

## Superchips Model 1724 MAX Micro Tuner 2004 3.9L V6 Mustang & 2004 4.6L V8 Ford Automobiles Vehicle Programming Instructions

PLEASE READ THIS ENTIRE INSTRUCTION SHEET BEFORE YOU PROCEED



Thank you for choosing the Superchips Model 1724 MAX Micro Tuner, a state-of-the-art instrument that allows you to install a Superchips performance program specifically tuned for your vehicle and your driving requirements.

You can select between a Performance program when you are using premium fuel and a program that provides optimum performance when using 87 octane fuel.

You can custom tune your shift points and shift firmness, and optionally adjust the vehicle rpm and speed limiters. Vehicles with electronic speedometers allow for correction to compensate for gear changes. Traction Control disable and adjustment of electric fan turn on temperature is also available on some vehicles.

This product is intended for use on unmodified stock engines.

### Your Vehicle's STOCK Program

The MAX MicroTuner stores a copy of your vehicle's original stock computer program. Your vehicle computer must contain the manufacturer's STOCK factory program. If you have used a programmer from another aftermarket company you must use their product to return your computer back to STOCK condition before proceeding. If you have a performance enhancing chip installed, it must be removed.

### Your Vehicle and Service Centers

If you need to return your vehicle to a service center, restore the vehicle program to its STOCK program as described below. The service center might reprogram your vehicle with an updated STOCK program without your knowledge. If your vehicle has not been returned to its STOCK program prior to service, the Superchips MAX Micro Tuner will no longer be able to program your vehicle. Such a failure is not covered by the Superchips Inc. warranty.

### Vehicle Preparation

Before connecting the MAX Micro Tuner to your vehicle, make sure that all power draining accessories are turned off. Radio, lights, cell phones, etc., all need to be turned off as the MAX Micro Tuner needs full battery voltage to program. Ensure your vehicle battery is fully charged and not connected to a battery charger. Do not leave the MAX Micro Tuner connected and unattended for any length of time to prevent unnecessary battery drain. Do not remove the programming cable during any programming sequence.

### Important Note Regarding Storage of Your MAX Micro Tuner

It is recommended that you not store your MAX Micro Tuner in your vehicle if ambient temperatures in your area fall below 32°F. Excessively low temperatures can cause malfunction or damage to the MAX Micro Tuner that is not covered by the Superchips Inc. warranty.

### Refund Policy

If for any reason during the first thirty (30) days after your purchase of a new Superchips product ("Product"), you may return it to the place you bought it for a full refund of the purchase price, credit or a replacement Product at the dealer's discretion. This Guarantee does not apply to products purchased from auctions nor does it apply to Products purchased used. Follow these procedures to get your refund or replacement.

1. If you are returning a MicroTuner or Flashpaq, use the MicroTuner or Flashpaq to return your vehicle to the stock settings for the vehicle. Instructions are included in the user manual.
2. Put the Product back in its original packaging.
3. Make a copy of your sales receipt. The sales receipt must be from the location where you purchased your Product and must include the name of the business, its address, and the part number or description of the applicable Superchips Product. Invoices, credit card statements, or sales receipts from an online payment service company will not be accepted.
4. Return the Product in its original packaging with a copy of the sales receipt to the place of purchase.

### Superchips, Inc. Limited Warranty

**What is Covered?** This warranty covers any defects in materials or workmanship in any product sold by Superchips or its affiliates through its authorized dealers ("Product"). Warranty is valid only for new products purchased through Authorized Dealers; (Proof of purchase is required for all warranty claims).

**How Long Does the Coverage Last?** This warranty lasts for one (1) year from the date of purchase. Coverage terminates if you sell or otherwise transfer ownership of the Product.

**What will Superchips Do?** Superchips will repair or replace the defective or malfunctioning Product or any defective or malfunctioning part thereof at no charge. This warranty covers parts and labor only. Superchips will reimburse you for all reasonable shipping charges within the first thirty (30) days of purchase.

**What Does This Warranty Not Cover?** This warranty does not cover any problem that is caused by abuse, misuse, acts of God, or improper installation or repair by non-Superchips personnel. This warranty does not cover Products purchased used nor does it apply to Products purchased from auctions or entities that are not Superchips' authorized dealers. This warranty does not cover damage to your vehicle. Use of the Product to change the performance characteristics of your vehicle could invalidate the warranty provided by the vehicle manufacturer. Consult your vehicle warranty before using the Product on your vehicle. **SUPERCHIPS SHALL NOT BE LIABLE TO YOU FOR ANY CONSEQUENTIAL, SPECIAL, OR INCIDENTAL DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.**

**How Do You Get Service?** If something goes wrong with your Product during the warranty period, use the following procedure to return the Product to Superchips.

