

DIABLOSPORT®



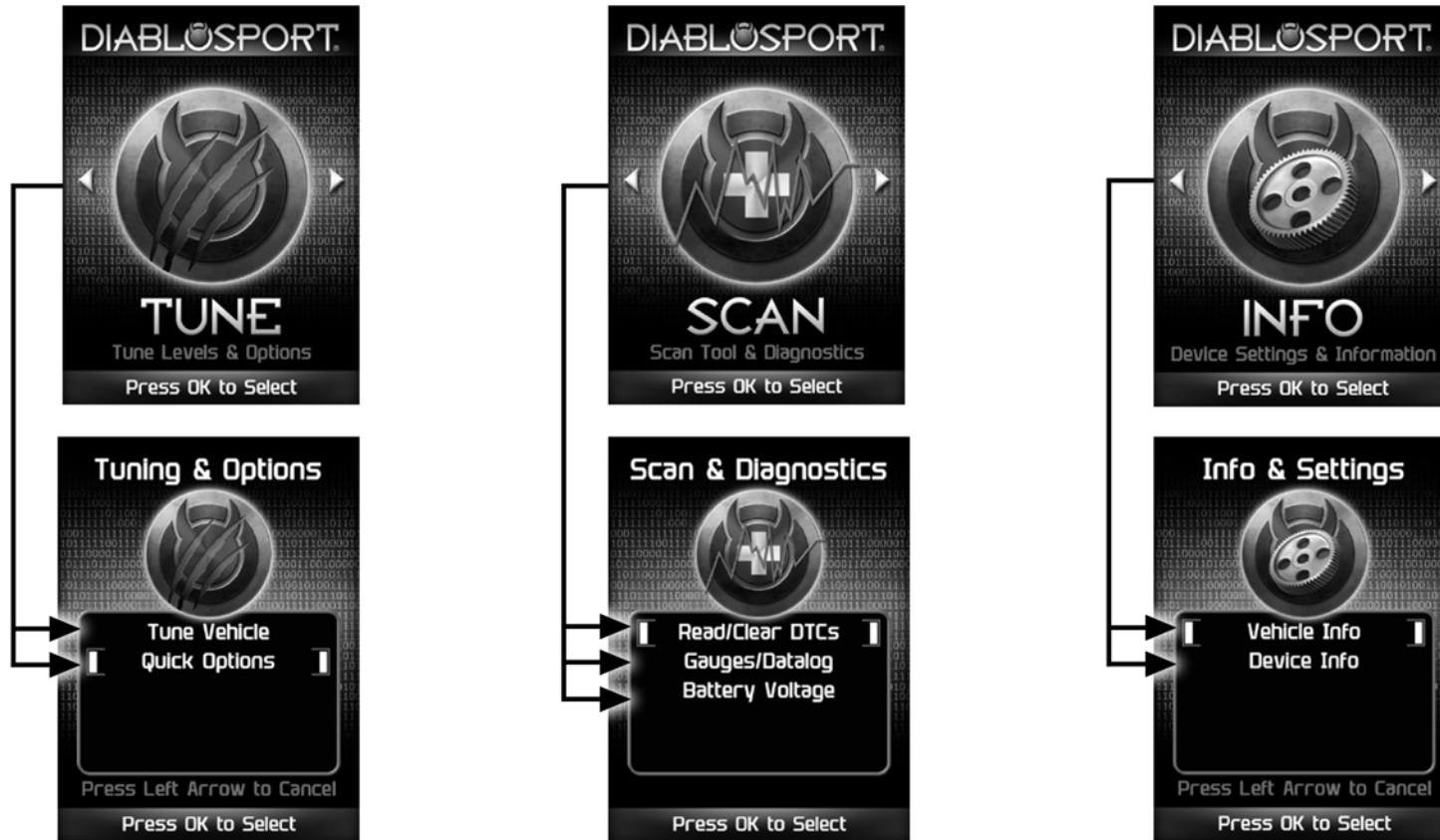
PREDATOR

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BASIC MENU LAYOUT

Some of the menu options or features displayed in this manual are vehicle specific, and may not be available for your make and model.



⚠ WARNING

Misapplication or misuse of this product could lead to a serious or fatal accident. Comply with all safety information in this manual, and your vehicle owner's manual. Follow safety, installation and operating instructions in this User Manual to assure proper use.

BEFORE YOU BEGIN

LIST OF COMPONENTS

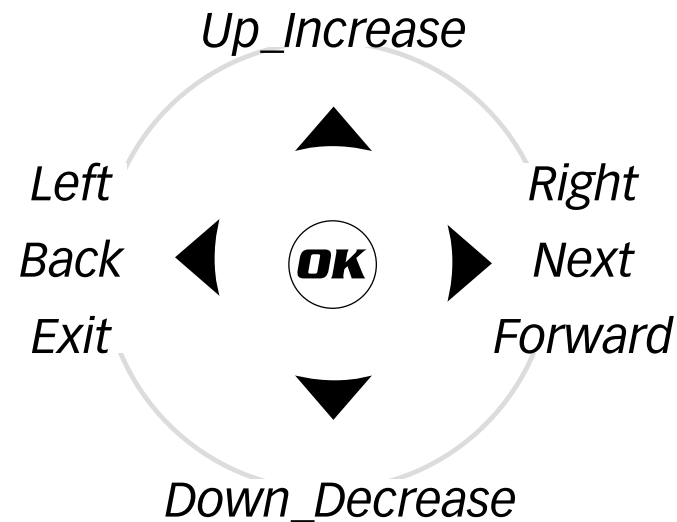
DISPLAY DEVICE



USB CABLE



BUTTON FUNCTIONALITY

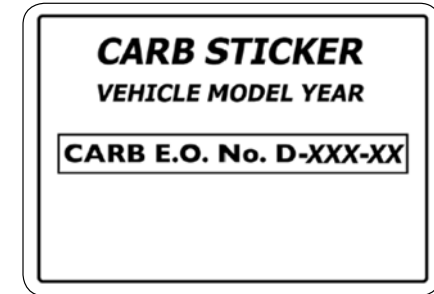


NAVIGATING TIPS:

- To move back to the previous menu, press the ◀ button.
- To move forward to the next menu, you can press either **OK** or ▶ button to enter the highlighted option.
- The ▲ & ▼ buttons are used to select menu options, as well as adjust values for certain features.


