



THUNDERMAX

EFI made simple.

HOW TO UPDATE SOFTWARE, FIRMWARE & CONFIRM SOFTWARE/FIRMWARE VERSION

SmartLink IV Tuning Manual Excerpt
Pages 159-170
SOFTWARE Version 2008.1.14 For
ThunderMax High Resolution ECM
For 2001-2009 Delphi®-Based Air Cooled Motorcycles
(Except 2008-09 Touring Models)
Manual V.20090528

The ThunderMax EFI controller is not legal for use or installation on motor vehicles operated on public highways in the State of California or other States where similar emission control laws may apply.

The user shall determine suitability of the product for his or her use. The user shall assume all risk and liability in violation of regulations and any incurred financial obligations due to vehicle inspections or emissions tests.

Email Technical Questions to:
ProductSupport@ZippersPerformance.com
www.Thunder-Max.com

Section 6: Updates

An Internet Connection is required for all updates.

SMARTLINK UPDATES OVERVIEW

There are two methods of updating the software, firmware, and EFI Map library; through the SmartLink software's update features, and through the ThunderMax website.

Occasionally some customers have issues updating their software through the integrated SmartLink update functions; however it is rarely the fault of the SmartLink software. The main reason for problems is quite simple, for some reason, your computer is not allowed to send and receive automatic requests for information from an outside FTP server. Since this is a function that's automatically contacting an FTP server for information, some networks or computers will deny the SmartLink request for data transfer before it's even allowed to contact the FTP server.

Key reasons for not being able to update through the integrated Update functions are as follows:

- 1.) Your network is highly secured and does not allow automatic requests for unknown FTP servers.
- 2.) Your computer has a security or firewall setting that is not allowing SmartLink to automatically send information to and from the SmartLink FTP server.
- 3.) You are using your office computer that was setup by your professional IT department. Many of the updating problems that are seen by Product Support are related to "business" computers where the user (you) does not have administrator privileges, and many network features are locked out.

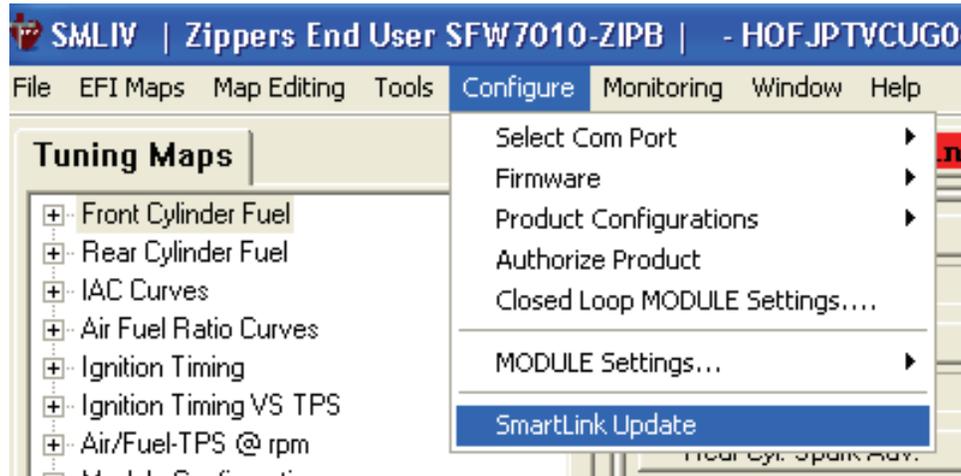
These are simply not problems that the SmartLink support staff can help you with, given the number of operating systems in use today, and the complexity of modern network security. If your computer is administered by your IT department, you need to make them aware of the problem, but only if they are ok with you having personal (non business related) programs installed on the computer. Otherwise, you will need to purchase your own computer, and your own internet connection, to take advantage of the automatic update functions. However, this is completely unnecessary! ALL updates are available through any web browser.

