTC descriptions, please visit the Tech section of our website www.hsperformance.com



THE MICRO SD CARD MUST BE INSERTED IN THE SIDE OF THE MINI MAXX TO READ AND ERASE DTCs

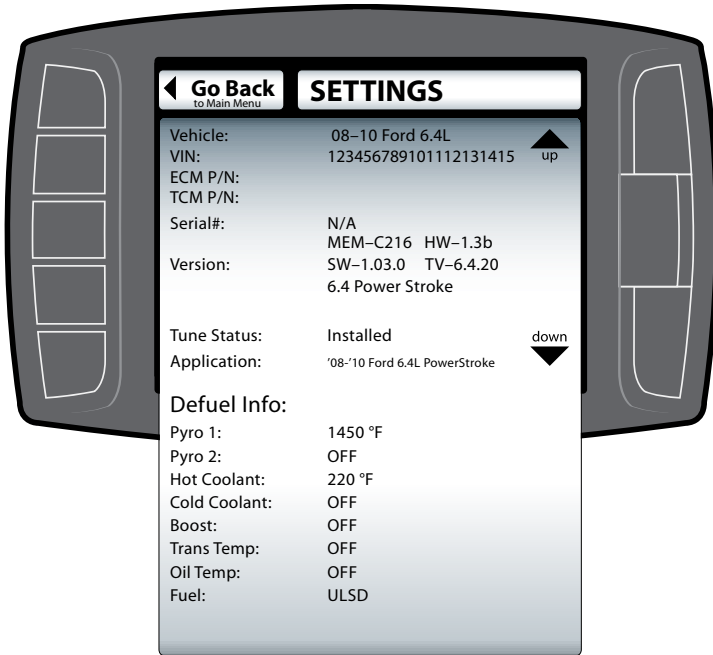
RESET TO DEFAULT SETTING

To reset the Mini Maxx to H&S Performance factory settings press the up button to select yes, to keep current settings back out of this menu by pressing the go back button or by pressing the down button to select no.



SHOW SETTINGS

The Show Settings Menu will allow you to see vehicle information and also defuel settings. See the diagram below to see everything that is listed in this menu. On Cummins and Powerstroke trucks, the Part# and Transmission# will be needed for updating the Mini Maxx.



T.V.

This number is the Tuning Version. It will change as H&S updates the tuner software. To see the latest tuner version on your Mini Maxx go to "Show Settings" and scroll down.

MICRO SD CARD

The Micro SD card should only be taken out of the Mini Maxx to perform internet upgrades. It is the primary means of performing internet upgrades for the Mini Maxx.

In case a Micro SD Card is lost or broken, a new Micro SD Card can be purchased from H&S Performance.

WEB UPDATES

Remove the Micro SD from your Mini Maxx. Connect your Micro SD to your personal computer with the included Micro SD to USB adapter to install software updates. Visit www.hsperformance.com in the downloads section for product updates. Please find your product application and follow the posted instructions there to update your Mini Maxx.

SECTION 7: VEHICLE SPECIFIC FEATURES

2006 - 2007 5.9L DODGE CUMMINS ULSD CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The current Power Level will be saved even if the Mini Maxx is unplugged.

NOTE: *The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.*

POWER LEVELS

Stock.....	0 HP
Tow.....	60 HP
Street.....	120 HP
Performance...	200 HP

Low Boost Fueling

This option allows for adjustment of the amount of fuel injected under low boost conditions. There are 5 different settings for Low Boost Fueling:

0 - Lowest Fueling

1 - Low Fueling

2 - Medium Fueling (Default)

3 - Moderate Fueling

4 - High Fueling

NOTE: *The low boost fueling adjustment will affect ALL power levels. This option can only be adjusted during the Install Download process.*

Injection Timing

This option allows for the adjustment of the maximum allowed injection timing. There are 5 different settings for the Injection Timing:

0 - 18 degrees

1 - 24 degrees

2 - 26 degrees (Default)

3 - 28 degrees

4 - 32 degrees

NOTE: *The injection timing adjustment will affect ALL power levels. This option can only be adjusted during the Install Download process.*

Speed Limiter

This option allows for the adjustment of the factory speed limiter. Most 5.9L Cummins trucks have a 106 MPH speed limiter from the factory. The limiter can be adjusted from 50 MPH to 200 MPH. This option can only be adjusted during the Install Download process.

Rev Limiter

This option allows for the adjustment of the factory rev limiter. Most 5.9L Cummins trucks have a 3500 RPM rev limiter from the factory. The limiter can be adjusted from 3000 RPM to 5000 RPM. This option can only be adjusted during the Install Download process.

Torque Management (Automatic Transmission Only)

This option allows for the disabling of the vehicles torque management for those equipped with automatic transmissions. This is recommend for those running standalone aftermarket TCM/transmission packages but will also slightly improve throttle response on a stock truck.

NOTE: By turning the torque management OFF, the PRNDL display will be lost as well as the reverse lights.

Tire Size Calibration

This option allows for the re-calibration of the factory speedometer to adjust for non-stock sized tires. For the most accurate speedometer reading when using non-stock sized tires, it is best to measure the diameter of the tire using a tape measure rather than going by the printed tire size. In addition, using a GPS is a great way to dial in your factory speedometer. Entering a larger tire size will cause the factory speedometer to read higher while entering a smaller tire size will cause the factory speedometer to read lower. The tire size can be adjusted from 24" to 42". This option only takes a few seconds to change and can be adjusted at any time from the Tire Size Calibration menu.

Keyed Ignition Source Location

Although it is possible to manually power up the Mini Maxx without using a keyed ignition source, it can sometimes create communication issues between the Mini Maxx and the vehicles ECM. To eliminate these problems, we highly recommend tapping into a 12V keyed ignition source to supply power to the Mini Maxx only when the key is in the ON position and the vehicles ECM is online. Below you will find a commonly used 12V keyed ignition source for your vehicle:



2006-2007 5.9L - FUSE NUMBER 30

Always tap into the **cold** side of the fuse. On the 2006 - 2007 5.9L Cummins, the **cold** side is towards the drivers side of the vehicle.

NOTE: If your fuse box or wiring looks different than those pictured or if you are not getting 12V ignition power from the pictured source, you may need to find another 12V keyed ignition source using a test

light or multimeter. If possible, find one that stays **hot** during engine cranking.

Overdrive Transmission Software

Did you know that your H&S tuning device also has the capability of tuning your transmission? If your 5.9L Cummins is equipped with the 48RFE automatic transmission, you may want to check out our Overdrive Transmission Software. Custom tailored to mate with H&S engine tuning, the 5.9L Overdrive software includes modified torque converter lock/unlock strategies that will command the TC to lock in 3rd gear under wide open throttle and hold it locked through 4th gear. Light throttle torque converter strategies have also been changed to lock-up sooner, keeping more power directed to the road instead of wasted in heat and friction. Shift points are modified to take advantage of the available horsepower and torque output. On a 2006 Cummins with a stock 48RFE, we have seen 0.2 to 0.3 second quicker 1/4 mile times JUST from the addition of the H&S Overdrive tuning! An additional unlock fee may apply, see www.hsperformance.com for details.

Maxx Calibration Control

Maxx Calibration Control (MCC) is an advanced engine management software tool that enables custom tune editing with your H&S tuning device. With the power to control all aspects of engine and transmission management, MCC gives YOU the ability to control how YOUR engine operates! When you have exceeded the limits of conventional tuning and want to unleash the power of a custom tune, look no further than MAXX CALIBRATION CONTROL.

