GT DIESEL

gauge GT tuner

> Menu

Boost   30   PSI
20   40

Pyro 1
919 °F

Boost
26 PSI

10

Speed
61 MPH

PEAK: 26 PSI

0

Coolant
194 °F

D5

Power Level:
Extreme

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BULLY DOG

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MANUAL OVERVIEW

This Manual is meant as a suppliment to the GT Diesel Quick Install Guide that is included in the packaging of the GT Diesel Product. A copy of that Guide can be found on the GT Diesel product page on our website.

> **IMPORTANT NOTE:**
> **YOU MUST UNINSTALL YOUR BULLY DOG ENGINE TUNE BEFORE**
> **TAKING YOUR VEHICLE IN FOR ANY TYPE OF SERVICE.**

Alterations made to the OEM configuration of a vehicle may violate the Clean Air Act if such alterations bypass, defeat, or render inoperative Elements of Design installed on a vehicle in compliance with the Clean Air Act. Users who alter Derive's products in any way are required to make their own individual determination that the altered products do not violate the Clean Air Act.

This device is not legal for sale or use in California on pollution controlled vehicles.

ABOUT THE GT DIESEL

PARTS CHECKLIST

The following is a list of the items that should be included in the GT Diesel packaging. If you are missing any of the items please contact technical support at bullydog.com/support.

GT DEVICE P/N: 40420-1
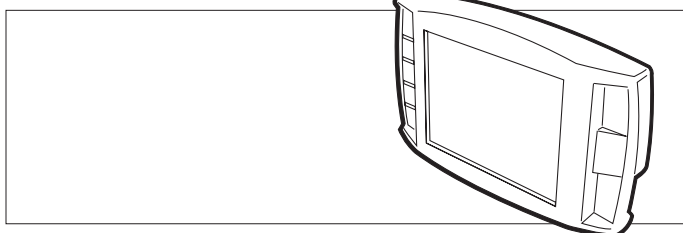
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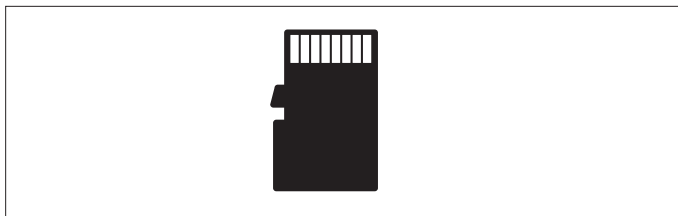
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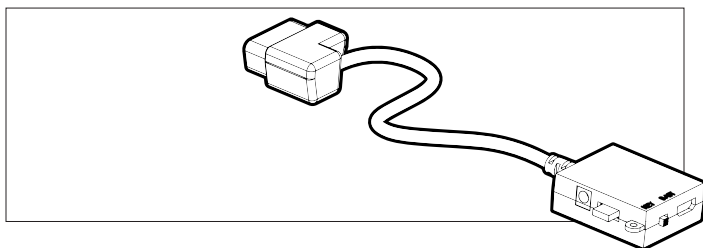
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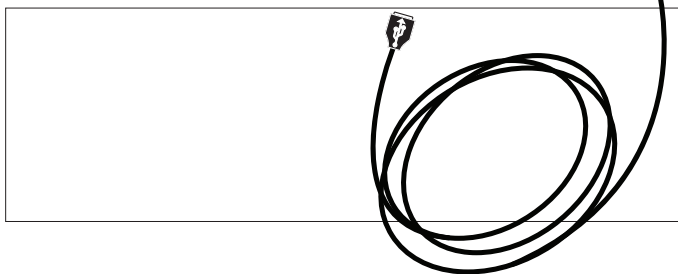
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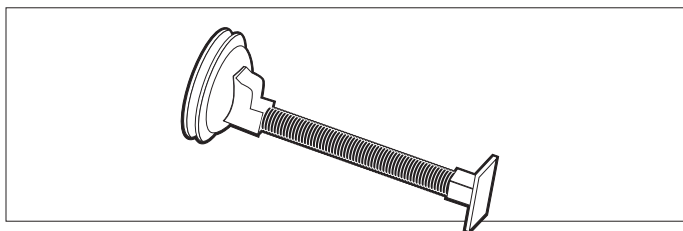
POWER CABLE P/N: 40400-101

HDMI CABLE P/N: 40400-100
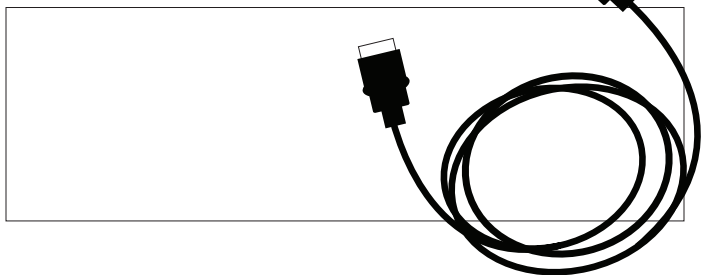
FUSE TAP
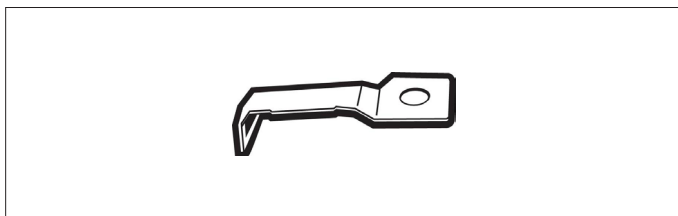
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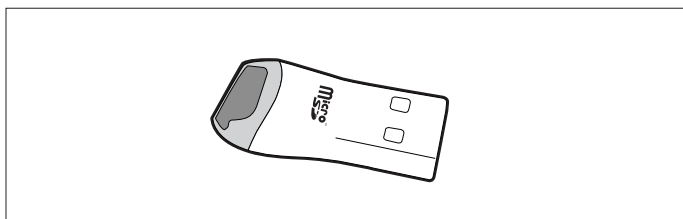
FUSE SPADE
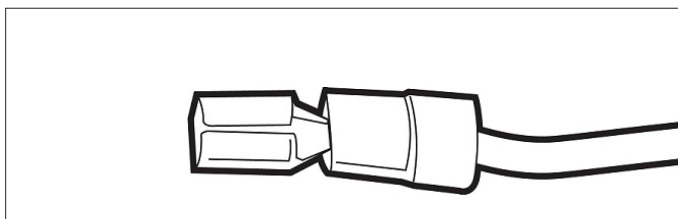
ABOUT THE GT DIESEL

PARTS DESCRIPTION – GT DEVICE

The main component of the GT Diesel is the device itself. The GT has the screen and the buttons that allow you to access all of the functions and features of the device.
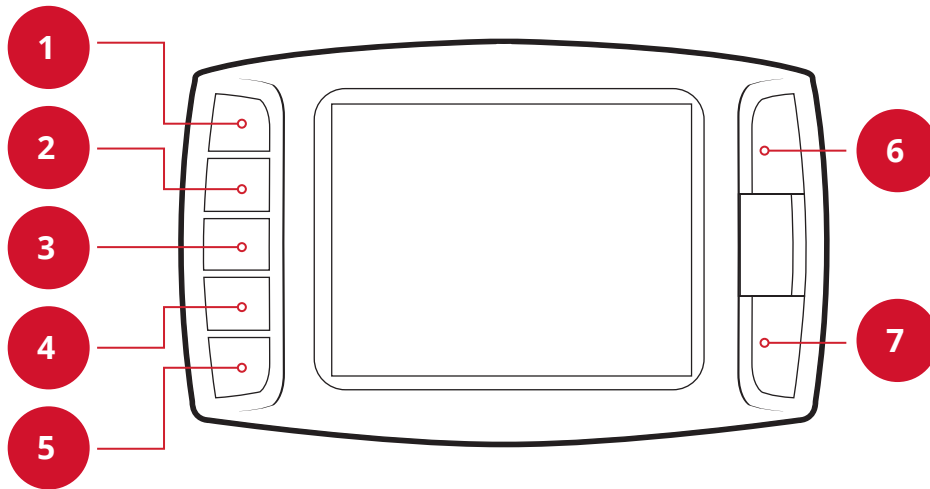
GT Diesel Front Side:

The GT Diesel has seven capacitive touch buttons. Capacitive touch is a button style that is sensitive to the presence of your finger. Capacitive buttons do not need to be pushed, only touched to activate. The front of the GT Diesel features a 2.4" LCD color screen.
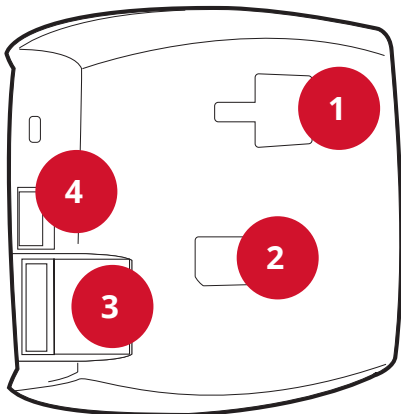
GT Diesel Back Side:

1. T-Slot Mount Socket allows you to use the GT Diesel with different mounting options.

2. HDMI port connects the GT Diesel and the OBDII Adapter Plug with the HDMI Cable

3. Micro SD card port for use with the SD Card.

4. Mini-USB port allows the GT Diesel to be connected to a computer.

ABOUT THE GT DIESEL

PARTS DESCRIPTION – OBDII ADAPTER PLUG

The OBDII connects to your vehicle through the diagnostic port, which is located under the dash on the driver's side. The OBDII Adapter Plug connects to the diagnostic port on your vehicle and has a connection for the HDMI cable that plugs into the back of the GT Diesel Head Unit. The illustration and numbered list below contain more information about the other parts of this important piece of the GT Diesel assembly.
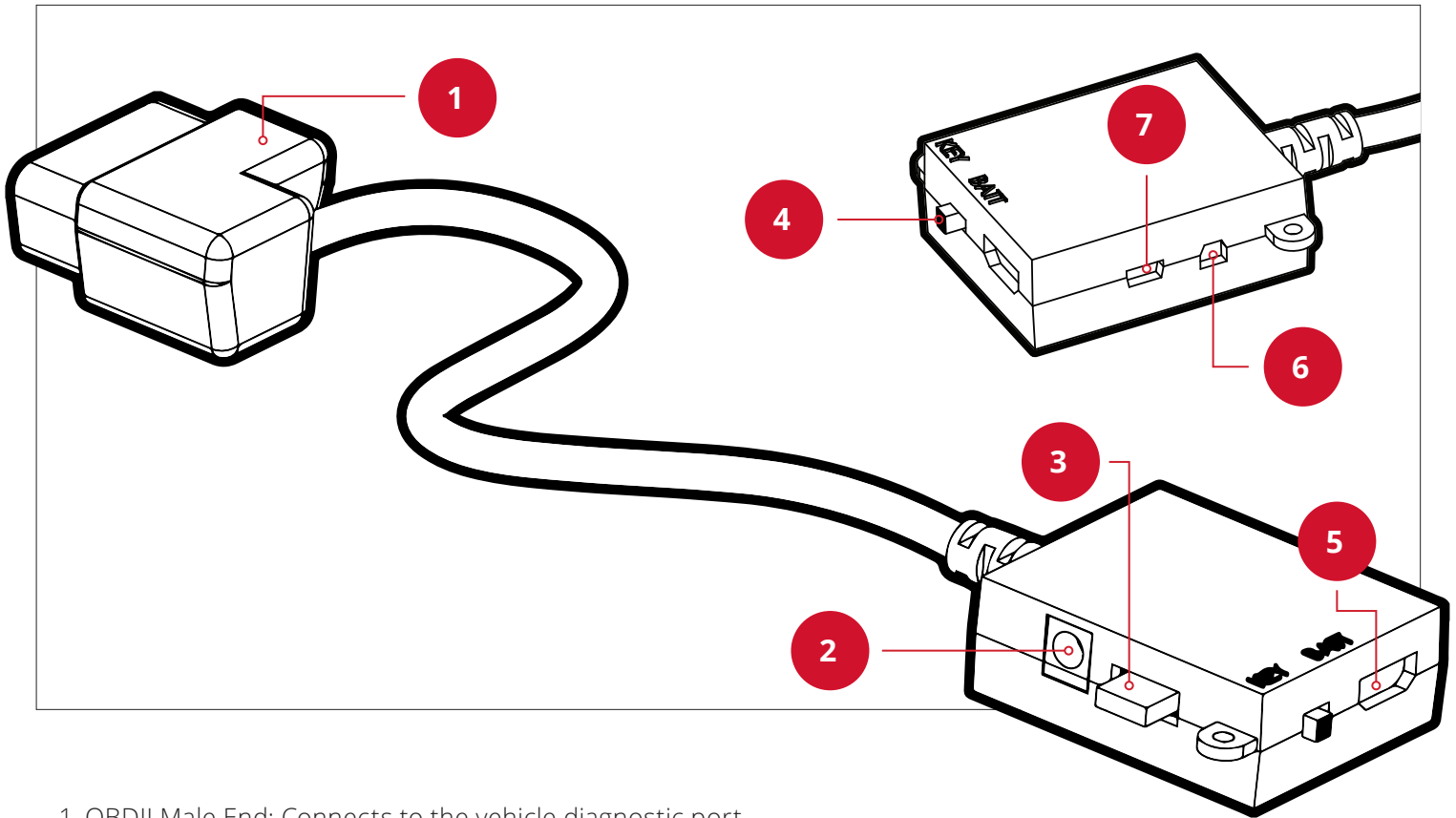
1. OBDII Male End: Connects to the vehicle diagnostic port.

2. Power Wire Port: Connects the GT Diesel to the power wire and the vehicle fuse box. Allows the GT Diesel to turn on and off with the key.

3. Fuse: The adapter plug fuse protects the GT Diesel from being damaged by unexpected power surges.

4. Power Switch: Changes the active power source of the GT Diesel.
The two options are: 1) KEY: this pulls energy from the fuse box through the power wire and allows the GT Diesel to automatically turn on and off based on the vehicle's ignition key position; and 2) BATT: This provides continuous battery power to the GT Diesel directly through the vehicle's diagnostic port.

5. HDMI Port: Connects the OBDII adapter plug to the GT Diesel Head Unit.

6. Pyrometer/Sensor Docking Station Port: Connects the GT Diesel to optional sensors including pyrometers or the Bully Dog Sensor Docking Station.

7. Future Peripherals: Not currently in use – may be used to connect additional devices in the future.

GT DIESEL Part# 40420

ABOUT THE GT DIESEL

BUTTON NAVIGATION

The illustration below outlines the basic functions of each of the seven buttons that help make up the GT Diesel.

Function 1: Press the top left button to enter the Main Menu, also use this button to exit menus.

gauge **GT** *tuner*

◄ Menu

MPH

90
60   120
30
0

AVG PEAK: 0 MPH
MAX PEAK: 0 MPH

Speed   0 MPH
RPM   0 RPM
Intake   76°
Coolant   86°F

ECON TIP: Econ Goal
Set a more achievable fuel economy goal.

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On-the-fly power level-up

∧

Use buttons to scroll though menus

∨

On-the-fly power level-down
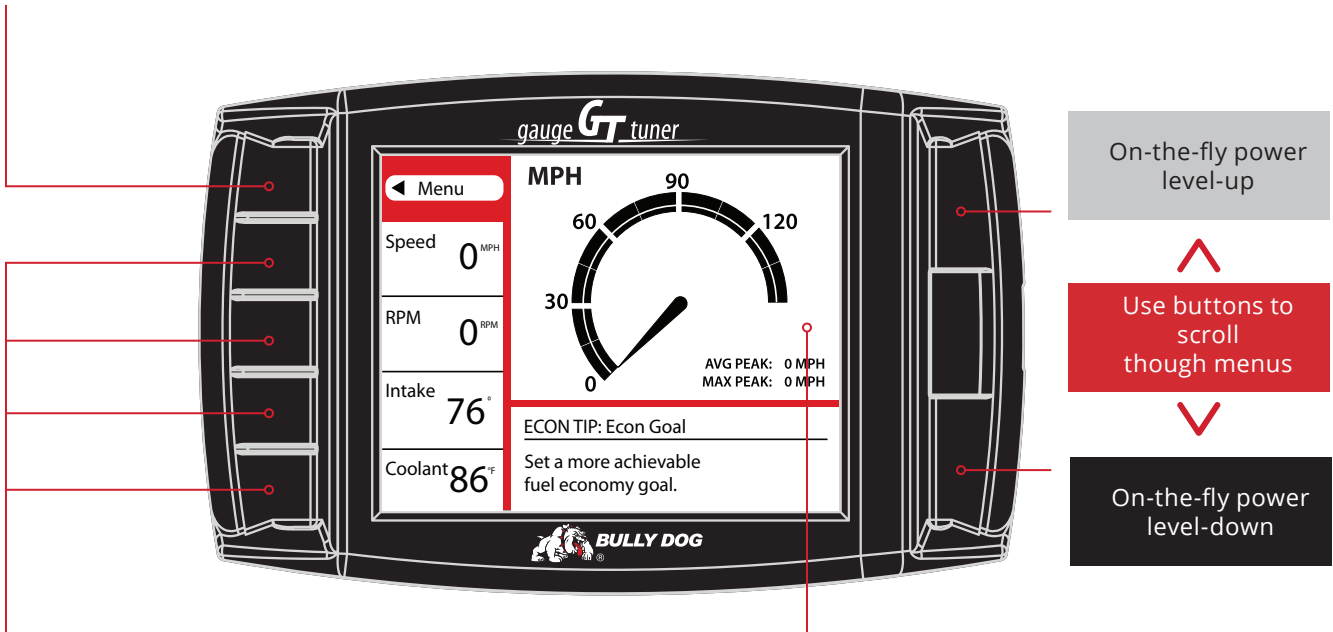
Function 2: Press any of the four buttons on the left side of the GT Diesel adjacent to one of the vehicle parameters to display that parameter in the large gauge area.

Function 3: Continuously hold any of the four buttons to change the Large Gauge style. There are four different options to choose from.

Wasted Energy

Driving Efficiency

Dec.   Acc.

Average MPG	Gallons	Grade
17	11.8	B

1.
The Driving Coach

2.
Analog gauge with average and max peaks

MPH

90
60   120
30
0

AVG PEAK: 0 MPH
MAX PEAK: 0 MPH

3.
Analog gauge with mini graph

MPH

90
60   120
30
0
PEAK: 0 MPH

4.
Large real time graph

140
120
100
80
60
40
20
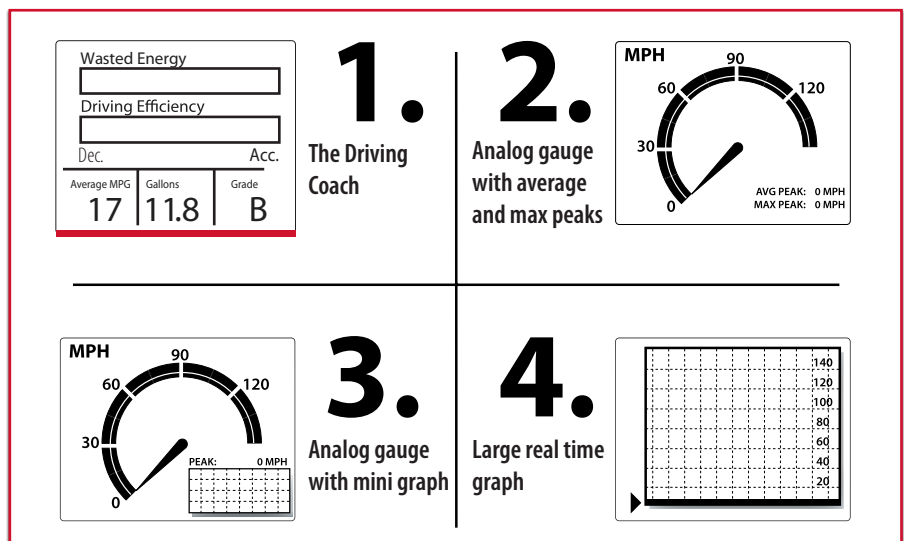
ABOUT THE GT DIESEL

AVAILABLE OPTIONS – ALL MODELS

In general these options are presented in the order they appear on the Main Menu but there are some menus that change according to the specific vehicle. If options are missing in your Main Menu, update your GT Diesel.

