USER MANUAL

X3/SF3

Part Numbers:
Ford 3015
GM 3416

*This product is not legal for sale or use in California on pollution controlled motor vehicles (Excludes 3015EO)

IMPORTANT NOTES

It is always a good idea to turn-off any vehicle systems that may become active during the tuning process such as cooling fans, fuel pumps etc. to avoid draining the vehicle's battery. To disable these functions, consult your vehicle's owner's manual and remove the fuse for each of these systems. Also be sure to turn-off the vehicle's stereo and HVAC system. Make sure the ignition key is turned OFF before you connect your device to the vehicle.

Plug the device into the OBD-II port and wait for them main menu screen to appear. The default menu screen is "Program Vehicle". If you are using the device for custom tuning, you will need to read the vehicle strategy first through the "Vehicle Info" main menu screen and send that information to your custom tuning dealer. (See Section 4.1)

SCT does not recommend using this device with any other tuning module or device that modifies the vehicle PCM parameters, increases horsepower, torque or modifies transmission characteristics.

Before taking your vehicle to the dealer service department for any type of service or warranty work, you should first return the vehicle back to the stock configuration. Check engine warning lights can be reset by simply unplugging the battery cables from the battery for 5-10 minutes. Diagnostic trouble codes can also be read and cleared through the "Vehicle Info" menu.

1.   *GENERAL INFORMATION*

1.1   SCT Performance, LLC Limited Warranty for X3/SF3

What Does This Warranty Cover?
This warranty covers any defects or malfunctions in your SCT X3/SF3 product within the warranty period set forth below, subject to the following conditions and limitations.

How Long Does The Coverage Last?
This warranty lasts for a period of one (1) year following the date of sale by SCT of the X3/SF3 product to the original SCT dealer/distributor; provided, however, the duration of this warranty will be extended to one (1) year from the date of original purchase by the consumer from the SCT dealer/distributor so long as the consumer submits the required online registration information within thirty (30) days of purchase, as provided below. All implied warranties, including warranties of merchantability and fitness for a particular purpose are limited to the warranty period set forth above.

What Will SCT Do?
SCT will, at its option and as its sole obligation under this warranty, replace or repair any X3/SF3 product that has a defect(s) in manufacturing, material and/or workmanship provided that SCT is notified of the claim within the warranty period provided herein. SCT will not be liable for, nor will it reimburse the consumer for any fees, charges or expenses for shipping and/or handling costs associated with the return to SCT of any defective X3/SF3 products sent in for replacement or repair.

What Does This Warranty Not Cover?
Any damage and/or other problem(s) caused by abuse, misuse, neglect, vandalism, accident, act of God (e.g., flood, fire, lightning), or other cause beyond the reasonable control of SCT is/are not covered. Also, any damage or problem resulting from faulty or improper installation is not covered and shall be the responsibility of the installer. SCT IS NOT LIABLE FOR AND HEREBY EXCLUDES ANY AND ALL INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES RELATING TO THE PRODUCTS COVERED BY THIS WARRANTY. This is the consumer's exclusive warranty and is in lieu of all other warranties, express or implied, except as may be required by applicable law. Without limiting the generality of the foregoing, SCT shall not be liable for any breach of any other written or oral warranties given to the consumer by any third party(ies) such as those (if any) given to the consumer by dealers or distributors of the products.

Can This Warranty Be Transferred?
This warranty is not transferable and applies only to the consumer who originally purchased the X3/SF3 product.

How Does State Law Apply?
This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state. Pertinent state law shall control for what period of time following the sale a consumer may seek a remedy under the implied warranty of merchantability or fitness for a particular purpose. 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.

DISCLAIMER OF LIABILITY

THIS IS A HIGH PERFORMANCE PRODUCT. USE AT YOUR OWN RISK. Do not use the X3/SF3 product (the "Product") until you (the "Buyer") have carefully read this Disclaimer of Liability (this "Disclaimer"). The installation and use of this Product indicates that you have read and understand, and accept all of the following terms of, this Disclaimer:

SCT Performance, LLC (the "Seller"), shall not be responsible for the Product's proper installation, use and service. If you choose to install and use the Product without a dealer's assistance, you assume full responsibility for the proper installation and application of the Product. If the Product was installed and/or programmed by a dealer, the Buyer shall look solely to the dealer who installed the Product and/or programmed the vehicle with respect to any responsibility for the installation or application of the Product, the programming of the vehicle, and any service and support needed by the Buyer with respect thereto, as well as any damage that may be done to vehicle components as a result of modifications made by the dealer.