NOTE: Applications may vary by vehicle make and model, please check our website to see if MCC is available for your vehicle at www.hsperformance.com/mcc

Unplugging Head Unit

If you unplug your head unit your truck will remain at the last known power level you had it set to.

2007 - 2009 6.7L DODGE CUMMINS ULSD CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The unit cannot be unplugged otherwise the Power Level will default to Stock.

NOTE: *The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hperformance.com/update-instructions.*

POWER LEVELS

Stock.....	0 HP
Tow.....	40 HP
Street.....	80 HP
Performance....	120 HP

Speed Limiter

This option allows for the adjustment of the factory speed limiter. Most 6.7L Cummins trucks have a 106 MPH speed limiter from the factory. The limiter can be adjusted from 20 MPH to 200 MPH. This option can only be adjusted during the Install Download process.

Tire Size Calibration

This option allows for the re-calibration of the factory speedometer to adjust for non-stock sized tires. For the most accurate speedometer reading when using non-stock sized tires, it is best to measure the diameter of the tire using a tape measure rather than going by the printed tire size. In addition, using a GPS is a great way to dial in your factory speedometer. Entering a larger tire size will cause the factory speedometer to read higher while entering a smaller tire size will cause the factory speedometer to read lower. The tire size can be adjusted from 25.5" to 45". This option only takes a few seconds to change and can be adjusted at any time from the Tire Pressure Calibration menu.

Special Functions / Features

Your H&S tuning device has the capability of Enabling / Disabling factory vehicle features. These features can be found in the Special Functions Menu. Below is a short description of each feature:

TPMS: Enable / Disable the Tire Pressure Monitoring System.

Optical Chirp on Lock: Enable / Disable the parking lights flashing when locking the vehicle.

Horn Chirp on Lock: Enable / Disable the horn chirp when locking the vehicle.

Set Head Lamp Delay: Enable / Disable the head lamp delay.

Accessory Delay: Enable / Disable the shut-off delay of your radio and accessory system after the key has been turned off.

Fog Lights W/High: Enable / Disable the fog lights staying on when high beams are being used.

Daytime Lights: Enable / Disable the daytime running lights.

Seat Belt Minder: Enable / Disable the chime for the drivers seat belt system. This feature will not dis-

able the seat belt light.

Auto Door Lock: Enable / Disable the automatic door locking when the vehicle reaches certain speeds.

Unlock Driver Door: Enable / Disable unlocking only the driver door when pushing the unlock button the key-fob. When enabled, the unlock button on the key fob will need to be pressed twice in order to unlock all doors.

Idle Up (Auto Only): Enable / Disable the use of the cruise control buttons to control idle RPM. Follow your vehicle owners manual to use this feature

NOTE: *If any special feature is already listed as Enabled but is not functioning correctly, you may need to disable the feature, cycle the key, and re-enable the feature to make it function properly. If it still does not work, your vehicle may not be equipped with the hardware required for the special feature. The previous selection will NOT be saved. If the Special Functions/Features Menu is exited and returned into, it will not display your previous selection. This is normal and the Enable/Disable function is still working properly.*

Keyed Ignition Source Location

Although it is possible to manually power up the Mini Maxx without using a keyed ignition source, it can sometimes create communication issues between the Mini Maxx and the vehicles ECM. To eliminate these problems, we highly recommend tapping into a 12V keyed ignition source to supply power to the Mini Maxx only when the key is in the ON position and the vehicles ECM is online. Below you will find a commonly used 12V keyed ignition source for your vehicle:



FUSE NUMBER 30

Always tap into the **cold** side of the fuse. On the 2007 - 2009 6.7L Cummins, the **cold** side is towards the drivers side of the vehicle.

NOTE: *If your fuse box or wiring looks different than those pictured or if you are not getting 12V ignition power from the pictured source, you may need to find another 12V keyed ignition source using a test*

*light or multimeter. If possible, find one that stays **hot** during engine cranking.*

Overdrive Transmission Software

Did you know that your H&S tuning device also has the capability of tuning your transmission? If your 6.7L Cummins is equipped with the 68RFE automatic transmission, you may want to check out our Overdrive Transmission Software. Custom tailored to mate with H&S engine tuning, the 6.7L Overdrive software includes boosted line pressures, modified full and part throttle torque converter lock/unlock strategies, adjusted full and part throttle shift points, adjusted full and part throttle shift firmness, modified torque management tables, and much more! All changes are designed to keep more power directed to the road instead of wasted in heat and friction. On our test trucks, we have seen 0.2 to 0.3 second quicker 1/4 mile times JUST from the addition of the H&S Overdrive tuning!

Overdrive Tuning Options

4-5th gear shift point adjustable up or down. Light to medium throttle, WOT is NOT adjustable.

5 levels:

- 1 – **Lowest**
- 2 – **Stock shift point**
- 3 – **Medium**
- 4 – **Default**
- 5 – **Highest**

5-6th gear shift point adjustable up or down. Light to medium throttle, WOT is NOT adjustable.

5 levels:

- 1 – **Lowest**
- 2 – **Stock shift point**
- 3 – **Medium**
- 4 – **Default**
- 5 – **Highest**

Line pressure. **WARNING**, only designed for built transmissions. The factory transmission pump is NOT designed to be run more than 165-170 psi of pressure. Our current overdrive tune sets these values to 170 psi (the pump mechanically will not supply more pressure, and will build excess heat and waste energy). If they have a modified pump, they can use this adjustment to increase clutch holding pressure. We have tested up to 250 psi with great results.

5 levels:

- 1 – **Stock 160 psi**
- 2 – **Default 170 psi**
- 3 – **200 psi**
- 4 – **225 psi**
- 5 – **250 psi**

Shift Firmness. This adjustment will modify the acceleration rate between gear shifts. Making them softer or firmer.

5 levels:

- 1 – **Stock**
- 2 – **Light firm**
- 3 – **Default**
- 4 – **Firm**
- 5 – **Most firm**

NOTE: An additional unlock fee may apply.

**Overdrive Transmission Software is not available on Cab & Chassis models.*

Maxx Calibration Control

Maxx Calibration Control (MCC) is an advanced engine management software tool that enables custom tune editing with your H&S tuning device. With the power to control all aspects of engine and transmission management, MCC gives YOU the ability to control how YOUR engine operates!

When you have exceeded the limits of conventional tuning and want to unleash the power of a custom tune, look no further than MAXX CALIBRATION CONTROL

NOTE: Applications may vary by vehicle make and model, please check our website to see if MCC is available for your vehicle at www.hsperformance.com/mcc

Unplugging Head Unit

If you unplug your head unit, your truck will default to the STOCK setting within a few drive cycles.

2007.5-2009 6.7L DODGE CUMMINS HIGH SULFUR CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The unit cannot be unplugged otherwise the Power Level will default to Stock.

NOTE: The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.

POWER LEVELS

Stock.....	0 HP
Tow.....	60 HP
Street.....	120 HP
Performance....	175 HP

Injection Timing

This option allows for the adjustment of the maximum allowed injection timing. There are 5 different settings for the Injection Timing:

- 1 – 24 degrees**
- 2 – 26 degrees**
- 3 – 28 degrees (Default)**
- 4 – 30 degrees**
- 5 – 32 degrees**

NOTE: The injection timing adjustment will affect ALL power levels. This option can only be adjusted during the Install Download process.

