

# CORTEX<sup>™</sup>

Smart Power. Smarter Decision.



## GETTING STARTED

# Welcome

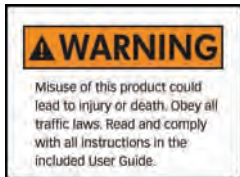
*Thank you for purchasing Superchips state-of-the-art Cortex hand held vehicle programmer and diagnostic tool. Superchips' drive in the automotive aftermarket is unmatched with our quality and innovative designs. From our plug-in performance chips to our newest addition, the Cortex, we lead the industry in cutting edge designs and strong customer support.*

*Your Cortex is designed to be intuitive and user friendly. In fact, it is so easy to use that you shouldn't need this "Getting Started Manual." However, we realize details are important and answers to the most common questions will get you on the road more quickly. That's why we created this Getting Started Manual to assist you with an easy, but thorough walk through.*

*Superchips is so confident you will be satisfied with the Cortex that we guarantee it! If for any reason, you are not completely satisfied within 30 days after your purchase of a new Superchips Cortex ("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 hand held programming Product use it to return your vehicle to the factory stock settings. Instructions are included in this Getting Started 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.*

**Note:** Superchips tuning devices for diesel engines are not currently compliant with CARB emissions certification procedures but are in a "pending" status and will be completed as requirements are met. Therefore, they are presently not legal for sale or use in California on pollution controlled diesel-fueled vehicles.



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# Component Functions

## Connections



Cortex programming cable plugs into your vehicle's OBDII port under your steering wheel & dash.



USB cable plugs into your Cortex & PC for Internet Updating.

## What's In The Box

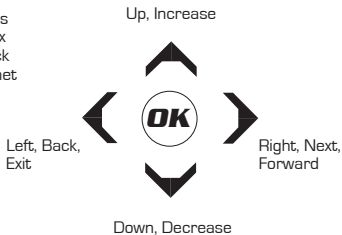


Cortex with programming cable plugs into your vehicle's OBDII port under your steering wheel & dash.



USB cable plugs into your Cortex and PC for quick and easy Internet updates.

## Key Functions



Use the Internet Update Application to update your Cortex tuner with the latest operating software, the latest tuning available for your vehicle and to enable Data Acquisition. Start by following the steps outlined below. You will need to be connected to the internet and running Windows XP/2000 or Vista. Although Mac is not supported, Parallels Desktop or VMware Fusion running a shell of Windows XP/2000 or Vista is supported.

- 1. Register on [www.superchips.com](http://www.superchips.com).**
- 2. Download & Install the Internet Update Application by logging in with your registered user name and password and clicking the Download button.**
- 3. Log in & run the Internet Update Application.**
- 4. Follow on-screen prompts for plugging your USB cable into your tuner and into your PC. To supply optimal power please use the USB ports located on the back of your PC.**
- 5. Choose from any available package selection.**
- 6. Complete the update and then tune your vehicle.**



# Tune Your Vehicle

Plug your Cortex tuner into your vehicle. Change the Tune Level on your vehicle by choosing Quick Tune or Advanced Tune. Do not remove the programming cable during any programming sequence, it may result in a vehicle no-start condition. Although Cortex is designed to recover from this situation it is best to avoid, if at all possible.

- 1. Select Tune Vehicle**  
Press OK
- 2. Select Quick Tune or Advanced Tune**  
Press OK
- 3. Switch Ignition ON/OFF as requested**  
(Do not start engine)
- 4. The Stock File is Saved!**  
Press OK
- 5. Select a Tune Level**  
Follow on screen prompts for Tune Level Requirements
- 6. Switch Ignition ON/OFF as requested**  
(Do not start engine)

**Quick Tune** changes the Tune Level of your vehicle. See Tune Level Information for details.

**Advanced Tune** Changes the Tune Level and Option settings. See Options Information for details.

# Tune Level Information

Most vehicles have multiple tuning levels offered. The list below provides information about each of these tuning levels. *Tune Level availability varies by vehicle and fuel type.*

## **Extreme - Diesel Trucks (where supported)**

Ultra performance gains without the ability to tow/haul.

▲ *Select Diesel applications only – follow all warning screens.*

## **Performance - Cars, Trucks, & SUV's**

Optimum performance tune for engine & transmission.

▲ *Tuner will display Tow Limits, if applicable. Do not exceed.*

▲ *Required Octane for gas vehicles varies by application.*

## **Tow Perf - Trucks & SUV's**

Mid-range tune for engine & transmission.

▲ *Tuner will display tow limits, if applicable. Do not exceed.*

▲ *Required Octane for gas vehicles varies by application.*

## **Tow Safe - Trucks & SUV's**

Optimum tow tune for engine & transmission.