If you are experiencing problems with the automatic update functions through the software, you are not out of luck! Simply go to the ThunderMax website (www.Thunder-Max.com), and manually download the latest Software, Firmware, or Tuning Manual release. It is not worth the effort if you cannot get the update function to work and do not know enough about your computer or network to correct the problem. If you do not control the computer or network settings, you will never solve the problem on your own, and there's nothing that the Product Support team can do to help.

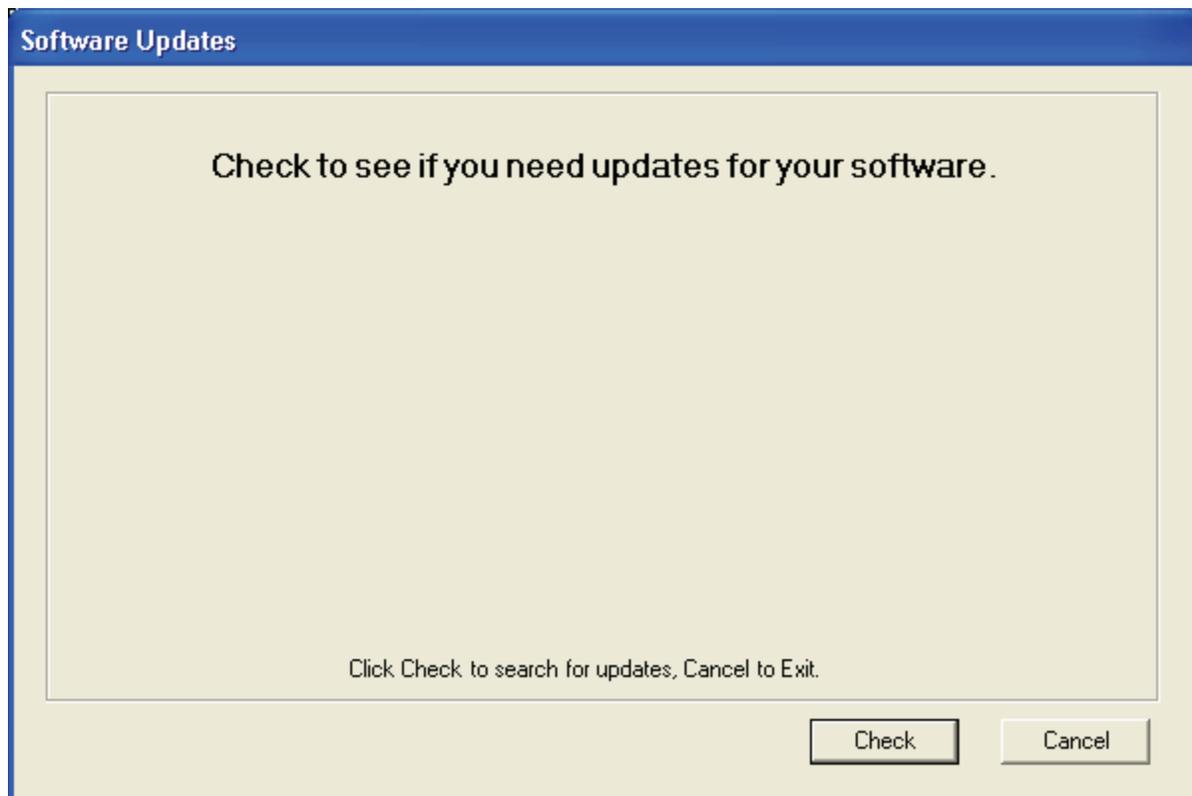
UPDATING THE SMARTLINK SOFTWARE

To maintain the most current version of SmartLink IV, use the update function in the software. **An Internet Connection is required for all updates.**

Select **Configure > SmartLink Update** to begin the update process, as shown below.