NOTE: The stickers included in some products apply to products that have received CARB exemption for emissions compliance.

This product may meet the emissions compliance requirements of the California Air Resources Board and Federal Environmental Protection Agency. If so, it is legal for sale and use on pollution-controlled vehicles operated on public streets and highways.



The device must be installed and operated according to the instructions provided in this user's manual. Included with these compliant products is a sticker (similar to the one pictured above) for you to keep in your vehicle. You can either adhere it somewhere on the vehicle (e.g., the inside end of driver's door) or simply store it in your glove box. The purpose of these stickers is to inform anyone who may have questions regarding the use of your Diablosport product and how it affects emissions. For example, it would be something to show an emissions technician if questioned when taking your vehicle in for an emissions check to let him/her know the product is CARB emissions compliant.

DOWNLOAD IGNITION UPDATER TOOL

- ① Go to website.
- ② Click the **DOWNLOADS** tab located at the top of the page.
- ③ Click the **DOWNLOAD IGNITION FOR PC** or **FOR MAC** button.
(Windows PC)
 - ④ Click the **Run** button on the pop-up menu.
 - ⑤ Read and click the box to accept the license agreement terms.
 - ⑥ Click the **Install** Button, then the **Close** button once complete.
(Mac)
 - ⑦ Double-click the ignition.pkg
 - ⑧ Follow the installer instructions, then the **Close** button once complete.
- ⑨ Double-click the Ignition icon. 
- ⑩ Fill out the registration form.
- ⑪ Refer to the next section for performing product update.

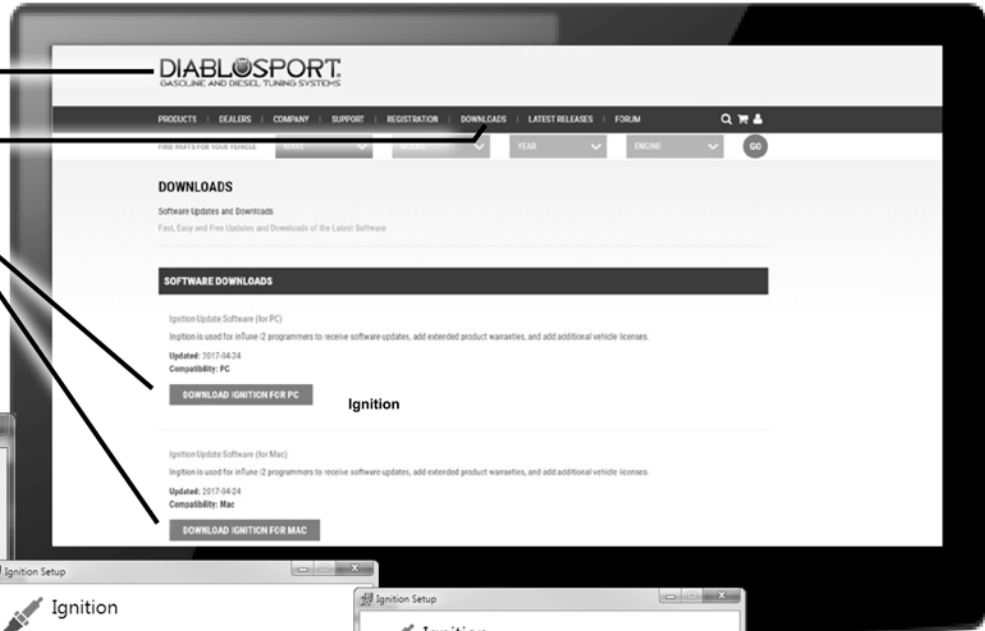
TIP: Use a wired internet connection vs. wireless, air card, or satellite connections. This will minimize potential connection issues that may affect the update process.



1

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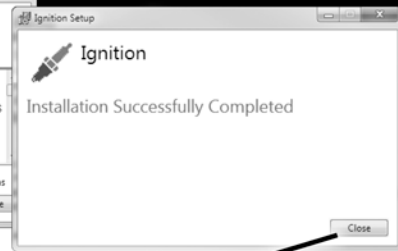
4



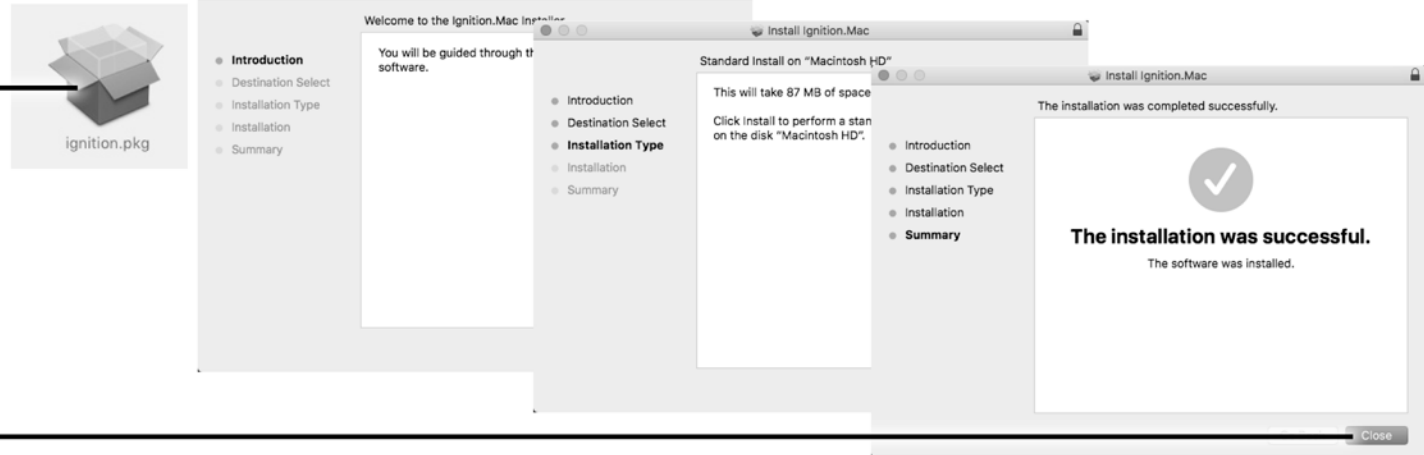
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PRODUCT UPDATES USING IGNITION

