



X3/SF3 POWER FLASH USER GUIDE

PART NUMBERS 3000/3015



IMPORTANT NOTES



Check all electronic systems and turn them off if applicable. This includes fuel pumps, fans, stereo systems and etc. Make sure the ignition key is turned OFF.

Plug the device into the OBD-II port and wait for the 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 "DTC Data Functions" main menu screen.

The Jog Wheel will allow you to scroll through the different main menu screens and the select keys will select different sub menus. Refer to the next page for more information on device navigation.

NOTE: 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 a 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 "Check Engine" menu.

Standard vehicle systems and functions

Fuel Pump, Fans, Stereo/CD/DVD - It is always a good idea to turn off any vehicle systems or functions that may become active during the flash tuning process. You may want to locate the vehicle's fuse box and remove the fuses for the fuel pump, cooling fans, and other functions that may operate without the vehicle running. Since the vehicle must have the key in the on position during the flash tuning operation, anything that draws power when the key is on, may run the battery low on charge.

Optional Accessories

Analog cables, windshield / dash mounting brackets, 2/3 bar MAP sensors, O2 sensors, EGT, and Air / Fuel measuring devices must be purchased separately.

GENERAL INFORMATION

The X3 Power Flash is pre-programmed for use on the following vehicles:

- 1996–2007 V-8 Mustangs, Cobras and GT500
- 1994–2007 V-6 Mustangs
- 2003–2007 F-Series 6.0L Diesel Trucks
- 1999–2003 F-Series 7.3L Diesel Trucks
- 1997–2003 F-Series 4.6L / 5.4L Gas Trucks
- 2004–2006 F-Series 4.2L / 4.6L / 5.4L / 6.8L Gas Trucks
- 1999–2004 Focus SVT / Zetec
- 2003–2004 Mercury Marauder
- 2005–2006 Ford GT Supercar
- 1999–2004 Crown Victoria
- 2005–2007 Crown Victoria
- 2002–2005 Thunderbird
- 2000–2006 Lincoln LS w/ V-8
- 1996–1999 Taurus SHO
- 1999–2005 Excursion Diesel / Gas
- 1996–2006 Explorer 4.0L / 4.6L / 5.0L
- 1997–2006 Expedition 4.6L / 5.4L

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 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. To locate a dealer near you, Call SCT at (407) 774-2447 or use the dealer locator on the SCT website at www.sctflash.com.

Both firmware and software updates will be made available periodically for the X3 Power Flash and are available in the “Support” section of the SCT website—www.sctflash.com

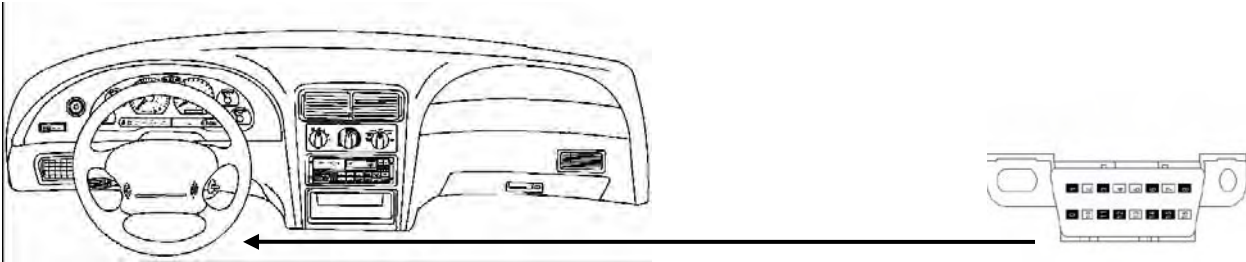
Note: to use some of the extra features included with the X3 Power Flash, you must have a Windows-based laptop or PC with Windows 2000 or Windows XP operating system.

The X3 Power Flash is not legal for sale on pollution controlled vehicles or in the state of California. For use on off-road vehicles only.

CABLES & CONNECTIONS

OBD-II Connection & Cable

The OBD-II cable is designed to interface between the X3 Power Flash and the vehicle PCM. The cable uses a proprietary connection for the vehicle's OBD-II port, which can be found under the dash on the driver's side of the vehicle (see diagram below). The port may be labeled as a diagnostic port with a cap covering the pin connector, which you will need to remove. You will use this cable to program the vehicle, datalog from the vehicle PCM and view parameters in real-time.