The following window will appear:

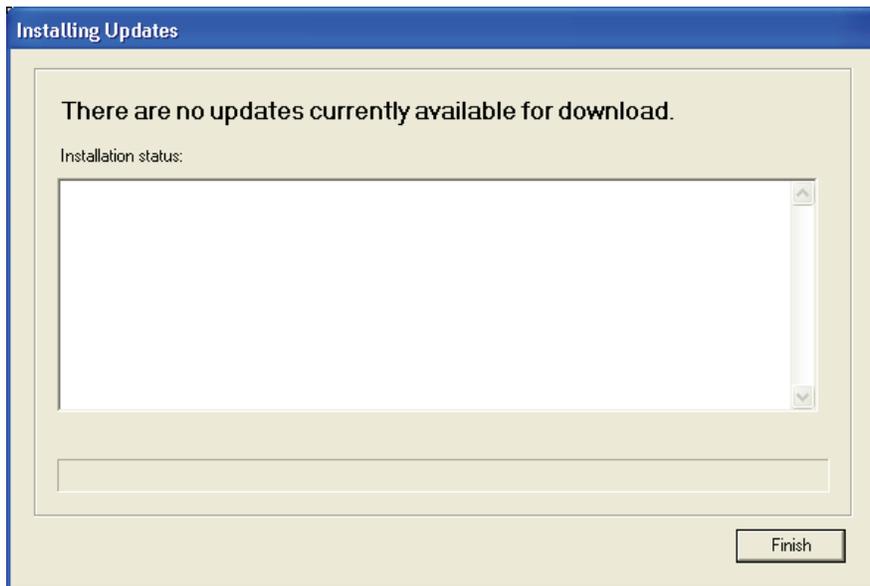


Updates

One of two choices will appear:

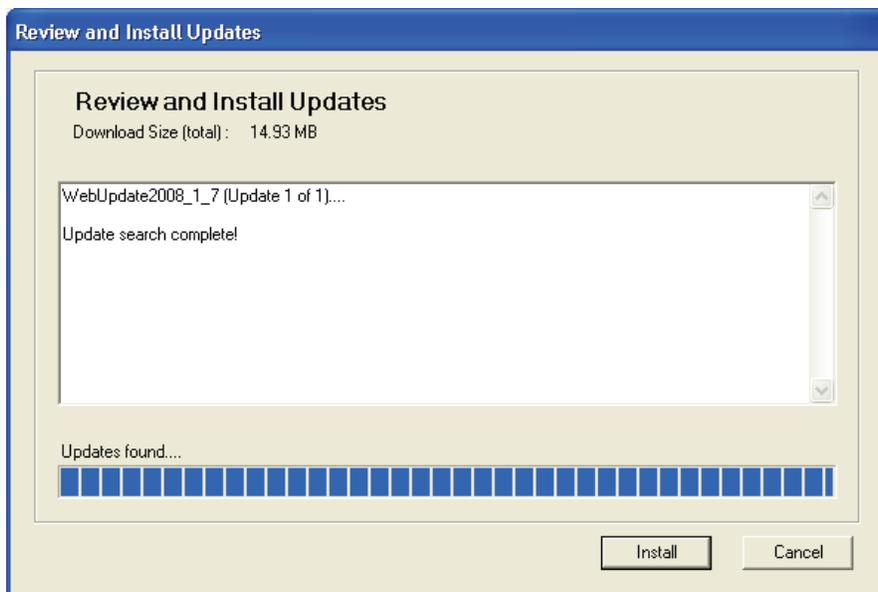
**Software is
up to date!**

**No action
required.**



**New
Software
Available!**

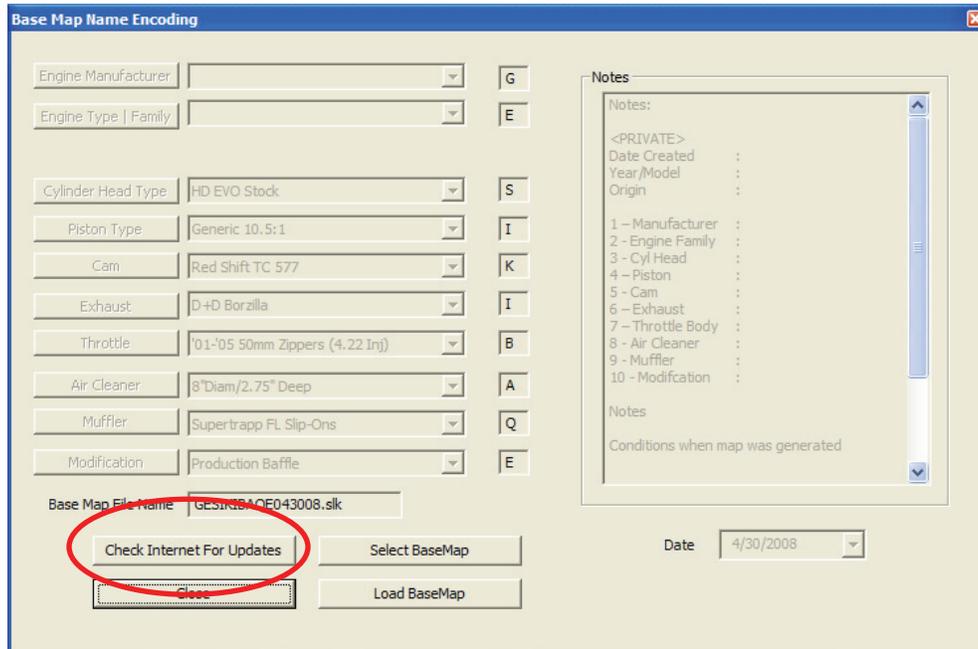
**Proceed
Forward
with the
Update
Process**



Follow the instructions provided by the SmartLink IV update windows to update your version of SmartLink IV. When complete, open SmartLink IV and select **Help > About SmartLink...** to check the version number that is currently installed on your computer.

UPDATING THE BASE MAP DEFINITIONS

To ensure that you have the complete and up to date Base Map Library, select the “Check Internet for Updates” button on the “Base Map Name Encoding” window, as shown below.



You must be connected to the internet to update the Base Map Definitions as well as retrieving any available new Base Maps. The SmartLink IV Installation CD does contain the base map library; however it is only as current as the CD itself. Versions 2008 and later will automatically download any new base map files when the definition file is updated. Previous versions will only download a list of available base map choices. **Again, an internet connection is a requirement for updating the SmartLink IV software / base maps.**

It is simply good practice to update the definition file when searching for a new Base Map file. Not only are new maps constantly being created, but the older Base Maps are updated occasionally as well. Once updated, you may proceed with selecting an appropriate Base Map for the current engine combination you are working with.

If you are satisfied with the operation of your current Base Map, chances are a new Base Map will not make a significant difference to the operation of the motorcycle. Updated maps could contain spark curve or fuel management changes, or even different fuel economy strategies.

UPDATING THE FIRMWARE IN YOUR THUNDERMAX ECM

For any modules with a Firmware version of 3.2 or higher, you can update the firmware, if an update is available, through the SmartLink software. You must be linked to the ThunderMax ECM to update the firmware in the module. **An Internet connection is required to download the Firmware.** Once the firmware file is downloaded, you do not have to be connected to the internet to upload the new Firmware to the ThunderMax ECM. There are two stages in updating the Firmware in the ThunderMax ECM.

Stage 1: Check for an update, and download the latest Firmware onto your computer.

Stage 2: Link to the ThunderMax ECM and upload the newly downloaded Firmware to the module.

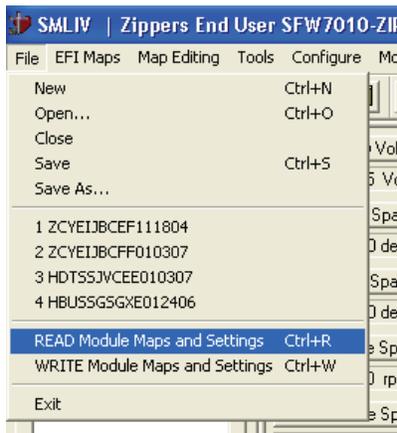
Both stages are fully covered in the following pages. Both require that you are linked to the ThunderMax ECM, and have read the module map and settings.