▲ *Allows for towing up to OEM's max towing limit.*

▲ *Required Octane for gas vehicles varies by application.*

## **Transmission Only – Trucks & SUV's**

Optimum tow tune for transmissions only – where supported.

## **HP4 – Ford Supercharged Lighting**

Tuning supports a 2.8 inch upper pulley to raise the boost level.

▲ *91 Octane fuel or better is required.*

## **87 Octane**

Optimum tune for engine & transmission using 87 Octane fuel only.

## **Stock w/Options**

Factory stock tuning while allowing user option changes.

▲ *Engine and transmission tuning will not be installed. Only the selected user options will be installed.*

▲ *To set your vehicle back to the factory program select stock.*

## **Stock – Cars, Trucks, & SUV's**

Returns vehicle to factory stock tuning.

*This tuner does not allow the user to defy the laws of physics. It is the user's responsibility to obey all traffic laws. Race on the track, never on the street.*



# Advanced Tune Options

Most options will be optimized in the Superchips "Quick Tune". Use "Advanced Tune" to independently set each option. Please visit [www.superchips.com](http://www.superchips.com) for vehicle application details.

**NOTE:** *Advanced Tune Option availability varies by vehicle.*

## Speed Limiter

Adjusts top speed limiter by increments or fixed values.

- ▲ 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.

- ▲ *Adjusting the Rev or Speed Limiter does not mean your tires or vehicle are rated to operate at the set speed. Obey local traffic laws and do not exceed the proper operating conditions. Vehicle must have appropriate speed rated tires.*

## Axle (Gear) Ratio

Corrects the speedometer and odometer for vehicles with aftermarket rear-end gears. In vehicles with automatic transmissions it corrects the shift points.

- ▲ *Confirm after-market parts are installed before adjusting this option*

## Tire Height

Corrects the speedometer and odometer for vehicles with aftermarket wheels and tires. In vehicles with automatic transmissions it corrects the shift points.

- ▲ *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 & round up.*
- ▲ *Confirm after-market parts are installed before adjusting this option*

## Shift Points

Adjustments in MPH/RPM varies by vehicle

## Shift Pressure

Adjustments in PSI varies by vehicle

## Fan

Adjusts Fan Turn ON Temperature varies by vehicle

## Skip Shift - Chevy Cars (for manual transmissions)

Enables or disables "CAGS" / "CARS" for manual transmissions.

### **▲ 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.



The first time you tune your vehicle with the Cortex tuner, your factory stock setting is saved into the tuner. Once your vehicle has been performance tuned you may return it back to its factory stock settings at any point.

1. **Select Tune Vehicle**  
Press OK
2. **Select Quick Tune or Advanced Tune**  
Press OK
3. **Select Stock**  
Press OK
4. **Follow on-screen prompts.**
5. **Switch Ignition ON/OFF as requested**  
**(Do not start engine)**

## Service Centers and Your Vehicle

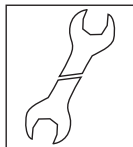
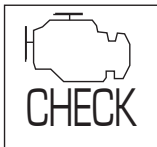
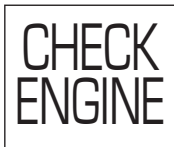
Before taking your vehicle to a service center, return the vehicle to its stock program. The service center might reprogram your vehicle with an updated stock program without your knowledge. If you did not use Cortex to return your vehicle to its factory setting and your vehicle is reprogrammed by the service center, the Cortex tuner will no longer be able to program your vehicle. **Such a situation is not covered by the Superchips Inc. warranty.**



# Additional Features

**DTC's (Diagnostic Trouble Codes):** Use these features to diagnose your vehicle. DTC's arise when your vehicle computer detects a sensor failure or if a parameter is outside a specific range. Most vehicles will illuminate the check engine or service engine soon light to alert you of this. Use Cortex to read and clear not only your vehicle's DTC's but any vehicles supported at any time.

- 1. Read DTC's:** Read & display DTC's from your connected vehicle. This feature is for live vehicle diagnostics; an active vehicle connection to the tuner is required. Vehicle DTC's, if present, will be displayed along with a full text description, when available.
- 2. Clear DTC's:** Clear current DTC's from your connected vehicle. Your vehicle's DTC's, if present, will be cleared when choosing this feature. If DTC's resume, this could indicate a vehicle malfunction or problem condition.



Please visit [www.superchips.com](http://www.superchips.com) to update your tuner and enable these great features. Use these features to support performance logging of your vehicle's speeds and distances. You can compare the stock performance vs. the tuned performance of your vehicle, and those of other vehicles supported as well. With advanced features you can dig deep into your vehicle's computer to monitor and record individual live sensor values or computer data.