① Double-click the **Ignition Icon** located on your computer's desktop.

② Connect your device to the computer using the supplied USB cable.

(Ignition will automatically search for updates related to your device.)

③ Click the **Update** button.

(The update process will start and finish automatically. Once the update is complete, you may be directed to the **Online Store**. To further update your device using the online store, refer to the following steps.)

④ Click on any or all of the available options.

(A check mark will appear in the upper right corner.)

⑤ Click the **Purchase** button.

⑥ If required, read and **Accept** the disclaimer.

⑦ Fill in the required information and click **Go to Review**.

(Here you can check the information you filled in before submitting the order.)

⑧ Click the **Place Order** button to complete your order.

⑨ If a purchase was made, follow steps 1-3 above to complete the update.



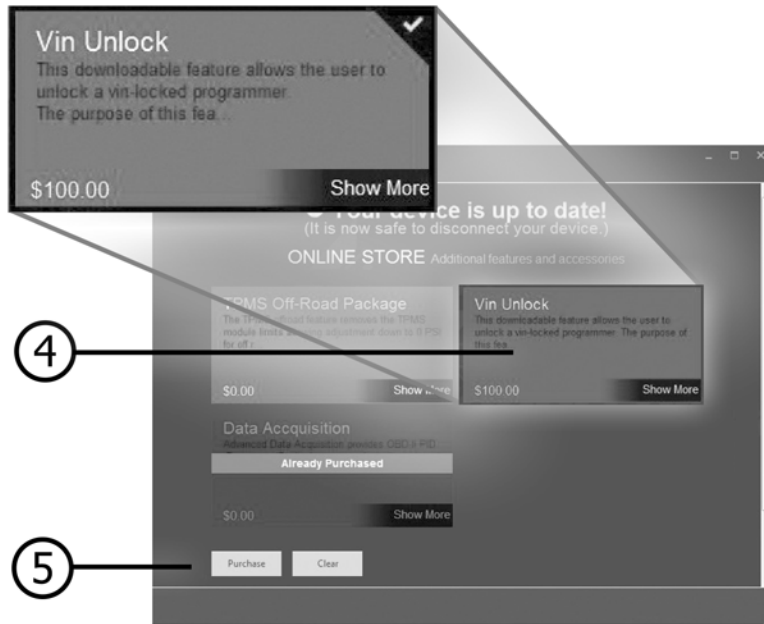
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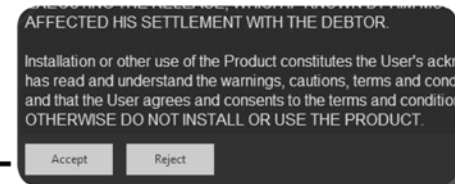


NOTICE: Do not unplug the USB while the device is being updated. Once the update is complete, you will be informed that it is safe to disconnect.



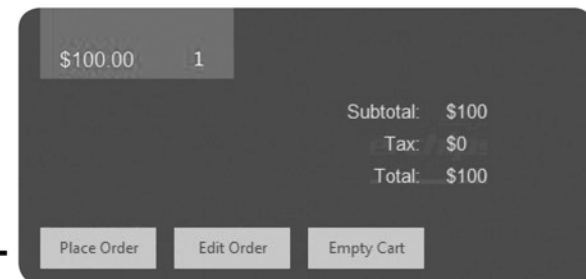
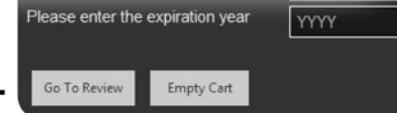
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QUICK TUNE

Quick Tune = Changes the power level of your vehicle using the most popular features and settings.

NOTE: *Not all features are available on every make, model, and engine.*

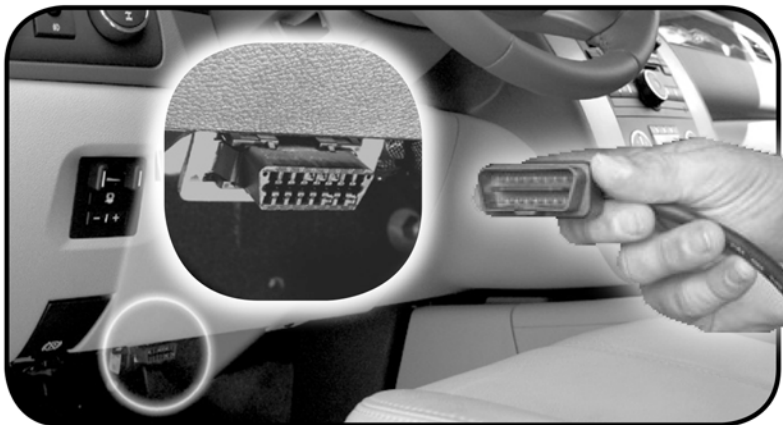
STEP 1 - Plug the device into the OBDII port.
(The device will automatically power-on once it has been connected.)