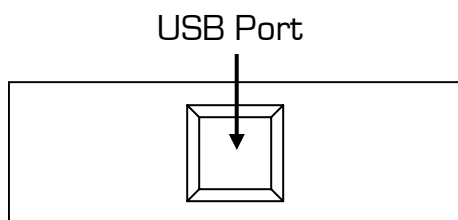


USB Connection & Cable

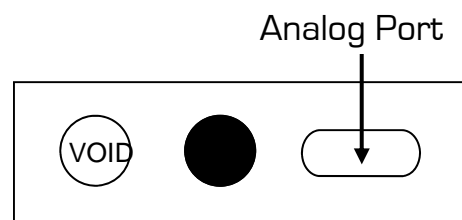
The USB cable, purchased separately, is designed to interface between the X3 Power Flash and a Windows-based laptop or PC. The cable is a standard USB cable and is widely used on most Hewlett-Packard desktop printers. You will use this cable to update the X3 Power Flash with new firmware or software, and to download datalog files stored in the device memory. USB cables can be purchased at any computer and office supply store, or can be purchased through SCT Custom Tuning Dealers.

Analog Connection & Cable

The analog port is designed to accept 0-5 volt signals. Common sensors such as; 2/3 bar map sensors, O2 sensors and exhaust/gas temperature sensors often use 0-5 volt signals. These sensors can be purchased through many retailers or third-party manufacturers. Cables with the correct analog connector for the X3 Power Flash can be purchased through an SCT Custom Tuning Dealer. SCT does offer a complete plug & play EGT sensor Kit (part number 9617) designed for use with the X3 Power Flash and Livewire devices.



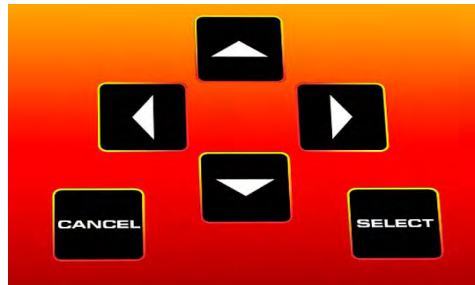
Bottom of X3 Power Flash



Top of X3 Power Flash

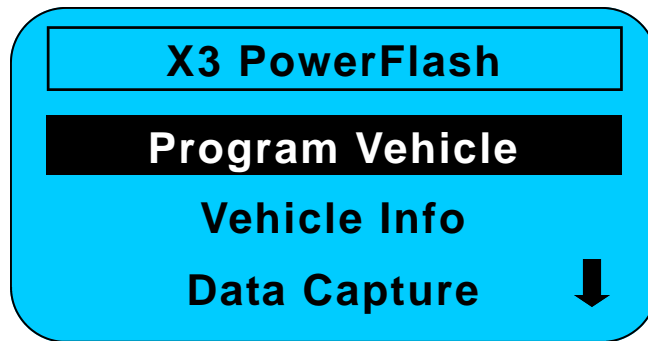
DEVICE NAVIGATION

To navigate through the device main menus and sub-menus use the; arrow, cancel and select keys. See Image Below.



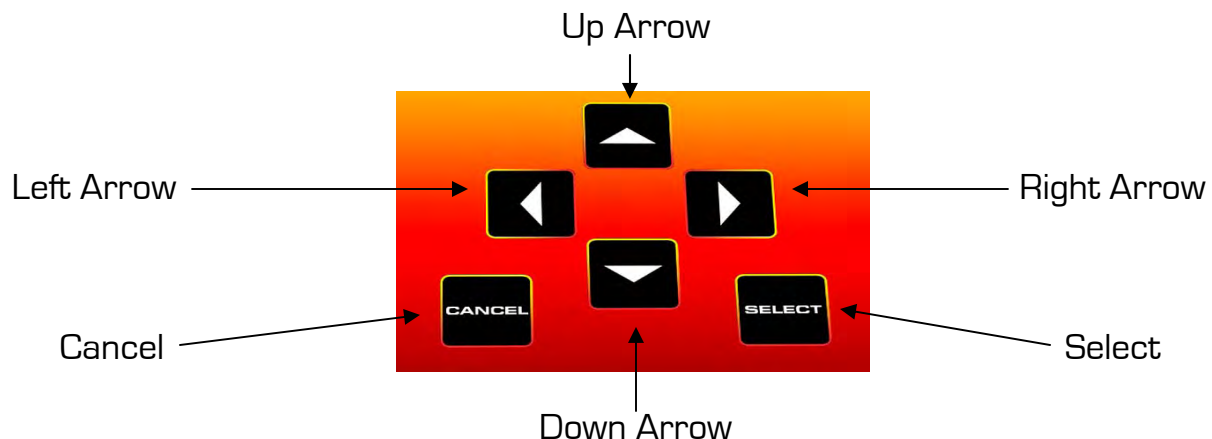
Device Main Menu Navigation

To scroll through the main menu screens, use the arrow up & down keys. The active main menu will be highlighted with a black bar over the menu text. The enter the main menu, press the select key once the menu you want to enter is highlighted. See Example Below.