Adjustable Throttle Response

This option allows for the adjustment of the throttle response. There are 3 different settings for the Throttle Response:

- 1 – Stock Response**
- 2 – Default Response**
- 3 – High Response**

Emissions Selection

Most 2007-2009 6.7L Cummins are equipped with an emissions system designed to run Ultra Low Sulfur Diesel (ULSD) Fuel. If you have removed or modified this emissions system (or plan to immediately after installing this device), proper tuning must be installed or the vehicle will not operate correctly. Select REMOVED at this option for a modified emissions system and high sulfur fuel use. Select PRESENT if your emissions system requires ULSD fuel.

Exhaust Emissions Equipment

When running ULSD tuning, it is required that all sensors located in the exhaust system stay in place and plugged in, otherwise you may experience a Check Engine Light (CEL) and even a loss of power (limp mode).

When running High Sulfur tuning, it is recommended that all sensors located in the factory exhaust system be unplugged from the electrical harnesses. These sensors can also be removed completely with the factory exhaust if desired. On the 2007 - 2009 6.7L Cummins, there are usually 3 EGT Sensors, 2 O2 Sensors, and 1 Pressure Sensor.

EGR Emissions Equipment

If you are installing H&S High Sulfur tuning, you must unplug the EGR system on your 2007 - 2009 6.7L Cummins if not installing an EGR delete. Failing to do so may result in erratic engine operation and loss of power. Please follow these instructions carefully to unplug and disable the EGR system:

1. Locate the EGR Throttle Control Valve Assembly (Fig.1). Assembly is located between the inter-cooler and intake manifold on the drivers side of the engine compartment.
2. Unplug the EGR Throttle Control Valve wiring harness. The harness is LIGHT GRAY in color and is located on the back side of the Throttle Control Valve Assembly. It is not directly visible when looking at the assembly from above. On some vehicles, it may be easier to see and unplug the harness from underneath the vehicle. Note: There is a red locking tab that must be moved sideways on the harness in order for it to be unplugged.
3. Locate the EGR solenoid on top of the intake manifold (Fig.2). It is directly visible when looking at the intake manifold and faces towards the front of the vehicle.
4. Unplug the EGR solenoid wiring harness. The connector is BROWN in color.



2010 - 2012 6.7L DODGE CUMMINS ULSD CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The unit cannot be unplugged otherwise the Power Level will default to Stock.

NOTE: *The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.*

Speed Limiter

This option allows for the adjustment of the factory speed limiter. Most 2010 - 2012 6.7L Cummins trucks have a 106 MPH speed limiter from the factory. The limiter can be adjusted from 20 MPH to 200 MPH. This option can only be adjusted during the Install Download process.

Torque Management (Manual Transmission Only)

This option allows for the disabling of the vehicles torque management for those equipped with manual transmissions. This option increases pedal sensitivity and throttle response when REMOVED.

Tire Size Calibration

This option allows for the re-calibration of the factory speedometer to adjust for non-stock sized tires. For the most accurate speedometer reading when using non-stock sized tires, it is best to measure the diameter of the tire using a tape measure rather than going by the printed tire size. In addition, using a GPS is a great way to dial in your factory speedometer. Entering a larger tire size will cause the factory speedometer to read higher while entering a smaller tire size will cause the factory speedometer to read lower. The tire size can be adjusted from 25.5" to 45". This option can only be seen/changed after the Download is Installed to the vehicle. This option only takes a few seconds to change and can be adjusted at any time from the Tire Size Calibration menu.

Special Functions / Features

Your H&S tuning device has the capability of Enabling / Disabling factory vehicle features. These features can be found in the Special Functions Menu. These features can only be seen/changed after the Download is Installed to the vehicle. Below is a short description of each feature:

2010-2012 PICKUP POWER LEVELS

Stock.....	0 HP
Tow.....	40 HP
Street.....	80 HP
Performance....	120 HP

2011 CAB & CHASSIS POWER LEVELS

Stock.....	0 HP
Tow.....	20 HP
Street.....	40 HP
Performance.....	60 HP

TPMS: Enable / Disable the Tire Pressure Monitoring System.

Optical Chirp on Lock: Enable / Disable the parking lights flashing when locking the vehicle.

Horn Chirp on Lock: Enable / Disable the horn chirp when locking the vehicle.

Set Head Lamp Delay: Enable / Disable the head lamp delay.

Accessory Delay: Enable / Disable the shut-off delay of your radio and accessory system after the key has been turned off.

Fog Lights W/High: Enable / Disable the fog lights staying on when high beams are being used.

Daytime Lights: Enable / Disable the daytime running lights.

Seat Belt Minder: Enable / Disable the chime for the drivers seat belt system. This feature will not disable the seat belt light.

NOTE: If any special feature is already listed as Enabled but is not functioning correctly, you may need to disable the feature, cycle the key, and re-enable the feature to make it function properly. If it still does not work, your vehicle may not be equipped with the hardware required for the special feature. The previous selection will NOT be saved. If the Special Functions/Features Menu is exited and returned into, it will not display your previous selection. This is normal and the Enable/Disable function is still working properly.

Stationary Idle Adjust:

The Stationary Idle Adjust Menu will allow you to adjust the idle speed of your vehicle while in Park or Neutral using your H&S tuning device. Choose the desired idle speed and select **Set** to set the idle speed to the chosen RPM. Idle speed can be adjusted from 700 RPM to 1500 RPM.

Keyed Ignition Source Location

Although it is possible to manually power up the Mini Maxx without using a keyed ignition source, it can sometimes create communication issues between the Mini Maxx and the vehicles ECM. To eliminate these problems, we highly recommend tapping into a 12V keyed ignition source to supply power to the Mini Maxx only when the key is in the ON position and the vehicles ECM is online. Below you will find a commonly used 12V keyed ignition source for your vehicle:



2010 6.7L Pickup and 2011 6.7L Cab & Chassis FUSE NUMBER M45

Always tap into the **cold** side of the fuse. On the 2010 Pickup and 2011 Cab & Chassis, the **cold** side is towards the front of the vehicle.



2011-2012 6.7L Pickup FUSE NUMBER M33

Always tap into the **cold** side of the fuse. On the 2011 Pickup, the **cold** side is towards the front of the vehicle.

NOTE: *If your fuse box or wiring looks different than those pictured or if you are not getting 12V ignition power from the pictured source, you may need to find another 12V keyed ignition source using a test light or multimeter. If possible, find one that stays **hot** during engine cranking.*

Overdrive Transmission Software

Did you know that your H&S tuning device also has the capability of tuning your transmission? If your 6.7L Cummins is equipped with the 68RFE Automatic Transmission, you may want to check out our Overdrive Transmission Software. Custom tailored to mate with H&S engine tuning, the 6.7L Overdrive software includes boosted line pressures, modified full and part throttle torque converter lock/unlock strategies, adjusted full and part throttle shift points, adjusted full and part throttle shift firmness, modified torque management tables, and much more! All changes are designed to keep more power directed to the road instead of wasted in heat and friction. On our test trucks, we have seen 0.2 to 0.3 second quicker 1/4 mile times JUST from the addition of the H&S Overdrive tuning! An additional unlock fee may apply, see www.hsperformance.com for details.