NOTICE

Do not remove or bump the OBD-II connector during any programming sequence. If you do, the vehicle may not start.

⚠ WARNING

Do not program your vehicle while parked in unsafe locations including heavy traffic or places without cell phone service and the internet (if possible).



STEP 2 - Enter the Tuning Menu by pressing OK.



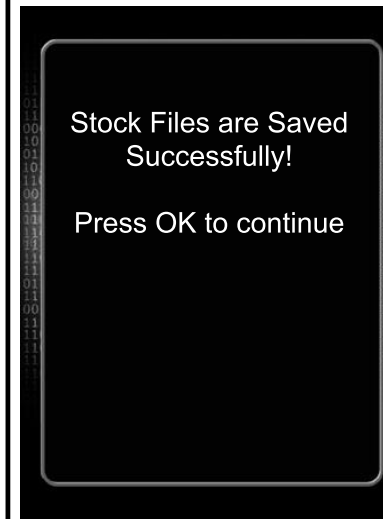
STEP 3 - Turn the ignition on, but do not start the engine.



STEP 4 - Follow the on-screen instructions.



STEP 5 - Allow the device to save your stock files.



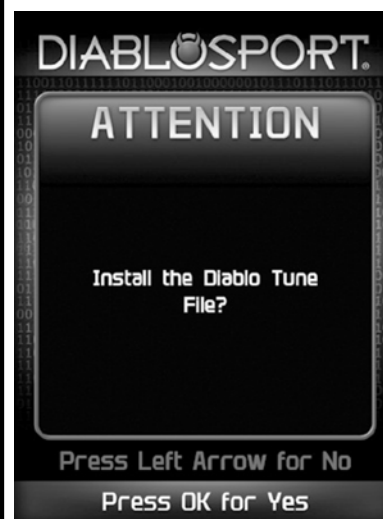
STEP 6 - Select a tuning level.



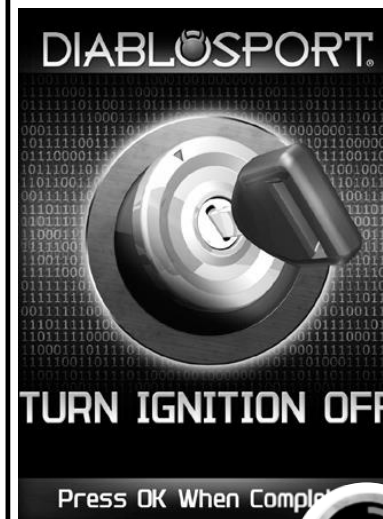
STEP 7 - Push left arrow to close out of custom options.



STEP 8 - Install the "Tune" File by pressing OK.



STEP 8 - Turn the Ignition Off. Press OK to continue.



TUNING LEVELS EXPLAINED

KEY:

- ⊘ = Towing is not recommended for this tune .
- ♣ = Octane Requirements vary for gas vehicles. Follow recommended guidelines on the device.
- ↓ = Tow rated up to Diablosport recommended tow limits. See limits for your vehicle displayed by the Predator during the programming process.
- ‡ = Tow rated up to OEM max towing recommendation.

Availability of specific tunes may vary based on your vehicle's make and model:

⊘♣ **Performance Tune** - Designed for maximum engine and transmission performance.

‡ **Light Tow Performance** - Optimizes engine and transmission performance for light-weight range towing applications.

↓ **Tow Performance** - Designed for optimized engine and transmission performance for heavy towing applications.

⊘ **Economy** - Designed for optimized economy and driveability.

♣ **Diablo Tune** - Requires the use of 93 octane gas. Optimizes engine and transmission performance for daily driveability.

↓ **Diablo Tow** - Optimizes engine and transmission performance for mid-weight range towing applications.

‡ **87 Performance** - Requires the use of 87 octane gas or better and is used for optimized engine and transmission performance.

⊖ **87 Economy** - Requires the use of 87 octane gas or better and is used for optimized fuel economy.

♣ **Diablo 91 Tune** - Requires the use of 91 octane gas or better and is used for optimized driveability.

♣ **Diablo 87 Tune** - Requires the use of 87 octane gas or better and is used for optimized driveability.

Stock - Returns vehicle to factory stock. Removed all Diablosport tuning from your vehicle. It is recommended that you calibrate your vehicle back to stock prior to taking it in for service or maintenance.

TIP FOR JEEP OWNERS:

Your Predator will work with the following:

- Short or normal tube headers
- Snorkels
- Aftermarket cat back exhaust and cold air intake kits

For optimum Jeep performance, Diablosport does NOT recommend the following:

- Long tune headers
- Over-bored or stroked engines

ADVANCED TUNING OPTIONS

Change the power level of your vehicle using custom options and settings.

NOTE: *Not all features are available on every make, model, and engine.*

NOTICE:

Do not remove or bump the OBD-II connector during any programming sequence. If you do, the vehicle may not start.



Do not program your vehicle while parked in unsafe locations including heavy traffic or places without cell phone service.

STEP 1 - Plug the device into the OBDII port.



STEP 2 - Enter the Tuning Menu by pressing OK.



STEP 3 - Follow the on-screen instructions.



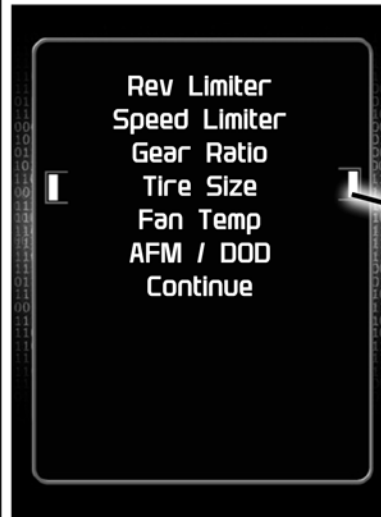
STEP 4 - Select a tuning level.



