Continue

1 ABOUT THE GT Preview of Basic Installation Steps 1. Update the GT. This step is very important!!! See page page 35 for more information. See pages 4-6 for a complete list and description of the items included with your GT. Tuning Information 40415 GT GAS SETTING PEAK HORSEPOWER PEAK TORQUE OCTANE High Octane up to 35 Up to 40 91+ octane Regular 15-20 15-20 85+ octane Stock Stock Stock Stock OEM Spec. IMPORTANT NOTE: The only gas tunes available are based on the octane of the fuel that you are running. Failure to comply with fuel octane requirements can result in engine damage. If you change the octane of fuel that you are running, you will need to change the tune installed on your vehicle - see page 39 for more information. 2 VEHICLE APPLICATIONS This vehicle application list is current for GT software version 1.1.4.2 Check the GT product page at www.bullydog.com to check for new applications. 3 40415 GT GAS CHEVROLET/GMC AVALANCHE 5.3L V8 2007-2014 6.0L V8 2002-2006 CAMARO 6.2L V8 2010-2013 CRUZE 1.4L T 2011-2014 EXPRESS/SAVANA 4.8L V8 2003-2014 5.3L V8 2003-2014 6.0L V8 2003-2014 8.1L V8 2003-2003 SIERRA/SILVERADO 4.8L V8 1999-2013 5.3L V8 1999-2014 6.0L V8 1999-2014 6.2L V8 2007-2014 8.1L V8 2001-2007 SONIC 1.4L T 2012-2014 YUKON XL/SUBURBAN 5.3L V8 2000-2014 6.0L V8 2000-2014 6.2L V8 2007-2014 CHRYSLER 300C 5.7L V8 HEMI 2006-2010 6.1L V8 HEMI 2006-2010 ASPEN 4.7L V8 2008-2009 5.7L V8 HEMI 2007-2009 CADILLAC ESCALADE 5.3L V8 2002-2005 6.0L V8 2007-2014 DODGE CHALLENGER 5.7L V8 HEMI 2009-2010 6.1L V8 HEMI 2008-2010 CHARGER 5.7L V8 HEMI 2006-2010 6.1L V8 HEMI 2006-2010 DA KOTA 4.7L V8 2008-2010 DURANGO 4.7L V8 2008-2009 5.7L V8 HEMI 2004-2009 MAGNUM 5.7L V8 HEMI 2006-2008 RAM 1500 4.7L V8 2008-2010 5.7L V8 HEMI 2003-2010 RAM 2500-3500 5.7L V8 HEMI 2003-2010 FORD E-SERIES 150-350 4.6L V8 2005-2008 5.4L V8 2005-2008 6.8L V10 2005-2008 EXCURSION 5.4L V8 2005-2005 6.8L V10 2005-2005 EXPEDITION 5.4L V8 2005-2010 EXPLORER 4.6L V8 2005-2010 F-150 3.5L ECO BOOST 2011-2013 4.6L V8 2005-2010 5.0L V8 2011-2013 5.4L V8 2005-2010 6.2L V8 2011-2013 F-250-550 5.4L V8 2005-2010 6.2L V8 2011-2013 6.8L V10 2005-2010 MUSTANG 4.6L V6 2005-2010 4.6L V8 2005-2010 RAPTOR 6.2L V8 2010-2013 INFINITI FX 35 / EX 37 3.5L V6 2008-2012 3.7L V6 2012-2014 FX 35 / FX 45 / FX 37 3.5L V6 2005-2012 3.7L V6 2012-2014 M 35 / M 37 / M 45 / M 56 3.5L V6 2006-2010 3.7L V6 2011-2014 4.5L 2005-2014 5.6L V8 2011-2014 JX 35 3.5L V6 2014 JEEP COMMANDER 4.7L V8 2008-2009 5.7L V8 HEMI 2006-2010 GRAND CHEROKEE 4.7L V8 2008-2009 5.7L V8 HEMI 2006-2010 6.1L V8 HEMI 2006-2010 JK WRANGLER 3.8L V6 2007-2010 MARK LT 5.0L V8 2011-2013 5.4L V8 2005-2010 NISSAN 350Z / 370 Z 3.5L V6 2005-2009 3.7L V6 2009-2013 ALTIMA 2.5L I4 2005-2014 3.5L V6 2005-2014 ARMADA 5.6L V8 2005-2014 CUBE 1.6L I4 2009-2011 1.8L I4 2009-2014 FRONTIER 2.5L I4 2005-2014 4.0L V6 2005-2014 MAXIMA 3.5L V6 2005-2014 MURANO 3.5L V6 2005-2014 NV2500/3500 4.0L V6 2012-2014 PATHFINDER 3.5L V6 2012-2014 4.0L V6 2005-2014 5.6L V8 2012-2014 QUEST 3.5L V6 2005-2014 ROGUE 2.5L I4 2008-2014 SENTRA 2.0L I4 2007-2014 2.5L I4 2007-2014 TITAN 5.6L V8 2005-2014 VERSA 1.6L I4 2007-2014 XTERRA 4.0L V6 2005-2014 PARTS LIST Your GT package should include the following: 40415 GT GAS 1. The Head Unit Part Number: 40415-1 2. OBDII Adapter Plug Part Number: 40400-105 3. HDMI Cable Part Number: 40400-100 5. Fuse Tap 6. Fuse Spade 7. Micro SD Card Reader Part Number: 40410-10 8. Micro SD Card Reader Part Number: 40410-10 4. Wire Part Number: 40400-101 8. Windshield Mount Part Number: 40400-102 4. Mini USB Part Number: 40400-103 You may also want to have the items listed below available when you are installing the GT: Tools Needed • Fuse Puller • Voltage Meter (optional) • Alternative Mounting Solution (See page 29 for more information.) Extra Parts (Optional) • Battery Charger 4 40415 GT GAS PARTS DESCRIPTION The Head Unit The main component of the Gauge Tuner is the head unit. It has the screen and the buttons that allow you to access all of the functions and features of the tuner. GT Front Side: The GT 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 head unit features a 2.4" LCD screen. GT Back Side: 1. T-Slot Mount Socket, which allows you to use the GT with dierent mounting options. 2. HDMI port 3. Micro SD card port 4. Mini-USB port 4 3 5 1 2 PARTS DESCRIPTION The OBDII Adapter Plug 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 Head Unit. The illustration and numbered list below contains more information about the other parts of this important piece of the GT assembly. 40415 GT GAS 1. 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 Head Unit. 2. Power Wire Port: Connects the GT to the power wire and the vehicle fuse box. Allows the GT to turn on and with the key. 3. Fuse: The adapter plug fuse protects the GT from being damaged by unexpected power surges. 