



## U7146/U7142/U7153 Custom tune installation instructions

### PREP:

NOTE: DSDDownloader does not work with Belkin brand USB-serial cables

#### **Purchase**

From:

<http://www.diablosport.com>, click **Products**, then **Online Store**

-buy part #U7778 for PCs that have USB ports, OR U7777 for PC's that have a serial port

**OR**

from Radio Shack, Best Buy etc:

-USB to Serial cable OR a straight 9-pin Serial/Serial cable

and a

-12 v 1 amp power cable, center pin is positive

### Download the Software:

Go to <http://www.diablosport.com>, click **Support**, then **Downloads**, enter **Vehicle Type** or **Predator Part number (U71##)**:

**Tip:** Make sure to download all files by right-clicking the link and selecting "save as", then put the file on the Desktop before hitting "save"

### Driver Programs

The Driver program allows the tool to communicate to the computer through the data cable. USB/Serial cables contain a microchip and the driver simply controls it.

#### If you are using a USB/Serial cable:

Make sure to download the appropriate driver for your version of Windows under "**Diablosport USB Serial Drivers**". For Windows 7 download the one titled "**PL2303\_Prolific\_DriverInstaller\_v110.exe**", or under "**Old Prolific Drivers**" choose the one specific to your version of Windows.

In most cases, the driver will not work until the computer is rebooted. Once you have installed the DSDDownloader, installed the driver program and RESTARTED your computer, you may proceed to the first step in the instructions.

#### If you are using a straight serial/serial cable

You don't have to install a driver program and reboot the computer. Just install the DSDDownloader as described below.

## **The DSDownloader program**

This manages the transfer of information from a computer to a Diablosport tool. Download and run the installer program in the in the red link titled, "**DS Downloader Installer 2.2.1.7.exe**".

### **Tips When running the DSDownloader Installer Wizard**

1. Microsoft will tell you "The Publisher could not be verified". This is normal, just click 'Yes'.
2. Before the install begins, it will also give you the option to Create Desktop Icon. Make sure to check this box if you want to have the DSDownloader in a convenient place.
3. The DSDownloader will also want to install the Trinity driver program. You can let it install if you want, or cancel it. It's not used for the Predator.
4. You can also delete the installer programs from your Desktop once the actual programs themselves are installed to avoid confusion.

## **Saving original backup to PC**

1. On the tool select OPTIONS/SHOW LAST TUNE WRITTEN. If it says 'Original Backup', bring the tuner to your vehicle and write any Performance program to the ECU. This will cause the tool to automatically make a copy of the vehicle's factory tune (referred to as the 'Original Backup) and store it in its memory. If it says anything else (like Diablotune, Modified Stock, etc...), there is already an Original Backup in its memory. When you have established this, bring the tool to the computer.
2. Connect the Predator to the PC, and power it up using either a 12v 1 amp power supply or the OBDII port in the vehicle if using a laptop.
3. Once DSDL opens up, you'll see a screen that prompts you to select the Tool Communication Configurations. Select tool type (Predator) and select the current revision level then click 'Accept Modifications'.
4. The DSDownloader will check the ports on your computer to find the tool. When it finds it, a window will pop up that says, "A Diablosport Tool was detected on COM#". Make a note of this COM number and click 'Close'.
5. On the DS Downloader click 'Options' then select 'Legacy Connect'. At this point, you will see 2 drop down windows at the top of DSDownloader.
6. You will first need to find the Device Manager of your computer.

### **If you are using a USB/Serial Cable:**

#### **For Windows XP:**

Right click 'My Computer' and select PROPERTIES/HARDWARE/DEVICE MANAGER/double-click PORTS/ then find the line describing the cable (Prolific USB, Radio Shack whatever...) and double-click it.

#### **For Windows Vista:**

The procedure is the same as XP, but you can click right to 'DEVICE MANAGER' after right-clicking on the 'Computer' icon.

**For Windows 7:**

Click the Start Menu and select 'Control Panel', then Device Manager, and find the line describing the cable (Prolific USB, Radio Shack whatever...), double-click it.