Video In Motion

This feature will allow customers with a factory installed Chrysler 730N DVD/Navigation unit to unlock all features that are normally blocked while driving. Full destination input into the navigation system is now available, even while the vehicle is moving, as well as DVD playback on the front screen. May require additional unlock fee. For more info see www.hsperformance.com/store/dodge-video-in-motion-unlock-code.html

Maxx Calibration Control

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NOTE: *Applications may vary by vehicle make and model, please check our website to see if MCC is available for your vehicle at www.hsperformance.com/mcc*

Unplugging Head Unit

If you unplug your head unit, your truck will default to the STOCK setting within a few drive cycles.

2010-2012 6.7L DODGE CUMMINS HIGH SULFUR CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after installing the Download to the vehicle. The unit cannot be unplugged otherwise the Power Level will default to Stock.

NOTE: *The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the*

out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.

2010-2012 PICKUP POWER LEVELS

Stock.....	0 HP
Tow.....	60 HP
Street.....	120 HP
Performance....	175 HP

2011 CAB & CHASSIS POWER LEVELS

Stock.....	0 HP
Tow.....	25 HP
Street.....	50 HP
Performance.....	75 HP

Emissions Selection

Most 2010-2012 6.7L Cummins are equipped with an emissions system designed to run Ultra Low Sulfur Diesel (ULSD) Fuel. If you have removed or modified this emissions system (or plan to immediately after installing this device), proper tuning must be installed or the vehicle will not operate correctly. Select REMOVED at this option for a modified emissions system and high sulfur fuel use. Select PRESENT if your emissions system requires ULSD fuel.

Exhaust Emissions Equipment

When running ULSD tuning, it is required that all sensors located in the exhaust system stay in place and plugged in, otherwise you may experience a Check Engine Light (CEL) and even a loss of power (limp mode).

When running High Sulfur tuning, it is recommended that all sensors located in the factory exhaust system be unplugged from the electrical harnesses. These sensors can also be removed completely with the factory exhaust if desired. On the 2010 - 2012 Pickup, there are usually 3 EGT Sensors, 2 O2 Sensors, and 1 Pressure Sensor.

2011 Cab & Chassis UREA System

On the 2011 Cab & Chassis, there is usually an additional NOX sensor as well as a UREA system that needs to be unplugged when running High Sulfur tuning. The UREA system must at least be unplugged but can be completely removed from the vehicle if desired. Failure to unplug the UREA system may result in a check engine light and/or dash messages. Follow these instructions to unplug the UREA system:

1. Locate the wiring harness with the YELLOW sliding lock-tab on the UREA pump assembly. The pump assembly is located near the bottom of the filler neck support.



2. Slide the yellow lock-tab DOWN to dis-engage the lock and unplug the harness.



For complete UREA System Removal instructions, visit www.hsperformance.com/tech/CCUrea.pdf.

EGR Emissions Equipment

If you are installing H&S High Sulfur tuning, you must unplug the EGR system on your 2007 - 2009 6.7L Cummins if not installing an EGR delete. Failing to do so may result in erratic engine operation and loss of power. Please follow these instructions carefully to unplug and disable the EGR system:

1. Locate the EGR Throttle Control Valve Assembly (Fig.1). Assembly is located between the inter-cooler and intake manifold on the drivers side of the engine compartment.
2. Unplug the EGR Throttle Control Valve wiring harness. The harness is LIGHT GRAY in color and is located on the back side of the Throttle Control Valve Assembly. It is not directly visible when looking at the assembly from above. On some vehicles, it may be easier to see and unplug the harness from underneath the vehicle. Note: There is a red locking tab that must be moved sideways on the harness in order for it to be unplugged.
3. Locate the EGR solenoid on top of the intake manifold (Fig.2). It is directly visible when looking at the intake manifold and faces towards the front of the vehicle.
4. Unplug the EGR solenoid wiring harness. The connector is BROWN in color.



Injection Timing

This option allows adjustment of the Injection Timing Calibration tables. There are 5 different settings you can choose from. If you skip this adjustment option, you will be defaulted to level 3

- 1 - Least Aggressive (Stock Setting)**
- 2 - Less Aggressive**
- 3 - (Default)**
- 4 - More Aggressive**
- 5 - Most Aggressive**

NOTE: The injection timing adjustment will affect ALL power levels. This option can only be adjusted during the Install Download process.

2003 - 2007 6.0L FORD POWERSTROKE ULSD CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The current Power Level will be saved even if the Mini Maxx is unplugged.

NOTE: The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.

POWER LEVELS

Stock.....	0 HP
Tow.....	40 HP
Street.....	80 HP
Performance...	120 HP

Speed Limiter

This option allows for the removal of the factory speed limiter.

Most 6.0L Powerstroke trucks have a 95 MPH speed limiter from the factory. The limiter can be removed completely or left stock (this may change so be sure to visit www.hsperformance.com for product updates). This option can only be changed during the Install Download process.

Tire Size Calibration

This option allows for the re-calibration of the factory speedometer to adjust for non-stock sized tires. For the most accurate speedometer reading when using non-stock sized tires, it is best to measure the diameter of the tire using a tape measure rather than going by the printed tire size. In addition, using a GPS is a great way to dial in your factory speedometer. Entering a larger tire size will cause the factory speedometer to read higher while entering a smaller tire size will cause the factory speedometer to read lower. Tire size can be adjusted from 25" to 40". This option can only be adjusted during the Install Download process.

Keyed Ignition Source Location

Although it is possible to manually power up the Mini Maxx without using a keyed ignition source,

it can sometimes create communication issues between the Mini Maxx and the vehicles ECM. To eliminate these problems, we highly recommend tapping into a 12V keyed ignition source to supply power to the Mini Maxx only when the key is in the ON position and the vehicles ECM is online. Below you will find a commonly used 12V keyed ignition source for your vehicle:



FUSE NUMBER 15

Always tap into the **cold** side of the fuse. On the 2003 - 2007 6.0L Powerstroke, the **cold** side is towards the driver side of the vehicle.

NOTE: If your fuse box or wiring looks different than those pictured or if you are not getting 12V ignition power from the pictured source, you may need to find another 12V keyed ignition source using a test light or multimeter. If possible, find one that stays **hot** during engine cranking.

Maxx Calibration Control

Maxx Calibration Control (MCC) is an advanced engine management software tool that enables custom tune editing with your H&S tuning device. With the power to control all aspects of engine and transmission management, MCC gives YOU the ability to control how YOUR engine operates! When you have exceeded the limits of conventional tuning and want to unleash the power of a custom tune, look no further than MAXX CALIBRATION CONTROL

NOTE: Applications may vary by vehicle make and model, please check our website to see if MCC is available for your vehicle at www.hsperformance.com/mcc

Unplugging Head Unit

If you unplug your head unit your truck will remain at the last known power level you had it set to.

2008 - 2010 6.4L FORD POWERSTROKE ULSD CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The current Power Level will be saved even if the Mini Maxx is unplugged.

NOTE: The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.

POWER LEVELS

Stock.....	0 HP
Tow.....	40 HP
Street.....	80 HP
Performance....	120 HP

Speed Limiter

This option allows for the adjustment of the factory speed limiter. Most 6.4L Powerstroke trucks have a 95 MPH speed limiter from the factory. The limiter can be adjusted from 55 MPH to 200 MPH. This option can only be adjusted during the Install Download process.

