GETTING STARTED

Flashpaq

Vehicle Performance Programmer

Superchips

automotive tuning

Dear Auto Enthusiast

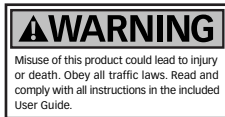*Thank you for purchasing one of our world class programmers.*

We deliver specialized performance and features for your vehicle. Holy Crap performance. The kind of performance that leaves you asking, is this legal? Barely. The kind of performance you can't live without once you experience it and you are about to do just that.

You don't get 27 years in the business by delivering mediocre products. Superchips is simply the best-selling brand in the business. All of our products are easy to use, flexible and easy to update when you want to.

This Getting Started Guide will walk you through programming your vehicle and using the many exciting features a Superchips programmer offers. Better yet, personalize your Superchips experience with downloadable updates.

Our programmers are small for your convenience, but they pack a huge punch. Flashpaq delivers features you expect from Superchips, and some not found in competing products, including Jeep exclusive off-road features and WOT restriction removal (Nissan). Mileage XS is preloaded with Superchips' newest feature, the SAVE calibration, which is 100% engineered to do just that – save you money at the pump.

⚠ WARNING

Misuse of this product could lead to injury or death. Obey all traffic laws. Read and comply with all instructions in the included User Guide.

Get Tuned – *The Superchips Team*

Getting Started - Step 1

Follow these steps:

You will need to be connected to the internet and running Windows XP/2000 or Vista.

1. Download Easy Update software at superchips off-site.
2. Run the setup program.
3. Once installed, run the Easy Update software.
4. If necessary, create a new registration account or login into your existing account.
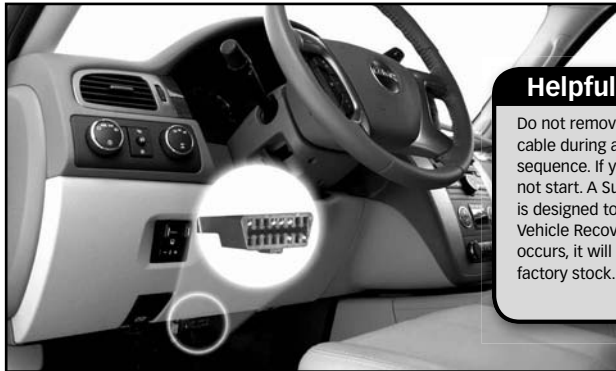5. Update your programmer.

Getting Started - Step 2

Plug Your Programmer into the Vehicle's OBD-II Port

Locate your vehicle's OBD-II port, then insert the Programmer's OBD-II cable.

Helpful Hint

Do not remove the programming cable during any programming sequence. If you do, the vehicle may not start. A Superchips programmer is designed to automatically go into Vehicle Recovery Mode and if this occurs, it will return your vehicle to factory stock.

Your OBD-II Vehicle Port is usually located under the drivers side dash as shown here.

When programming your vehicle, use care not to bump, move or wiggle the cable when it is plugged into the diagnostic port.

During quality control testing, Superchips' engineers have noted diagnostic ports with worn or loose connections creating the potential for power to be lost to the programmer. If this happens, the programmer will go into recovery mode and return your vehicle to factory stock.

Getting Started - Step 3

Program Your Vehicle

Your programmer will automatically power on when it's plugged into an OBD-II port.

Select Tune Vehicle
Press OK

Select Quick Tune or Advanced Tune
Press OK

Switch ignition between OFF and RUN (ON) as requested – *Do not start engine*
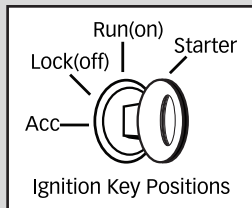
Helpful Hint

"**Quick Tune**" changes the power level of your vehicle and uses the most popular features and settings.

"**Advanced Tune**" changes the power level of your vehicle and allows you to select settings for advanced features and settings.

Note: Not all features are available on every make, model and engine. Contact Superchips customer care if you have any questions.