1. Call Superchips' Customer Service at 1-888-227-2447 Monday through Friday from 8:00 am to 5:00 pm EST to request a Return Authorization ("RA") number.
2. Mark the outside of the shipping package with the RA number. Packages that are not marked with the RA number will be refused.
3. Make a copy of your sales receipt. The sales receipt must be from the location where you purchased your Product and must include the name of the business where you purchased the Product and the address of such business. Invoices, credit card statements, or sales receipts from an online payment service company will not be accepted.
4. Send the Product, postage paid, the copy of the sales receipt, a brief written description of the problem, and your contact information to:

Superchips, Inc.  
1790 East Airport Blvd  
Sanford, FL 32773  
Attn: Warranty Claims

We will inspect the Product and either repair it or replace it with a new or rebuilt Product. We reserve the right to use refurbished parts when making repairs.

**Your Rights Under State Law:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state..

### About Maximum Trailer Weight

The original manufacturer of your vehicle has specified a Maximum Trailer Weight for your vehicle. It may be found in your vehicle owner's manual.

This Superchips product is designed to increase your engine power and performance. It does not change the engine, suspension or drive train characteristics that limit the maximum trailer weight your vehicle is designed to tow. Towing trailer weights above the maximum trailer weight specified by the vehicle manufacturer may cause transmission or other damage.

If you wish to tow greater than the maximum trailer weight for your vehicle, modifications to your vehicle may need to be made. Consult your performance auto mechanic for the proper vehicle modifications.

Damage caused by towing weights greater than the maximum trailer weight specified for your vehicle shall not be the responsibility of Superchips Inc.

### **THIS MAY BE THE MOST IMPORTANT INSTRUCTION IN THIS ENTIRE MANUAL!**

***Because of techniques that the Ford Motor Company uses with the ECM in gasoline vehicles, for safety, YOU MUST REMOVE THE FUEL PUMP FUSE BEFORE ATTEMPTING TO INSTALL A PERFORMANCE PROGRAM OR TO RETURN THE VEHICLE TO ITS STOCK PROGRAM. Typically the fuel pump fuse is found in an auxiliary fuse box often called "Power Distribution Box" located under the hood on the right side of the engine as shown in Figures 1-4 below. There are a variety of fuse layouts. You can find the specific location of the fuel pump fuse in your owner's manual. Failure to remove this fuse may cause severe damage to your engine. If you have difficulty finding the fuel pump fuse in your vehicle.***

### Removing the Fuel Pump Fuse

Locate the auxiliary fuse box (sometimes labeled "Power Distribution Box") usually located under the hood. Open the hinged lid of the black plastic box. There is usually a diagram of fuse locations on the inside of the lid. Check your Vehicle Owner's Manual for the fuel pump fuse number. Remove the Fuel Pump Fuse.



Fig. 1 - 2004 Ford Mustang Power Distribution Box location

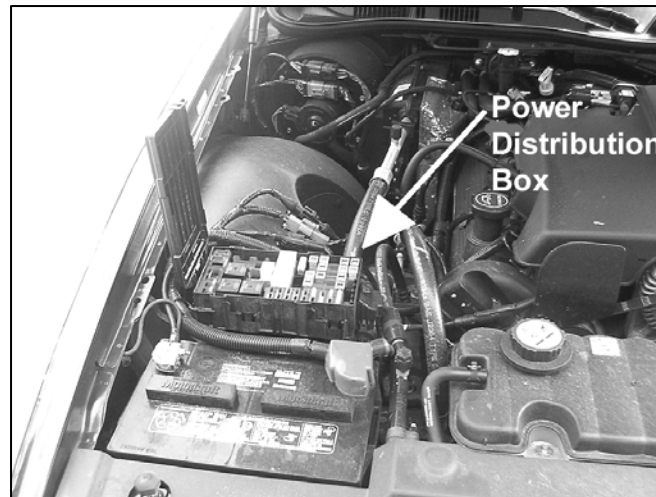


Fig. 2 - Power Distribution Box location for 2004 Mercury Grand Marquis, Maurader, Lincoln Towncar, Ford Crown Victoria