STEP 5 - Press OK to customize options.



STEP 6 - Select and adjust the custom option according to your specific requirements.



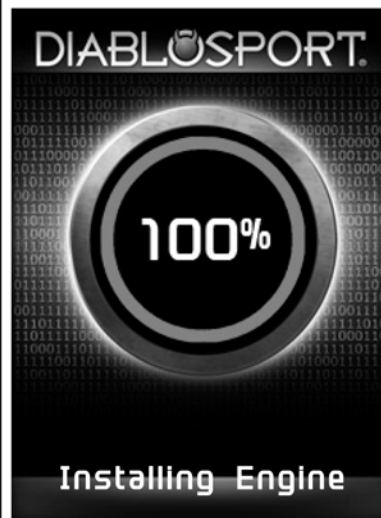
STEP 7 - Select Continue when done modifying.



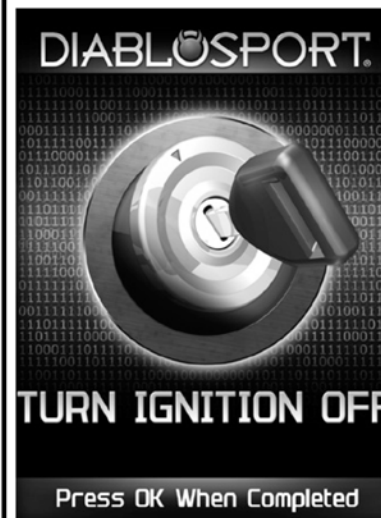
STEP 8 - Press OK to install the file.



STEP 9 - Allow the file to be installed.



STEP 10 - Turn the ignition Off.



STEP 11 - Press OK to return to the main menu.



Availability of specific options may vary based on your vehicle's make and model:

Speed Limiter - Adjusts the top speed limiter by increments or fixed values.

- ⚠ The vehicle must have appropriate speed rated tires.
- ⚠ Do not exceed proper operating conditions.
- ⚠ Obey all traffic laws.
- ⚠ For use only on a controlled track. Never exceed legal limits on public roadways.

Rev Limiter - Adjusts engine rev limiter by increments or fixed values.

- ⚠ Do not exceed proper operating conditions.

Tire Size - This feature has been moved to the "Vehicle Functions" menu, under Additional Features.

TIP FOR MEASURING TIRE SIZE:

Measure from the ground to the top of your tire. Place a ruler or flat level item on the top of your tire to measure accurately. Measure in 1/4 inch increments rounding up.



⚠ WARNING

Increasing the height of your vehicle raises the center of gravity and can affect stability and control. Use caution on turns and when making steering corrections.

Axle (Gear) Ratio - Corrects the speedometer, odometer and automatic transmission shift points for rear end gear changes.

⚠ Confirm aftermarket parts are installed before adjusting this option.

Automatic Transmission Shift Points - Adjusts transmission shift points for optimized driveability and operation.

Automatic Transmission Shift Pressure - Adjust transmission shift pressure in PSI to allow for a more aggressive shifts.

Cooling Fan - Adjusts fan turn ON temperature.

Manual Transmission Skip Shift - Enables or disables Computer Aided Gear Selection (CAGS) for manual transmissions.

Spark Advance Set - Reduces the spark timing.

MDS Disable - Enables or disables the factory Multi- Displacement System.

NOTE: *On 13-14 Hemi Trucks, the dash light will continue to illuminate even when the feature is actually disabled.*

RETURNING YOUR VEHICLE TO STOCK

STEP 1 - Plug the device into the OBDII port.



STEP 2 - Enter the Tuning Menu by pressing OK.



STEP 3 - Turn the ignition on, but do not start the engine.



STEP 4 - Select the Stock option from the list.



STEP 5 - Install the Stock File by pressing OK.



STEP 6 - Allow the stock settings to be re-installed.



STEP 7 - Turn the Ignition Off. Press OK to continue.



STEP 8 - Press OK to return to the main menu.



Questions and Answers

Q: Can my Predator program more than one vehicle at a time?

A: No, only after you return your first vehicle back to factory stock.

Q: Does Diablosport support custom tuning?

A: Diablosport supports custom tuning on non emission compliant products. Please check us out online for more information.

Q: What aftermarket accessories will my Predator work with?

A: Predator programmers are engineered to work with the following parts right out of the box: throttle body spacers, shorty headers, cat-back exhaust system, and cold air intake kits. Compatibility may vary by make and model.

Q: How do I change my vehicle's calibration?

A: Refer to the TUNING sections of this guide for detailed instructions.

NOTICE:

Before taking your vehicle into a service center, return your vehicle to stock. The service center might reprogram your vehicle with an updated program without your knowledge. If you do not use this device to return your vehicle to factory stock and your vehicle is reprogrammed by the service center, the programmer will no longer be able to program your vehicle.

QUICK OPTIONS

For specific Dodge vehicles, the option to modify various features using Quick Options is available.

NOTICE:

Do not remove or bump the OBD-II connector while changing Quick option settings. If you do, the vehicle may not start.

⚠ WARNING

Do not make adjustments to your vehicle while parked in unsafe locations including heavy traffic or places without cell phone service.

STEP 1 - Enter the Tuning Menu by pressing OK.



STEP 2 - Select Quick Options.



STEP 3 - Select an option from the list.



STEP 4 - Modify each setting according to your specific needs.



QUICK OPTIONS EXPLAINED

The availability of the following features depends on the year & model of your vehicle.

Engine Idle: This feature allows the user to increase the engine Idle RPM momentarily.

Gear Ratio: This feature allows you to adjust the gear ratio after they have been modified.

Mobile Desoot: For diesel engines with particulate filters, use this feature to activate a regeneration cycle.

Spark Adv: This feature gives the option to retard the timing down a min. of 6 degrees.

Tire Size: This feature allows you modify the programmed Tire Height.