Change Vehicle

This option allows you to choose the type of vehicle that the GT Diesel will be used with. If the tune has already been installed, the Change Vehicle option cannot be used. Read the "Show Settings" section in this manual for more information about checking to see if the tune is already installed and, if so, how to uninstall the tune.

Install Download

This option allows you to install the tune to the engine computer in your vehicle. If the tune is already installed, this option will allow you to return to stock (basically uninstall the tune) or change certain settings that can only be changed by writing a new tune to the ECM. Read the "Uninstalling - Returning to Stock" section in this manual for more information about the download options and returning to stock.

Gauge Setup

This option will allow you to change which gauges are being displayed on the main gauge screen. Definitions for each type of gauge option available are listed on the next page.

Changing the Information on the General Display

1. Choose Gauge Setup from Main Menu.

2. Press the button on the left side of the GT Diesel to highlight the gauge slot you would like to change.

3. Use the buttons on the right side of the GT Diesel to scroll through the different functions and highlight the desired one on the General Display.

4. When done, use the top left button to go back to the Main Menu.

gauge **GT** *tuner*

◄ **Go Back**   **GAUGE SETUP**

▶ **Speed**
Set Gauge 1

▶ **Boost**
Set Gauge 2

▶ **RPM**
Set Gauge 3

▶ **Coolant**
Set Gauge 4

Gauge 1
Use the Up & Down Arrows to
Change the Tranny Tune

Pyro 2
Speed
Boost
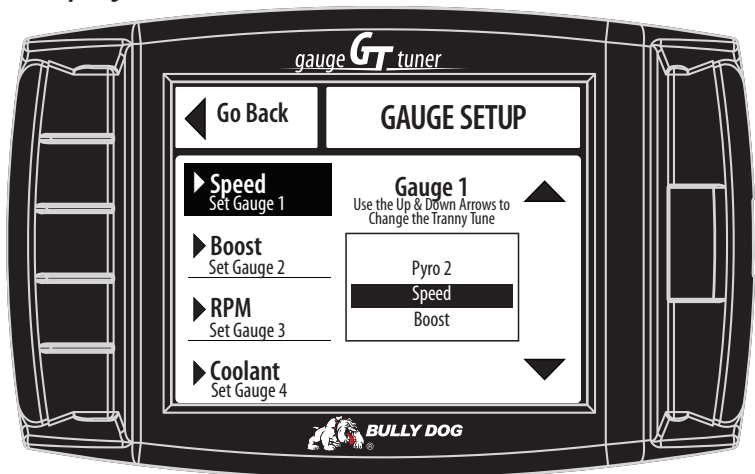
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Note: All of the gauge types may not be available through your vehicle's diagnostic port (OBDII port).
Bully Dog offers a range of add-on automotive sensors and a sensor docking station.
Contact our Technical Support team at: bullydog.com/support for more information.

Gauge Options

The gauge options listed below will vary from one vehicle to another and not all options will be available for each vehicle covered by the GT Diesel.

Pyro 1 & 2 (may require Sensor Docking Station)

Pyro 1 & pyro 2 measure exhaust gas temperature. The only difference is the location of the temperature sensor. Used for defuel level settings, which protect the engine from heat damage. Availability and location of OEM pyrometers vary according to vehicle make and year. For all other vehicles, pyrometer kits are available for purchase from bully dog. Bully Dog and factory OEM sensors are the only pyrometers which will work with the GT Diesel. If pyro 1 & 2 are unavailable through the OEM, go through the Sensor Docking Station.

Speed

This option shows the current vehicle speed. Monitoring this information can help you ensure that the speed displayed on the GT Diesel and the vehicle speedometer match the actual vehicle speed. Other important numbers, like the odometer and fuel efficiency, are based on this information.

RPM

This option shows the number of revolutions per minute of the engine. This will help you protect your vehicle and improve performance by watching and ensuring that the RPMs stay within a certain range.

Coolant Temperature

This option shows the coolant temperature. Used in defuel settings to prevent damage to the engine. Not available on all vehicles.

Throttle Position

This option shows the throttle position measurement – it is displayed as the percent open. Used by the Driving Coach to indicate where changes can be made to driving habits to maximize fuel efficiency.

Intake Temperature

This option shows the intake air temperature.

Air temperature affects combustion temperature and engine performance.

Transmission Temp

Displays the transmission temperature. Also used in defuel settings to prevent damage to the transmission from excessive heat.

Load

Real-time measurement of the load that the engine is under during use.

Timing

This option shows a real-time reading of the timing position as the engine is running.

MAF

This option displays information from the Mass Airflow Sensor. Used by the Engine Control Module (ECM) to optimize the engine performance.

Fuel Econ.

A real-time measurement of the vehicle's fuel economy, shown in miles per gallon. Determine when your fuel efficiency peaks or dies to improve your driving habits and your bottom line when visiting the pump.

Fuel Flow

This option displays the amount of fuel being used at any given time; shown in a percentage.

Boost (Turbo equipped vehicles only)

Current turbo boost pressure in PSI.

Injection Pulse Width (IPW)

The time the injector stays open for each injection event; usually displayed in milliseconds (ms).

Battery Voltage

This option shows the current battery voltage.

> The GT can monitor the options below when used in conjunction with the Bully Dog Sensor Docking Station –part# 40385.

A/F Ratio 1 & 2

Displays air to fuel ratio. The GT Diesel will use this information to ensure that your engine is using the correct ratio to maximize performance and efficiency.

AUX 1, 2 & 3

Shows the information from sensors connected to the 0-5V auxiliary inputs on the Sensor Docking Station.

AUX Temp

Displays the information returned to the Sensor Docking Station by an optional temperature sensor. The port for this sensor is marked as 5V out.

Frequency

Displays information from a pulsing type of sensor, like an on-board speed sensor or any other sensor that operates on the 0-5kHz 5V pulse range.

ABOUT THE GT DIESEL

User Options – Setting & Resetting

These options allow the user to customize their GT Diesel to their own liking increasing the usability.

Set Color Theme

Change the display colors on your GT Diesel.

Adjust Back-light

Change the brightness for both the day and the night operating modes of the GT Diesel.

To change between night and day mode, hold both the right buttons (the up and down buttons) while you are in the general gauge display.

Set Animation Preferences

Turn the Wave Effect on or off. This effect creates a ripple on the screen whenever you press a button.

English/Metric Units

Switch between miles/kilometers and gallons/liters.

Reset to Default

Change the user preferences back to the original Bully Dog default settings. This option does not change other GT Diesel features to default settings.
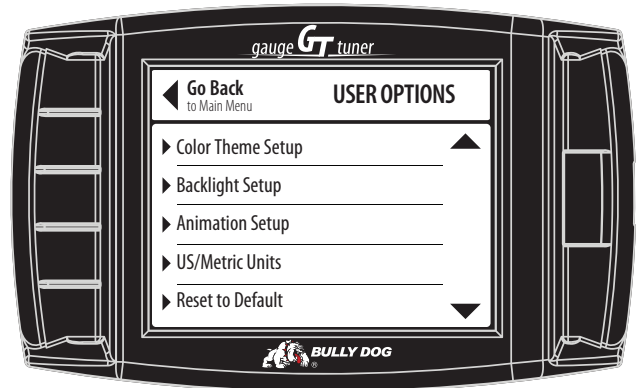
Resetting Average Economy

This option resets the saved values on the GT Diesel for average fuel economy, the number of gallons used, and the fuel efficiency grade displayed by the Driving Coach.

ABOUT THE GT DIESEL

Performance Testing

This feature offers drag racers the ability to complete the 1/4 Mile and 0-100 KPH performance tests.

You can also download saved tests from your GT Diesel to your computer and analyze it using the Bully Dog Performance Testing Software. The software is available by free download from www.bullydog.com.

There are two different styles available for both tests. The GT Diesel will show different test screens based on the style of test that is currently selected in the Performance Testing Setup Menu.

Speed Sensitive Performance Test

Once this test is begun, the GT Diesel will show instructions to the user to first bring the vehicle to a stop. Once the vehicle is at zero miles per hour, the test is ready. The test will automatically start once the vehicle begins to move.

Race Tree Performance Test

Before initiating the Race Tree style performance test it is important that the vehicle should already be at a complete stop. Once the test is begun, the GT Diesel will display a classic race tree on the screen. As soon as the lights on the tree turn green, the GT Diesel will begin to record the vehicle's time. In this style of test, the GT Diesel will not wait for the vehicle to start moving before it starts recording performance data.

1/4 Mile Performance Test

This option will test the vehicle's performance until the vehicle has traveled 1/4 mile.

View Test Results

View the results for the last performance test that was run.
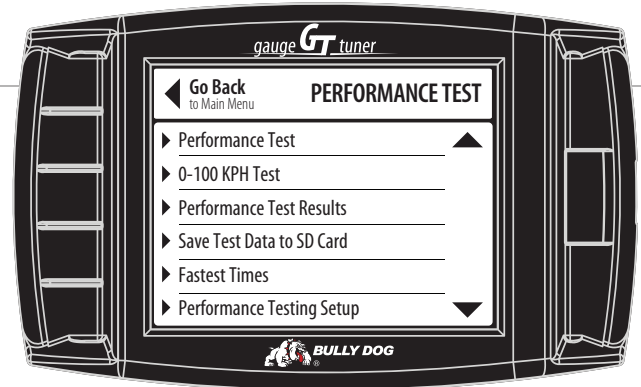
Save Previous Test to SD Card

Save the results of the last run to the SD card in the GT Diesel. All runs that are saved to the SD Card can be transferred to your computer using our Performance Testing Analysis Software. For more information on our Performance Testing Analysis software, see page 41 or visit our website: www.bullydog.com

Fastest Times

View the results for the quickest 1/4 mile ever recorded.