The Buyer is responsible to fully understand the capability and limitations of his/her vehicle according to manufacturer specifications, warnings and instructions and agrees to hold the Seller harmless from any damage or injury resulting from failure to adhere to such specifications, warnings and/or instructions. The Buyer is also responsible to obey all applicable federal, state, and local laws, statutes, and ordinances when operating his/her vehicle, and the Buyer agrees to hold Seller harmless from any violation thereof.

The Seller's Limited Warranty for this Product is the Buyer's exclusive warranty and is in lieu of all other warranties, express or implied, except as may be required by applicable law. Without limiting the generality of the foregoing, the Seller shall not be liable for any breach of any other written or oral warranties given to the Buyer by any third party(ies) such as those (if any) given to the Buyer by dealers or distributors of the Product.

Consult your vehicle warranty before using this Product. Under no circumstances will the Seller be liable for the voidance of the Buyer's vehicle warranty. Rather, the Buyer assumes all risk and responsibility if an automotive manufacturer and/or dealer voids the Buyer's vehicle warranty due to use of this Product.

Operate your vehicle at all times in a safe manner. Regardless of any capability, feature or function of the Seller's Products, the Buyer understands and acknowledges that it is the Buyer's sole responsibility to ensure that (A) the motor vehicle is operated in a safe and legal manner, (B) the motor vehicle is not driven faster than the lower of the speed limit or the speed rating of the tires on the vehicle in which the Seller's product is installed, and (C) the maximum RPM or speed rating of the engine is not exceeded while operating the motor vehicle. In no case will the Seller be held liable, and the Buyer assumes all risk and responsibility, for any property damage, personal injury and/or death that may occur in the event the Buyer operates the vehicle in an unsafe manner, violates the law or exceeds the above mentioned limits.

Please check your local, state and federal laws to determine if you are within your rights to modify your vehicle's controller. The Seller makes no representation or warranty, express or implied, that the use of its Products will comply with local, state, or Federal emission levels, noise levels or safety standards. The Buyer assumes all responsibility for such use and compliance.

The Seller recommends that the Buyer temporarily remove this product from his/her vehicle when having the vehicle serviced by a dealership or other service facility. Failure to do so may cause erroneous diagnostic readings or misdiagnosis of vehicle problems. The Seller assumes no liability for failure to do so.

Without limiting the foregoing, should the Buyer decide to conduct any performance tests in connection with the use of Seller's Products (including but not limited to tests in conjunction with the performance screens of any such Products), such performance tests should (A) only be conducted by a passenger in the vehicle (to avoid distracting the driver) and on a closed course and (B) never be conducted on streets, highways or other public ways.

The Buyer acknowledges that he/she is not relying on the Seller's skill or judgment to select or furnish goods suitable for any particular purpose, and the Buyer hereby waives all remedies or liabilities, expressed or implied, arising by law or otherwise, or whether or not occasioned by the Seller's negligence.

THE BUYER HEREBY WAIVES ALL LIABILITY CLAIMS AGAINST THE SELLER OF ANY KIND OR NATURE, INCLUDING LIABILITY FOR PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, TO THE FULLEST EXTENT PERMITTED BY LAW. ADDITIONALLY, BUYER ACKNOWLEDGES AND AGREES THAT SELLER IS NOT LIABLE FOR AND HEREBY EXCLUDES ANY AND ALL INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES RELATING TO THE PRODUCTS COVERED BY THIS DISCLAIMER.

The Seller's Limited Warranty for this Product gives you specific legal rights, and you may also have other rights which may vary from state to state. Pertinent state law shall control for what period of time following the sale a consumer may seek a remedy under the implied warranty of merchantability or fitness for a particular purpose. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply to you.

THIS DISCLAIMER IS A MATERIAL CONDITION OF SELLER'S WILLINGNESS TO SELL THE PRODUCT TO BUYER. IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS DISCLAIMER, THE BUYER MAY PROMPTLY RETURN THIS PRODUCT, IN A NEW AND UNUSED CONDITION, WITH A DATED PROOF OF PURCHASE, TO THE PLACE OF PURCHASE WITHIN FOURTEEN (14) DAYS FROM DATE OF PURCHASE FOR A FULL REFUND.