4. Power Wire Port: Connects the OBDII adapter plug to the GT Head Unit. Do the two options are: 1) KEY: this pulls energy from the fuse box through the power wire and allows the GT to automatically turn on and or based on the vehicle's ignition key position; and 2) BATT: This provides continuous battery power to the GT directly through the vehicle's diagnostic port. 5. HDMI Port: Connects the OBDII adapter plug to the GT Head Unit. 6. Pyrometer/Sensor Docking Station Port: Connects the GT 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 6 40415 GT GAS BUTTON NAVIGATION FUNCTION 1: Press the top left button to enter the Main Menu, also use this button to exit menus. Menu RPM rpm 00 Coolant Intake Economy mpg 0.0 FUNCTION 2: Press any of the four buttons on the left side of the GT adjacent to one of the vehicle parameters on the screen will display that parameter in the large gauge area. Average M PG Gallons Grade B17 11.8 ® FUNCTION 5: Use these buttons to scroll up and down when GT is in a menu screen. FUNCTION 3: Continuously hold any of the four buttons to change the Large Gauge style, there are four dierent styles that you up. NOTE: The GT buttons are Capacitive Touch. This means that a light touch is all that is needed to choose different options. You do not need to push hard or get the buttons to move down or in for the GT to work for you. 7 THE MAIN SCREEN This picture of the GT main screen has the Driving Coach selected for the Large Gauge option. You can change which gauge is featured in the upper right corner of the main screen by holding down one of the buttons on the left side of the GT until the gauge type that you want is shown. Menu button: Press to enter the Main Menu. 40415 GT GAS Menu RPM Wasted Energy rpm 00 Coolant Average MPG Intake Economy Intact MPG mpg 0.0 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. See page 9 for more information about changing the information shown on the Main Screen. Instant Economy Gallons Grade Trip MPG Trip Grade ® Acc.Acc. B17011.8 Large Gauge area Dec. Acc. Report Card: B The Driving Coach Analog gauge with average and max peaks 3. 4. Analog gauge with mini graph Large real time graph 8 40415 GT GAS AVAILABLE OPTIONS ALL MODELS These options are presented in the order they appear on the Main Menu. If options are missing in your Main Menu, skip to see pages 18-25 for more information on updating your GT. See pages 18-25 for more information on updating your GT. Change Vehicle This option allows you to choose the type of vehicle that the GT will be used with. If the tune has already been installed the Change Vehicle option cannot be used. Pages 37 and 35 have 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. Pages 16 and 35-37 have 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. Denitions 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 the Main Menu. 2. Press the button on the left side of the GT to highlight the gauge slot you would like to change. Go Back Speed Set Gauge 1 Boost Set Gauge 2 RPM Set Gauge 3 Coolant Set Gauge 4 3. Use the buttons on the right side of the GT to scroll through the dierent functions and highlight the one you want shown on the General Display. 4. When you are done, use the top left button to go back to the Main Menu and General Display. NOTE: All of the gauge types may not be available through your vehicle's diagnostic port (OBDII port). This fact is out of the control of Bully Dog; however, Bully Dog offers a range of add-on automotive sensors and sensor interface equipment. Contact Bully Dog or a Bully Dog dealer to learn more. GAUGE SETUP Gauge 1 Use the Up & Down Arrows to Change the Tranny Tune Pyro 2 Speed Boost ® 9 Gauge Setup (continued) 40415 GT GAS Pyro 1 & 2 Both pyro 1 and pyro 2 measure exhaust gas temperature. The only dierence between them is the location of the temperature sensor. Used for defuel level settings, which protect the engine from heat damage. Availability and location of factory installed pyrometers vary according to vehicle make and year. All '07.5 and newer diesel pickups that are equipped with OEM diesel particulate liters also include factory installed pyrometer sensors. For all other vehicles, pyrometer kits are available for purchase from www. BullyDog.com. Bully Dog and factory OEM sensors are the only pyrometers which will work with the GT. Speed This option shows the current vehicle speed. Monitoring this information can help you ensure that the speed displayed on the GT and the vehicle speedometer match the actual vehicle speed. Odometer that match numbers, like the odometer and fuel eciency, 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 engine 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 eciency. Intake Temperature This option shows the intake air temperature. Air temperature aects combustion temperature and engine performance. Adding a Bully Dog Rapid Flow Intake (RFI) closed air system will lower this temperature, improve performance, and increase horse power. The Gauge Tuner (GT) is designed to work with the RFI to get the most out of your engine. Load This option shows a real-time measurement of the work that the truck is doing. Timing This option shows a real-time reading of the timing position as the truck is running. MAF This option displays information from the Mass Airow Sensor. Used by the Engine Control Module (ECM) to determine how much air is going into the engine. The ECM then sends the correct amount of fuel for optimum engine performance. Fuel Econ. This option displays a real-time measurement of the vehicle's fuel economy, shown in miles per gallon. Determine when your fuel eciency peaks or dips 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; it is shown as a percentage. Not available on all vehicles. Boost Current turbo boost pressure. Barometer Current atmospheric pressure. 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. Additional features listed on the next page. Transmission Temp This option shows the transmission temperature. Used in defuel settings to prevent damage to the transmission. Not available on all vehicles. 10 Gauge Setup (continued) The following gauge options are provided to allow the GT to monitor additional sensors that are only available with the Bully Dog Sensor Docking Station. 