Tire Size Calibration

This option allows for the re-calibration of the factory speedometer to adjust for non-stock sized tires. For the most accurate speedometer reading when using non-stock sized tires, it is best to measure the diameter of the tire using a tape measure rather than going by the printed tire size. In addition, using a GPS is a great way to dial in your factory speedometer. Entering a larger tire size will cause the factory speedometer to read higher while entering a smaller tire size will cause the factory speedometer to read lower. The tire size can be adjusted from 25" to 60". This option can only be adjusted during the Install Download process.

TPMS Adjustability / Disable

Many 2008 - 2010 6.4L Powerstrokes are equipped with a TPMS or Tire Pressure Monitoring System from the factory. This system is designed to alert the driver of a problem with the vehicles tire pressures but is often a nagging inconvenience for those individuals wanting to run lower pressures or get rid of the TPMS sensors altogether. H&S Performance has a designed solution for those individuals. By using your H&S tuning device and a 6.4L Powerstroke TPMS Adapter (Part #709913), you will have full control of the TPMS. Front and rear tire pressures will be independently adjustable from 0 - 100 PSI as well as the option to Disable the TPMS completely if removing the TPMS sensors from the vehicle. All changes to the TPMS must be done with the 6.4L Powerstroke TPMS Adapter in place and the Adapter must be removed after changes are made to resume normal tuner function.

Transmission Relearn

The 5R110 automatic transmission on the 2008 - 2010 6.4L Powerstroke has what is called **Adaptive Memory** and is constantly learning and adapting to different horsepower levels, temperatures, driving habits, etc. After completing the Install Download process on the 6.4L Powerstroke, the Transmission Adaptive Memory is automatically reset. We highly recommend performing a Transmission Relearn procedure after installing H&S tuning to help the transmission perform correctly with the added horsepower. The 5R110 automatic transmission will eventually learn over time on its own, but the relearn procedure gives a good baseline for the adaptive learning and helps to speed up the learning process. To perform the relearn procedure, please follow these instructions:

When re-training the transmission, ALWAYS follow posted speed limits. Do NOT attempt runs in adverse weather conditions such as snow, ice, rain, wind, or any other conditions that may affect your vehicles traction or impair your visibility!

1. After H&S tuning is installed, perform each of the following 0-80 MPH runs while in the **Performance** power level. During this relearn process, you may experience hesitation during shifts, hard shifts, or defuel patterns, all of which are normal:

- **0-80 MPH @ 25% throttle position, then slow down and come to a complete stop.**
- **0-80 MPH @ 50% throttle position, then slow down and come to a complete stop.**
- **0-80 MPH @ 100% throttle position, then slow down and come to a complete stop.**

The Transmission Relearn procedure is complete.

NOTE: On any vehicle using 3" or larger lift blocks under the rear leaf pack, it is **HIGHLY RECOMMENDED** to install traction bars. With any added horsepower, failure to do so may result in harsh shifting and may cause premature transmission and/or driveline damage.

Keyed Ignition Source Location

Although it is possible to manually power up the Mini Maxx without using a keyed ignition source, it can sometimes create communication issues between the Mini Maxx and the vehicles ECM. To eliminate these problems, we highly recommend tapping into a 12V keyed ignition source to supply power to the Mini Maxx only when the key is in the ON position and the vehicles ECM is online. Below you will find a commonly used 12V keyed ignition source for your vehicle:



SOLID PURPLE WIRE

The SOLID PURPLE wire (capped from the factory) is found under the drivers side dash. This SOLID PURPLE wire is bundled with multiple other capped wires near the OBD-II port.

NOTE: If your fuse box or wiring looks different than those pictured or if you are not getting 12V ignition power from the pictured

source, you may need to find another 12V keyed ignition source using a test light or multimeter. If possible, find one that stays "hot" during engine cranking.

Maxx Calibration Control

Maxx Calibration Control (MCC) is an advanced engine management software tool that enables custom tune editing with your H&S tuning device. With the power to control all aspects of engine and transmission management, MCC gives YOU the ability to control how YOUR engine operates! When you have exceeded the limits of conventional tuning and want to unleash the power of a custom tune, look no further than MAXX CALIBRATION CONTROL

NOTE: Applications may vary by vehicle make and model, please check our website to see if MCC is available for your vehicle at www.hperformance.com/mcc

Unplugging Head Unit

If you unplug your head unit your truck will remain at the last known power level you had it set to.

2008-2010 6.4L FORD POWERSTROKE HIGH SULFUR CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The current Power Level will be saved even if the Mini Maxx is unplugged.

NOTE: *The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.*

POWER LEVELS DEFAULT

Stock.....	0 HP
Tow.....	80 HP
Street.....	160 HP
Performance....	250 HP

Emissions Selection

Most 2008-2010 6.4L Powerstrokes are equipped with an emissions system designed to run Ultra Low Sulfur Diesel (ULSD) Fuel. If you have removed or modified this emissions system (or plan to immediately after installing this device), proper tuning must be installed or the vehicle will not operate correctly. Select REMOVED at this option for a modified emissions system and high sulfur fuel use. Select PRESENT if your emissions system requires ULSD fuel.

Exhaust Emissions Equipment

When running ULSD tuning, it is required that all sensors located in the exhaust system stay in place and plugged in, otherwise you may experience a Check Engine Light (CEL) and even a loss of power (limp mode).

When running High Sulfur tuning, it is recommended that all sensors located in the factory exhaust system be unplugged from the electrical harnesses. These sensors can also be removed completely with the factory exhaust if desired. On the 6.4L Powerstroke, there are usually 3 EGT Sensors and 1 Pressure Sensor.

NOTE: *The vehicle will not run with sensors removed unless High Sulfur tuning is installed.*

EGR Emissions Equipment

When running High Sulfur tuning, it is not required to unplug or block-off the EGR system on your 6.4L Powerstroke to disable it. The EGR system is already disabled in the tuning and will not function under any conditions. If desired, the entire EGR system can be unplugged, blocked-off, or completely removed when running H&S High Sulfur tuning.

Tune Selection

This option allows you to pick from 3 tuning options. To change this selection you must repeat the install download process.

1. **Easy** Power levels are: stock, 60hp, 120hp, and 175hp
2. **Mild** Power levels are: stock, 80hp, 160hp, and 250hp
3. **Hot Damn 300** Power levels are: 50hp, 125hp, 225hp, 300hp

Shift Schedule

This option allows you to change the shift logic of your automatic transmission. There are 2 options. To change these options, you must repeat the install download process.

1. **Schedule 1:** This option will lock the torque converter in 4th gear under normal driving, and keep it locked through 5th gear.
2. **Schedule 2:** This option will not lock the torque converter until 5th gear under normal driving.

NOTE: *The Easy Power Tuning also has Easy shift schedule. It is NOT adjustable.*

Shift Point

This option will allow you to modify shift points for the 3-4 and 4-5 shifts. There are 3 options to choose from. To change these options, you must repeat the install download process.

1. **Low:** This option will shift into high gears at the lowest possible road speed.
2. **Med:** This option is the middle range of shift points
3. **High:** This option will shift into high gears at the highest possible road speed.

Low Boost Fueling Adjustment

This adjustment allows you to limit the amount of fuel delivered based upon turbo boost levels. 0 will have the least smoke output, 5 will have the most. By skipping this feature, the tuning will default to level 2.

2011-2014 6.7L FORD POWERSTROKE ULSD CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The unit cannot be unplugged otherwise the Power Level will default to Stock.