0-100 KPH Test.

This option will test the vehicle's performance until the vehicle has reached a speed of 100 kilometers per hour, which is about the same speed as 62 miles per hour.

ABOUT THE GT DIESEL

Driving Coach Setup

The Driving Coach is a special feature designed to be your fuel economy dashboard and information center. It provides real-time visual and audio feedback about driving efficiency and where energy is being lost. The driving coach will help you understand the optimal conditions for your particular vehicle through real-time observation, giving you the power to maximize your vehicle's fuel economy.

Showing/Hiding the Driving Coach

The driving coach is always running, even if you choose not to have the information displayed. You can show or hide the driving coach on the Main Display by holding one of the four bottom left buttons until the display cycles through to the gauge style that you want.

Set Economy Goal

This option will allow you to select a fuel economy goal. The Driving Coach will use the economy goal to calculate your driving grade. It is very important to select an economy goal that is realistic for both your vehicle and the kind of driving you will be doing. If you will be driving mainly in the city or on the highway, choose a goal that is very close to the advertised fuel efficiency for your vehicle in that type of environment. If you will be doing a mixture, choose an economy goal between the advertised city and highway mileage for your car.

Reset Average Economy

This option will clear the values stored in the GT Diesel for the average fuel economy, the number of gallons used, and the grade in the Driving Coach.

Sensitivity

This option will allow you to select the GT Diesel sensitivity for the acceleration and deceleration in the Driving Coach; this affects the driving grade assigned by the Driving Coach.

Low Setting: city driving and beginners in any driving circumstances.

Med Setting: rural for beginners and some city driving for more advanced.

High Setting: rural Driving only.

Coach Sound Setup

This option will allow you to turn the Driving Coach sounds on or off.

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◄ **Go Back** to Drv. Coach Setup **DISPLAY COACH**

Turn the Driving Coach Display ON or OFF by making your selection below

Driving Coach ON

Driving Coach OFF

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◄ **Go Back** to Drv. Coach Setup **ECONOMY GOAL**

Select a fuel economy goal

Selected: **20 MPG**

Economy
17mpg
18mpg
19mpg
20mpg
21mpg
22mpg
23mpg

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◄ **Go Back** to Drv. Coach Setup **RESET ECONOMY**

Resetting will clear Average Economy, Gallons and Grade.
Are you sure you want to reset this information? (▲ for Yes)

Yes

No

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◄ **Go Back** to Drv. Coach Setup **SENSITIVITY**

Adjust Accel/Decel Sensitivity

LOW

MEDIUM

HIGH

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◄ **Go Back** to Drv. Coach Setup **COACH SOUND**

Turn the Driving Coach Soun ON or OFF by making your selection below.

Sound ON

Sound OFF

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ABOUT THE GT DIESEL

Driving Coach Setup – Checking Speedometer Accuracy

Change the Gauge Setup to have the Speed displayed on the main display screen. See page 6 for more information about changing the information displayed on the main display screen. Next, go to a safe place with little to no traffic where you can perform a speed test. Make sure the speed limit is at least 60 mph.

Comparing GPS & GT Diesel speeds

Use a GPS device or GPS APP to compare your actual speed and the speed displayed on the GT Diesel. Calculate the Percent Difference by using the formula below:

Example: the GPS reads 65MPH and the GT Diesel displays 62 MPH what is the percentage difference?	
STEP 1: Calculate the difference in MPH (subtract one value form the other) ignore any negative sign	65 − 62 = 3
STEP 2: Calculate the average MPH (add the values, then divide by 2)	(65 + 62) = 127/2 = 63.5
STEP 3: Divide the *difference* by the *average*	3/63.5=.0472
STEP 4: Convert that to a percentage (by multiplying by 100 and adding a "%" sign)	0.47×100 = 4.7%

Adjusting the Speed Display

Using the method described above to determine the exact percentage difference between the GT Diesel and your actual speed you will need to choose the opposite percentage in the *Adjust Speed Display* menu.

For example, if the difference between your actual speed and the speed displayed on the GT Diesel was 5%, you should choose -5% (negative five percent).

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◀ Go Back
to Vehicle Setup   SPEED DISPLAY

Select the % to   Economy
adjust speed by   -8%
                             -7%
Selected: -6%
-5%   -5%
                             -4%
                             -3%

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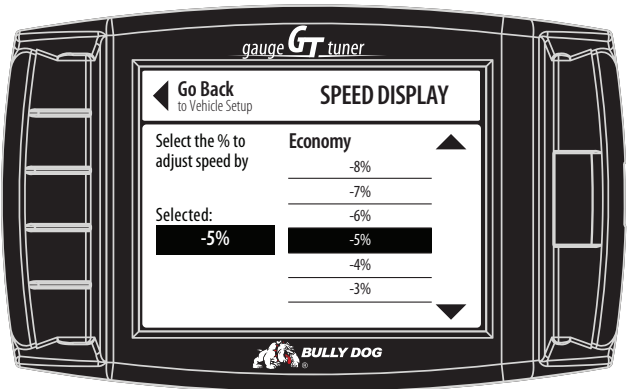
ABOUT THE GT DIESEL

Driving Coach Setup – Checking Average Fuel Economy

It is important to check the accuracy of the average economy readout on the GT Diesel at least once every changing season. There are many reasons to check and adjust the average fuel economy, here is one example: The fuel delivered to gas stations during the winter contains an average of 1.3% less energy than the fuel delivered in warmer seasons. That means that the same amount of liquid is going into the tank, but it is 1.3% less effective, on average. There are many similar factors that affect your fuel efficiency that you cannot control and the GT Diesel cannot sense or adjust for. That is why it is important to adjust the fuel economy of the GT Diesel every once in a while.

To adjust the Average Fuel Economy displayed by the GT Diesel, follow these steps:

1. Go to the gas station and get a full tank of gas.

2. Reset both of the following gauges before driving away from the gas station:

  - The Average Economy on your GT Diesel.

  - The trip odometer on your vehicle.

3. Drive the vehicle for an entire tank (or two)

4. Calculate your vehicle's average fuel economy by hand using the following equation:

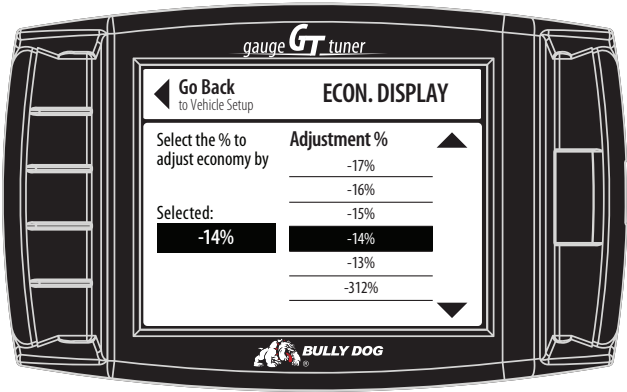| Manually Calculate Average MPG	Divide the miles driven by the gallons needed to top off the tank

Example: Manually Calculated Average MPG is 24 & the GT Diesel displays 21MPG what is the percentage difference?		
STEP 1:	Calculate the difference in MPG (subtract one value form the other) ignore any negative sign	$24 - 21 = 3$
STEP 2:	Calculate the average MPG (add the values, then divide by 2)	$(24 + 21) = 24/2 = 12$
STEP 3:	Divide the *difference* by the *average*	$3/12 = .25$
STEP 4:	Convert that to a percentage (by multiplying by 100 and adding a "%" sign)	$0.25 \times 100 = 2.5\%$

Adjust the Average Fuel Economy

Go to the Main Menu and choose Vehicle Setup, then choose Adjust Economy Display. From there use the buttons on the right to move up and down the percentages. Finally choose the percent value that is the opposite sign of the Percent Difference that you calculated using the equation above. For example, if you determine that the Percent Difference is 14%, you should choose -14%.

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◀ **Go Back**
to Vehicle Setup   **ECON. DISPLAY**

Select the % to   **Adjustment %**   ▲
adjust economy by   -17%
                             -16%
Selected: -15%
-14%   **-14%**
                             -13%
                             -312%   ▼

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ABOUT THE GT DIESEL

Vehicle Settings

Set Engine Size

This is automatically determined when you choose your vehicle make and year during installation of the tune. You would only need to access this option if you do not have a stock engine displacement size.

Set Vehicle Weight

Select your vehicle weight. Access this option if you do not have a stock gross vehicle weight.

Select Pyro Source

Choose either factory installed or Bully Dog pyrometers.

(Only available on 2007.5 and newer vehicles that come equipped with a factory pyrometer)

Set Warning Levels

Set the temperature level at which the GT Diesel will provide a warning to help you protect your engine from heat damage. It is also possible to turn each of these settings completely off. This is appropriate if the sensor for that setting is not available or if you do not wish to have that setting monitored by the GT Diesel.

GT Diesel can monitor	
Pyrometer #1 Temperature level	Engine Coolant Temperature level
Pyrometer #2 Temperature level	Transmission Temperature level
Startup Coolant Temp Level–Option included to ensure that the vehicle is warmed up properly before providing additional power.	

Adjust Economy Display

Change the miles per gallon shown by the GT Diesel. This setting should be changed if the GT Diesel is showing incorrect fuel mileage.

Adjust Speed Display

Change the vehicle speed shown by the GT Diesel. This setting should be changed if the GT Diesel is showing an incorrect vehicle speed.

ABOUT THE GT DIESEL

Special Functions– available on select GM Trucks

The same special functions are not available for all vehicles. These options cannot be adjusted on-the-fly. This means that they are set when you install the tune. The only way to change these settings is to start the Install Download process and choose Change Settings when you are prompted by the GT Diesel.