To begin the Firmware update procedure:

- 1.) **Link** to your ThunderMax ECM

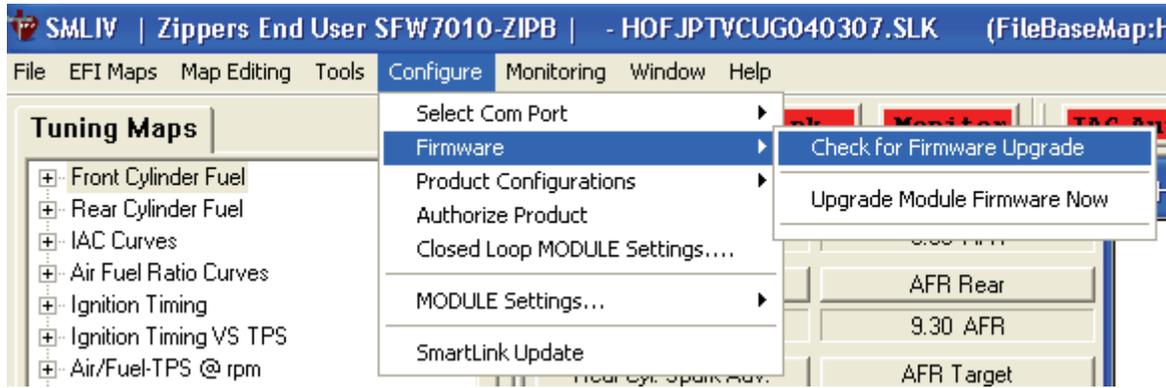


- 2.) Select **File > Read Module Maps and Settings**

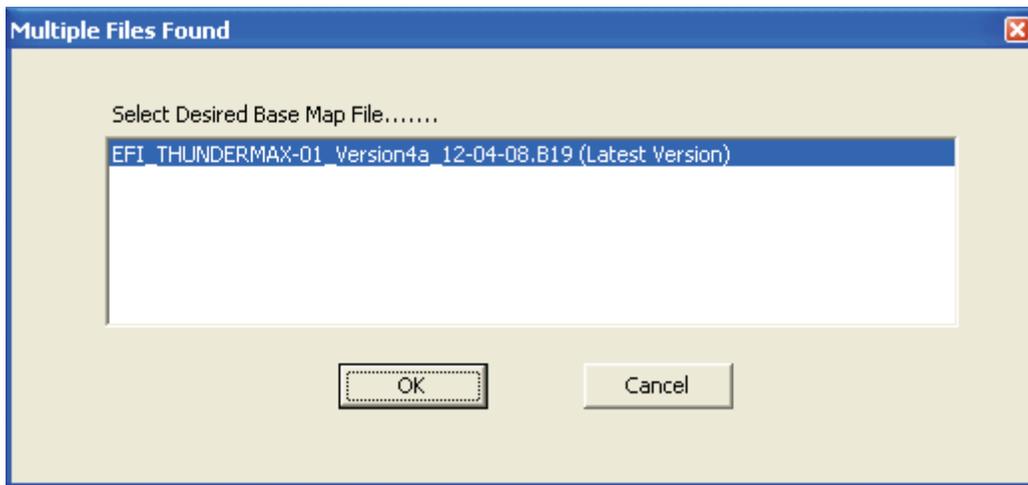


Stage 1: Downloading an Updated Firmware

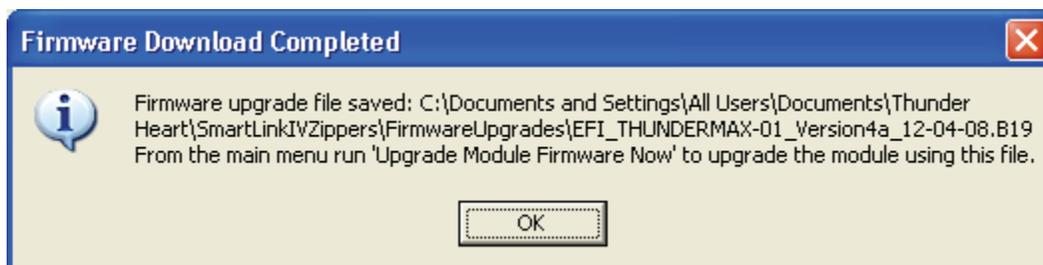
Select Configure > Firmware > Check for Firmware Upgrade to see if there is an updated Firmware available for your ThunderMax ECM.