Transfer Case LO Adjustment: Allows you to adjust the transfer case settings while in 4-LO.

READ DTC

This feature allows you to troubleshoot issues that your vehicle may be experiencing. Most vehicles will illuminate the in-dash check engine light. A Diagnostic Trouble Code (DTC) arises when a vehicle's computer detects a sensor failure or a parameter outside of specific range.

STEP 1 - Enter the Scan Menu.



STEP 2 - Select Read/Clear DTCs.



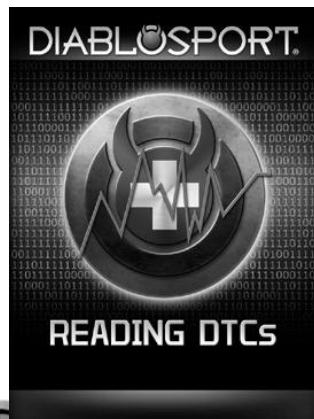
STEP 3 - Select Read DTCs.



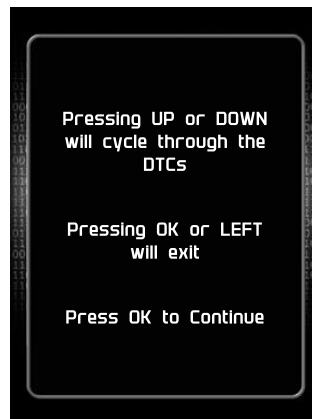
STEP 4 - If asked, turn ignition on, but do not start.



STEP 5 - Allow the device to search for DTCs.



STEP 6 - Read and follow the on-screen instructions.



STEP 7 - Push the ▲/▼ arrows to view each DTC.



STEP 8 - Press OK to return to the DTC menu.



This feature allows you to clear the DTC and turns off the check engine light.

NOTE: If a DTC persists, this could indicate a vehicle malfunction. We recommend seeking a qualified professional in resolving the issue. Program the vehicle back to stock prior to service.

STEP 1 - Enter the Scan Menu.



STEP 2 - Select Read/Clear DTCs.



STEP 3 - Select Clear DTCs.



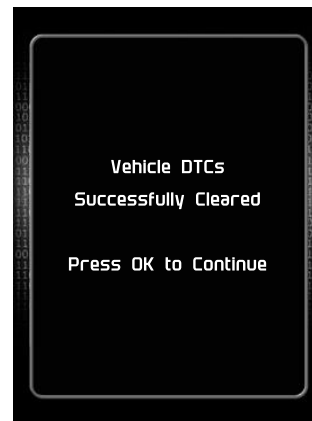
STEP 4 - If asked, turn ignition on, but do not start.



STEP 5 - Allow the device to search for DTCs to clear.



STEP 6 - Read and follow the on-screen instructions.



STEP 8 - Press **OK** to return to the DTC menu.



VIEWING GAUGES

If you would like to view Parameter IDs (PIDs) specific to your vehicle, following these instructions to learn how to view them using your Predator device.

⚠ WARNING *Do not exceed legal speed limits on public roadways.*

STEP 1 - Enter the Scan Menu.



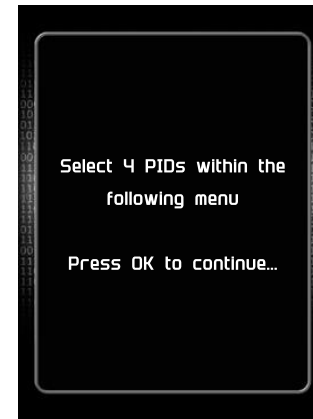
STEP 2 - Select Gauges/Datalog.



STEP 3 - If asked, turn ignition on, but do not start.



STEP 4 - Follow the on-screen instructions.

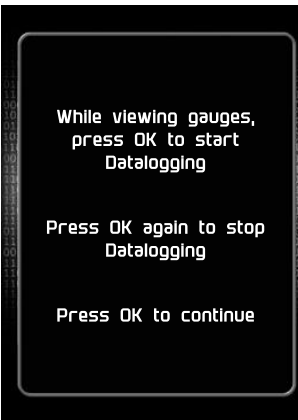


STEP 5 - Select a PID Group, then select a total of 8 PIDs. Use the ◀ / ▶ arrows to switch between screens. OK to select.

PID Groups 1/1
 Engine Misc
 Fuel Trim/Press
 Time/Distance
 Oxygen Sensors
 Misc Non-Engine
 Egr/Evap
 Catalyst Temp
 Throttle Detail

Engine Misc 1/1
 Calc Eng Load
 Engine Coolant Temp
 Manifold Abs Pressure
 Engine RPM
 Spark Advance
 Intake Air Temperature
 Mass Air Flow
 Abs Throttle Position

STEP 6 - Follow the on-screen instructions. Note the RED highlights. See DataLogging for more information.



Data logging allows you to record specific vehicle information while driving. Follow these instructions to find out how to datalog, and how it may be helpful to your particular needs.

⚠ WARNING *Do not exceed legal speed limits on public roadways.*

STEP 1 - Refer to the previous section and follow the steps.



STEP 2 - Press the OK button to begin recording the PID data. Press the OK button again, to stop the recording.

