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BULLY DOG 40470 BDX Performance Programmer User Guide

Contents

BULLY DOG 40470 BDX Performance Programmer

PARTS & CHECKLIST

BDX DEVICE

MICRO USB CABLE

HDMI/OBD II CABLE

PRE-INSTALL CHECKLIST

WIFI INTERNET ACCESS
During the installation process you will need to connect the BDX to the Internet using the built-in WiFi.

ALLOW TIME FOR INITIAL SETUP
Make sure you allow up to 30 minutes to complete the initial setup and installation process.

NEED FURTHER SUPPORT?
For additional troubleshooting and support, see our knowledge base on-line at **bullydog.com/support**.

READING THE VEHICLE INFORMATION

NOTE: Please make sure that all stock electronics are turned off and disconnect any aftermarket electronics as well.

POWERING UP THE BDX

1. Using the provided HDMI/OBDII Cable from section 1, plug the BDX device into the vehicle's OBDII Port commonly found within 24" of the steering column under the driver's side dash.
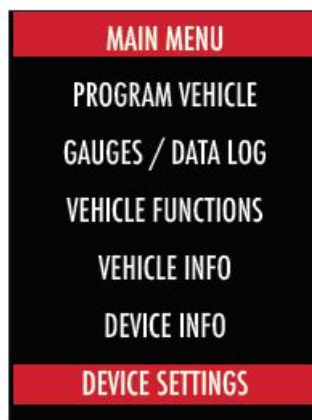

READING THE VEHICLE'S INFORMATION

1. At this point, the key should be in the ignition, but in the OFF position until prompted to turn key ON/RUN position.
2. From the Main Menu, select Program Vehicle.
3. Processing Data: The BDX is now reading your vehicle information.
4. Updates: Internet Required. In order to install the most up-to-date files the BDX now requires Internet access. You can access these files via two methods found in Section 4.

THREE METHODS FOR UPDATING THE BDX

METHOD #1: UPDATING VIA WIFI INSIDE THE VEHICLE

1. Select Continue from the Internet Required screen.
2. Select the WiFi network you would like to connect to. Use the middle button to confirm your selection.
3. Enter the network pass code using the arrow keys and the middle button to select.
4. Confirm the Wifi settings and select Continue.
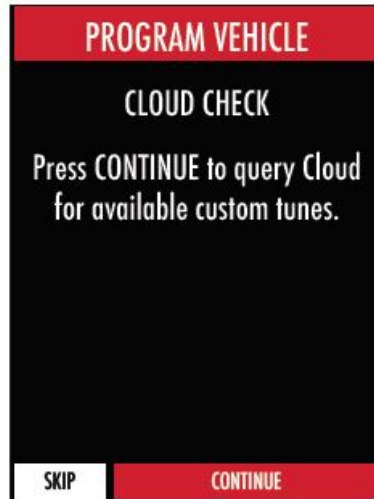

METHOD #2: UPDATING VIA WIFI USING USB POWER

1. From the Main Menu select Device Settings.
2. Select WiFi Check For Updates.
3. Follow on-screen prompts until you see Up-To-Date.
4. Finally, unplug the BDX and return it to your vehicle.

METHOD #3: UPDATING USING UPDATER SOFTWARE

Note: Unplug the BDX from your computer before proceeding.

1. Go to: **bullydog.com/support**.
2. Locate and click the "Software" option and then click on "Light Duty Update Agent, Device Updater, and Livelink Downloads". You will see "Device Updater (Updater for BDX, and GTX devices)". Click to begin downloading and installing on your computer.
3. Wait for that program to download, then double click and "Run" the BullyDogDeviceUpdater.exe file if it does not open automatically.
4. Follow the on-screen directions of the Device Update Software Installer until allowed to "Finish".
5. Connect your BDX to your Windows™ based PC using the provided Micro USB™ cable. We do not offer support for Apple computers at this time.
6. Double click and open the Device Updater Software.
7. Click "Automatically Check for Updates".
8. Confirm the update by pressing the "Update" button. The update will now begin.
9. Run until you see "Your device is now up to date".
10. Unplug BDX from your computer & go to Section 5.

TUNING THE VEHICLE

PROGRAM VEHICLE

CLOUD CHECK

Press CONTINUE to query Cloud
for available custom tunes.