40415 GT GAS A/F Ratio 1 & 2 This gauge option shows the ratio of air to fuel. The GT will use this information to ensure that your combustion is using the correct ratio to completely burn all of the fuel being used and maximize performance and eciency. Only available on Bully Dog Sensor Docking Station part number 40385. AUX 1, 2 & 3 This gauge option shows the information from sensors connected to the 0-5V auxiliary inputs on the Bully Dog Sensor Docking Station. AUX Temp This gauge option shows the information returned to the Sensor Docking Station by an optional temperature sensor. The port for this sensor is marked as 5V out. Frequency This gauge option shows the information from a pulsing type of sensor, like an on-board speed sensor or another optional sensor that operates on the 0-5kHz 5V pulse range. The port on the Bully Dog Sensor Docking Station for this gauge option is marked as FN. 11 Use Options 40415 GT GAS Set Background Theme Change the display colors on your GT. Adjust Backlight Change the brightness for both the day and the night operating modes of the GT. 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 Eect on or o. This eect 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 features to default settings. Reset Average Economy This option resets the saved values on the GT for average fuel economy. The number of gallons used, and the fuel eciency grade displayed by the Driving Coach. Performance Testing This feature uses 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 to your computer and analyze it using the Bully Dog Performance Testing Software. The software is available by free download from www.bullydog.com. See page 43 for more information about the Performance Testing Software. SPECIAL NOTE: Street racing is illegal and can be dangerous. The performance testing feature should only be used on a sanctioned 1/4 mile drag racing track. There are two dierent styles available for both tests. The GT will show dierent test screens based on the style of test that is currently selected in the Performance Testing Setup Menu. Speed Performance Test Once this test is begun, the GT will show instructions to the user to rst 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 will display a classic race tree on the screen. As soon as the lights on the tree turn green, the GT will begin to record the vehicle's time. In this style of test, the GT 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. All runs that are saved to the SD card can be transferred to your computer using 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. 12 Driving Coach Setup The Driving Coach is a special feature designed to be your fuel economy conservation dashboard and information center. It provides real-time visual and audio feedback about driving eciency and where energy is being lost. The driving coach will help you optimize the optimal conditions for your particular vehicle through real-time information, giving you the power to maximize your vehicle's fuel economy. Two hidden bonuses of driving more eciently are: saving money on fuel and helping the environment! Before the Driving Coach can give you accurate information, it is important to make sure that the GT is showing the correct speed. In the sections below, you will go through several instructions for using the Driving Coach to become the best driver you can be. 40415 GT GAS 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 eciency for your vehicle in that type of environment. If you will be highway driving, choose a goal that is very close to the advertised highway mileage for your car. Reset Average Economy This option will clear the values stored in the GT for the average fuel economy, the number of gallons used, and the grade in the Driving Coach. Adjust Acceleration This option will allow you to select the GT sensitivity for the acceleration and deceleration in the Driving Coach; this aects the driving grade assigned by the Driving Coach. Coach Sound Setup This option will allow you to turn Driving Coach sounds on or o. 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. 13 Driving Coach Setup (continued) Checking Speedometer Accuracy First: Change the Gauge Setup to have the Speed displayed on the main display screen. See page 8 for more information about changing the information displayed on the main display screen. Next: Go to a safe place with little to no trac where you can perform a speed test. Make sure the speed limit is at least 60 mph. Here are two dierent ways to nd out your vehicle's actual speed: Method 1: GPS 1. Use a GPS device to compare your actual speed and the speed displayed on the Bully Dog. 2. Calculate the Percent Dierence by using this formula: 40415 GT GAS Percent dierence = Example 1: A GPS device reads 65 mph and the GT reads 62 mph for one single moment. Step 1. Percent dierence = Step 2. Percent dierence = Step 3. Percent dierence = .046 or 4.6% then round up 5% GT speed - GPS Speed GPS Speed 62 - 65 65 -3 65 Method 2: Stopwatch 1. Use a Stop Watch to measure how long it takes to travel one mile while traveling at 60 mph according to the GT. Accelerate up to a speed of 60 mph (as shown on the GT) While traveling at that constant speed, record the amount of time in seconds that it takes to travel exactly one mile. *Use highway mile markers to ensure that your one mile measurement is correct. 2. Record the time. 3. Calculate the Percent Difference. If it takes 60 seconds to travel one mile at 60 mph, then the GT is accurately reading your vehicle speed. If it takes 2 seconds more or less than 60 seconds to travel one mile, then use the formula to the right to calculate the Percent Dierence. Once you have calculated the Percent dierence, you can use that information to adjust the speed display as described below using this formula: Percent dierence = Example 1: Using a stop watch the actual time it took to drive one mile while traveling at 60 mph according to the GT was 63 seconds. Step 1. Percent dierence = Step 2. Percent dierence = Step 3. Percent dierence = Recorded Time - 60 seconds 60 seconds 63 - 60 60 3 60 or 5.0% Adjusting the Speed Display 1. Use one of the methods described in the previous section to determine the exact percentage dierence between the GT and your actual speed. 