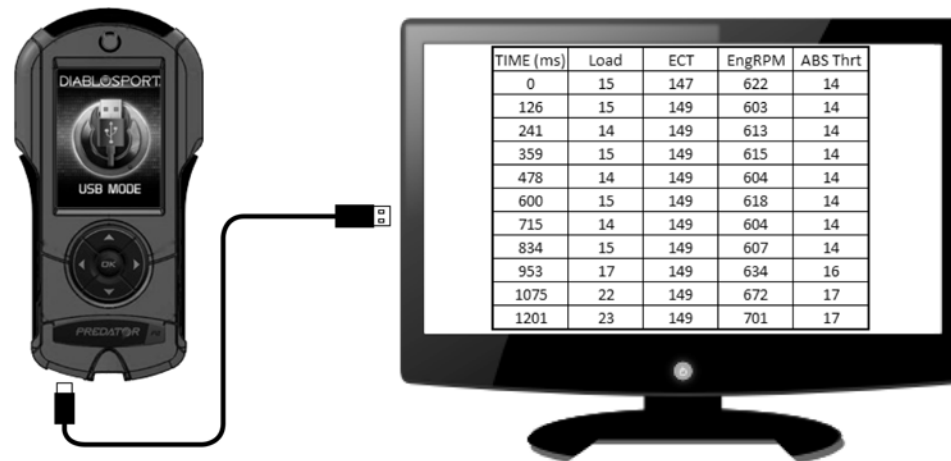


The separator lines will change from Red to **Green**, which indicates that the device is actively **recording** (datalogging).

STEP 3 - Press the left arrow to return to the menu.



The information will be stored on the device and may be retrieved using a computer. For more information continue to the next section.



DATA LOGGING RETRIEVAL

To learn more about how Data Logging results can be extracted from the device, please follow these instructions:

STEP 1 - Remove the device from the vehicle OBDII port.

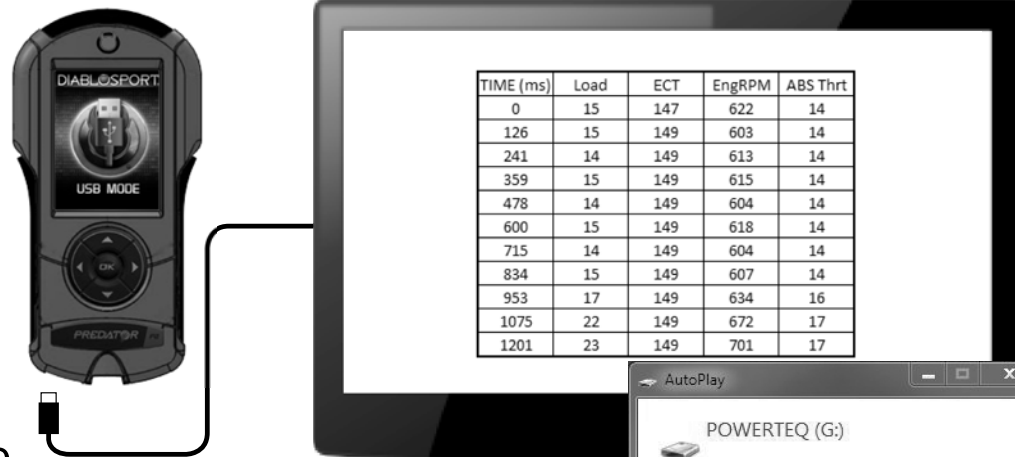
STEP 2 - Using the USB cable provided, connect the device to your computer.

STEP 3 - The device will enter USB Mode, and allow your computer to open it's files.

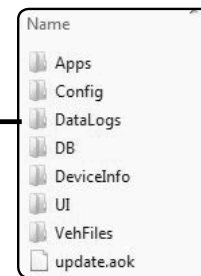
STEP 4 - Open the folder to view files.

STEP 5 - Open the folder named DataLogs.

STEP 6 - Copy the Excel file to your computer desktop, then open it. A file will open that looks similar to the following:



TIME (ms)	Load	ECT	EngRPM	ABS Thrt
0	15	147	622	14
126	15	149	603	14
241	14	149	613	14
359	15	149	615	14
478	14	149	604	14
600	15	149	618	14
715	14	149	604	14
834	15	149	607	14
953	17	149	634	16
1075	22	149	672	17
1201	23	149	701	17



TIME (ms)	Load	ECT	EngRPM	ABS Thrt
0	15	147	622	14
126	15	149	603	14
241	14	149	613	14
359	15	149	615	14
478	14	149	604	14
600	15	149	618	14
715	14	149	604	14
834	15	149	607	14
953	17	149	634	16
1075	22	149	672	17
1201	23	149	701	17

STEP 1 - Plug the device into the OBDII port.



STEP 2 - Enter the Scan Menu.



STEP 3 - Select the Battery Voltage option.



STEP 4 - Press OK to return to the previous screen.



VEHICLE INFO

STEP 1 - Plug the device into the OBDII port.



STEP 2 - Enter the Info Menu.



STEP 3 - Select the ID Vehicle option.



STEP 4 - Press OK to return to the previous screen.



STEP 1 - Plug the device into the OBDII port.



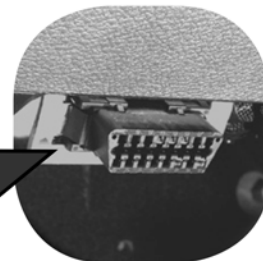
STEP 2 - Enter the Info Menu.



STEP 3 - Select the Device Info option.



STEP 4 - Press OK to return to the previous screen.



My Predator does not power up when plugged into the OBDII port?

- ✓ Your vehicle's OBDII port is powered through a fuse the fuse may be blown. (In most vehicles, this is the same fuse shared by the cigarette lighter)
 - ✓ Try the Predator on another vehicle to make sure it powers up. If it does, then the wiring on the vehicle you are trying to program may be the issue (See your dealer for service).
-

My Predator Says: "Non-Stock File Detected..."

- ✓ Your vehicle may have been programmed by another device. Use that device to set your vehicle back to stock before using the Predator.
-

When reading the vehicle's trouble codes (DTCs), I received a P1000 error code?

- ✓ P1000 is a DTC that sometimes appears after a vehicle is programmed or the battery cables are unplugged from the battery. It will automatically clear after several drive cycles. It cannot be removed using the 'DTC Clear' function.

You are now able to start your vehicle normally. You may now attempt to program your vehicle again. In the event that recovery is unsuccessful or fails to complete the programming cycle a status message will display on the programmer.