If an updated firmware is available for your ThunderMax ECM, the following window will appear:



If you select the “OK” button, the firmware download will begin. Once completed, the following window will appear.



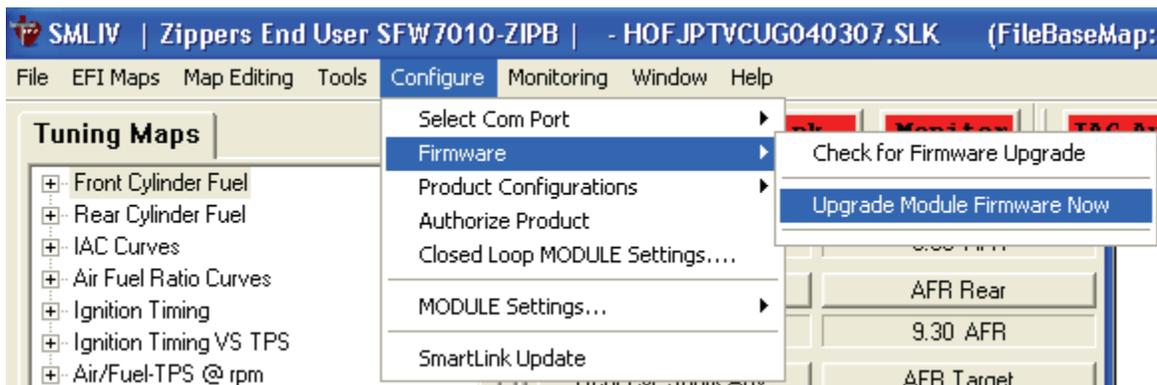
Stage 2: Uploading a New Firmware Version into the ThunderMax ECM

Link

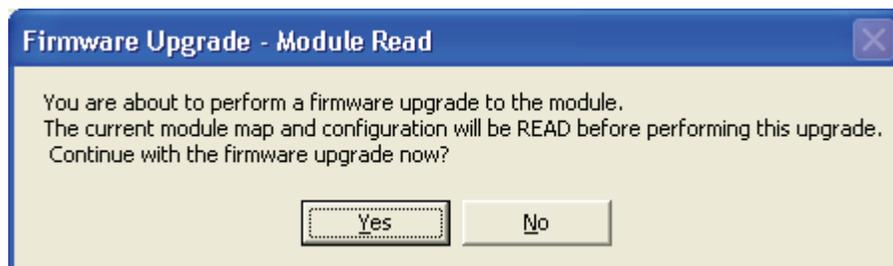
Link to the ThunderMax ECM, and Read Module Maps and Settings.

SmartLink 2008.0.2 and newer will automatically read the map from your ECM before any firmware upgrade can begin.

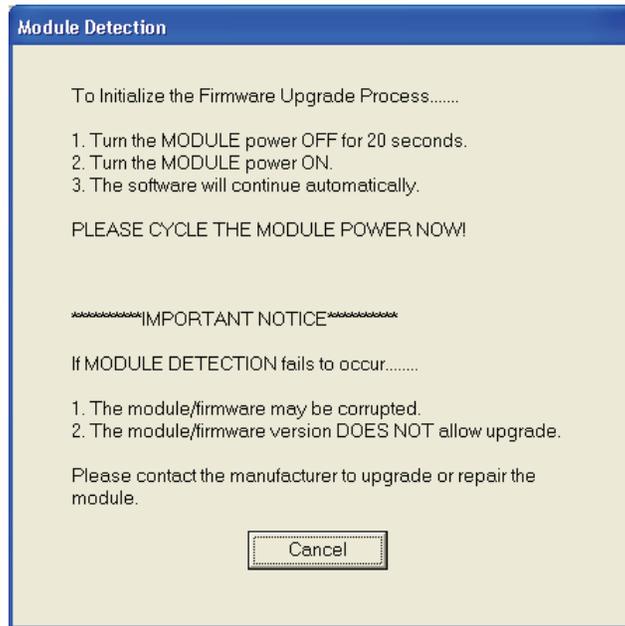
To upload the new Firmware to the ThunderMax ECM, select Configure > Firmware > Upgrade Module Now, as shown below. **You must be linked to the ThunderMax ECM to perform any firmware upgrades.**