1.2   Device Firmware & Tune Revision Updates

From time to time, you may wish to update your device to the latest version of firmware or tune revision. For step by step instructions on how to update your SCT device.

1.3   About your SCT Device

Available Gasoline Tunes: 93, 91, 87 octane and economy as applicable. Available diesel tunes: Performance, Street, Towing.

Note: Not all options are available for all vehicles.

- X3/SF3 Power Flash VIN locks to a single vehicle. You cannot use the device to tune a new or different vehicle, until you have returned the original vehicle back to stock, which will unlock the device. You can only change vehicles 5 times before the unit is permanently locked.

- Standard pre-programmed tuning files are designed for vehicles with minor performance modifications such as; cold air kits, high-flow exhaust systems, and other basic modifications. Vehicles that have aftermarket superchargers or turbochargers will require custom tuning, which can be purchased only through authorized SCT Custom Tuning Dealers.

- Consult your vehicle warranty before using this Product. Under no circumstances will the Seller be liable for the voidance of the Buyer's vehicle warranty. Rather, the Buyer assumes all risk and responsibility if an automotive manufacturer and/or dealer voids the Buyer's vehicle warranty due to use of this product.

- The stock file is stored during initial programming. The stock file stays on the programmer until returned to stock. You should always return your vehicle back to stock before taking your vehicle in to any auto service facility or before updating your device.
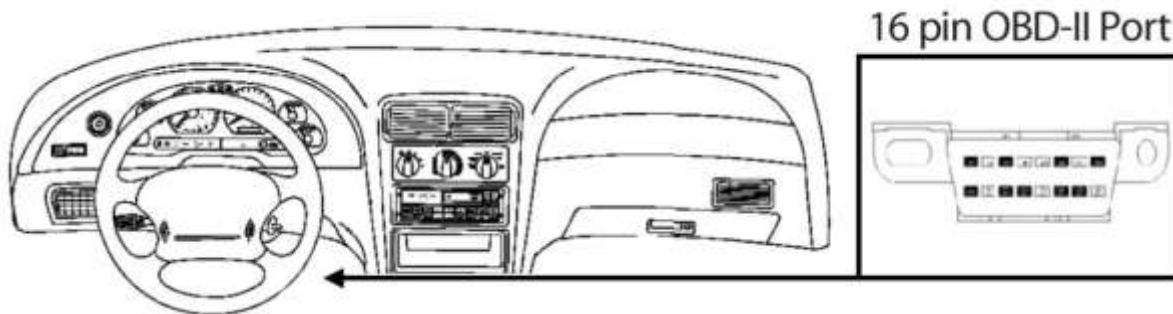
2. *GETTING STARTED*

2.1   Powering on the X3/SF3

There two ways to power on the device, if you would like to flash you vehicle you will need to use the Vehicle instructions below. If you are looking to update or load custom tunes onto your device you will use the Computer instructions below.

- **Using the Vehicle**

    1. Locate the vehicle's OBD Diagnostic port. This connector is usually located under the vehicles dash board on the driver's side.   The port may be covered with a cap or compartment door labeled OBD Diagnostic Port.
    2. If the connector pins are covered or the port is located behind a compartment door, remove the cap or open the compartment door.
    3. Connect the OBD connector from the X3/SF3 to the vehicles OBD Diagnostic port.

- **Using the Computer**

    1. Install SCT Device Updater before connecting your unit via USB (Updater Download)
    2. Locate the computers USB port. This port can be found on the front or the back of the computer, if using a laptop the ports will usually be on either side of the laptop.
    3.   Using the USB cable provided connect the USB end of the cable to the PC and the other to the bottom of the X3/SF3

2.2   Loading Custom Tunes to the X3/SF3

1. Download and install SCT Device Updater
2. Connect your X3/SF3 device using the USB cable provided.
3. Open the SCT Device Updater Software; Click the **Load Custom File** button.
4. Click the **Locate Custom Tunes** button.
5. Select Tune to load. If none listed, go back and use the **Browse** button.
6. Select the file position and type a name for the tune file.
7. Press the **Program** button. For more than one tune file, repeat this process.