Fig. 3 - Typical Fuse Arrangement 2004 Mustang Fuse #14, 20 Amp Mini fuse

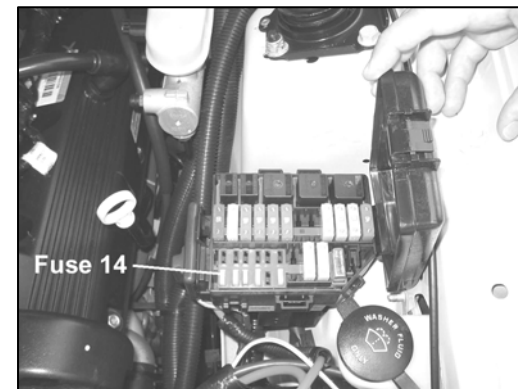
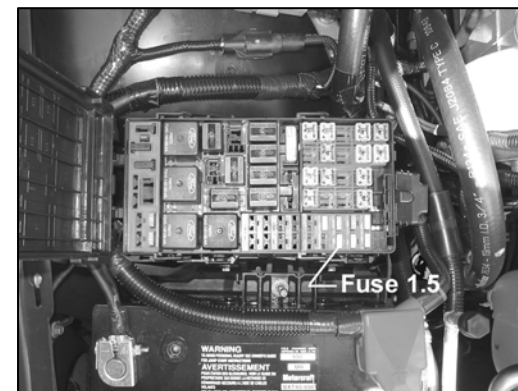


Fig. 4 Typical Fuse Arrangement for: 2004 Mercury Grand Marquis, Maurader, Lincoln Towncar, Ford Crown Victoria Fuse #1.5, 20 Amp Mini fuse



### 1. Connecting the MAX Micro Tuner to your vehicle

With the ignition switch in the OFF position, locate the diagnostic connector under the dash to the right of the steering wheel and connect the MAX Micro Tuner cable to the diagnostic connector. (See Figure 5)

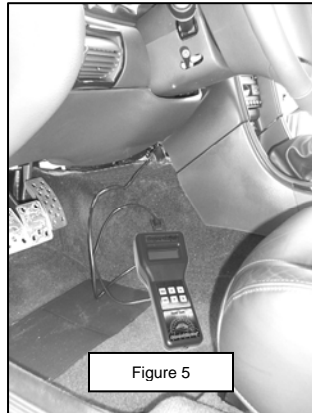
When connected, the MAX Micro Tuner will run a self-test, displaying several start-up messages. Following the start up messages, if the MAX Micro Tuner has been previously used to program a vehicle, the Micro Tuner will beep and display:

**Micro Tuner is  
VIN Locked**

This indicates the MAX Micro Tuner has been previously used to program a vehicle and can not program another. The MAX Micro Tuner will continue to operate normally on the original vehicle and may be used as a DTC Reader on other Ford vehicles.

The MAX Micro Tuner then displays the following message:

**Begin with Ign.  
OFF Press >**



### 2. Selecting Tune Vehicle / Diagnostics

Turn the ignition switch to the ON position. Press the '>' key on the keypad. The MAX Micro Tuner will beep and display the message:

**A= Tune Vehicle  
B= Diagnostics**

Press the 'A' key on the keypad to continue with the tuning process.

Press the 'B' key to read and/or clear any Diagnostic Trouble Codes from the vehicle. See DTC Reader Instructions and DTC interpretation in the separate manual provided for this purpose with your product.

### 3. Vehicle Programming

Press the 'A' key on the keypad. The MAX Micro Tuner will beep and display the message:

**Is FUEL PMP Fuse  
Removed YES/NO?**

If 'NO' is pressed, the MAX Micro Tuner will beep and display the following messages:

**MUST Remove Fuse  
Before Tuning!!!**

**Press Any Key  
To Continue...**

After pressing a key, the MAX Micro Tuner beeps and returns to *Selecting Tune Vehicle / Diagnostics* at Step 2 .

If 'YES' is pressed, the MAX Micro Tuner will display the following message:

**Turn Ignition ON  
Do NOT START Eng**

Turn the ignition to the ON position. The MAX Micro Tuner will proceed to establish communications and display the following message:

**Establishing  
Communications**

The MAX Micro Tuner is establishing communications with and identifying the vehicle's computer. If the MAX Micro Tuner has not yet been used to program a vehicle, no vehicle ID will be stored in the MAX Micro Tuner. In such a case, the MAX Micro Tuner will begin saving the STOCK program for the vehicle. If the vehicle ID matches a vehicle ID stored in the Micro Tuner, the MAX Micro Tuner will go directly to the *Return to Stock Sequence* at Step 10 that follows.