NOTE: *The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hperformance.com/update-instructions.*

POWER LEVELS

Stock.....	0 HP
Tow.....	40 HP
Street.....	80 HP
Performance....	120 HP

Tire Size Calibration

This option allows for the re-calibration of the factory speedometer to adjust for non-stock sized tires. For the most accurate speedometer reading when using non-stock sized tires, it is best to measure the diameter of the tire using a tape measure rather than going by the printed tire size. In addition, using a GPS is a great way to dial in your factory speedometer. Entering a larger tire size will cause the factory speedometer to read higher while entering a smaller tire size will cause the factory speedometer to read lower. The tire size can be adjusted from 31" to 34" (*this may change so be sure to visit www.hperformance.com for product updates*). This option only takes a few seconds to change and can be adjusted at any time from the Tire Size Calibration menu.

TPMS Adjustability / Disable

Many 2011 - 2014 6.7L Powerstrokes are equipped with a TPMS or Tire Pressure Monitoring System from the factory. This system is designed to alert the driver of a problem with the vehicles tire pressures but is often a nagging inconvenience for those individuals wanting to run lower pressures or get rid of the TPMS sensors altogether.

With your H&S tuning device, you have full control of the TPMS. Front and rear tire pressures are independently adjustable from 0-120 PSI as well as the option to disable the TPMS completely if removing the TPMS sensors from the vehicle. This option only takes a few seconds to change and can be adjusted at any time from the Tire Pressure Calibration menu.

NOTE: *TPMS adjustments will not take full effect on a stationary vehicle. Once adjustments have been made, it can take up to 5 miles of driving before changes take effect.*

Transmission Tuning

Did you know that your H&S tuning device also has the capability of tuning your transmission? Our transmission tuning for the 6R140 automatic transmission is custom tailored to

mate with H&S engine tuning. Some features include: boosted line pressures, modified full and part throttle lock/unlock strategies, adjusted full and part throttle shift points, adjusted full and part throttle shift firmness, and modified torque management tables. All changes are designed to keep more power directed to the road instead of wasted in heat and friction. On our test trucks, we have seen 0.2 to 0.3 second quicker 1/4 mile times JUST from the addition of H&S transmission tuning! An additional unlock fee may apply, see www.hsperformance.com for details.

Transmission Relearn

The 6R140 automatic transmission on the 2011 - 2014 6.7L Powerstroke has what is called **Adaptive Memory** and is constantly learning and adapting to different horsepower levels, temperatures, driving habits, etc. If you selected to tune the transmission during the Install Download process, the Transmission Adaptive Memory is automatically reset when the download completes. We highly recommend performing a Transmission Relearn procedure after installing H&S transmission tuning to help the transmission perform correctly with the added horsepower. The 6R140 automatic transmission will eventually learn over time on its own, but the relearn procedure gives a good baseline for the adaptive learning and helps to speed up the learning process. To perform the relearn procedure, please follow these instructions:

When re-training the transmission, ALWAYS follow posted speed limits. Do NOT attempt runs in adverse weather conditions such as snow, ice, rain, wind, or any other conditions that may affect your vehicles traction or impair your visibility!

1. After H&S tuning is installed, perform each of the following 0-80 MPH runs while in the **Performance** power level. During this relearn process, you may experience hesitation during shifts, hard shifts, or defuel patterns, all of which are normal:
 - **0-80 MPH @ 25% throttle position, then slow down and come to a complete stop.**
 - **0-80 MPH @ 50% throttle position, then slow down and come to a complete stop.**
 - **0-80 MPH @ 100% throttle position, then slow down and come to a complete stop.**

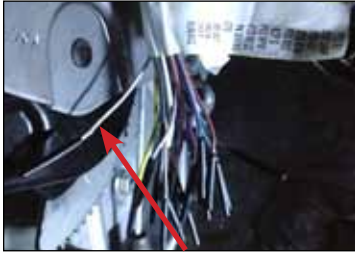
The Transmission Relearn procedure is complete.

NOTE: *On any vehicle using 3" or larger lift blocks under the rear leaf pack, it is HIGHLY RECOMMENDED to install traction bars when adding additional horsepower.*

Keyed Ignition Source Location

Although it is possible to manually power up the Mini Maxx without using a keyed ignition source, it can sometimes create communication issues between the Mini Maxx and the vehicles ECM. To eliminate these problems, we highly recommend tapping into a 12V keyed ignition source to supply power to the Mini Maxx only when the key is in the ON position

and the vehicles ECM is online. Below you will find a commonly used 12V keyed ignition source for your vehicle:



WHITE WIRE WITH BLUE STRIPE

The white wire with blue stripe (capped from the factory) is found under the drivers side dash. This wire is bundled with multiple other capped wires near the emergency brake lever.

NOTE: If your wiring looks different than those pictured or if you are not getting 12V ignition power from the pictured source, you may

need to find another 12V keyed ignition source using a test light or multimeter. If possible, find one that stays **hot** during engine cranking.

Maxx Calibration Control

Maxx Calibration Control (MCC) is an advanced engine management software tool that enables custom tune editing with your H&S tuning device. With the power to control all aspects of engine and transmission management, MCC gives YOU the ability to control how YOUR engine operates! When you have exceeded the limits of conventional tuning and want to unleash the power of a custom tune, look no further than MAXX CALIBRATION CONTROL

NOTE: Applications may vary by vehicle make and model, please check our website to see if MCC is available for your vehicle at www.hsperformance.com/mcc

Unplugging Head Unit

If you unplug your head unit, your truck will default to the STOCK setting within a few drive cycles.

2011-2014 6.7L FORD POWERSTROKE HIGH SULFUR CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The unit cannot be unplugged otherwise the Power Level will default to Stock.

NOTE: The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.

POWER LEVELS

Stock.....	0 HP
Tow.....	50 HP
Street.....	100 HP
Performance....	150 HP

Emissions Selection

Most 2011-2014 6.7L Powerstrokes are equipped with an emissions system designed to run Ultra Low Sulfur Diesel (ULSD) Fuel. If you have removed or modified this emissions system (or plan to immediately after installing this device), proper tuning must be installed or the vehicle will not operate correctly. Select REMOVED at this option for a modified emissions system and high sulfur fuel use. Select PRESENT if your emissions system requires ULSD fuel.

Exhaust Emissions Equipment

When running ULSD tuning, it is required that all sensors located in the exhaust system stay in place and plugged in, otherwise you may experience a Check Engine Light (CEL) and even a loss of power (limp mode).

When running High Sulfur tuning, it is recommended that all sensors located in the factory exhaust system be unplugged from the electrical harnesses. These sensors can also be removed completely with the factory exhaust if desired. On the 6.7L Powerstroke, there are usually 3 EGT Sensors, 1 NOX Sensor, 1 UREA Injector, and 1 Pressure Sensor.

NOTE: *The vehicle will not run with sensors removed unless High Sulfur tuning is installed.*

UREA / SCR System

On the 2011 - 2014 6.7L Powerstroke, there is a UREA system that can be unplugged or removed completely when running High Sulfur tuning. The UREA system may also be left plugged in with no ill effects.

EGR Emissions Equipment

If you are installing H&S High Sulfur tuning, you must unplug the EGR system on your 2011-2014 6.7L Powerstroke if not installing an EGR delete. Failing to do so may result in damage to your EGR parts.

Please follow these instructions carefully to unplug and disable the EGR system:

1. Unplug Orange EGR harness found on top of the EGR cooler assembly. The yellow lock tab must be slid out before the harness can be unplugged.