DPF Burn-Off
(2007.5 – 2012 Chevy/GM 6.6L Duramax Vehicles Only)
The DPF Burn-Off feature will send a request to the vehicle to start the DPF burn-off of the diesel particulate filter. Follow the on-screen instructions provided by the GT when using this feature. **If the diesel particulate filter clogs often there may be an issue with the filter itself, which would need to be serviced by an OEM dealer.**

Special Functions– available on select Dodge/Ram trucks

Mobile Desoot (`07.5 -`09 6.7L Cummins Only)
The Mobile Desoot feature will send a request to the vehicle to start the desoot process of the diesel particulate filter. Follow the on-screen instructions provided by the GT when using this feature.

Auto Door Lock
Enabling this feature will cause all doors to lock once the vehicle reaches a speed of 15 mph. Once the vehicle comes to a complete stop, if the driver's door is the first to open all of the other doors will automatically unlock.

Head Lamp Delay
Use this feature to set the amount of time that the head lamps remain on after the vehicle has been turned off. Use the up/down arrows on the tuner to scroll in 5 second increments between 0 and 80 seconds.

Fog Lamp
Enabling this feature will allow the fog lights and high beams to operate at the same time. This feature is for Off-road use only.

Horn Chirp on Lock
Enabling this feature will sound a horn chirp each time the doors are locked when using a remote door lock system.

Optical Chirp on Lock
Enabling this feature will flash the hazard lights each time the doors are locked when using a remote door lock.

Seat Belt Reminder Chime
Enabling this feature will remind the driver to buckle their seat belt with an audio chime each time the vehicle is put into drive and the driver's seat belt is not buckled.

Accessory Delay
Use this feature to set the amount of time that the accessory items in the vehicle will remain on after the vehicle has been shut off as long as the doors remain closed. Accessory items include the radio, cigarette lighter, etc. Use the up/down scroll buttons on the tuner to choose between the following settings: 0 seconds, 45 seconds, 5 minutes, 10 minutes, 30 minutes, or 60 minutes.

Unlock Driver Door
Enabling this feature will affect the way the doors unlock when using a remote door lock system. If enabled, the first time the remote unlock button is pressed only the driver door will unlock, the second hit will unlock the passenger doors. If disabled, all doors will unlock on the first press of the remote unlock button.

Daytime Headlights:
Use this new option to turn daytime running lights on or off while driving.

Vehicle-Specific Download Features

These options cannot be adjusted OTF (On-the-fly) meaning that once they are set during the install download process, and can only be changed by starting that process again and choosing new settings.

Speed Limiter
This changes the top speed that the car will reach before the engine automatically limits the power needed to go faster.

Calibrate Speedometer
This feature will adjust the speed displayed by the factory installed speedometer on your vehicle. This can be useful to correct an inaccurate speedometer caused by a change in tire size. Calibrating a tire size over 35" may cause the ABS light to turn on.

Low End Power
This feature improves the throttle response in the lower end of the RPM range, resulting in more horsepower and torque at lower RPMs. This feature is not recommended for everyday use.

This feature is available only on Dodge 5.9L Cummins '03-'07 vehicles with automatic transmissions.

UPDATING THE GT DIESEL

We strongly recommend that users select their vehicle (if exact vehicle is unavailable, then select a similar one) BEFORE updating with the Update Agent.

FAQ: Why do I have to update the GT Diesel

1. Vehicle manufacturers regularly change the part numbers and other information that the GT Diesel needs to know in order to communicate effectively with your engine computer. If the GT Diesel doesn't have updated information, it may not work correctly with your vehicle. Bully Dog releases updates when necessary to keep up with any changes that vehicle manufacturers make and give our customers the best support possible.

2. Our technical support team gathers information about any problems experienced by customers and works with the engineers to fix them as soon as possible. If these fixes can help other people avoid similar problems, our engineers include them in the updates that we release for everybody. One of the most important troubleshooting steps we take when someone encounters a problem is to make sure they have the most recently released software version. This often immediately fixes the problem!

3. Bully Dog engineers are constantly working to expand the features and vehicles that the GT Diesel is able to support. Once a new vehicle or option is unlocked, they make sure it is available to everyone by including it in the updated software version.

Do I have to update my brand new GT Diesel?

Yes, there is no way to know how long your particular GT Diesel may have been waiting on the shelf for you.

How often should I update?

Updates are released regularly, so you should check for them at least four times a year. A good rule of thumb is to check once every three months.

It is also a good idea to update the GT Diesel if you have uninstalled the tune for any reason, like taking your vehicle in for service. This will help you avoid any problems during the reinstall if the engine computer has been flashed and has new part numbers (this is very common, even for a routine vehicle service).

What is included in updates?

Updated part numbers and other information from vehicle manufacturers, tested fixes for problems customers may encounter, and any additional features or vehicles that our engineers have unlocked.

How can I tell which software version I currently have?

1. Go to the Main Menu.

2. Choose the Show Settings option. The software version is listed under System Info, next to Version. It is labeled **Software.**

## How can I use the Update Agent to check for updates?

Start the Update Agent application and connect the Micro SD card to your computer using the card reader that came with your GT Diesel. The Update Agent should automatically recognize the Bully Dog device, check the current software, and let you know if an update is available.

UPDATING THE GT DIESEL

Installing the Bully Dog Update Agent software– Windows® OS

ALL SOFTWARE INCLUDING THE UPDATE AGENT IS NOT MAC COMPATIBLE.
A WINDOWS-BASED PC WILL BE REQUIRED.

1. Go to: bullydog.com and click on the "Support" tab at the top of the page.

2. Locate and click the "Software" option and then click on "Light Duty Update Agent, Device Updater, and Livelink Downloads". You will see "Bully Dog Update Agent (Updater for GT devices)". Click to begin downloading and installing on your computer.

3. Wait for the program to download, then double click and "Run" the BullyDogDeviceUpdater.exe file if it does not open automatically.

4. Follow the on-screen instructions to complete the installation of the software.
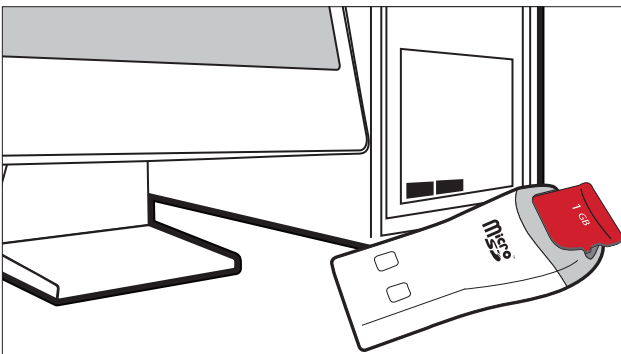
Connecting the micro SD card

1. The SD card is located in a paper envelope, which is located in an envelope inside the product packaging.

2. Insert the memory card into the included card reader.

3. Insert the card reader with memory card to a USB port on the computer.

If the computer does not read the SD card, try a different USB port. If that does not work, retry this step with the SD card plugged into the GT Diesel that is referred to in the next step.

Installing the memory card in the GT Diesel.

1. Remove the card reader from the computer.

2. Remove the memory card from the card reader and insert the memory card into the GT.

Connecting the GT Diesel to computer

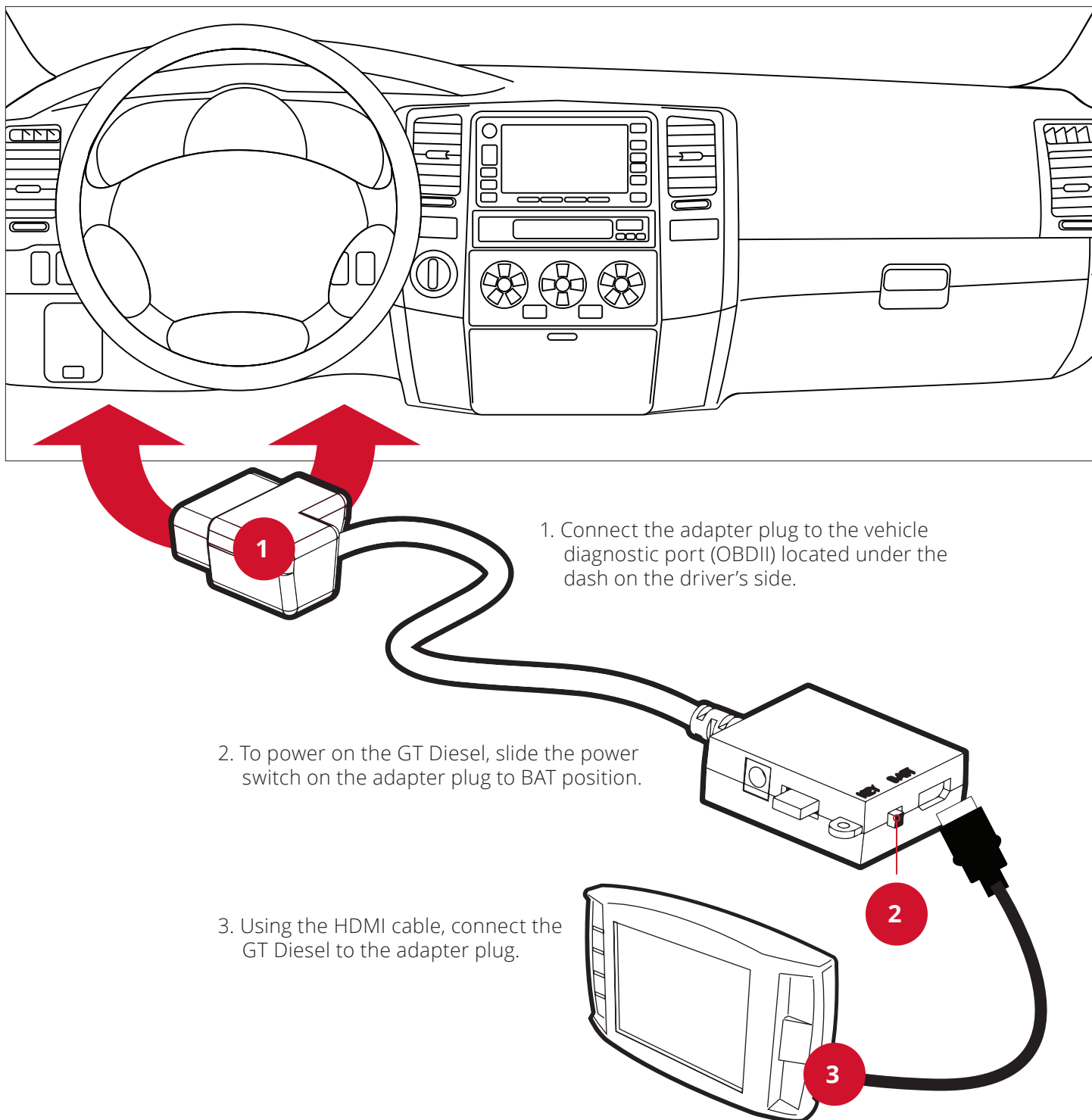1. Connect the GT Diesel to the computer with the included USB cable.