Helpful Hint

Ignition switch positions

Most 1996-2003

Run(on)
Lock(off)
Starter
Acc

Ignition Key Positions

Most 2003-2009

Run(on)
Acc
Starter
Lock(off)

Ignition Key Positions
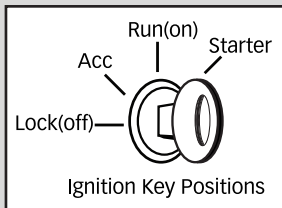
The Stock File is now saved (first time only) - *Press OK*

Select Tune Level - **Follow on screen prompts for power level requirements. These may vary by product and could include all or some of the following:**

Performance
Heavy Load Tow
Light load Tow
Transmission Only
Mileage XS SAVE
87 Octane
Stock w/Options
Factory Stock

```
SELECT TUNE LEVEL

Performance
Tow Safe
87 Octane
Stock w/ Options
Stock
```

Switch ignition between OFF and RUN (ON) as requested - *Do not start engine*
Once you have completed all the on-screen prompts and made your selections, the programmer will update your vehicle and you are ready to drive.

Helpful Hint

Try these first if your vehicle or programmer has trouble programming.

• Turn off radios, amplifiers, CD/DVD players, etc.
• Unplug all accessories: cell phone chargers, laptops, GPS, etc.
• Turn off auto-headlights, auto-wipers, A/C – heater fan/controls
• Do not open vehicle doors, adjust power seats or use power windows

Tunes

Track Performance

Performance

Maximum engine and transmission performance gains.

⚠ Towing not recommended.

⚠ Octane requirements vary for gas vehicles. Follow recommended guidelines.

Tow Power

Heavy Load Tow

Optimizes engine and transmission performance for heavy towing applications.

⚠ Tow rated up to OEM max towing recommendation.

⚠ Octane requirements vary for gas vehicles. Follow recommended guidelines.

Light Load Tow

Optimizes engine and transmission performance for mid-weight range towing applications.

⚠ Tow rated up to Superchips recommended tow limits. See limits for your vehicle displayed by the programmer during programming process.

⚠ Octane requirements vary for gas vehicles. Follow recommended guidelines.

Economy

Mileage XS SAVE

Optimizes engine and transmission performance for fuel economy.

⚠ Towing not recommended.

⚠ Uses 87 Octane calibrations for gas vehicles where applicable.

87 Octane

Optimizes settings allowing 91 Octane required or recommended vehicles to safely use 87 Octane gasoline.

⚠ Towing not recommended.

Other Calibration Options:

Stock w/Options

Uses factory stock calibration plus user chosen options and settings.

⚠ Engine and transmission calibrations are not installed.

⚠ Only selected user options will be installed.

Factory Stock

Returns vehicle to factory stock. Removes **all** Superchips tuning from your vehicle.

⚠ Recommended for trips to service centers for maintenance.

Transmission Only

⚠ Optimizes transmission performance for towing applications. Select applications only.

Advanced Options

Most options are optimized using the Quick Tune tuning option. Use Advanced Tune to independently set options. Options vary 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.

- ⚠ Vehicle must have appropriate speed rated tires.
- ⚠ Do not exceed proper operating conditions.

Tire Height

Corrects speedometer, odometer and automatic transmission shift points (where supported) for wheel and tire changes.

- ⚠ 2005 – 2006 Wrangler TJ Rubicon with electronically adjustable tire sizes are limited to 26.25, 26.75, 27.50, 27.75, 28.50, 29.25, 33.00, 35.00 inch tire sizes.
- ⚠ All other Jeeps equipped with the tire height calibration feature can calibrate tire sizes from 22.5 – 42.0 in 0.25 inch increments.

Helpful Hint

Your Superchips programmer is designed to automatically show you the advanced options available once it has identified your vehicle.

Helpful Hint

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 ¼ inch increments rounding up.

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

- ⚠ Confirm aftermarket parts are installed before adjusting this option.

- ⚠ All model years Wrangler JK, Grand Cherokee WK and Commander XK gear ranges are
  2.00 – 10.00 in 0.01 increments.

- ⚠ 2005 – 2006 Wrangler TJ Rubicon Axle Types are limited to No Axle Type, 3.03, 3.07,
  4.11 and 4.56.

Automatic Transmission Shift Points
Adjust transmission points for optimized drivability and operation. Varies by vehicle.

Automatic Transmission Shift Pressure
Adjust transmission pressure in PSI to allow for a more aggressive shift. Varies by vehicle.

Cooling Fan
Adjusts fan turn ON temperature. Varies by vehicle.