2.3   Menu Navigation

Program Vehicle
- Strategy Tune
- Custom Tune
- Return to Stock

Vehicle Info
- Read DTC
- Clear DTC
- Vehicle Info

Data Logging
- Start Monitor
- Setup Analog Input
- Setup Monitor

Dealer Info
- Company Information

Device Settings
- Backlight: On / Off
- Contrast 0-100%
- Sound (USB-Power)

Device Info
- Serial Number
- FW Version
- FW Type (Ford/GM)
- Tune Version
- Unlocks Left
- Device Unmarried

Special Functions
- KAM Reset

Program Vehicle

Strategy Tune	SCT's Preloaded Dyno-proven tune files developed in-house.
Custom Tune	Customized tune files written by your SCT Custom Tuning Dealer. Return to
Stock	Allows user to return the vehicle back to its unaltered OEM calibration.

Vehicle Info

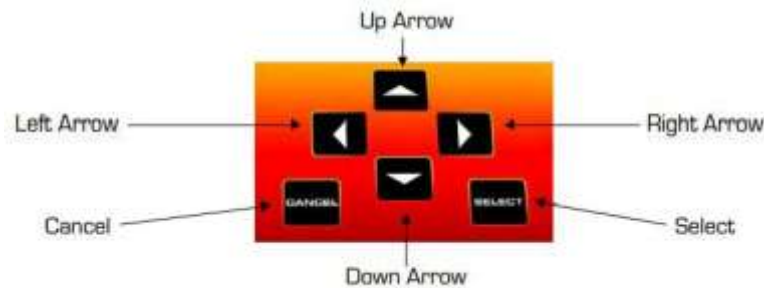|	
Read DTC	-Read any stored diagnostic trouble codes stored in the PCM causing the check engine light to come on.
Clear DTC	-Clear any stored diagnostic trouble codes that might have been causing your check engine light to come on.
Vehicle Info	-Reads the current calibration / engine strategy that is stored in your vehicle's PCM.

Data Logging

Start Monitor	-Allows you to begin logging data generated by your vehicle's sensors. Setup
Analog Input	-Configure the correct analog channel and equation for your external analog source.
Setup Monitor	-Provides a list of parameters you can data log and also set up your Analog Inputs.

2.4   Using the Key Pad

The key pad on the X3/SF3 is pretty simple to use, simply use the left and right arrows to move between the main menus and the up and down arrows to scroll through the sub-menu options. When you see the menu you would like to choose make sure it's highlighted and press the Select button. If you'd like to back out of a menu simply press the Cancel button.

While programming your vehicle, the screen will guide you and explain whether to press the Cancel button or the Select button to perform certain actions or select different items.
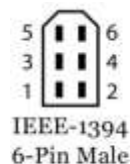

2.5   Connecting External Analog Inputs

The X3/SF3 has the ability to perform pass through data logging with your PC for up to 2 Analog inputs from external sources such as an Air/Fuel wideband or any other 0-5V device.   Using the wiring specifications that came with your analog sensor, connect to the proper pins using the diagram below.

Note: Do not connect any device to the analog input that exceeds 5 volts to the analog port or permanent damage to the adapter can occur.

1. From the main menu use the right arrow to get to the Data Logging menu, press Select.
2. Use the right arrow button to get to the "Setup Analog Input" option, press Select.
3. You will now have to choose between Channel 1 or Channel 2, using the arrow button, highlight the desired channel then press Select.
    a. Channel 1 = Analog 1
    b. Channel 2 = Analog 2

Connection	PIN#
5v Out (+)	1
5v Out (-)	2
Analog #1 Input (+)	3
Analog #1 Input (-)	4
Analog #2 Input (+)	5
Analog #2 Input (-)	6

IEEE-1394
6-Pin Male

4. A list of the most common analog inputs will populate, using the down arrow button look for the type of sensor you will be connecting.
5. Every type of analog input will have its own preloaded list of available sensors to choose from.
    a. **Wideband:** LM1 / TE 2A0 / PLX / LC1 / AEM / AFM1000 / Dynojet WBC / Custom WB
    b. **Custom Wideband**: (v*a)+b *or* (v+a)*b
    c. **EGT**: SCT EGT *or* PLX EGT
    d. **MAP**: GM 1BAR / GM 2BAR / GM 3BAR
    e. **Raw (0-5V)**: Raw 0-5V / Custom 0-5V
6. Once you've chosen the model of your sensor or entered the equation manually you will be taken back to the Setup Analog section. If you'd like to setup channel 2, you will follow the same steps. If your done you may press Cancel to indicate that you are done configuring the analog input.
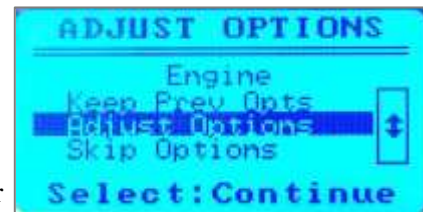
3. *PROGRAMMING YOUR VEHICLE*