2. Press the second button from the top on the left side of the GT.

3. The GT may display "Initializing Communication" on the Main Screen. This normal and will not change while the GT is connected to the computer; there no need to wait for the message to disappear to complete the update.

(940) 783-9915 | www.bullydog.com
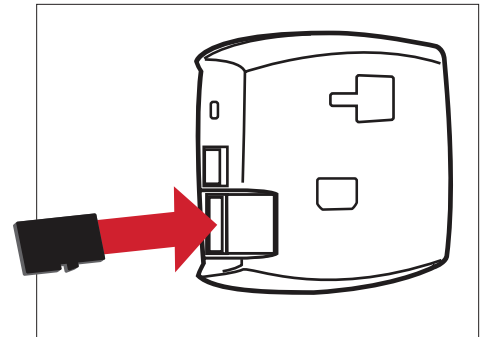
PHYSICAL INSTALLATION

Quick Installation

Complete physical installation is not required to install the tune to your vehicle. To use features like automatic (ignition-controlled) power on/off and the Driving Coach, complete installation is recommended.

1. Connect the adapter plug to the vehicle diagnostic port (OBDII) located under the dash on the driver's side.

2. To power on the GT Diesel, slide the power switch on the adapter plug to BAT position.

3. Using the HDMI cable, connect the GT Diesel to the adapter plug.
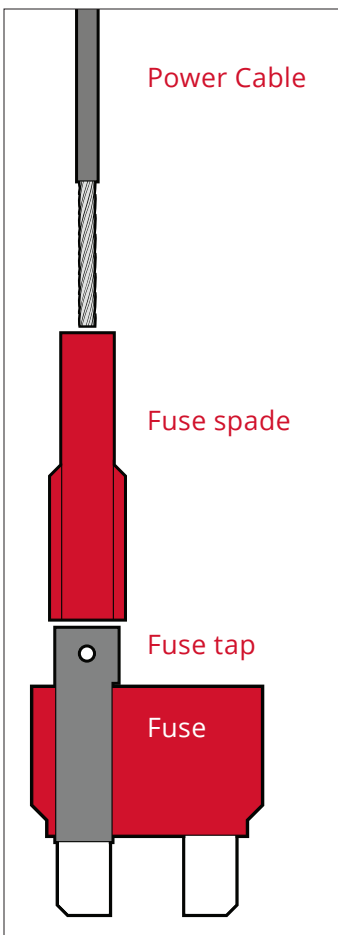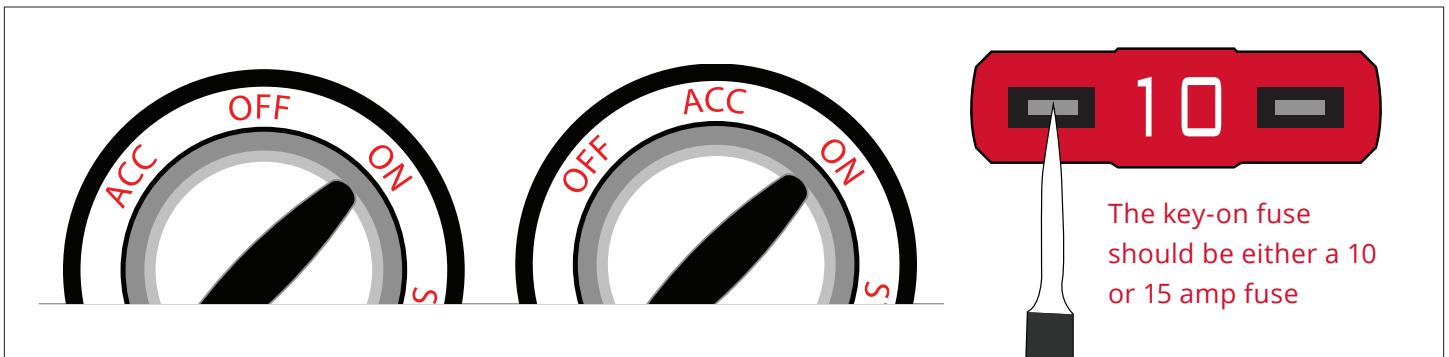
GT DIESEL Part# 40420
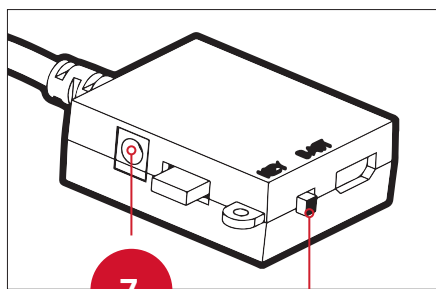
PHYSICAL INSTALLATION

Complete Installation – key-on fuse.

Steps below will enable the vehicle key position to control the power state (on/off) of the GT; if you do not want the GT to automatically power on and off according to the key position, skip these steps.

1. Use a 12 volt test light or your vehicle owner's manual to locate the fuse. Note, the fuse only has power when the key is in the "on" (or "run") position.

2. Remove the fuse and locate the un-powered (accessory) side of the fuse socket.

3. With the key on the "run" (or "on") position, insert the probe of a 12 volt test light into each side of the fuse socket. Mark the side that does not light up.

OFF
ACC
ON

ACC
OFF
ON

10

The key-on fuse should be either a 10 or 15 amp fuse

Power Cable

Fuse spade

Fuse tap

Fuse

4. Connect the power cable to the fuse box.

5. Crimp the fuse spade onto the power wire and slide the fuse tap over one metal prong of the fuse.

6. Slide the fuse spade over the fuse tap and then put the tapped fuse back in the fuse box; make sure that the tapped side of the fuse is placed in the un-powered (accessory) side of the fuse socket. The black ground wire inside the power cable is not required.

7

7

7. Connect the power cable to the adapter plug and then slide switch to KEY.

8. Run the HDMI cable under the dash or weather stripping. This is discreet, stylish and will help protect the GT.

PHYSICAL INSTALLATION

Mounting the GT

1. After cleaning and drying the windshield, select a safe place to mount the GT. Be sure not to obstruct the driver's view when choosing the location.

2. Stretch out the HDMI cable to make sure reach the GT with a small amount of slack.

3. Use the T-slot on the back of the GT to attach it to the Universal Windshield Mount (UWM).

5. Position the UWM suction cup on the windshield and press the lever on the base of the mount towards the windshield to secure it in place.
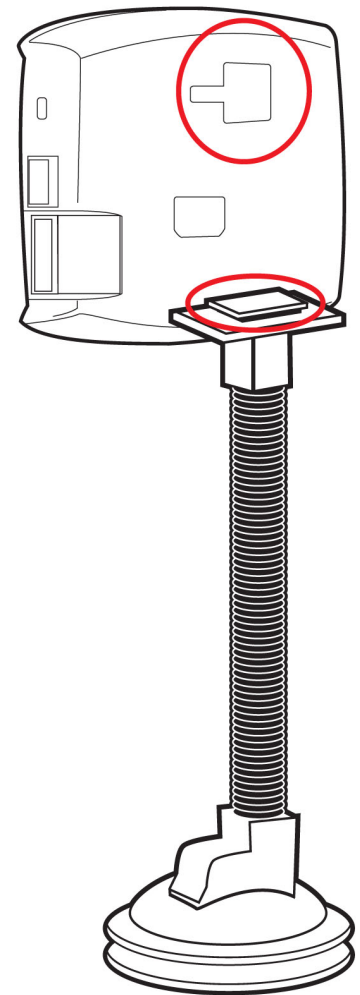
Additional Mounting Options

Bully Dog has created alternative mounting solutions which will allow you to mount your GT Diesel in even more convenient locations.

RAM Mirror-Mate part #: 31600 and 33600
The RAM Mirror-Mate mounting kit will allow you to mount your GT Diesel directly beneath your rear view mirror. This heavy-duty mounting solution provides easy and intuitive access to your GT Diesel without blocking the driver's view.

RAM Suction Cup Mounting Kit Part Number: 30600
This kit is the best suction cup mount on the market. The amazing holding power will allow you to mount your GT Diesel to multiple surface materials in any vehicle – which means that you can try different places and find the best place for your GT Diesel to be at any time.

Pillar Mount Gauge Pods
Bully Dog also offers gauge pods, which will allow you to mount the GT Diesel on the pillar of your vehicle. The gauge pods are vehicle specific, so you will need to get the part number that matches your vehicle make and year.

GT DIESEL Part# 40420

TUNING VEHICLE

PREPARING FOR TUNING INSTALLATION

In order to enjoy additional power and other advantages of tuning your vehicle, you need to use the Install Download feature. The process is basically the same when you are installing, changing settings, or returning to stock.