2. Choose the opposite percentage in the Adjust Speed Display menu. For example, if the dierence between your actual speed and the speed displayed on the GT was 5%, you should choose -5% (negative or vacant). 14 Driving Coach Setup (continued) Checking Average Fuel Economy It is important to check the accuracy of the average economy readout on the GT at least once every few changing season. There are many reasons to check and adjust the average fuel economy, here is one example: The fuel delivered to your vehicle 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 eective, on average. There are many similar factors that aect your fuel eciency that you cannot control and the GT cannot sense or adjust for. That is why it is important to adjust the fuel economy of the GT every once in a while. 40415 GT GAS To Adjust the Average Fuel Economy Displayed by the GT, 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. - The trip odometer on your vehicle. 4. Drive the vehicle for an entire tank (or two). 5. Calculate your vehicle's average fuel economy by hand using the following equation: • NOTE: If the speedometer on the vehicle is not accurate, then the odometer will also be incorrect. You will need to be able to calculate the exact number of miles driven before your next refuel. 6. Use the equation below to calculate the Percent Difference between the average fuel economy that you have calculated and the average fuel economy that is displayed by your GT. Adjust the Average Fuel Economy Follow these steps based on the Percent Difference that is displayed by the GT: 1. Go to the Main Menu 2. Choose Adjust Economy Display 4. Use the buttons on the right to move up and down the percentages 5. Choose a 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%. 15 Vehicle Settings This option 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 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 gross vehicle weight. Select Pyro Source Choose either factory installed or Bully Dog pyrometers. (Only available on 07.5 and newer vehicles that come equipped with a factory pyrometer) Set Warning Levels Set the temperature level at which the GT will provide a warning to help you protect your engine from heat damage. It is also possible to turn each of these settings completely o. 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. See the Pyrometer Calibration section on page 48 for help in determining warning temperatures. 40415 GT GAS Pyro 1 Temperature Level Pyro 2 Temperature Level Engine Coolant Temp Level Boost Level Turn this setting o or add a Bully Dog boost sensor if your vehicle does not have a factory turbo boost. Transmission Temperature Turn this setting o or add a Bully Dog boost sensor on page 48 for help in determining warning temperatures. 40415 GT GAS Pyro 1 Temperature Level Pyro 2 Temperature Adjust Economy Display Change the miles per gallon shown by the GT. This setting should be changed if the GT is showing incorrect fuel mileage. See page 15 for more information about how to do this. Adjust Speed Display Change the vehicle speed shown by the GT. This setting should be changed if the GT is showing an incorrect vehicle speed. See page 14 for more information on how to do this. Startup Coolant Temp Level This option was included to ensure that the vehicle is warmed up properly before the GT tuning options that provide additional power are available to be used. Special Functions The same special functions are not available for all vehicles. You can check out which features are available for your model car by visiting the Bully Dog website and downloading the GT Gas Vehicle Feature Matrix. For definitions, check out the Glossary. These options cannot be adjusted On the Fly (OTF). This means that they are set when you install the tune. The only way to change these settings is to start the Download process and choose Change Settings when you are prompted by the GT. 16 40415 GT GAS Diagnostics This option reads the Diagnostic Trouble Codes (DTCs) from your vehicle engine. You can also erase these codes from here. To look up the DTC codes, the following search is very helpful: You can also search for more information about DTC codes online using your favorite search engine. IMPORTANT NOTE: Most DTCs indicate a problem with the engine, not with the tune or the GT itself. If you want to know if a DTC is being caused by the GT or not, uninstall the tune and drive your vehicle for about one week. If the DTC comes back, there is a problem with the vehicle and you should take it to a trusted mechanic. If the DTC doesn't come back, reinstall the tune and test drive for another week – if the DTC comes back while the tune is installed, contact technical support. Be sure to have your tuner, vehicle, and a computer with internet access available when contacting technical support. See page 65 for more information about contacting technical support. Show Settings The Show Settings screen will show you information about your vehicle, the GT, and your current vehicle settings. This screen will also indicate if the GT tune is currently installed or not installed on a vehicle. Uninstall GT This option will allow you to uninstall the tune from your