SKIP   CONTINUE

1. Cloud Check – If your dealer has sent you a custom tune using the cloud select "continue" to download the custom tune. If not select "Skip" and follow prompts.
2. Select your tune from the following menu items:
Pre-Loaded Tune:
Files Preloaded Bully Dog tunes for use on stock vehicles only.
Custom Tune:
Custom Tune files, if there are any on the device.
Note: Custom Tunes are built by Bully Dog's network of Custom Tuning Dealers and any questions related to them need to be directed toward the tuning dealer.
Return to Stock:
Restore original factory file to vehicle.

PROGRAM VEHICLE

STREET USE NOTICE

This device is NOT LEGAL for
sale or use in California on
any pollution controlled
motor vehicles.

Press CONTINUE to start
programming.

EXIT   CONTINUE

3. Highlight the tune you wish to use and select confirm.
4. Read and acknowledge the street use notice.
5. Depending on your vehicle there may be further parameters you can change under "Additional Tune Option". Select "Change" to view the available options or "Skip" to continue with downloading the tune only.
6. The Tune and any Additional Tune Options will now be installed. Follow the on-screen directions to finish the process.
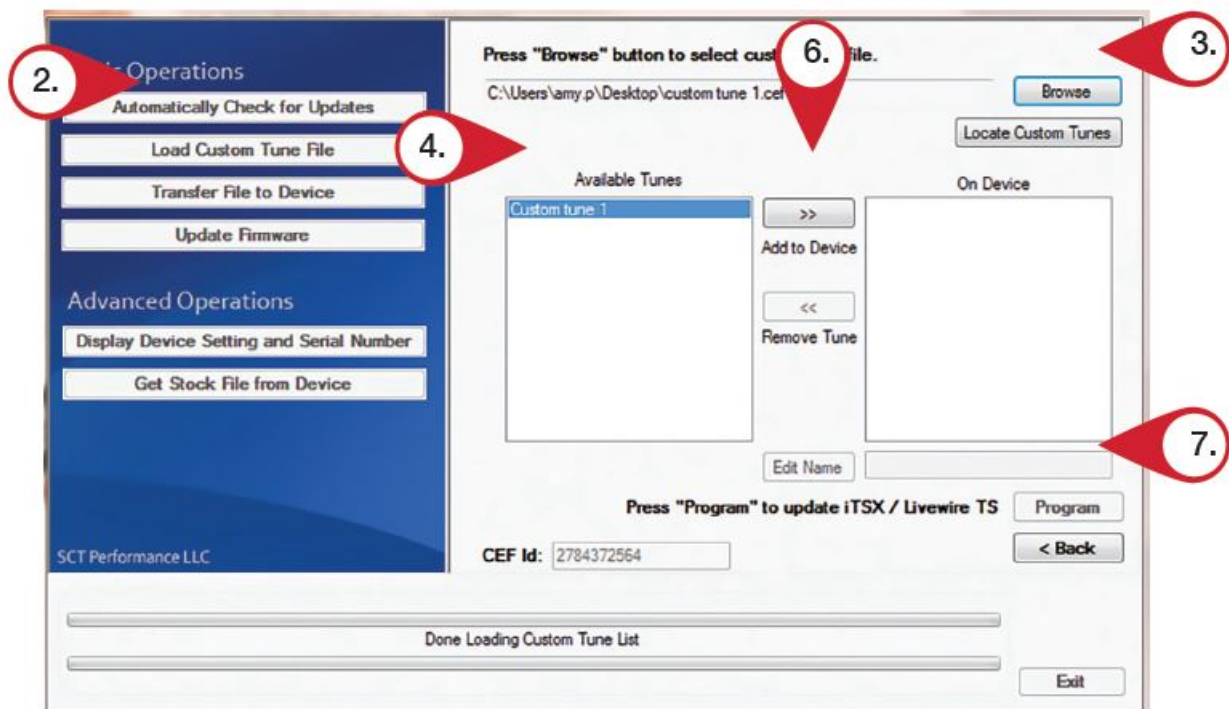

Note: During the installation the BDX will be married to your vehicle. The BDX can be married to five different vehicles before needing to purchase additional unlocks.

VEHICLE LICENSE

This BDX is unmarried.
Select CONFIRM to marry your
BDX to this vehicle.

EXIT   CONFIRM

LOADING CUSTOM TUNES

Note: Make sure the "Updater Software" from Section 4 Has been completed before proceeding with Section 6.