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

WOT Restriction – Nissan / Infiniti vehicles
Enables or disables factory Wide Open Throttle (WOT*) restriction.

Jeep® Exclusive Features

Most Jeep options are optimized using the Express tuning option. Use Advanced Features to independently set options. Flashpaq will automatically show you the advanced features available for your Jeep.

Transfer Case (gear)
Corrects speedometer, odometer and automatic shift points (where supported) for transfer case gear changes.

⚠ Confirm aftermarket parts are installed before adjusting this option.

⚠ 2005 – 2006 Wrangler TJ Rubicon Transfer Case selections are limited to No T-Type, NV-241 and NV-231.

Axle Lock
Locks an axle in 4WD-HI on the Wrangler JK, Commander XK (5.7L HEMI) and Grand Cherokee WK (all engine sizes). The axle locking feature works on the front and rear axles, but cannot lock both axles at the same time.

⚠ Axle Lock is a stand-alone feature meaning no programming is required.

⚠ If you exceed 30 MPH for 15 seconds or longer, the Axle Locking feature will automatically disengage to avoid damage to the axles.

Throttle Body Re-learn *(late availability)*
Replacement throttle body with the same bore as the factory part.

⚠ Throttle Body Re-learn is a stand-alone feature meaning no programming is required.

Real Time Idle Up

Allows you to raise the idle of your Jeep for 'powered take offs' or running accessories such as air compressors or welders. The idle up is a real-time feature meaning no programming required. Just plug Flashpaq into the OBD-II port and control the idle in real-time. The range you may increase the idle is 800 – 1600 RPMs.

⚠ Real Time Idle Up is a real-time feature meaning no programming is required. When you restart the engine, the ECU will return to the default idle RPM setting.

Spark Advance Set

Reduces the spark timing from -6.5 to 0.0 for Jeeps with the JTEC engine control modules.

⚠ Spark Advance Set is a stand-alone feature meaning no programming is required.

Tire Pressure Monitoring System Adjustment

Recalibrates the system thresholds to better suit different terrain uses without triggering the dash light.

⚠ Tire Pressure Monitoring System Adjustment is a stand-alone feature meaning no programming is required.

⚠ Lowering a vehicle's tire pressure below that specified by the vehicle/tire manufacturer may create unsafe handling characteristics. Superchips assumes no responsibility for a vehicle's handling characteristics or the safety of the vehicle's occupants.

Jeep Power Levels

There are 6 available tunes in the Flashpaq for Jeep vehicles. Flashpaq automatically shows you the tunes available for your Jeep.

93 Performance
Requires the use of **93 Octane** gas and is used for maximum horsepower, torque and drivability for on-road and off-road uses. The tune is calibrated for 2WD, 4WD-HI and 4WD-LO uses.

⚠ This tune is currently only available for JK models.

91 Performance
Requires the use of **91 Octane** gas or better and is used for premium horsepower, torque and drivability for on-road and off-road uses. The tune is calibrated for 2WD, 4WD-HI and 4WD-LO uses.

⚠ This tune is available for all Jeeps covered by Superchips.

87 Performance
Requires the use of **87 Octane** gas and is used for extra horsepower, torque and drivability for on-road and off-road uses. The tune is calibrated for 2WD, 4WD-HI and 4WD-LO uses.

⚠ This tune is available for all Jeeps covered by Superchips.

Towing Tune

Requires the use of **91 Octane** gas or better and is used for an optimized towing experience for up to the OEM recommended towing limits.

⚠ This tune is safe to use in 4WD-HI or 4WD-LO and is available for all Jeeps covered by Superchips.

Crawling Tune

Is a Superchips exclusive tune offering low throttle response and high low-end torque tune designed for precision low-speed maneuvers.

⚠ This tune is currently only available for JK models.

Approved For Jeep

Your Jeep Flashpaq Programmer WILL work with the following:

- Short or normal tube headers.
- Snorkels.
- An engine that has been changed to a 5.7L HEMI, as long as the factory HEMI ECU is installed.
- Aftermarket cat-back exhaust and cold air intake kits.

Not Recommended

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

- Long tube headers.
- Over-bored or stroked engines.