CAUTION! THIS OPTION ACTIVELY REPROGRAMS THE ENGINE COMPUTER IN YOUR VEHICLE – IF THE PROCESS IS INTERRUPTED YOU MAY HAVE PROBLEMS WHICH COULD PREVENT YOU FROM USING THE GT DIESEL OR EVEN BEING ABLE TO DRIVE YOUR VEHICLE FOR A FEW DAYS. IN ORDER TO HAVE THE BEST INSTALLATION EXPERIENCE POSSIBLE, REVIEW THE INSTRUCTIONS AND PAY CLOSE ATTENTION TO THE PREPARATION STEPS LISTED BELOW.

✔ **Internet Access**

During installation process, you will need to connect the GT to the Internet using a home computer or laptop with a Windows® operating system.

✔ **Update the GT Diesel**

Use the Update Agent to update the GT. See page 21 for those steps

✔ **Allow time for initial setup**

Make sure you allow up to one hour to complete the tuning installation process.

✔ **Check your battery**

Before installation, ALWAYS ensure that the batteries are fully charged. If you are not sure, connect a battery charger before you begin installing the tune.

✔ **Turn electronics OFF**

Leaving electronics on may prevent a successful download. Electronics include: headlights, heater, air conditioning, stereo, DVD players, or anything plugged into electrical outlets in the vehicle. Also be sure to disconnect any aftermarket electronic device such as Trailer brakes, stereo, alarm, CB, remote start, Sirius/XM satellite radio, etc.

✔ **Make sure tune is intact**

Go to the Main Menu on the GT Diesel and choose the Show Settings option and check what is showing next to Download

If the GT Diesel shows Installed connect the GT Diesel to the original vehicle and uninstall the tune. If this cannot be done, contact technical support for a reset – there may be a fee for this service.

 If the GT Diesel shows "Not Installed" you can continue with your preparations to install the download to your vehicle. If the GT Diesel shows "Recovery", contact technical support for further assistance.

✔ **Removing Fuses**

This step is vital for successful installation on some vehicles, but not required on others. The following list includes information about which fuses need to be pulled to allow the GT to install the tune to the engine computer on specific vehicles. Please refer to your fehicle's manual for information on the location of the fuses. If the fuses are not pulled, the tune will most likely freeze during the install process. Fuses can be replaced after the tune installation has been completed.

'99-'01 Ford 7.3L Power Stroke

Fuses 16, 19 & 29

'02-'03 Ford 7.3L Power Stroke

Fuses 19, 35 & 41

'01-'02 GM 6.6L Duramax

SEO IGN

RDO 1

RAP 2

'03-'05 Duramax

TBC BATT

TBC IGN1

Radio

INFO

IMPORTANT NOTE: It is not recommended to use the GT Diesel with any other electronic tuner designed to increase horsepower.
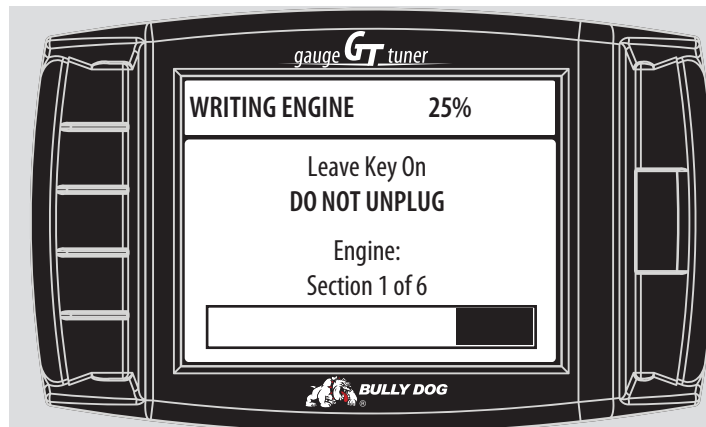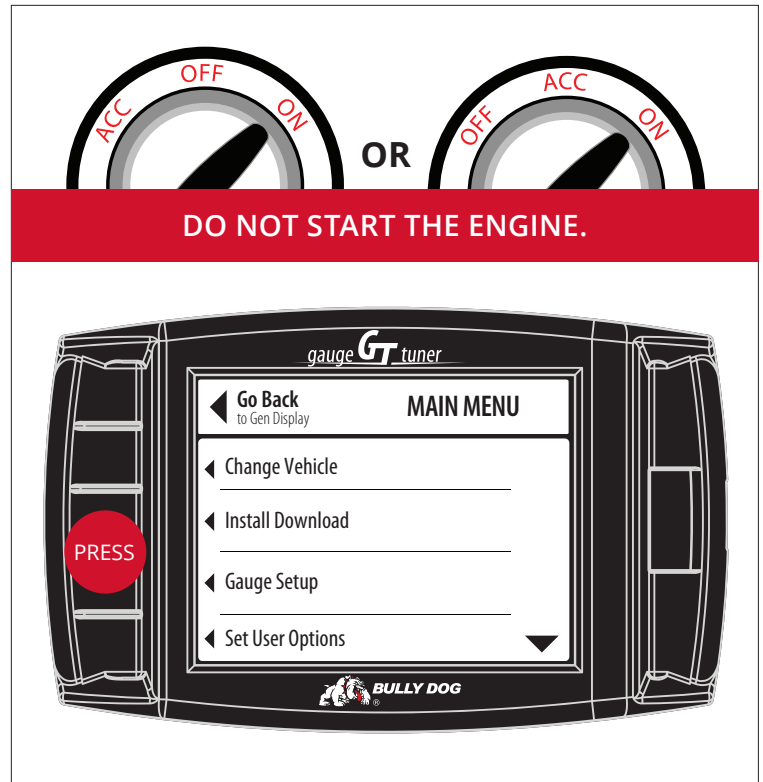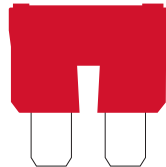
TUNING VEHICLE

INSTALLING THE TUNE – GENERAL INSTRUCTIONS

Follow the simple steps listed below for a an quick and easy tune installation process.

1. Turn the key to the "on" (or "run") position. **DO NOT START THE ENGINE.**

2. Go to the Main Menu (top left button).

3. Choose Install Download.

4. Follow the instructions on the GT screen.

5. You will be prompted to turn your key to the "off" or "on" position and then press Continue.

6. Do NOT start the engine when turning the key to the "run" (or "on") position at any time during the download. You may be prompted to make choices about vehicle-specific settings such as the speed limiter.

7. The GT Diesel will indicate when it is finished and then reboot to the Main Gauge Display

8. After installation, replace any fuses that you may have removed.

OR

DO NOT START THE ENGINE.

gauge **GT** *tuner*

◄ **Go Back**
to Gen Display   **MAIN MENU**

◄ Change Vehicle
────────────────────
◄ Install Download
────────────────────
◄ Gauge Setup
────────────────────
◄ Set User Options   ▼

PRESS

BULLY DOG

---

gauge **GT** *tuner*

WRITING ENGINE   25%

Leave Key On
DO NOT UNPLUG

Engine:
Section 1 of 6

BULLY DOG

IMPORTANT NOTE: There are certain times when disconnecting or interrupting power to the GT Diesel can interfere with the engine computer programming process. If the engine write is interrupted, the programming on your engine computer can be corrupted. This can cause your vehicle not to start and possibly even require the ECM to be replaced. The illustration is an example of one of the times during the installation when it is vital that the power is not disturbed.

TUNING VEHICLE
TROUBLESHOOTING INSTALLATION PROBLEMS

ERROR DURING INSTALLATION

1. Make note of the code number and all information displayed on the screen.

2. Disconnect and update your GT Diesel.

3. Make sure that you have disconnected all aftermarket electronics and completed all of the important preparation steps.

4. Try to install the download again.

5. If the error occurs again, contact technical support.

 This troubleshooting procedure applies to all errors, including the following code#s: 0, 141, 325 (on a 2011 Duramax), 358, 393

GETS STUCK ON "TURN KEY TO RUN"

1. Make sure that the key is turned as far as possible without turning the engine on.

2. Turn the key to the Off position, then turn it back to the On position.

3. Jiggle the key.

4. Disconnect the GT Diesel.

5. Update the GT Diesel if this has not already been done.

6. Reconnect the GT Diesel.

7. Make sure that all aftermarket electronics are disconnected from the vehicle.

8. Pull fuses if necessary for your vehicle.

9. Try to install the download again.

10. If the error occurs again, contact technical support.

GT DIESEL FREEZES IN THE MIDDLE OF THE DOWNLOAD.

Try connecting a battery charger to maintain voltage. (This step can solve many problems, even if your battery is new and fully charged).

UNINSTALLING THE TUNE–RETURNING TO STOCK

WHAT DOES THIS MEAN?

"Uninstalling the Tune" and "Returning to Stock" are different ways to describe the same thing: writing the original (stock) information to the engine computer so it uses the settings that it used before you installed your GT Diesel. Doing this also sends a signal to the GT Diesel to let it know that it is no longer installed on a vehicle, which will allow you to install the tune at a later time. The GT Diesel will not allow you to install if the tune has already been installed on a vehicle.

When to Return to Stock

You should return to stock in ALL of the following situations:

✔**Taking a vehicle in for service**

It is a very common practice for the engine computer to be "flashed" (reprogrammed) during all types of service, even routine maintenance. If the tune from the GT Diesel is still installed when the engine computer is flashed, it can cause problems when you want to use your GT Diesel in the future.

✔**Installing the GT on a different vehicle**

In order to install the GT Diesel on a different vehicle you will need to return the vehicle to stock. The GT Diesel can only be used on one vehicle at a time.

✔**Battery removal or low battery issues**

If you need to disconnect the battery for any reason or if the battery is having problems and could possibly go dead. Make sure to connect a battery charger while returning to stock to prevent any complications that can be caused by interrupting the GT Diesel while it is returning your vehicle to stock.

> IMPORTANT NOTE: If you do not return your vehicle to stock, you may have to call in to technical support to have your GT Diesel reset. There may be a fee for this service.

Methods

> IMPORTANT NOTE: Both methods are very similar to installing the tune to your vehicle, so you should make the same preparations and take the same precautions.