2. Unplug the EGR Butterfly Valve located near the radiator fan shroud.



2007-2010 6.6L LMM DURAMAX ULSD CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The current Power Level will be saved even if the Mini Maxx is unplugged.

NOTE: The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.

POWER LEVELS

Stock.....	0 HP
Tow.....	40 HP
Street.....	80 HP
Performance....	120 HP

Speed Limiter

This option allows for the adjustment of the factory speed limiter. Most 6.6L LMM Duramax trucks have a 98 MPH speed limiter from the factory. The limiter can be adjusted from 50 MPH to 95 MPH or removed completely. This option can only be adjusted during the Install Download process.

Tire Size Calibration

This option allows for the re-calibration of the factory speedometer to adjust for non-stock sized tires. For the most accurate speedometer reading when using non-stock sized tires, it is best to measure the diameter of the tire using a tape measure rather than going by the printed tire size. In addition, using a GPS is a great way to dial in your factory speedometer. Entering a larger tire size will cause the factory speedometer to read higher while entering a smaller tire size will cause the factory speedometer to read lower. The tire size can be adjusted from 25" to 60". This option can only be adjusted during the Install Download process.

NOTE: On some vehicles, entering a tire size larger than 35" may cause the ABS light to illuminate.

Transmission Reset / Relearn

The automatic transmission on the 2007 - 2010 6.6L LMM Duramax has what is called **Adaptive Memory** and is constantly learning and adapting to different horsepower levels, temperatures, driving habits, etc. We highly recommend performing a Transmission Reset / Relearn procedure after installing H&S tuning to help the transmission perform correctly with the added horsepower. The transmission will eventually learn over time on its own, but the relearn procedure gives a good baseline for the adaptive learning and helps to speed up the learning process. To perform the relearn procedure, please follow these instructions:

When re-training the transmission, ALWAYS follow posted speed limits. Do NOT attempt runs in adverse weather conditions such as snow, ice, rain, wind, or any other conditions that may affect your vehicles traction or impair your visibility!

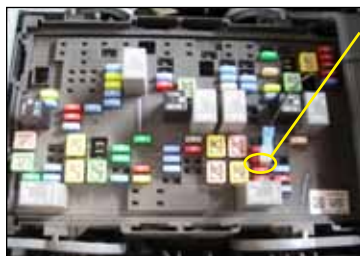
1. After you have installed the H&S tuning, turn the key to the **ON** position. From the Main Menu, scroll down until you see the **Reset Transmission option**. Select **Reset Transmission** and follow the on-screen instructions to reset the transmission adaptive memory.
2. After the transmission reset is complete, it is recommended to perform each of the following 0-80 MPH runs while in the **Performance** power level:
 - **0-80 MPH @ 25% throttle position, then slow down and come to a complete stop.**
 - **0-80 MPH @ 50% throttle position, then slow down and come to a complete stop.**
 - **0-80 MPH @ 100% throttle position, then slow down and come to a complete stop.**

The Transmission Relearn procedure is complete.

NOTE: On any vehicle using 3" or larger lift blocks under the rear leaf pack, it is **HIGHLY RECOMMENDED** to install traction bars when adding additional horsepower.

Keyed Ignition Source Location

Although it is possible to manually power up the Mini Maxx without using a keyed ignition source, it can sometimes create communication issues between the Mini Maxx and the vehicles ECM. To eliminate these problems, we highly recommend tapping into a 12V keyed ignition source to supply power to the Mini Maxx only when the key is in the ON position and the vehicles ECM is online. Below you will find a commonly used 12V keyed ignition source for your vehicle:



Fuse Number 45

Always tap into the **cold** side of the fuse. On the 2007 - 2010 6.6L LMM Duramax, the **cold** side is towards the rear of the vehicle.

NOTE: If your fuse box or wiring looks different than those pictured or if you are not getting 12V ignition power from the pictured source, you may need to find another 12V keyed ignition source using a test

light or multimeter. If possible, find one that stays **hot** during engine cranking.

Maxx Calibration Control

Maxx Calibration Control (MCC) is an advanced engine management software tool that enables custom tune editing with your H&S tuning device. With the power to control all aspects of engine and transmission management, MCC gives YOU the ability to control how YOUR engine operates! When you have exceeded the limits of conventional tuning and want to unleash the power of a custom tune, look no further than MAXX CALIBRATION CONTROL

NOTE: Applications may vary by vehicle make and model, please check our website to see if MCC is available for your vehicle at www.hsperformance.com/mcc

Unplugging Head Unit

If you unplug your head unit your truck will remain at the last known power level you had it set to.

2007-2010 6.6L LMM DURAMAX HIGH SULFUR CALIBRATION

Power Levels

Power Levels can be adjusted on-the-fly at the touch of a button after Installing the Download to the vehicle. The current Power Level will be saved even if the Mini Maxx is unplugged.

NOTE: The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.

POWER LEVELS

Stock.....	0 HP
Tow.....	60 HP
Street.....	120 HP
Performance....	175 HP

Emissions Selection

Most 2007-2010 6.6L LMM Duramax's are equipped with an emissions system designed to run Ultra Low Sulfur Diesel (ULSD) Fuel. If you have removed or modified this emissions system (or plan to immediately after installing this device), proper tuning must be installed or the vehicle will not operate correctly. Select REMOVED at this option for a modified emissions system and high sulfur fuel use. Select PRESENT if your emissions system requires ULSD fuel.

Exhaust Emissions Equipment

When running ULSD tuning, it is required that all sensors located in the exhaust system stay in place and plugged in, otherwise you may experience a Check Engine Light (CEL) and even a loss of power (limp mode).

When running High Sulfur tuning, it is recommended that all sensors located in the factory exhaust system be unplugged from the electrical harnesses. These sensors can also be

removed completely with the factory exhaust if desired. On the 6.6L LMM Duramax, there are usually 3 EGT Sensors and 1 Pressure Sensor.

EGR Emissions Equipment

When running H&S High Sulfur tuning, it is not required to unplug or block-off the EGR system on your 6.6L LMM Duramax to disable it. The EGR system is already disabled in the tuning and will not function under any conditions. If desired, the entire EGR system can be unplugged, blocked-off, or completely removed when running H&S High Sulfur tuning.

2011-2014 6.6L LML DURAMAX ULSD CALIBRATION

Power Levels

Power levels are not currently shift-on-the-fly for the 2011 - 2014 6.6L LML Duramax. To adjust the Power Level, select **Install Download** from the Main Menu and follow the on-screen instructions (*this may change so be sure to visit www.hsperformance.com for product updates*).

POWER LEVELS

Tow.....	40 HP
Street.....	80 HP

NOTE: *The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.*

Speed Limiter

This option allows for the removal of the factory speed limiter. Most 6.6L LML Duramax trucks have a 98 MPH speed limiter from the factory. The limiter may be removed completely. This option can only be changed during the Install Download process.

Tire Size Calibration

This option allows for the re-calibration of the factory speedometer to adjust for non-stock sized tires. For the most accurate speedometer reading when using non-stock sized tires, it is best to measure the diameter of the tire using a tape measure rather than going by the printed tire size. In addition, using a GPS is a great way to dial in your factory speedometer. Entering a larger tire size will cause the factory speedometer to read higher while entering a smaller tire size will cause the factory speedometer to read lower. The tire size can be adjusted from 25" to 60". This option can only be adjusted during the Install Download process.