3.1 Installing a Preloaded Tune File

1. From the Main Menu screen press select on the "Program Vehicle" icon.
2. Scroll to "Strategy Tune" press Select.
3. Follow the on screen instructions to go through the programming process.

Where do I pick which tune to install?

-To choose which Preloaded Tune to install, select **Adjust Options** when prompted to at the Adjust Options menu, tunes are located within "Tune Type"
-To install the default Preloaded Tune, select **Skip**

How do I know what the Options I need to modify?

-On section 3.4 there's are a list of options and their functions. For suggestions on using any of these options refer to a custom tuning dealer.

NOTE: Adjustable Options vary for each vehicle and are not available on all vehicles

3.2 Installing a Custom Tune File

1. From the Main Menu screen press select on the "Program Vehicle" icon.
2. Scroll to "Custom Tune" and press Select.
3. Follow the on screen instructions to go through the programming process.

Custom tunes are built by SCT's network of Custom tuning Dealers and any questions related to them need to be directed towards the tuning dealer.

3.3 Returning your Vehicle to Stock

1. From the Main Menu screen press select on the "Program Vehicle" icon.
2. Scroll to "Return to Stock"
3. Follow the on screen instructions to go through the programming process

3.4   User Adjustable Options Explained

NOTE: Adjustable Options vary for each vehicle and are not available on all vehicles

DIESEL VEHICLES SPECIFIC OPTIONS:

PERFORMANCE	The most aggressive preloaded diesel tune. Good for everyday use, racing, economy but not recommended for any type of towing.
STREET	Less power than Performance. Moderate gain over stock, safe for light towing.
TOWING	Should be used when towing any significant load. Shifting is towing centered.
TRANS ONLY	For Heavy Loads, Engine and Boost left stock, Trans Only tune.
JAKE BRAKE	Exhaust brake to increase engine braking while coasting, lowers brake temps.
LOCKED AT CT	Keeps the torque converter locked during decel to aid in engine braking.
LOCK IN 1-2-3	Locks the torque converter in 1st, 2nd and 3rd gear.
AGG. TOW HAUL	More aggressive shift schedule keeping the engine in its power band longer.

DIESEL AND GAS SHARED OPTIONS:

AXLE RATIO	Set the axle ratio to correct shift patterns and speedometer.
TIRE SIZE	Set the tire size to correct shift patterns and speedometer.
IDLE SPEED	Sets Idle speed in RPM.
TRACTION CONTROL	- On/Off setting disables traction control without using the tcs button.
WOT SHIFT	Increase or Decrease the WOT Shift points of each gear individually by mph.
SHIFT PRESSURE	% change in transmission pressure during shifts. (+=firmer) (-=softer)

GAS VEHICLES SPECIFIC OPTIONS:

OCTANE BASED TUNES	- Gas Vehicles preloaded tunes vary Performance levels by Octane. Premium fuel will provide the best performance increase.
TOWING TUNE	Adjusts the Octane based tunes to focus more on towing over performance.
ECONOMY TUNE	Adjusts the Octane based tunes to focus on economy over performance.
REAR O2'S	Disables the Rear O2s and eliminates CEL caused by rear O2 removal.
GLOBAL SPARK	Add or Remove Timing Advance to the entire RPM range.
SPARK BY RPM	Add or Remove Timing by RPM Range. (0-2000)(2000-4000)(4000-8000)
WOT FUEL	Add or Remove Fuel at Wide Open Throttle. (WOT)
FUEL INJECTORS	Allows you to adjust for different sized injectors. (Not available on all vehicles)
CMCV DELETES	Updates tune to handle the CMCV/IMRC delete plate's modification.
FAN CONTROL	Lowers the Temperature at which the Fan turns on.
REV LIMITER	Sets Rev Limit in RPM
SPEED LIMIT	Remove, Increase or Decrease the vehicle speed limiter. (Aka govenor)

4. *ADDITIONAL FEATURES*

4.1 Reading Vehicle Strategy

1. From the Main Menu, select the **Vehicle Info** icon
2. Select **Vehicle Info** again. You'll be asked to turn the key on.
3. The VIN and Comm type will be displayed.
4. Press select to view the vehicle Strategy

4.2 Reading Vehicle DTCs

1. From the Main Menu, select the **Vehicle Info**, "Check Engine" icon.
2. Select **Read DTC**, you'll be prompted for key on, press select
3. If any DTCs are present, they will be shown on the screen.
4. Highlight the DTC and press select to display the description.