Device Menu Keys

There are six main keys on the X3 Power Flash keypad. The arrow up & down keys are the primary keys you will use to scroll through the main menu and sub-menu options. The arrow left & right keys will be used within the sub-menu screens to view multiple options or other features. The select key enters or selects individual menus or sub-menus, and selects option choices. The cancel key will de-select or cancel operations in the sub-menus and also allows you to go back to the last screen viewed.



PROGRAM VEHICLE MENU

Programming Your Vehicle

This menu allows you to program the vehicle using one of the pre-loaded flash tuning files or a custom tuning file that has been loaded by an authorized SCT Custom Tuning Dealer. This menu option will also allow you to adjust the User Adjustable Options on the tuning files. Pre-loaded flash tuning files are designed for moderately modified vehicles and are compatible with many aftermarket cold air kits and exhaust systems.

Note: In order to adjust the User Adjustable options for custom tuning files, this option MUST have been enabled by your SCT Custom Tuning Dealer.

Flashing Your Vehicle With Pre-Loaded Files

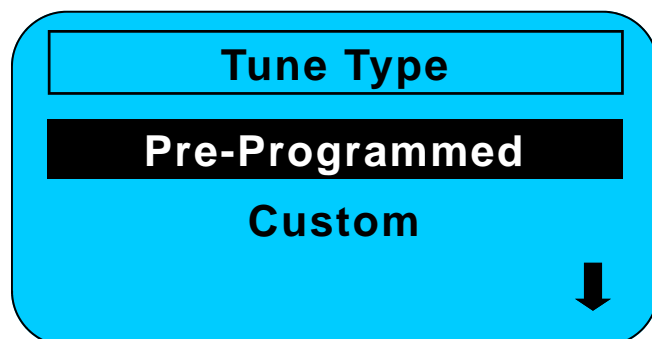
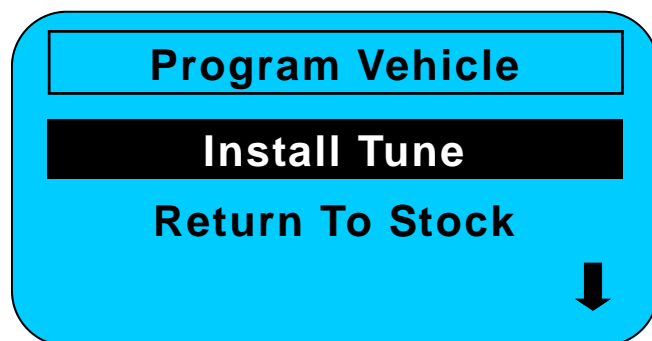
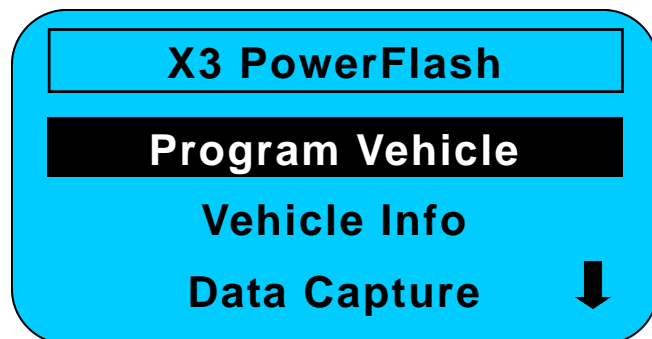
Note: Be sure NOT to remove or unplug the OBD-II cable or turn the ignition key to the off position during this process. You will be prompted to program the vehicle with the pre-loaded tuning file after the stock program has been successfully uploaded. The upload and download status will appear on-screen during each process.

Plug the X3 Power Flash into the vehicle's OBD-II port. Leave the ignition key in the OFF position and select the Program Vehicle menu option to begin. Once you select the main menu option, the Program Vehicle sub-menu will appear on the screen.

When the Program Vehicle sub-menu appears, use the arrow up & down keys to navigate to the menu option you want. The Install Tune option will be the default menu option. To program using the pre-loaded tune or custom tune file, press the select key and you will enter the Install Tune sub-menu.

When the Install Tune sub-menu appears, scroll to the type of tune you want to load. The pre-loaded tune option is the default menu option. Press the select key and you will be prompted to turn the key ON, which will start the tuning process.