vehicle. This process is very similar to installing the tune, so be sure to take the same precautions listed on pages 30-32. You can nd more information about uninstalling the download on pages 35-37. Update GT Software This option will update the software on the GT itself from the ios on the Micro SD card. This is an important nal step to the download process. See pages 18-25 for more information about updating your GT. IMPORTANT WARRANTY 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: GT Warranty A new GT 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. See page 39 for more information about GT resets and the required fee. For pricing information and assistance in having a damaged GT unit repaired, contact technical support. You can nd more information about contacting technical support. You can nd more specic warranty information at the following page on the Bully Dog website 17 UPDATING THE GT OVERVIEW FAQs about Updating Why do I have to update my GT? Updating the GT is very important! These are just some of the reasons: 1. Vehicle manufacturers regularly change the part numbers and other information that the GT needs to know in order to communicate eectively with your engine computer. If the GT 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 x them as soon as possible. If these xes 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 xes the problem! 3. Bully Dog engineers are constantly working to expand the features and vehicles that the GT can tune on. 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 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 an 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. information from vehicle manufacturers, tested xes 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 SW on software versions up to (and including 1.1.3.9); on software versions 1.1.4.0 and newer, 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. If you have an older model of card reader, you can purchase one online at www.bullydog.com. There are also many local retailers who carry card readers that are capable of supporting the Micro SD card format. The Update Agent should automatically recognize the Bully Dog device, check the current software, and let you know if an update is available. See page 24 of your GT card is not automatically recognized by the Update Agent. 18 40415 GT GAS UPDATING THE GT Basic Steps to Update (Short Version) You can nd a more detailed description of this process on page 20. 1. Run the Update Agent. 2. Connect the Micro SD card to your computer. 3. Choose the vehicle application and let the Agent search. 4. Click the Update button. 5. When the Update is nished, put the Micro SD card in the GT. 6. Update the GT from the SD card by choosing Update GT Software on the Main Menu. What You Need to Update the GT 1. A computer with internet access. • Currently, it is most convenient to update if you have a Microsoft Windows computer. • If the only computer that you have access to is an Apple, you can nd information for how to use this type of computer to update on page 25. 2. A way to connect the Micro SD card to your computer. There are two dierent options: • A Micro SD card reader to connect it directly to the computer. • A USB cable to connect the GT to the computer (with the Micro SD card installed in the GT). Note: Do not try to connect the HDMI cable or the OBDII adapter plug to update the GT. 19 UPDATING THE GT DETAILED STEPS FOR WINDOWS The following instructions are intended for Microsoft Windows computers. Please see page 25 for Apple-computer instructions. Uninstall the tune from your vehicle. This process is very similar to installing the tune, so be sure to take the same precautions 1. If the tune is not yet installed, skip to step 2. 2. For information about uninstalling the tune, see pages 35-37. 3. For information about checking to see if the tune is installed, see page 37. Connect your Micro SD card to a computer with internet access. 1. Connect the Micro SD card using a card reader. OR 2. Connect the GT with the Micro SD card installed by using a USB cable. Do not use the HDMI cable or OBDII adapter plug to update the GT. 3. Download and install the Update Agent application. • If it is already installed, skip to step 5. You can see if it is already installed by checking your Start Menu under All Programs. The Update Agent will be listed under Bully Dog Technologies folder: 40415 GT GAS Windows XP Windows 7 Note: If you don't have the Update Agent installed see the next page for details on how to download and install it from the internet. Windows Vista 20 40415 GT GAS UPDATING THE GT DETAILED STEPS FOR WINDOWS The following instructions are intended for Microsoft Windows computers. 4. Start the Update Agent application. • If it is already installed, skip to step 5. 21 UPDATING THE GT DETAILED STEPS FOR WINDOWS The following instructions are intended for Microsoft Windows computers. 4. Start the Update Agent application. • Save the le rst, then run it. (If you try to run the le without saving, your computer will generate an error message). • If you get pop-up messages asking for permission to install, click the buttons to let your computer install this update. • If you have just installed it, the Agent may already be running. You can show the Update Agent by right-clicking the icon in the system tray at the bottom right corner of your screen, and then clicking Show Agent. - Or you can stop the previous instance of the Update Agent and open a new one - either option is a winner. • If you have already installed the application in the past, it should be listed under Bully Dog Technologies in your computer's list of All Programs. Just double-click the Update Agent icon in that folder to let it start. 