4.3 Stock Upload for GM Vehicles

In 5 simple steps the Upload Stock Feature gives the Customer / Dealer the ability to upload the file that is currently in the vehicle's PCM onto the SCT Tuner. The dealer can then import this file to their SCT Advantage Tuning Software and use it as their Tune Starting Point. The Upload Stock Feature will also give our SCT dealers the ability to tune GM's New Previously Unsupported vehicles ranging from 2008 and newer.

1. Customer receives the SF3/X3 device and connects it to the vehicle via the OBDII port. Once the device powers on, the first screen on the device will display "Program Vehicle", press select.
2. Scroll to "Upload Stock", press select, this will take you to an Upload ECU screen and advise you to turn the key to the on position and press select. The device will then proceed to save a copy of the stock/current file that is in the vehicle.
3. Install the SCT Device Updater software: SCT Device Updater and connect the X3/SF3 device to the computer. (Go through the Install Wizard if prompted to do so.)
4. Open the SCT Device Updater and click "Get Stock File from Device". Save the files to your desktop or another location you will easily find later. It will extract a .bef file and a VinNumber.sul file. It is ok if you receive an error indicating that Flash File size = 0, continue with step 5.
5. Email the VinNumber.sul file to your SCT Custom Tuning Dealer.

4.4   On-Device Data Logging

This menu accesses the data logging feature. This menu is also used when collecting data from the analog input on the device. Analog data capture is established using a program .DLF file, which is created using the Live Link data logging software application. You must first upload the .DLF file to the device prior to the using of this feature. Below are a set of instructions how to Data Log your vehicle.

1. Connect the X3/SF3 to the OBDII port
2. From the main menu, scroll to the **Data Logging** icon and press **Select**.
3. To choose the pids to log, highlight **Setup Monitor** and press **Select**
4. To configure analog inputs such as a wideband or other 5v source, select **Yes** at the **Config Analog Inputs** menu. If none, select **No**.
5. Next, choose the applicable data log file from the **Select File** menu. This is also where advanced users will select custom loaded data log files.
6. Next select pids to data log by highlighting and pressing **Select**. Selected pids will have a checkmark next to the PID name. When done, press **Cancel**
7. If you plan to playback the data log or export and view it within Live link make sure to change **Record Log** to **Yes**
8. Next, select **Start Monitor**; you will be prompted to start the vehicle's engine. Press **Select** to begin recording and **Cancel** to stop.

5.   *COMMON QUESTIONS*

When I connect the tuner to the vehicle, it doesn't power on.
- Check for blown fuses for OBDII/Cigarette Lighter.

Does the tuner have to stay plugged in to keep the vehicle tune?
- No. After tuning, you can disconnect the programmer.

Can I stack/combine the SCT programmer with another chip or tuning module?
- All Chips/Tuning Products must be removed before tuning with SCT.

Can I tune more than one vehicle with this programmer?
- You may only tune one vehicle at a time. You may return to stock and tune another vehicle up to 5 times.

Can the vehicle be tuned while the engine is running?
- No. This can cause severe damage to the vehicle and PCM.

Should I return to stock before taking my vehicle to the dealer?
- Yes. This prevents the tuner from becoming locked if the dealer updates the PCM.

Can I use a lower octane fuel than the tune file lists?
- No. You must use the same octane fuel that the vehicle is tuned for. Failure to use the proper octane can result in severe engine damage.

I have a supercharger / nitrous oxide on my vehicle; can I use a pre-loaded tune?
- No. The pre-loaded tune files within the X3/SF3 are designed for minor performance modifications such as cold air kits, high flow exhaust systems and other basic modifications. For high horsepower modifications such as superchargers, nitrous oxide or turbo systems, you will need to have your vehicle tuned by an SCT Custom Tuning dealer.

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