NOTE: *On some vehicles, entering a tire size larger than 35" may cause the ABS light to illuminate.*

Transmission Reset / Relearn

The automatic transmission on the 2011 - 2014 6.6L LML Duramax has what is called **Adaptive Memory** and is constantly learning and adapting to different horsepower levels, temperatures, driving habits, etc. We highly recommend performing a Transmission Reset / Relearn procedure after installing H&S tuning to help the transmission perform correctly

with the added horsepower. The transmission will eventually learn over time on its own, but the relearn procedure gives a good baseline for the adaptive learning and helps to speed up the learning process. To perform the relearn procedure, please follow these instructions:

When re-training the transmission, ALWAYS follow posted speed limits. Do NOT attempt runs in adverse weather conditions such as snow, ice, rain, wind, or any other conditions that may affect your vehicles traction or impair your visibility!

1. After you have installed the H&S tuning, turn the key to the ON position. From the Main Menu, scroll down until you see the **Reset Transmission** option. Select **Reset Transmission** and follow the on-screen instructions to reset the transmission adaptive memory.
2. After the transmission reset is complete, it is recommended to perform each of the following 0-80 MPH runs while in the **Performance** power level:
 - **0-80 MPH @ 25% throttle position, then slow down and come to a complete stop.**
 - **0-80 MPH @ 50% throttle position, then slow down and come to a complete stop.**
 - **0-80 MPH @ 100% throttle position, then slow down and come to a complete stop.**

The Transmission Relearn procedure is complete.

***NOTE:** On any vehicle using 3" or larger lift blocks under the rear leaf pack, it is HIGHLY RECOMMENDED to install traction bars when adding additional horsepower.*

Gear Ratio Adjustability

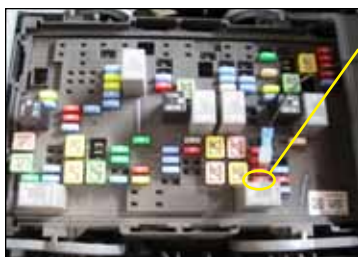
During the download process you have the option to calibrate your gear ratio. You have four choices; 3.54, 3.73, 4.10, and 4.54.

Dual Fuel Tank Option

During the download process you have the option to choose whether or not your truck is equipped with dual fuel tanks

Keyed Ignition Source Location

Although it is possible to manually power up the Mini Maxx without using a keyed ignition source, it can sometimes create communication issues between the Mini Maxx and the vehicles ECM. To eliminate these problems, we highly recommend tapping into a 12V keyed ignition source to supply power to the Mini Maxx only when the key is in the ON position and the vehicles ECM is online. Below you will find a commonly used 12V keyed ignition source for your vehicle:



Fuse Number 45

Always tap into the **cold** side of the fuse. On the 2011 - 2014 6.6L LML Duramax, the **cold** side is towards the front of the vehicle.

NOTE: If your fuse box or wiring looks different than those pictured or if you are not getting 12V ignition power from the pictured source, you may need to find another 12V keyed ignition source using a test

light or multimeter. If possible, find one that stays **hot** during engine cranking.

Maxx Calibration Control

Maxx Calibration Control (MCC) is an advanced engine management software tool that enables custom tune editing with your H&S tuning device. With the power to control all aspects of engine and transmission management, MCC gives YOU the ability to control how YOUR engine operates! When you have exceeded the limits of conventional tuning and want to unleash the power of a custom tune, look no further than MAXX CALIBRATION CONTROL

NOTE: Applications may vary by vehicle make and model, please check our website to see if MCC is available for your vehicle at www.hsperformance.com/mcc

Unplugging Head Unit

Not shift-on-the-fly so unplugging head unit will not affect power level setting.

2011-2013 6.6L LML DURAMAX HIGH SULFUR CALIBRATION

Power Levels

Power levels are not currently shift-on-the-fly for the 2011 - 2014 6.6L LML Duramax. To adjust the Power Level, select **Install Download** from the Main Menu and follow the on-screen instructions (*this may change so be sure to visit www.hsperformance.com for product updates*).

NOTE: The Power Level ratings listed may not be exact for your particular vehicle. The listed ratings apply to the out-of-the-box tuning that H&S tuning devices are shipped with. Any custom downloads may result in different ratings and can be found at www.hsperformance.com/update-instructions.

POWER LEVELS

Stock.....	0 HP
Tow.....	50 HP
Street.....	100 HP
Performance....	150 HP

Emissions Selection

Most 2011-2014 6.6L LML Duramax's are equipped with an emissions system designed to run Ultra Low Sulfur Diesel (ULSD) Fuel. If you have removed or modified this emissions system (or plan to immediately after installing this device), proper tuning must be installed or the vehicle will not operate correctly. Select REMOVED at this option for a modified emissions system and high sulfur fuel use. Select PRESENT if your emissions system requires ULSD fuel.

Exhaust Emissions Equipment

When running ULSD tuning, it is required that all sensors located in the exhaust system stay in place and plugged in, otherwise you may experience a Check Engine Light (CEL) and even a loss of power (limp mode).

When running High Sulfur tuning, it is required that all sensors located in the factory exhaust system be unplugged from the electrical harnesses **EXCEPT FOR THE PRESSURE SENSOR WHICH MUST REMAIN PLUGGED IN**. All sensors other than the Pressure Sensor can be removed completely with the factory exhaust if desired. On the 6.6L LML Duramax, there are usually 3 EGT Sensors, 1 NOx Sensor, 1 UREA Injector, and 1 Pressure Sensor.



The DPF Pressure Sensor is located under the bed in front of the axle on the inside of the passenger side frame rail. You may pull the two rubber lines off of the sensor but **DO NOT UNPLUG THIS SENSOR!** Unplugging of the Pressure Sensor may result in erratic engine operation and loss of power.

UREA / SCR System

On the 2011 - 2014 6.6L LML Duramax, there is a UREA system that needs to be unplugged when running High Sulfur tuning. The UREA system must at least be unplugged but can be completely removed from the vehicle if desired. Failure to unplug the UREA system may result in a check engine light and/or dash messages, erratic engine operation, and loss of power. Follow these instructions to unplug the UREA system:

1. The urea injector is located between the CAT and DPF above the torsion bar cross member. Unplug the electrical connection and the urea line.



2. The main urea harness is the large black harness located near the urea injector above the urea tank. Flip the large gray locking tab to disconnect the harness.

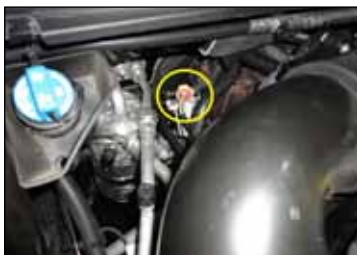


For complete UREA System Removal instructions, visit www.hsperformance.com/tech

EGR Emissions Equipment

If you are installing H&S High Sulfur tuning, you must unplug the EGR system on your 6.6L LML Duramax if not installing a complete EGR delete. Failing to do so may result in erratic engine operation and loss of power. Please follow these instructions carefully to unplug and disable the EGR system:

1. Unplug 3 EGR harnesses - two are brown with a yellow locking tab, one is black with a red locking tab (see pictures for locations).



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H & S Performance, LLC

**4160 South River Road
St. George, UT 84790
435-628-1730**

WWW.HSPERFORMANCE.COM