Returning to Stock

The first time you program your vehicle, your factory stock tune is saved into the programmer. Once your vehicle has been programmed, you may return it to the factory stock settings at any point.
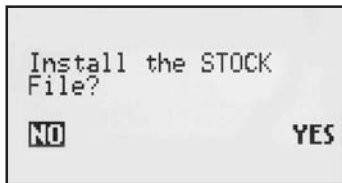
Select Tune Vehicle
Press OK

Select Quick Tune
Press OK

Select Factory Stock
Press OK

```
Install the STOCK
File?

NO              YES
```

Follow on-screen prompts.

Switch Ignition OFF/RUN (On) as requested
(Do not start engine)

Before taking your vehicle to a service center, return the vehicle to factory stock.

The service center might reprogram your vehicle with an updated program without your knowledge. If you did not use a Superchips programmer 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.

Engine Diagnostic Tool

Use the Engine Diagnostic Tool to check trouble codes. A Diagnostic Trouble Code (DTC) arises when a vehicle's computer detects a sensor failure or a parameter outside a specific range. Most vehicles will illuminate the check engine light. A Superchips programmer will read, identify and let you clear DTCs if desired.

1. **Read DTC:** Plug your programmer into the OBD-II on your vehicle. Use the diagnostic tool to read the DTC from the vehicle's computer. If a code is present, it will be displayed with a full text description.

2. **Clear DTC:** If your vehicle displays a DTC, a Superchips programmer can clear the code, turning off your check engine light.

SERVICE ENGINE SOON

CHECK ENGINE

CHECK
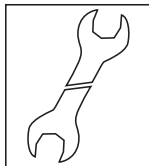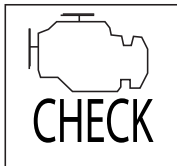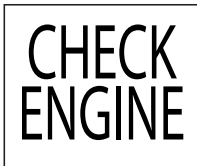
Helpful Hint

If a DTC persists, this could indicate a vehicle malfunction or problem condition. Be sure to return the vehicle to stock prior to taking it in for service to address the issue.

Information and Settings

You can change the display setting by simply connecting the programmer to your computer. For Programmer and/or Vehicle information, the Superchips software needs to be installed.

Programmer Information

Displays serial number of the programmer, firmware version and vehicle database versions (car database, gas truck database, diesel database, etc.) Firmware and databases are updated through the Superchips Internet Easy Update application.

Vehicle information

Displays VIN of the programmed vehicle, programmer status and the Superchips file number associated with the programmed vehicle.

Display Settings

Adjusts display settings for use in direct sunlight, nighttime or low lighting.

Set Contrast

Adjusts the darkness of text and graphics.

Set Backlight

Enables or disables your screen backlight.

Scroll Speed

Adjusts how fast an option is highlighted.

Helpful Hint

Stay current for the best performance of your vehicle and programmer. Get the latest updates using the Superchips Easy Update software.

Data Aquisition

Plug your programmer into the vehicles OBD-II port for unsurpased data acquisition. There is support for performance logging of vehicle speeds and distances. You can compare the stock vs. programmed performance of your vehicle. Also, with our advanced features, you can monitor and record individual live sensor values or computer data. Features available for your vehicle will automatically be shown once Flashpaq has identified your vehicle.

DAQ 1: Data Logging
- Timed runs (60 foot – ¼ mile)
- 0 – 60 MPH times
- Best speed & time history

Helpful Hint

Use the Superchips Easy Update software to enable Data Acquisition in your programmer.

DAQ 2: Display & Store PID Data
- Air and fuel data
- Mass air flow rates and temperature
- Ignition timing
- Injector fuel rates
- Direct sensor information
- Diagnose faulty sensors
- Monitor fluid temperatures
- View live powertrain data
- View engine and transmission sensor data

Your programmer is for in-cabin use. Be sure to store in a secure location while using data acquisition software such as an universal cell phone holder.

Flashpaq Features

To communicate the many exciting features of Superchips products quickly, we have developed these product feature icons.

Towing Power
Optimizes for handling heavy loads.

Track Speed
Optimizes for maximum performance.

Fuel Economy
Improves fuel economy.

Off-Road Control
Optimizes the powertrain for maximum control.

Speedometer Calibration
Corrects speedometer, odometer and automatic transmission shift points (where supported) for wheel, tire and rear end gear changes.