**Not the Original  
Vehicle/Program**

**Error Type: 09 \*  
Call Superchips!**

**Press '>' to  
Continue...**

\* Other error codes, with or without explanations may be displayed.

Pressing the '>' key will cause the MAX Micro Tuner to beep and display the message:

**Please Wait...**

After a few seconds the MAX Micro Tuner resets and returns to the power-up self test.

### 4. Saving the STOCK program for the vehicle

The manufacturer's STOCK program is first saved in the MAX Micro Tuner to allow the vehicle to be reprogrammed to STOCK condition if necessary. The STOCK program is *AUTOMATICALLY* saved only the first time the vehicle is programmed.

Once the MAX Micro Tuner has established communications, it will beep and display the following message for approximately 3 seconds:

**Please Wait...**

After initialization is complete, the MAX Micro Tuner will beep and start saving the stock program. This will take about three minutes. The MAX Micro Tuner will blink the following message:

**Saving Stock**

The bottom line of the display shows the progress of the stock upload.

When completed, the MAX Micro Tuner checks to see if the stock program it has uploaded can be found in its internal database. If not it will display the message:

**Tuner Requires  
an Update...**

**Call Superchips!  
or...**

**Check Vehicle  
application...**

**Press any key to  
continue...**

If the stock upload is found in the internal database, the MAX Micro Tuner will beep and display the message:

**Please Wait...**



Some basic rules are implemented by the MAX Micro Tuner for Shift Point options:

- If the Shift Point is raised, the Down-Shift point remains at the STOCK or *Superchips Performance Program* setting.
- If the Shift Point is lowered both the Up-Shift and Down-Shift settings are lowered proportionally.
- The WOT (Wide Open Throttle) setting is raised or lowered proportionally with the Up-Shift setting.

The following screens for editing the Shift Points are the same for all Shift Points, except the selected Shift Point replaces 'n-n' in the descriptions that follow.

The MAX Micro Tuner will beep and display the message:

**SHIFT POINT n-n**  
**MIN----ST----MAX** (n-n is 1-2, 2-3 or 3-4, ST = Stock)  
 Or...  
**Superchips**

The present Shift Point setting will flash. MAX is approximately 10mph the STOCK setting. MIN is approximately 10mph below the STOCK setting.

Use '<' to lower the Shift Point, '>' to raise the Shift Point.  
 Press '>' while MAX is flashing to select the *Superchips Performance Program* setting. Press 'YES' to save the desired Shift Point setting.

The MAX Micro Tuner will repeat this process for each Shift Point.

### **Editing the Shift Pressure Option Settings**

The Shift Pressure Option allows the user to set each Shift Pressure independently. The choices are:

- Use the STOCK setting for the Shift Pressure.
- Adjust the *Superchips Performance Program* setting for the Shift Pressure.

The following screens for adjusting the Shift Pressure are the same for all Shift Pressures, except the selected Shift Pressure replaces 'n-n' in the descriptions that follow.

After choosing the shift points you wish to use, the MAX Micro Tuner will beep and display the message:

**SHIFT PRESS. n-n**  
**MIN-----MAX** (n-n is 1-2, 2-3 or 3-4)

The present Shift Pressure setting will flash. The vehicle program determines the MAX setting. MIN is the vehicle's stock setting. Use '<' to lower the Shift Pressure, '>' to raise the Shift Pressure. Press '>' while MAX is flashing to select the *Superchips Performance Program* setting. Press 'YES' to save the Shift Pressure Custom Option setting. The MAX Micro Tuner will repeat this process for each Shift Pressure.

### **Editing the FAN Turn-On Temperature Option Setting**

The FAN Temperature Turn-On Option allows you to turn on the vehicle's electric fans at one of the following temperatures:

*Superchips Performance Program*, 160 °, 180 ° or STOCK

The MAX Micro Tuner will beep and display the message:

**Set FAN Turn On:**  
**xxxxxxx**

The present FAN Turn-On Temperature setting is displayed. Use '<' or '>' to change the FAN Turn-On Temperature setting and 'YES' to save the FAN Turn-On Temperature Option setting.