The BDX is capable of having custom tune files sent over the Cloud straight to the device from a Custom Tuning Dealer. If your Dealer has chosen to email your file, you can load them onto the device using the Device Updater software.
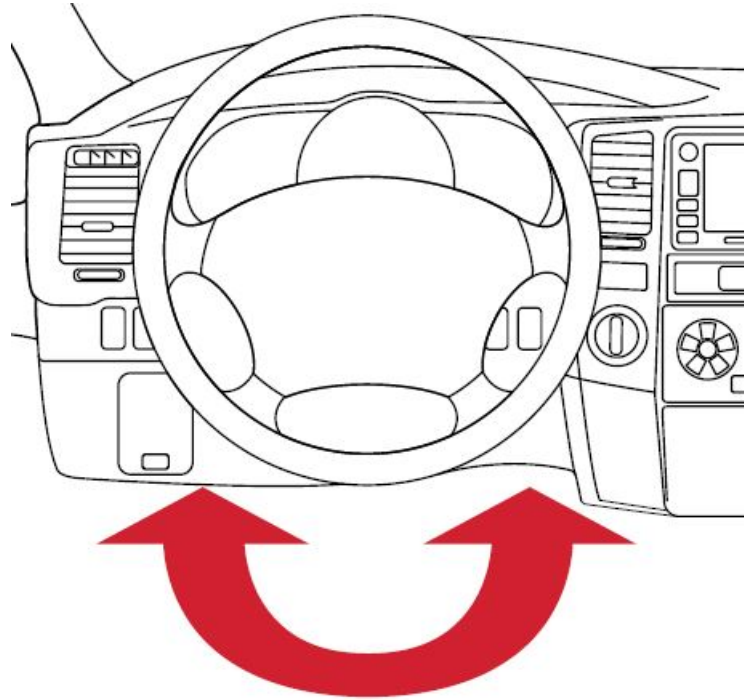

1. From your e-mail, save your Custom Tunes (.cef files) to your Desktop.
2. Open the Updater software and click the Load Custom Tune File button.
3. Click Browse and locate your custom tunes on your Desktop. You can also click Locate Custom Tunes.
4. Highlight the Tune you wish to load. The tune you selected should move to the Available Tunes section.
5. Select the listed tune in the Available Tunes section, then click the >> button to move the selected tune to the On Device section.
6. Highlight the tune under the On Device section, then click program. Tunes can only be loaded one at a time. Repeat steps 3-7 for each tune, the device can hold up to ten custom tunes.

Note: To edit the name of the file as it appears on your device, you must highlight the file after transferring the file to the On Device section of Updater. Next to Edit Name, change the name of the file here. Select Save, then Program.
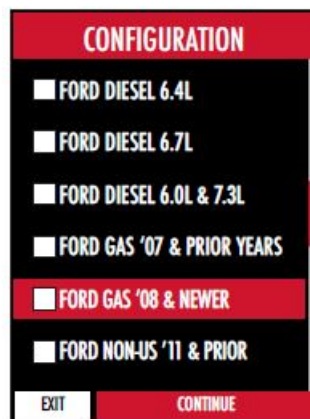
ON–DEVICE DATA LOGGING
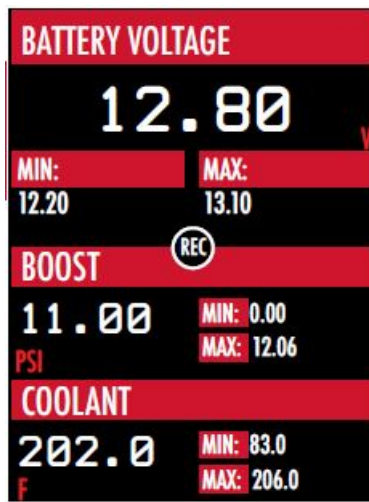
1. Connect the BDX to the OBDII port.

2. From the Main Menu, scroll to Gauges/Datalog and press the center button on the BDX.

3. On initial setup, you will need to select Configuration press the center button, and select your vehicle from a list of data log files. In the future, you can continue without going through the vehicle selection.

4. Once you select your vehicle, the default gauges will show up and can now be monitored.

NOTE: Gauges are defaulted to metric units of measurement

5. The items being monitored can be adjusted by pressing up or down on the device to highlight and then pressing the center button on the BDX to select which reading you'd like to change. Within this menu, you can change the item you're monitoring, and the units in which it will be displaying. You can also change the layout of the gauges within this menu.

6. To start or stop data logging, press the center button on the BDX while monitoring the gauges.

7. While monitoring, press right or left on the device to go to the Gauges/Datalog menu. From this menu, you may start recording, select a data log file with which to log, change the gauge layout, and reset the min/max values on the monitor.

NOTE: If you are not seeing the value or the PID option you want, you can download and build your own configuration file using the Live Link datalogging software from **bullydog.com/support**.