Internet Update
Programmer is updateable over the internet providing the latest OEM released performance, economy and even safety features.

Engine Diagnostics
Reads and clears diagnostic trouble codes that turn on your check engine light.

Mileage XS Features

Fuel Economy
Improves fuel economy.

Speedometer Calibration
Corrects speedometer, odometer, and automatic transmission shift points (where supported) for wheel, tire and rear end gear changes.

Internet Update
Programmer is updateable over the internet providing the latest OEM released performance, economy, and even safety features.

Engine Diagnostics
Reads and clears diagnostic trouble codes that turn on your check engine light.

Helpful Hint

Ten fuel savings tips

1. Tune your vehicle with "SAVE" tuning
2. Avoid aggressive driving
3. Observe the speed limit *(gas mileage usually decreases above 60 mph)*
4. Remove excess weight *(every 100 pounds may reduce mileage up to 2%)*
5. Use cruise control to maintain consistent speeds
6. Use overdrive gears to reduce engine speeds and parts wear
7. Check and replace air filters regularly *(clogged air filters can reduce mileage by 10%)*
8. Use the recommended grade of motor oil
9. Check and maintain tire pressures *(increases safety, MPG and tire durability)*
10. Some vehicles that recommend 89 or 91 octane may be able to use 87 octane after programming with Superchips Flashpaq or Mileage XS, providing additional savings at the pump

Storage and Maintenance

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.

Pay attention to your programmer during vehicle programming. A status screen or prompt may require action or attention.

Do NOT remove the programming cable during any sequence. Doing so may result in a vehicle no start condition. Please follow the programmer display screens. If the cable is removed during a programming sequence, the programmer is designed to go into recovery mode which returns your vehicle to factory stock settings. You will have to restart your programming sequence from the beginning.

Turn off all power-draining accessories during programming sequence, (including radio, lights, wipers, cell phones, A/C & heater controls, etc.) The programmer needs full battery voltage to program your vehicle. Ensure your vehicle is fully charged, and if connected to a battery charger, it is set to low/trickle charge only.

Follow these steps to keep your programmer looking factory new. Ensure the programmer is unplugged from all power sources. Lightly dampen a soft cloth with water and gently wipe away any dirt. Do not use any alcohol or solvents. Although your programmer has a durable design, strong chemicals or excessive water could damage the unit.

Trouble Shooting

When I plug in my programmer into my vehicle, it does not power up.

Solution: The programmer plugs into your vehicle diagnostic connector that is usually powered through a fuse – the fuse may be blown.

- Ford and GM diagnostic connector usually shares power with the cigarette lighter fuse.
- Dodge diagnostic connector usually shares power with the radio and instrument cluster (under the hood fuse).
- For Nissan and Infiniti vehicle fuse locations see your owner's manual.

Check the fuse and replace if blown. Otherwise, try the programmer 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 vehicle has been programmed by another tuning product and now my Superchips programmer doesn't work.

Solution: A Superchips programmer checks to make sure your vehicle is 100% factory stock before programming. If your vehicle has been programmed by another tuning product, you will have to return your vehicle to factory stock before attempting to use our programmer.

My programmer displays status G-6F.

Solution: The error code is a 'General Database Error'. It means your programmer does not have a complete database. Updating your programmer online using Superchips Easy Update software will fix this.

Trouble Shooting Continued

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

Solution: 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.

My vehicle has several aftermarket part modifications and after I program with Superchips, the vehicle does not run well.

Solution: A Superchips programmer is designed for stock vehicles (factory stock calibrations and stock engine & transmissions). In some cases, upgrades like air filters, shorty headers, cold air intakes, or cat-back exhausts may be supported. If bolt-on parts are installed or engine/transmissions modifications are made, the programmer may not be compatible.

My programmer did not complete programming and went into recovery mode.

Solution: All Superchips programmers are designed with 'Recovery Mode' which means if, for any reason, the programming process does not finish, the programmer will automatically program your vehicle back to the factory stock settings. It is necessary to follow the screen prompts, possibly requiring several 'Ignition On' and 'Ignition Off' sequences.

When recovery is complete your vehicle is at factory stock. 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.

I left Superchips tuning in my vehicle and went to my dealer for service, now my Superchips programmer will not work.