### **Editing the Speed Limiter Option Setting**

The Speed Limiter option allows the user to set the vehicle Speed Limiter to:

- Use the *Superchips Performance Program* raised setting.
- Use the STOCK setting.

The MAX Micro Tuner will beep and display the message:

**SPEED LIMITER**  
**Raise or Stock**

The current Speed Limiter setting will flash. Use '<' or '>' to change the setting and 'YES' to save the Speed Limiter Custom Option setting.

### **Editing the Traction Control Option Setting**

The Traction Control option allows the user to set the vehicle Traction Control to:

- Use the *Superchips Performance Program* disabled setting.
- Use the STOCK setting.

The MAX Micro Tuner will beep and display the message:

**TRACTION CONTROL**  
**On or Off**

The current Traction Control setting will flash. Use '<' or '>' to change the setting and 'YES' to save the Traction Control Custom Option setting.

## **8. Viewing the Option Settings**

The MAX Micro Tuner will beep and display the message:

**View Custom Opts?**  
**YES or NO**

Press 'YES' to view the present values of the Custom Option Settings.  
 Press 'NO' to go directly to the programming process at Step 8 below.

The MAX Micro Tuner will beep and display the message:

**Press Any Key**  
**to Continue...**

Press any key on the MAX Micro Tuner keypad. The Custom Options current settings will be presented in order. Press any key to view the next Custom Option setting.

Press 'NO' to continue without viewing the Custom Option Settings.  
 The MAX Micro Tuner will beep and display the message:

**Install TUNING?**  
**YES or NO**

Press 'YES' on the MAX Micro Tuner keypad to continue with the Programming process at Step 8 below.

Press 'NO' to stop the process. The MAX Micro Tuner will beep and display the message:

**Finished with**  
**Tuner? YES / NO**

Press 'NO' to start over at *Selecting Tune Vehicle / Diagnostics* at Step 2 .  
 Press 'YES' to go to the *End of Programming Sequence* at Step 9 below.

**9. Programming Section**

The MAX Micro Tuner will beep and display the message:

**Turn Ignition  
OFF Press >**

Turn the ignition to the OFF position and press the '>' key on the keypad. The MAX Micro Tuner will beep and blink the following message:

**Initialization..  
Please Wait...**

After initialization is complete, the MAX Micro Tuner will beep and display the message:

**Turn Ignition ON  
Do NOT START Eng**

Turn the ignition switch ON. The MAX Micro Tuner will beep once and display the following messages:

**Ready to Install  
New TUNING  
  
The Ignition SW  
Must remain ON!  
  
Press >  
to Continue...**

**IMPORTANT NOTE**

*Do not interrupt the MAX Micro Tuner programming cycle or disconnect it from your vehicle until the programming cycle is complete. The programming cycle can take several minutes.*

Press '>'. The MAX Micro Tuner will beep once and erase the present program. The MAX Micro Tuner will blink the following message:

**Erasing Present  
Program...**

After the present program has been erased, the MAX Micro Tuner will blink the following message:

**Install TUNING**

The bottom line of the display shows the programming progress.

Once the programming sequence has been successfully accomplished on a vehicle, the MAX Micro Tuner becomes LOCKED to that vehicle. The MAX Micro Tuner may not be used to tune any other vehicle. The MAX Micro Tuner may be used on other Ford vehicles as a DTC Reader.

**10. End of Programming Sequence**

When the programming sequence is completed the MAX Micro Tuner beeps and will display:

**Please Wait...**

The MAX Micro Tuner is testing to see if the Passive Anti-Theft System is active. If PATS is active the MAX Micro Tuner beeps and displays the message:

**Resetting PATS  
Please Wait...**

After accessing the vehicle's computer and PATS is not active, the MAX Micro Tuner automatically clears the vehicle DTCs.

The MAX Micro Tuner Beeps and displays the following messages:

**Clearing DTCs  
Please Wait...**

**TUNING Complete!  
Turn Ign OFF**

**Remove the Ford  
MAX Tuner...**

**Re-install the  
FUEL PUMP Fuse...**

Turn the ignition OFF, remove the cable from the diagnostic port and re-install the Fuel Pump Fuse.