6. Let the Update Agent search and download available updates. 24 40415 GT GAS UPDATING YOUR GT DETAILED STEPS FOR APPLE 1. Return your vehicle to stock. See pages 35-37 for detailed instructions on this process. 2. Connect your Micro SD card to your computer. Connect the Micro SD card using a card reader. OR • Connect the GT with the Micro SD card installed by using a USB cable. Do not use the HDMI cable to update the GT. 4. Go to the Bully Dog website and click on the link for Update Agent. • There are two locations for this link: • Under Quick Links, on the lower right side of the home page • Under Download, in the black toolbar on the upper right side of the home page. 5. At the bottom of the page, under the heading for MACINTOSH USERS ONLY, click the link for GT Gas. This will allow you to download the zipped file labeled GTGFiles.zip. 6. Find where your computer saved the file (it will most likely be in your Downloads folder). 7. Extract all the files in the GTGFiles.zip file. 8. Copy the contents of the extracted file directly onto your SD card. 9. Install the Micro SD card in your GT. 10. Connect your GT unit to your vehicle. 11. Choose the Update GT Software option on the Main Menu. If the GT Software option is not available: - Choose Update GT Firmware. - OR - Scroll to the top of the Main Menu and choose Change Vehicle, then choose your vehicle from the list. 13. Confirm that you want the GT to load the file. 13. Let the GT finish loading the file and rebooting - be sure not to disconnect it or interrupt power in any other way during this part of the process. The GT has now been updated! 25 PHYSICAL INSTALLATION Be sure to check the list and description of included parts on pages 4-6. Brief Preview This is a quick list of the basic installation steps. You can find more specific information about each step in the next section. 1. Connect the OBDII adapter plug to the port under the dash. 2. Plug in the power cable to the fuse box and connect it to the adapter plug. 3. Run the HDMI cable under the dash. 4. Mount your GT using the Universal Windshield Mount included with the GT, see the installation instructions in the next section. 2. Connect the HDMI cable 1. Connect the OBDII Adapter Plug to the port under the dash and run it up to the adapter plug. 3. Secure the GT to the mount. Using the Universal Windshield Mount 40415 GT GAS IMPORTANT NOTE: Safety is your first and most important responsibility as a driver. Safety is also your first and most important concern when placing your GT. Make sure the GT does not create blind spots or distract the driver. 1. Locate the T-shaped socket on the back of the GT. 2. Place the square top of the Universal Windshield Mount into the square part of the Tshaped socket on the GT. 3. Slide the teeth to lock the mount in place. 4. Place the suction cup against the windshield and use the lever to secure the mount to the windshield. You will find information about alternative mounting solutions on the following pages. 28 40415 GT GAS ADDITIONAL MOUNTING OPTIONS Bully Dog has created alternative mounting solutions which will allow you to mount your GT in even more convenient locations.

option. Either option will work; however, some of the updates completed during the Express update cannot be uninstalled, so you should be sure before choosing that option. 40415 GT GAS 10. Windows will check your computer for updates: NOTE that this could take several seconds or several minutes Your computer might generate an Internet Explorer pop up message about information and privacy. Click Yes. (You might also want to check the box as shown in the picture to prevent your computer from showing the pop up again.) 11. Your computer might prompt you to upgrade some components of Windows Update. If you see the screen below, click Download and Install Now, as shown below. If your computer does not display this screen, skip to step 14. 42 40415 GT GAS MORE INFORMATION Windows Update (continued) Windows XP 12. Your computer will then download and install the updates for the Windows Update software. When your computer has finished downloading and installing the updates, you will be prompted to restart your computer. You must restart in order to proceed to the next step in the update process. 13. Once your computer has restarted, repeat steps 1,2,3, and 9 (open Windows Update and click Custom). 43 MORE INFORMATION Windows Update (continued) Windows XP 40415 GT GAS 14. After checking for the latest updates for your computer, Windows Update will display a list of updates that are available. First, scroll down and clear any of the High Priority updates that may alre3ady be selected. 15. Once you have cleared the other updates, click on Software, Optional. 16. Click the box to select the Microsoft .NET Framework 3.5 Service Pack 1 and .NET Framework 3.5 Family Update (KB951847) x86. 44 40415 GT GAS MORE INFORMATION Windows Update (continued) Windows XP 17. Once the .NET Framework 3.5 Service Pack is selected, click on Review and Install Updates. 18. Make sure that the .NET Framework is the only update selected, then click Install Updates. 45 MORE INFORMATION Windows Update (continued) Windows XP 40415 GT GAS 19. Windows will download the .NET Framework 3.5 Service Pack update. Windows will also automatically initialize the installation of the update. This step could take a few minutes and it might seem like your computer is stuck, but this is normal and your computer will continue the process automatically when it is ready. 