Solution: The dealership likely updated your vehicle's calibrations – sometimes to improve drivability, emissions or safety features and saved over the Superchips tuning. The programmer does not recognize the new files in your vehicle.

My programmer works fine on my vehicle, but after I returned my vehicle to stock and tried it on another vehicle I own, the screen showed E-6D "Needs Update – why?

Solution: Every Superchips programmer is freshly loaded at our factory with the latest databases meant to provide extremely broad vehicle coverage. Your vehicle's calibrations (tuning files) were inside our database, but your other vehicle had calibrations Superchips has not seen before. You can run Superchips Easy Update on your programmer. If the files are ready, you get them immediately. If not, you will receive an e-mail as soon as they are available.

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

Solution: Every Superchips programmer is loaded with the latest databases meant to provide extremely broad vehicle coverage. 'Vehicle calibration not on file' status occurs when a programmer does not have the necessary calibration files to program a vehicle. Update your programmer with Superchips Easy 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 Superchips' R&D for tuning. You will receive an e-mail as soon as your calibration is available. Calibrations are usually available in 1 – 2 business days.

Questions and Answers

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

A: Our programmers allow you to program additional vehicles after you return your first vehicle back to factory stock.

Q: Does Superchips support custom tuning?

A: Superchips products are engineered to be 50-state emission compliant by CARB and EPA standards. Custom tuning will not be offered at this time.

Q: What aftermarket accessories will my Superchips programmer work with?

A: Superchips programmers are engineered to work with the following parts right out of the box: throttle body spacers, shorty headers, cat-back exhaust system, cold air intake kit, snorkel, kit and 5.7L HEMI swaps (Jeep only).

Q: What are the differences in the download packages/update options?

A: A 'Standard Update' gives you the latest Flashpaq or Mileage XS operating software and tunes for your vehicle. Standard updates download automatically when using the Easy Update software. Once this is complete you will have the option to choose additional downloads and features such as Data Acquisition and advanced tunes (CAI, exhaust, etc.) that only Superchips supports. Read each package to know what is right for you.
Note: Mileage XS owners can upgrade online for an additional fee to a full featured Flashpaq to see additional power levels or features such as Data Acquisition software.

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

A: Refer to the 'Program Your Vehicle' section in this Getting Started Guide for detailed instructions.

Q: Why do you say you support my truck, but it doesn't seem to work on my cab and chassis?

A: Superchips supports 'complete' truck lines such as Ford F-150, GM C/K 1500 and Dodge Ram 1500. We do not support cutaway, cab and chassis for pickups built from cab and chassis frames. These vehicles are considered incomplete.

Q: What if I have a 2007.5 or later Turbo Diesel with a Diesel Particulate Filter (DPF)?

A: Your Superchips programmer is 100% compatible with DPF-equipped vehicles. Your diesel vehicle is required to be equipped with a DPF to promote cleaner emissions. The filter reduces the amount of harmful exhaust emitted from the tailpipe. As soot builds up in the DPF, it will begin restricting the filter. The soot that gathers is automatically purged in one of two ways: passive regeneration or active regeneration. Both occur automatically and require no action on the driver's part.

Note: Superchips does not interfere with nor support alterations or removal of the DPF or emissions control equipment.

Q: How do I update my programmer?

A: Your Superchips programmer is designed to be easy to update. Simply follow the Easy Update section of this Getting Started Guide. All you need is an internet connection, Superchip user name and password, and a few minutes.

Limited Warranty

Superchips warrants this product to be free from defects in material and workmanship under its intended normal use*, when properly installed and purchased from an authorized Superchips dealer, for a period of one year from the date of the original purchase. This warranty is void for any products purchased through auction websites. If found to be defective as mentioned above; it will be repaired or replaced at the option of Superchips. Any item that is covered under this warranty will be returned free of charge using Ground shipping methods.

This shall constitute the sole remedy of the purchaser and the sole liability of Superchips. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representation whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall Superchips or its suppliers be liable for special or consequential damages.

*Intended normal use means that this item is being used as was originally intended and for the original application as sold by Superchips. Any modifications to this item, or if it is used on an application other than what Superchips markets the product, the warranty will be void. It is the sole responsibility of the customer to determine that this item will work for the application they are intending. Superchips will accept no liability for custom applications.

Superchips

automotive tuning