The following notice will appear, prompting you to continue:



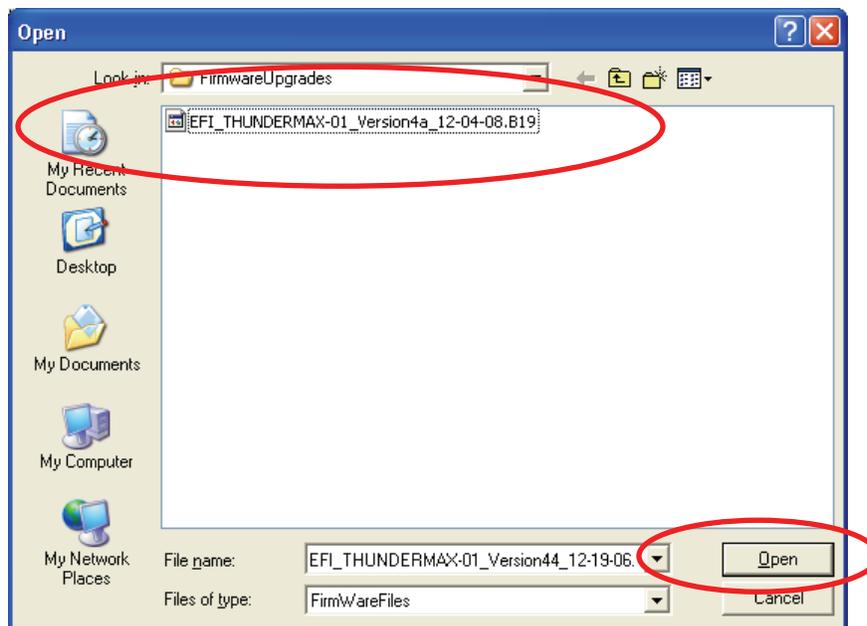
Once selected, the following window titled “Module Detection” will appear:



Follow the instructions on the “Module Detection” window:

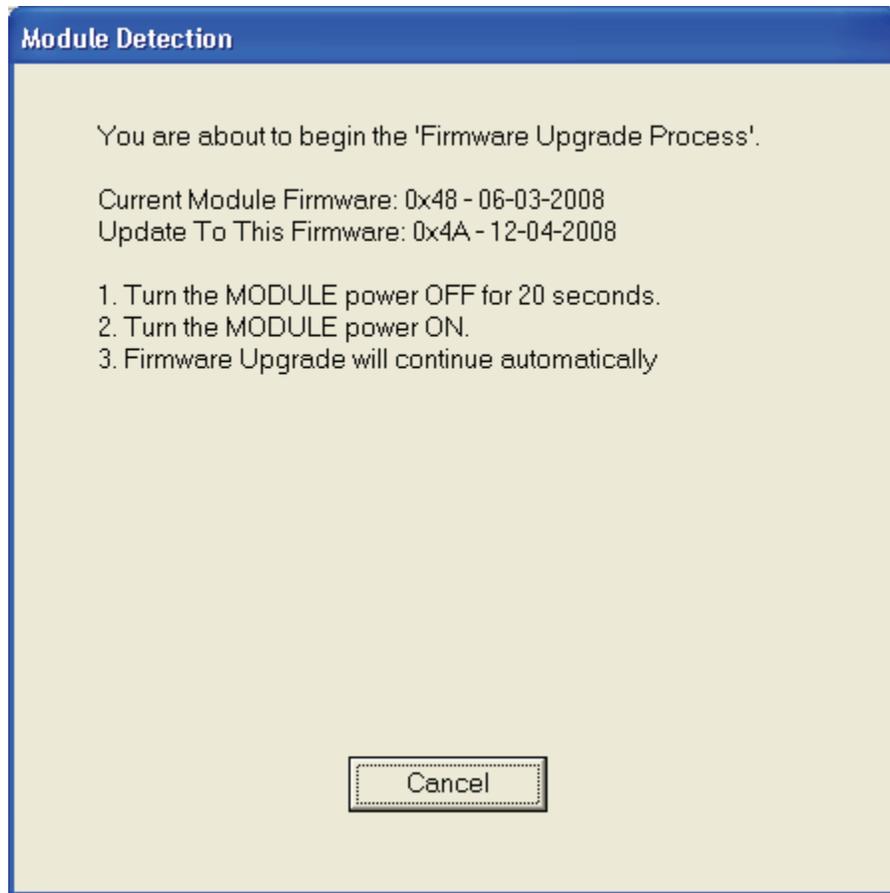
- 1.) Turn off the Ignition Switch for 20 seconds.
- 2.) Turn on the Ignition Switch