20. Once the .NET installation is complete, click Restart Now. 21. Once your computer has restarted, the update process is Complete! You can now install and run the Bully Dog Update Agent and update your GT. For more information about updating your GT, see pages 18-24. Then, your computer will begin installing the update. Again, this process can take several minutes to get started. Eventually, your computer will move forward with installing the .NET Framework update. 46 40415 GT GAS CONTACTING TECHNICAL SUPPORT Technical Support is open Monday-Friday, 8 a.m. – 5 p.m., Mountain Standard Time. The phone number to contact technical support is (940)783-9915. You should have all of the following items available when contacting technical support: • Your GT tuner • Your vehicle • A computer with internet access USB MODE When you connect your GT to your computer via a USB cable, it enters USB Mode. In order to use the Update Agent, keep the GT in USB Mode. If you want to use your computer to power the GT and allow you to access some of the GT'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, as shown in the picture below: 47 MORE INFORMATION Pyrometer Calibration What is Pyrometer Calibration? Pyro calibration is a way to set the best temperature to use for the GT temperature warning setting for your vehicle. This will help you prevent heat damage to your engine. How to Calibrate Your Pyrometer 1. Return your truck to stock by uninstalling the tune. See pages 39-41 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. 40415 GT GAS 48 40415 GT GAS FAQS/TROUBLESHOOTING My GT 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 turn off? A. The power switch on the OBDII adapter plug is in the "wrong" position. If you want the GT 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 27 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 encountered a problem when it was writing to the engine computer. Follow these steps to resolve the problem: 1. Return the vehicle to stock. See pages 35-37 for more information about this step. Test to see if the engine starts. 2. Update the GT. See pages 18-25. for more information about this step. 3. Install the download again. Test to see if the engine starts. 4. Contact technical support if the problem persists. See page 47 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 30 . 2. Go to the Main Menu on the GT. 3. Scroll down and choose the Show Settings Option. 4. Check what the GT is showing next to Download. • Recovery: go to the next step. • Installed or Not Installed: Contact technical support – see page 47 for more information about contacting technical support. 5. Go back to the Main Menu 6. Choose the Install Download option 7. Confrm that you want to complete the Recovery. 8. Follow the onscreen instructions. 9. Once the recovery is complete, try to start your vehicle. 10. If your vehicle still will not start, contact technical support – see page 47 for more information about contacting technical support. Note: If the Recovery process completes successfully, your vehicle is returned to stock. You will not need to do another step to uninstall the tune or return the truck to stock. 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). 49 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 (see page 18) 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. See page 2 for information about additional horsepower. 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. Crazy Larry Q. Can I get the Crazy Larry tune on my GT? 40415 GT GAS A . No. Crazy Larry is no longer available. Due to EPA regulations, it will not be offered again. I Don't Feel Extra Power Q. Why can't I feel the extra horse power? A. 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. See page 43 for more information about the different power level tunes that are available for gas vehicles. Also, if your vehicle has recently been serviced, you might have forgotten to return the vehicle to stock. See pages 39-41 for more information on returning to stock. See page 41 for more information on checking to see if your vehicle was returned to stock and what to do if it was not returned to stock. 50 Installing a Bully Dog GT tuner on your diesel vehicle is an excellent way to enhance its performance, improve fuel efficiency, and monitor vital engine parameters. This blog will walk you through the step-by-step process of safely installing the tuner. Let's get started! What Is a Bully Dog GT tuner Diesel? The Bully Dog GT (Gauge Tuner) is a performance-enhancing device designed to improve the overall efficiency and output of diesel engines. It interfaces with the vehicle's engine management system to optimize performance metrics such as fuel delivery and ignition timing.Expected Performance Improvements Installing a Bully Dog GT tuner can lead to several noticeable improvements in a diesel engine's performance: Increased Horsepower: By optimizing the engine's air/fuel ratio and increasing turbo pressure, the tuner can significantly boost horsepower, providing more power for towing and acceleration. Improved Fuel Efficiency: The tuner adjusts the engine's operation for optimal fuel usage, which can result in better mileage, particularly beneficial for long-distance and heavy-duty driving.Tools Needed To install the Bully Dog GT tuner on a diesel engine, you will need the following tools: Screwdrivers: Both flathead and Phillips head. Socket Set: Various sizes to accommodate different bolt heads. Torque Wrench: To ensure all fittings are tightened to specifications. Wire Strippers and Connectors: For any necessary electrical connections.Safety Precautions Before beginning the installation, follow these