**11. Return to Stock Sequence****IMPORTANT NOTE**

*You MUST remove the fuel pump fuse from the vehicle fuse block before attempting to install a Performance Program or to return the vehicle to its STOCK condition. Failing to do so can cause serious damage to your engine.*

The Return to Stock Sequence is used to reprogram a vehicle previously tuned with the Superchips MAX Micro Tuner with its original stock tuning. Follow the steps described in *Connecting the Superchips MAX Micro Tuner to Your Vehicle* at Section 1. Following the typical start up messages, if the MAX Micro Tuner has been previously used to program a vehicle, the MAX Micro Tuner will beep and display:

**Micro Tuner is  
VIN Locked**

This indicates the MAX Micro Tuner has been previously used to program a vehicle. It should not be used program another vehicle. The MAX Micro Tuner will continue to operate normally on the original vehicle.

After re-establishing communications, the MAX Micro Tuner will display the following message:

**RETURN to STOCK?  
YES or NO**

If 'NO' is pressed, the MAX Micro Tuner will return to *Installing the Superchips Performance Program* at Step 5 .

If the 'YES' key is pressed, it will beep once and display the following message:

**Turn Ignition  
OFF Press >**

Turn the ignition to the OFF position and press the '>' key on the keypad. The MAX Micro Tuner will beep and blink the following message:

**Initialization..  
Please Wait...**

After initialization is complete, the MAX Micro Tuner will beep and display the message:

**Turn Ignition ON  
Do NOT START Eng**

Turn the ignition to the ON position. The MAX Micro Tuner will beep and display the following messages:

**Ready to RETURN  
to STOCK**

**The Ignition SW  
Must remain ON!**

**Press >  
to Continue...**

Press '>'. The MAX Micro Tuner will beep once and erase the present program. The MAX Micro Tuner will blink the following message:

**Erasing Present  
Program...**

After the program has been erased, the MAX Micro Tuner will blink the following message:

**Return To STOCK**

The bottom line of the display shows the programming progress.

When the programming sequence is completed the MAX Micro Tuner beeps and will display:

**Please Wait...**

The MAX Micro Tuner is testing to see if the Passive Anti-Theft System is active. If PATS is active the MAX Micro Tuner beeps and displays the message:

**Resetting PATS  
Please Wait...**

If Returning to Stock, and PATS is not active, the MAX Micro Tuner automatically clears the vehicle DTCs. The MAX Micro Tuner Beeps and displays the following messages:

**Clearing DTCs  
Please Wait...**

**TUNING Installed  
Turn Ign OFF**

**Remove the Ford  
MAX Tuner...**

**Re-install the  
FUEL PUMP Fuse...**

Turn the ignition OFF, remove the MAX Micro Tuner cable and re-install the Fuel Pump Fuse.

## No Start after Programming? Don't Panic!

In some vehicles equipped with the Passive Anti-Theft System or PATS, once the MAX Micro Tuner begins saving the factory stock program, the THEFT light begins blinking rapidly and may even blink in short and long pulses to alert the user to a problem. Since the Superchips Max Micro Tuner is communicating directly with the PCM, no other devices may interrupt. As a result, the PATS module flags this as an error or theft condition and goes into 'THEFT' mode. After the MAX Micro Tuner has completed the programming cycle, the PCM is still fully able to communicate and appears normal. However, the vehicle may be in a No Start Condition and the THEFT light will be blinking rapidly.

### **Corrective Procedure**

This procedure should recover the vehicle and allow it to be started. Therefore, it is recommended that the MAX Micro Tuner programming cycle be completed prior to recovery. i.e. The user should allow the MAX Micro Tuner to upload the stock program and should select their choice of performance files and any user options, if available. Following instructions, they should complete the programming process.

Once the vehicle has been programmed with the selected performance program, complete the following steps to reset the PATS THEFT condition if necessary.

*Disconnect the Superchips MAX Micro Tuner & cable from the vehicle's computer interface connector.*

### **If the vehicle will not start and the Theft Light is blinking rapidly**

1. Remove the Ground (-) cable from the battery post for a period of **thirty minutes** to allow the vehicle DTC codes and Theft codes to clear.
2. Re-attach the Ground cable to the battery and start the vehicle as you normally would.

### **Error Notification**

In the event the programming cycle is interrupted, the MAX Micro Tuner is designed to recover automatically. Follow the on-screen prompts. If for any reason the MAX Micro Tuner fails to complete its programming cycle, an error message will be displayed on the unit. Please make note of the message displayed and contact Superchips Customer Service. If you need assistance please contact your local dealer or call Superchips Customer Service at (407) 585-7000, M-F 8:00 AM till 5:00 PM. EST.