**Note:** *features may vary by vehicle.*

## Data Logging

### 1. Log by Speed

- 0 to 40 through 0 to 70 MPH
- Last Run History
- Best Times History

### 2. Log by Distance

- 60 Ft through ¼ Mile
- Last Run History
- Best Speed & Times History

### 3. Advanced

- Displays vehicle's specific PID's
- View live powertrain sensor values
- View computer calculated values



# Vehicle Info

Displays serial number of the tuner, firmware version, & vehicle database versions (Car Database, Gas Truck Database, Diesel Database, etc.) Firmware and Databases are updated through Superchips Internet Update Application. Always stay current - get the latest update today at [www.superchips.com](http://www.superchips.com).

***Note:** These features may vary by vehicle. If you plan on contacting Superchips customer service department please have your Cortex powered up or record all of the information listed below prior to calling.*

- 1. Tune - Displays current Tune Level (stock, performance, tow, etc) and Options (rev limit, speed limit, tires, etc) you have chosen.**
- 2. VIN - Displays VIN of the vehicle you have read.**
- 3. Vehicle File(s) - Displays the alpha numeric file number associated with the read vehicle.**

## Display Settings

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Adjust display settings for extreme viewing situations such as direct sunlight, nighttime, or low lighting.

***Note:** During USB connections the backlight is disabled.*

- 1. Set Contrast - Adjust the darkness of text and graphics.**
- 2. Set Backlight - Enable or disable your screen backlight.**

**1. Q:** Will this work on this vehicle?

**A:** Each Cortex unit is designed to work on specific vehicles. Please visit [www.superchips.com](http://www.superchips.com) for details to ensure vehicle coverage.

**2. Q:** Can Cortex program more than 1 vehicle at a time?

**A:** Cortex (as shipped) supports programming a single vehicle. However, by design, Cortex units can be Internet Updated to support additional vehicles. Please visit [www.superchips.com](http://www.superchips.com) for availability.

**3. Q:** Does Cortex support custom tuning?

**A:** Cortex is designed to support CARB & EPA compliance. As a result, custom tuning is not expected to be offered.

**4. Q:** My Cortex shows status G-6F, what does this mean?

**A:** The technical term is "General Database Error". It means Cortex does not have a complete database and that a successful Internet Update session is required to reload it. This error occurs with broken internet connections or with slowly responding internet service. Please run Internet Update on your Cortex to fix this.

**5. Q:** What is a P1000 DTC code?

**A:** P1000 is a DTC that normally appears after a vehicle programming session. It will automatically clear after several drive cycles. It cannot be removed with the "DTC Clear" function.

**6. Q:** How do I update Cortex?

**A:** Cortex is designed to be user friendly and also easily updateable. Simply follow the Internet Updates section of this Getting Started manual.

**7. Q:** How do I change my vehicle's tuning?

**A:** Refer to Tune Your Vehicle for the steps, Tune Level Information for tuning details, Advanced Tune Options for user adjustable vehicle settings, and Stock Programming to return your vehicle to stock.

**8. Q:** Why does my Cortex says Needs Update?

**A:** Each Cortex unit is loaded at the factory with massive tuning databases meant to provide extremely broad vehicle coverage. Needs Update status occurs when Cortex does not have the necessary tuning files to program a vehicle. Just follow the Internet Update steps to get what you need. If files are ready you get them immediately; otherwise you will receive an e-mail as soon as they're available. Please run Internet Update on your Cortex.

**9. Q:** What are the differences in the download packages?

**A:** A "Standard Update" gives you the latest Cortex operating software and tuning for your vehicle. If available, "Data Acquisition" packages do this too, but also have special valued added features only Superchips supports - read each package to know what's right for you.



# Warranty Info

## *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 1-407-585-7000 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.*

# **WARNING**

## **READ BEFORE PROGRAMMING YOUR VEHICLE!**

Properly installing a Superchips tune in your vehicle may increase your vehicle's performance. In installing and using the Superchips product, you must follow these requirements:

- **Misuse** of this product could lead to injury or death. Read and comply with all instructions in the included User Guide.
- **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.
- **Obey** all traffic and other laws.
- **Do not** exceed proper operating conditions.
- **Equip** your vehicle with proper speed rated tires.
- **Do not** stack Superchips tuning with another tuning product. Doing so may result in damage to your vehicle or unpredictable powertrain results.
- **Only** adjust or remove the speed limiter, wide open throttle restriction, or tire pressure monitoring system on the track or other controlled driving environments.
- **Install** and use the Superchips product in compliance with its instructions and manual.

**Call Superchips' Customer Care at 407.585.7000** *(Weekdays from 8:00 am to 5:00 pm EST)*  
or e-mail us at: [tech@superchips.com](mailto:tech@superchips.com)



[www.superchips.com](http://www.superchips.com)

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