safety measures to prevent any accidents or damage: Disconnect the Battery: Make sure the vehicle's engine is off and disconnect the battery to avoid any electrical shorts or shocks during installation. Wear Protective Gear: Wear gloves and safety goggles to protect yourself from accidental spills and debris. Ensure a Stable Work Environment: Work on a flat surface and ensure the vehicle is securely parked and cannot move.How To Install Bully Dog GT tuner Diesel? Step by Step Guide Enhancing your vehicle's performance with a Bully Dog GT tuner involves a straightforward installation process. By following these detailed steps, you can optimize your diesel engine for better horsepower and fuel efficiency. Below is a comprehensive guide to properly installing and configuring your Bully Dog GT tuner.Step 1: Mount the Device Mount the tuner where it is easily visible to the driver without obstructing the view of the road. Ideal spots include the dashboard or near the center console. This placement not only ensures easy accessibility but also keeps the device within convenient view for monitoring and adjustment. Secure the device using the provided mounting hardware, such as adhesive pads, suction cups, or screws. Ensure the mount is stable and firmly attached to prevent the tuner from moving while driving, which could lead to distractions or impair the functionality of the device.Step 2: Connect the Wiring Harness Locate the OBD-II port in your vehicle, typically found under the dashboard near the steering column. Connect the tuner's wiring harness to this port, making sure the connection is tight and secure to ensure reliable operation and data transmission between the tuner and the vehicle's computer. Carefully route the wires from the tuner to the OBD-II port, securing them with wire ties to avoid contact with moving parts or heat sources. Proper wire management prevents damage and interference with normal vehicle operations, ensuring the installation is both safe and professional.Step 3: Power and Configure the Tuner Connect the tuner to a power source according to the manufacturer's guidelines, which may involve wiring it to a fuse box or directly to the battery. This setup ensures the tuner receives the steady power supply necessary for its operation. Turn on the tuner and follow the on-screen prompts to complete the initial setup, which may include configuring the settings according to your preferences. If the tuner indicates that updates are available, connect to Wi-Fi or another internet source to download and install these updates, optimizing your device's performance and capabilities.Step 4: Program the Vehicle Select a suitable tuning program from the tuner's menu to match your vehicle's needs and your performance expectations. This could range from increased horsepower for enhanced performance to improved fuel efficiency for economic driving. Follow the tuner's instructions to install the selected program. The installation process might temporarily affect the vehicle's operation, typically indicated by the vehicle cycling on and off. Once the program is installed, verify its success on the tuner's display and make any final adjustments required to ensure optimal performance and integration with your vehicle's systems.Common Issues Troubleshooting Encountering issues during or after installing your Bully Dog GT tuner can be frustrating, but many common problems have simple solutions. Here's a quick guide to troubleshooting some frequent challenges that users might face. Follow these steps to resolve issues and get your tuner back to optimal performance.1. Device Not Powering Up IIf the tuner does not power up, first check all connections to ensure they are secure and properly connected. Verify that the tuner is correctly plugged into the OBD-II port and that the power source is active. Additionally, check the vehicle's fuses to ensure none have blown, as a blown fuse can prevent the device from receiving power.2. Error Messages or Inconsistent Performance Should the tuner display error messages or exhibit erratic behavior, resetting the device can often resolve these issues. Disconnect it from the power source and OBD-II port, wait a few minutes, and then reconnect everything. If problems persist, updating the tuner's software may be necessary to correct any software glitches or compatibility issues.3. Connection Issues with the Vehicle's Computer If the tuner fails to communicate properly with the vehicle's computer, ensure the firmware is up to date, as outdated software can lead to compatibility issues. Double-check that the harness connection to the OBD-II port is secure. If the problem continues, consulting the manufacturer's support for guidance tailored to your specific vehicle model and tuner version may be required.Maintenance and Updates Regular maintenance of your tuner includes keeping it clean and checking for physical wear. Ensure that the device and its connections remain dust-free and the mounting area is intact to prevent any loosening or vibration. Regularly check for software updates to maintain optimal performance and feature access. Updates can address bugs, improve interface efficiency, and ensure compatibility with the latest vehicle models and specifications.Conclusions In conclusion, taking the time to properly install and maintain your Bully Dog GT tuner not only ensures optimal performance but also enhances your overall driving experience. With the right approach, you can maximize your vehicle's efficiency and power, proving that smart technology paired with diligent care can lead to substantial long-term benefits for any diesel engine enthusiast.