Method #1 Uninstall Download

1. Choose the Uninstall Download option from the Main Menu and follow the instructions shown on the GT Diesel.

3. When the GT Diesel gives you a message that the tune has been removed, disconnect the GT from your vehicle.

4. Check to make sure the tune has been removed from your vehicle and make sure that it starts. If not, check the troubleshooting FAQ.

> If this option is not listed on the Main Menu, use the next method below.

Method #2 Install Download > Return to Stock

1. Choose the Install Download option from the Main Menu and follow the instructions shown on-screen.

3. Choose "Return to Stock" when the GT Diesel gives you the option between "Change Settings" or "Return to Stock".

4. Follow the instructions shown on the GT Diesel screen.

5. Check to make sure the tune has been removed from your vehicle and test your vehicle to make sure that it starts. If not, check the troubleshooting FAQ.

GT DIESEL Part# 40420

UNINSTALLING THE TUNE–RETURNING TO STOCK

HOW DO I KNOW IF THE GT DIESEL IS (STILL) INSTALLED?

There are two ways to check if the tune is currently installed:

Main Screen

1. Look at the lower right corner of the main display screen.

Show Settings Screen

1. Go to the Main Menu.

2. Scroll down.

3. Choose Show Settings.

4. Check to see what the GT Diesel shows next to "Download".

5. If it shows:

  · **Installed** – the tune is still loaded on the engine computer.

  · **Not Installed** – the tune has been uninstalled and the vehicle is returned to stock.

  · **Recovery** – there is a problem and you should contact technical support.

MORE INFORMATION

CHANGING POWER LEVELS

The power levels on the GT Diesel can be changed On-The-fly (OTF) for certain vehicles by simply pressing either the upper right button on the device for powering up or by pressing the lower right button to power down.

PYROMETER CALIBRATION

Pyro calibration is a way to find the best temperature to use for the GT Diesel temperature warning setting for your vehicle. This will help you prevent heat damage to your engine.

1. Return your truck to stock by uninstalling the tune. See pages 45 for more information.

2. Find a steep hill with a long road and a high speed limit.

3. Wait for a hot day.

4. Set up a heavy load on your vehicle.

5. Haul the load to the top of the hill.

6. Check the pyrometer temperature.

7. Add 150°F.

8. Change the temperature warning setting under Main Menu > Vehicle Setup > Set Warning Levels.

TRANSMISSION RELEARN PROCESS

If you notice rougher shifting on 6.6L Duramax or the 6.0L/6.4 Powerstroke vehicles after installing the tune to your engine computer, you can help your transmission adjust to the additional horsepower by following the Transmission Relearn Process described below. Your transmission will also automatically adjust after about 150 miles of regular driving if you prefer not to complete the relearn process.

GM 6.6L Duramax with Allison Transmission

1. At a ¼ throttle get up into 5th gear. Once you are in 5th gear, apply light pressure to the brake pedal until the truck is stopped.

2. At a ½ throttle get up into 5th gear. Once you are in 5th gear, apply light pressure to the brake pedal until the truck is stopped.

3. At ¾ throttle get up into 5th gear. Once you are in 5th gear, apply light pressure to the brake pedal until the truck is stopped.

4. At full throttle get up into 5th gear. Once you are in 5th gear, apply light pressure to the brake pedal until the truck is stopped.

5. Go through the same process with the Tow Haul button on.

Ford 6.0L & 6.4L Power Stroke Automatic Trans.

1. Come to a complete stop and put the tuner on its highest setting.

2. Moderately accelerate to 55 mph.

3. Allow the vehicle to shift into overdrive and while in overdrive, maintain a speed of 55 mph for 15 seconds.

4. Lightly apply the brake just enough to engage the brake lights, hold brake lights on while maintaining 55 mph for another 15 seconds.

5. Come to a complete stop for 20 seconds.

6. Repeat steps 3 through 5 five additional times.

7. Drive normally and enjoy.

GT DIESEL Part# 40420

MORE INFORMATION

FREQUENTLY ASKED QUESTIONS

MY GT DIESEL WON'T TURN OFF

Q. I have turned my vehicle off and removed the key – everything else has turned off. Why won't my GT Diesel turn off?

A. The power switch on the OBDII adapter plug is in the "wrong" position. If you want the GT Diesel to turn on and off along with the rest of your vehicle, you will need to make sure that the power switch is in the "correct" position and that the power cable is installed correctly. See page <?> for more information about installing the power cable.

MY VEHICLE WON'T START AFTER I INSTALLED THE DOWNLOAD

Q. My vehicle won't start after I installed the download, what happened and how do I fix this?

A. The GT Diesel encountered a problem when it was writing to the engine computer. Follow these steps to resolve the problem:

1. Return the vehicle to stock. Test to see if the engine starts.
2. Update the GT Diesel.
3. Install the download again. Test to see if the engine starts.
4. Contact technical support if the problem persists. See page <?> for more information about contacting technical support.

MY VEHICLE WON'T START AFTER RETURNING TO STOCK

Q. My vehicle won't start after I uninstalled the tune. How do I fix this?

A. Follow these steps to get your truck running with the tune uninstalled:

1. Make sure that you have completed all of the preparation steps on pages <?> .
2. Go to the Main Menu on the GT Diesel.
3. Scroll down and choose the Show Settings Option.
4. Check what the GT Diesel is showing next to Download.
   · Recovery: go to the next step.
   · Installed or Not Installed: Contact technical support.
5. Go back to the Main Menu and Choose the Install Download option
6. Confirm that you want to complete the Recovery.
7. Follow the on-screen instructions.
8. Once the recovery is complete, try to start your vehicle.
9. If your vehicle still will not start, contact technical support for more information.

Note: If the Recovery process completes successfully, your vehicle is returned to stock no further action is required. If the Show Setting screen still shows Recovery next to Download, contact technical support to have the unit reset (there will not be a charge to reset from Recovery Mode).

BULLY DOG

MORE INFORMATION

FREQUENTLY ASKED QUESTIONS

MY VEHICLE ISN'T LISTED UNDER CHANGE VEHICLE

Q. Why isn't my vehicle included in the list under the Change Vehicle option?

A. Chevrolet owners should choose the GMC option that matches the year of their vehicle. If your vehicle is very new or very old, you may need to update or your vehicle may not be supported yet.

WHAT KIND OF INCREASED PERFORMANCE CAN I EXPECT?

Q. How much extra horsepower will my vehicle get? What can I expect for fuel efficiency improvements?

A. Many people do find that the increased horse power helps them get the most mileage out of their fuel as possible. However, since fuel efficiency varies so much between different vehicles and drivers, there is no way to accurately predict fuel mileage increases. To get the best gas mileage possible, make sure to calibrate and use the Driving Coach to improve your driving habits. See pages 12-14 for more information about the Driving Coach.

### I DON'T FEEL EXTRA POWER

Q. Why can't I feel the extra horse power?

A. You may be expecting to feel the same change in horse power on a gas vehicle that our tuners provide for diesel vehicles. The additional horsepower available for a gas vehicle is not as high as it is for diesel vehicles, so you may not be able to feel it the same way as on a diesel; however the additional horsepower will still help the vehicle accelerate and maintain speed. Also, if your vehicle has recently been serviced, you might have forgotten to return the vehicle to stock. Also, be sure to check to see if your vehicle was returned to stock.

USB MODE

When you connect your GT Diesel to your computer via a USB cable, it enters USB Mode. In order to use the Update Agent, keep the GT Diesel in USB Mode.

If you want to use your computer to power the GT Diesel and allow you to access some of the GT Diesel's functions when it is not connected to your vehicle, you can Abort USB Mode. In order to Abort USB Mode, press the second key from the top on the left side.

gauge GT *tuner*

PRESS

USB Source:
SD Present
Card Detected

Press Key 2 to Abort USB Mode

BULLY DOG
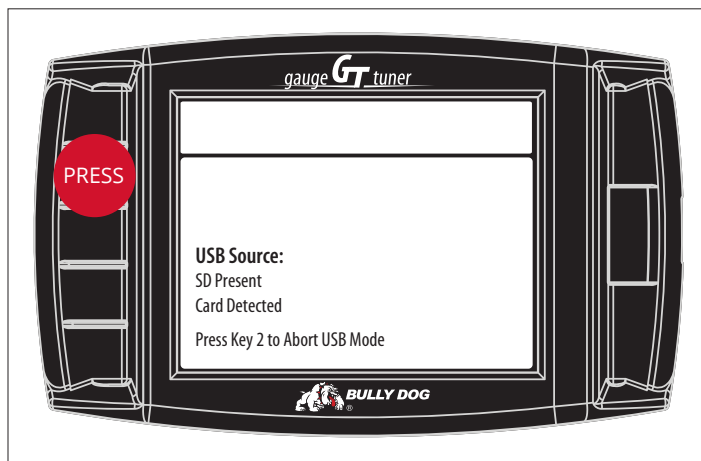
IMPORTANT INFORMATION

VEHICLE WARRANTY

You can access information about your vehicle warranty and your rights as an owner to use aftermarket products without voiding the warranty at the following SEMA (Specialty Equipment Market Association) website: http://www.bipac.net/page.asp?content=warranty&g=semaga

GT DIESEL WARRANTY

A new GT Diesel is covered for one year after the date of purchase. This warranty covers repairs for factory defects; it does not cover accidental damage or reset services. For pricing information and assistance in having a damaged GT Diesel unit repaired, contact technical support.

You can find more specific warranty information at the following page on the Bully Dog website: http://www.bullydog.com/warranty.php

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TECHNICAL SUPPORT HOURS

Monday - Friday

10:30 AM - 6:00 PM EST
* Customer service will be closed from 12:15pm EST to 2:30pm EST
on the second Thursday of every month.

Saturday - Sunday
(Emergency Support Email only)

10:00 AM - 04:00 PM EST

Emergency Weekend Support: urgentsupport@bullydog.com

407-774-24471 / 866-637-1672

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