**OR**

If your version of Windows 7 does not have a 'Control Panel' selection in the START menu, you can select 'Devices and Printers', and the port the cable is plugged into will be listed under the 'Unspecified' heading. Double-click that icon, then the 'Hardware' tab. The cable will be listed under 'Device Functions'. Double-click that line.

**If you are using a 9-pin to 9-pin serial cable,**

Find the Device Manager as described above for a Serial/USB cable, but double click on 'Communication Port COM 1', as this is usually the serial port on a PC.

7. You will now see a window titled "COM# Properties", you can make a note of this COM number if you did not before, then click the Port Settings tab.
8. Set the Bits per Second rating to 57600 and click OK to save the change. You can then exit the path to the Device Manager.
9. Set the DSDownloader to the same COM port # and baud rate (57600) settings. Be sure the compressed send button is not checked on the downloader tool bar.
10. From the main menu in the Predator go to OPTIONS/CUSTOM TUNE
11. Select EXPORT TUNE and then ORIGINAL BACKUP. You will see a window that says 'Processing', and it will count up to 100%.
12. Now, press enter on the Predator. It will display 'sending 0 bytes'.
13. On the DSDownloader, press the 'Get Tune File from Tool' button on the DSDownloader.
14. A new window will open on the PC titled 'Diablosport Tool Download' and it will display a status bar. It should say 'reading packets'.
15. Once the file has been uploaded the downloader will ask if you would like to save in the .ori folder. Choose no, and direct it to save the file to your desktop or somewhere that it will be easy for you to find.

**Troubleshooting:** If you have any issues with the steps above, check over the driver status outlined in Step 6. If you cannot get it to connect, and the driver program is installed correctly (device status reads "This device is working properly"), it is probably a bad cable or USB port.

**Note about Vista:** if the Device Status reads 'This device cannot start Code 10', that is an issue with Windows and you will have to have someone diagnose the problem (like the Geek Squad or equivalent), or try another computer. However, sometimes uninstalling and reinstalling the driver program will solve this issue.

## **Sending custom tune to Predator**

1. Open the DSDownloader and be sure your COM port and baud rate settings are correct, as described in steps 4-7 of the **Saving the Original Backup** instructions. Be sure the compressed send button is not checked on the DSDownloader tool bar.
2. Connect the Predator to the PC using the method outlined above.
3. From the main menu in the Predator, go to OPTIONS/CUSTOM TUNE.
4. Leave the 'Import Custom Tune' option highlighted.
5. On the DSDownloader, press the 'Send Tune File to Tool' button.
6. You will have a new window open up, select the folder where you have the custom tune saved (i.e. Desktop, or wherever you originally saved it)
7. Highlight the custom tune you wish to upload and press Open.
8. Now press enter on the Predator twice, and the file will automatically transfer. The Predator will display 'Transfer OK' once the tune is loaded.
9. Now when you go to the main menu it will read :  
**Custom tune**  
**Diagnostics**  
**Options**
10. Follow the normal procedure for loading the custom tune to the vehicle.

## **Saving Extra tune (The Last Tune Written to the PCM)**

1. Plug the Predator in the car and write the tune you want to read out to the vehicle's PCM.
2. Once the tune is in the PCM, go to OPTIONS/TROUBLESHOOTING/READ EXTRA TUNE.
3. The tool will ask if you want to save the Extra Tune, choose YES.
4. It will now read a copy of whatever tune has been written to the PCM.
5. Once it is done reading, connect the tool to the PC and open the DSDownloader.
6. On the Predator, go to OPTIONS/CUSTOM TUNE/EXPORT EXTRA TUNE and press Enter.
7. It will read "Processing" and count 0-100%
8. On the DSDownloader, click 'Get Tune File from Tool', then press Enter on the Predator and the file will be transferred to the PC. Make sure to save it somewhere that you will be able to find it for future access.

If you have any along the way, please contact our technical support at 800-531-5484 (option 1), visit our technical support forums at [www.diablosport.com](http://www.diablosport.com), or email [support@diablosport.com](mailto:support@diablosport.com).

-Tech Support