The update process will now automatically begin. The following window will appear, allowing you to select the most recent version of the Firmware that you’ve downloaded onto your computer. Select the most recent version of the firmware, and select the “Open” button, as circled below.



Updates

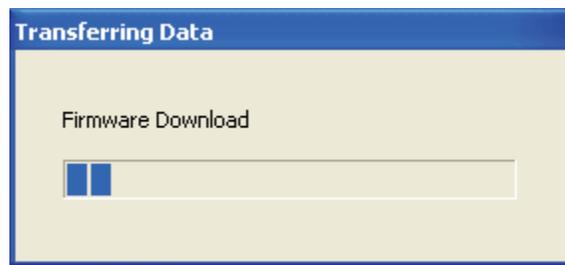
Once the file has been opened, the following window will appear titled “Module Detection.” Follow the prompts to continue the firmware upgrade for your ThunderMax ECM.



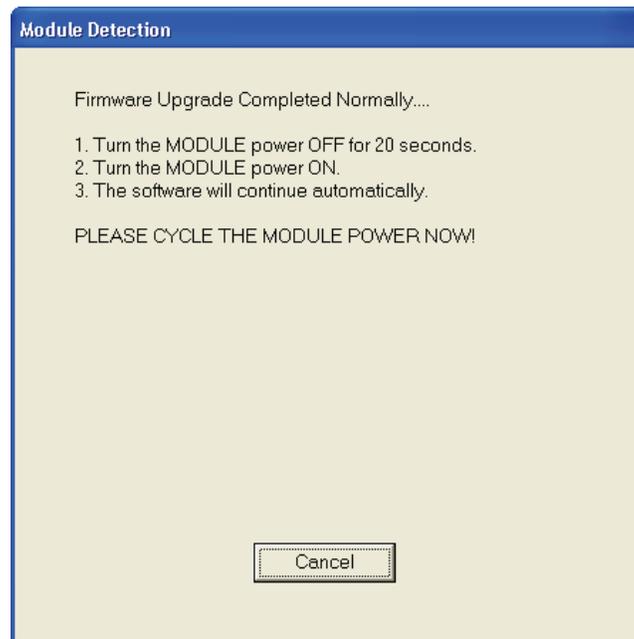
Follow the instructions on the “Module Detection” window:

- 1.) Turn off the Ignition Switch for 20 seconds.
- 2.) Turn on the Ignition Switch

If the Firmware upgrade process is successfully initiated, you will see the following status window appear, titled “Transferring Data.”



Once the transfer completes, the “Module Detection” window will appear again.



Follow the instructions on the “Module Detection” window:

- 1.) Turn off the Ignition Switch for 20 seconds.
- 2.) Turn on the Ignition Switch

The software will automatically “**WRITE Module Maps and Settings**” to complete the **Firmware Upgrade process**.

The Firmware is now upgraded in your ThunderMax ECM. To check the firmware version on your ThunderMax ECM, simply open SmartLink IV, Link to the ECM, and select **Help > About SmartLink...**, as shown below. The “SMLIV” window that pops up will display the current software and firmware versions.