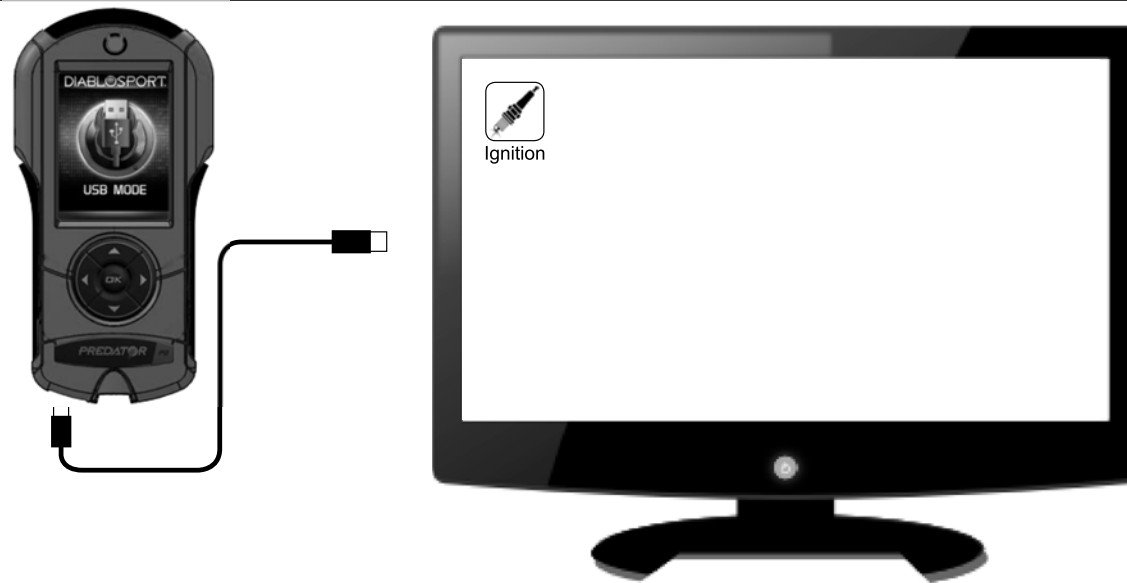
My programmer shows a 'vehicle calibration not on file' status.

✓The Predator is loaded with the latest databases meant to provide extremely broad vehicle coverage. 'Vehicle calibration not on file' status occurs when programmer does not have the necessary calibration files to program a vehicle. Update your programmer using the Ignition update software. If your calibration is available it will be downloaded to your programmer for immediate use. If your calibration is not available, your calibration will be uploaded to Diablosport' R&D for tuning. You will receive an e-mail as soon as your calibration is available. Calibrations are usually available in 5 business days.

STORAGE AND MAINTENANCE

NOTICE: It is NOT recommended to store your programmer in your vehicle in extreme heat, direct sunlight or extreme cold (temperatures near or below freezing). These conditions can cause malfunction or damage to the programmer.

TIP: Prior to using your device after a long period of non-use, use Ignition to update. This will ensure that your device is up-to-date and contains all of the latest files and functionality.



SAFETY WARNING & CAUTION

Throughout this User Manual you will see important messages regarding your safety or the protection of your vehicle. These messages are designated by the words **WARNING**, **CAUTION**, or **NOTICE**.

WARNING

*A **WARNING** indicates a hazardous situation which, if not avoided, will result in death or serious injury.*

CAUTION

*A **CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.*

NOTICE

*A **NOTICE** indicates a condition that could cause damage to the product or your vehicle.*

The Diablosport Product you have purchased is a high-performance product. As such, it does present some risks of which you should be fully aware. Do not use this product until you have carefully read the following safety information and the Owner Agreement.



Before using device, read and understand the user manual, including these additional safety instructions. Failure to do so could result in DEATH or SERIOUS INJURY.

- Do not exceed legal speed limits on public roadways. Violating traffic laws is dangerous and could result in injury or vehicle damage or both.
- Use any enhanced speed capabilities of this product only in closed circuit, legally sanctioned racing environments expressly for this purpose. Violating traffic laws is dangerous and could result in injury or vehicle damage or both.
Do not operate the device while driving. Distracted driving could result in traffic accidents, death or serious injury, and/or damage to your vehicle.
- Always perform all adjustments or changes while stopped. Changing a setting while driving can interfere with your attention to roadway conditions and could result in injury or vehicle damage or both.
- Do not stack products. “Stacking” performance-enhancing devices or other improper installation can cause power train failure on the road. Other products may have features incompatible with your Diablosport device. Follow all installation and operating instructions.
- Some modifications may affect other parts of your vehicle. For example, if you remove/adjust the speed limiter in your vehicle, be sure your tires and other components are rated for the increased speeds they will have to withstand. Not doing so can lead to loss of vehicle control. Modify the speed limiter only for use in closed circuit, legally sanctioned racing environments, not for use on public roadways.

VEHICLE WARRANTY INFO

Many of our customers ask, “Will your product void my vehicle’s manufacturer’s warranty?” Powerteq is committed to providing quality products that are safe to use. Our products do not cause damage to a vehicle when used as intended in accordance with the User Manual and should not void your vehicle’s manufacturer’s warranty.

However, the reality is that many dealerships have been known to improperly void warranties on vehicles that use aftermarket products as a matter of policy. This applies in particular to those aftermarket products that produce horsepower, such as performance enhancement “chips,” modified intake manifolds, or aftermarket exhaust systems, regardless of product brand.

Consumers of aftermarket products are protected by the Federal Magnus-son-Moss Warranty Act. The Act provides that if something breaks on your vehicle and you take it in for warranty repair, the dealer must honor your warranty unless



whatever modifications you have added to your vehicle actually caused the problem in question.

In order to understand your rights under the Federal Magnuson-Moss Warranty Act, Powerteq recommends that you contact qualified legal counsel.