ADJUSTABLE OPTIONS EXPLAINED

DIESEL VEHICLE SPECIFIC OPTIONS

Performance
The most aggressive preloaded diesel tune. Good for everyday use, racing, or economy but not recommended for any type of towing.
Street
The Street tune has less power than Performance with a moderate gain over stock, safe for light towing, under 5,000 lbs.
Towing
This tune should be used when towing any significant load as the shifting is specific for towing.
Trans Only
For heavy loads, the engine and boost are left stock and only the transmission shift points are tuned.
Jake Brake
Helps to increase engine braking while coasting to help lower braking temperatures.
Locked at CT
Keeps the torque converter locked during deceleration to aid in engine braking.
Lock In 1-2-3
Locks the torque converter in 1st, 2nd and 3rd gear.
Agg. Tow Haul
More aggressive shift schedule keeping the engine in its power band longer.

DIESEL & GAS VEHICLE OPTIONS:

Axle Ratio

Corrects shift patterns / speedometer for aftermarket axles / parts. (Not available on all vehicles)

Tire Size

Sets tire size to correct shift patterns/speedometer. (Not available on all vehicles)

Idle Speed

Sets idle speed in RPM.

Traction Control

On/Off setting disables traction control without using the TCS button.

WOT Shift

Increase or Decrease the WOT shift points of each gear individually by MPH.

Shift Pressure

% change in transmission pressure during shifts. (+ equals firmer, – equals softer)

GAS VEHICLE SPECIFIC OPTIONS:

Tune Type

Performance levels vary by the octane you select. Higher octane will provide higher performance increase.

Towing Tune

Adjusts the octane based tunes to focus more on towing over performance.

Global Spark

Add or remove timing advance to the entire RPM range.

Spark by RPM

Add or remove timing by RPM range. (0-2000) (2000- 4000) (4000-8000)

WOT Fuel

Add or remove fuel at wide open throttle. (WOT)

Fuel Injectors

Allows you to adjust for different sized injectors. (Not available on all vehicles)

Fan Control

Lowers the temperature at which the fan turns on.

Rev Limiter Drive

Sets rev limit in RPM while in drive.

Rev Limiter Neutral

Sets rev limit in RPM while in neutral.

Speed Limit

Remove, increase, or decrease the vehicle speed limiter. (AKA Governor)

NOTE: Adjustable Options vary for each vehicle and are not available on all vehicles.

FREQUENTLY ASKED QUESTIONS

Q: When I try to update my tuner, it says "Please connect Bully Dog device" but it's already plugged in.

A: If problem persists, please see our knowledge base on-line at **www.bullydog.com/support**.

Q: When I connect the tuner to the vehicle, it doesn't power on.

A: Check for blown fuses specific to the OBDII Port/Cigarette Lighter for your vehicle.

Q: Does the tuner have to stay plugged in to keep the vehicle tuned?

A: No, after tuning the vehicle you can disconnect the programmer and store it.

Q: Can I stack/combine the BDX with another chip or tuning module?

A: All chips/tuning products must be removed prior to tuning with any Bully Dog device.

Q: Can the vehicle be tuned while the engine is running?

A: We DO NOT recommend tuning the vehicle while the engine is running as this can cause severe damage to the vehicle and the PCM.

Q: Should I return to stock before taking my car to the dealer?

A: We recommend that you always return your vehicle to stock before returning to the dealership as this prevents the tuner from becoming locked if the dealer updates the PCM.

Q: My device is telling me my car is a Shelby GT500 when I go to program vehicle or My device says Demo Mode when I read Device Info.

A: Check device settings and look for Demo Mode. If it is on disable it by turning it to off. This will cause the device to stop identifying your vehicle as a Shelby GT500 and will now operate as needed.

Q: My vehicle is modified and after loading a preloaded tune it won't run as expected.

A: In most cases a modified vehicle requires a custom tune. There are set ups in the preloaded tune options to adapt to certain cold air intakes, however this is per vehicle and what works for one vehicle may not work on another. Please contact a Bully Dog Custom Tune Dealer for a custom tune if your vehicle is heavily modified.

Q: I brought my vehicle to get work done at a dealership and they flashed the vehicle now the device is telling me it is the incorrect vehicle.

A: Contact Bully Dog Technical Support at: (940) 783-9915.

Q: Can I tune more than one vehicle with this programmer?

A: The BDX can be used to tune up to three vehicles. In order to tune more than three vehicles you will need to pay an unlock fee for each additional tune.

Documents / Resources

BULLY DOG 40470 BDX Performance Programmer [pdf] User Guide
40470, BDX Performance Programmer