You will be prompted to turn the ignition key on and off multiple times as part of the tuning process. DO NOT unplug the OBD-II cable at any point during this process.



USER ADJUSTABLE OPTIONS

Adjusting User Adjustable Options

User Adjustable Options are contained within the pre-loaded tuning files. You will be prompted to Adjust User Parameters—Yes / No. To adjust user options, select Yes. The Adjust User Options menu will appear and you will navigate through the options using the arrow up, down, left & right keys. To enter the option or select the option, use the select key. To cancel the option or go back to the previous screen, press the cancel key.

The user adjustable options allow you to adjust common vehicle parameters such as; Fuel Octane, Rev Limiters, Speed Limiters, Axle Ratio and Tire Size Calibrations, Engine Spark, Engine Timing, Fuel Table and more.

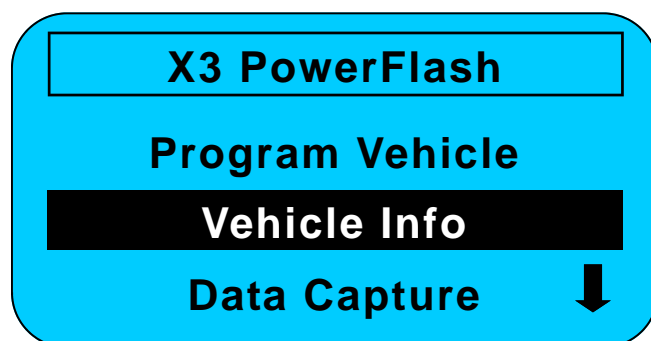
The available user adjustable options for your vehicle will appear in the on-screen list. Use the arrow up & down keys to scroll through the options list and use the select key to enter and modify any option.

Once you have selected each option to change, you will be prompted to save all adjustments. Once the adjustments have been saved to file, you will be prompted to continue the upload process.

Many common user adjustable options are listed near the back of this user manual. If you have any questions regarding the number of available options by vehicle or how to adjust any of the options, please consult our tech department or web site for further technical assistance.

VEHICLE INFO MENU

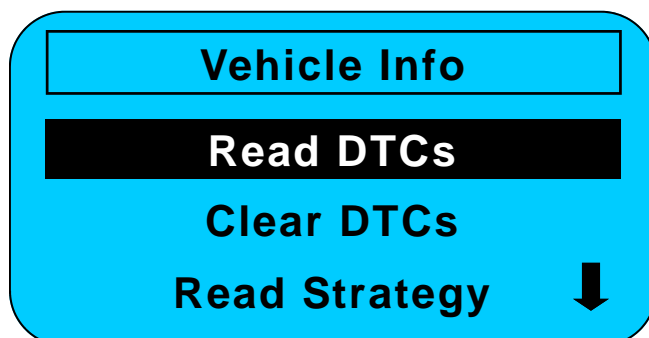
This menu allows you to read and clear diagnostic trouble codes found in the vehicle PCM. This menu also allows you to read the vehicle's strategy for custom tuning. If a "check engine" light or "service engine soon" light appears on your dash, you can check and clear the codes, which should reset the PCM and remove the lights.



Reading & Clearing Diagnostic Trouble Codes

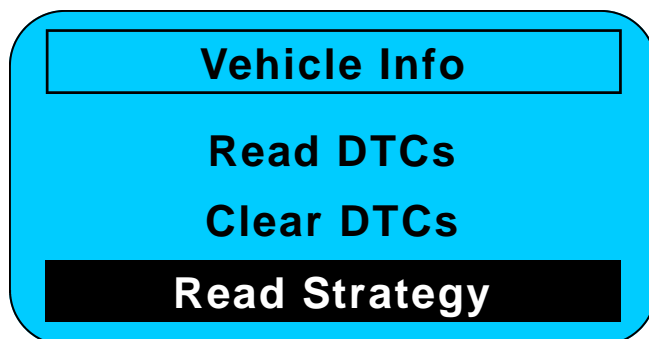
To read diagnostic trouble codes, select the read DTC's sub-menu. The device will read the vehicle PCM and display a list of trouble codes. Make a note of each code displayed and consult the guide at the back of this manual for additional information on each individual code. For more details on specific DTC codes, consult the SCT web site or the SCT tech support line.

To clear diagnostic trouble codes, select the clear DTC's sub-menu. The device will clear the vehicle PCM, which should reset the PCM and remove any check engine or service engine lights.



Read Vehicle Strategy

To read the vehicle strategy for custom tuning or for tech support, select the read strategy sub-menu. You will be prompted to turn the ignition key ON and the device will automatically read the vehicle strategy. Make a note of the strategy once it appears and keep for your records.

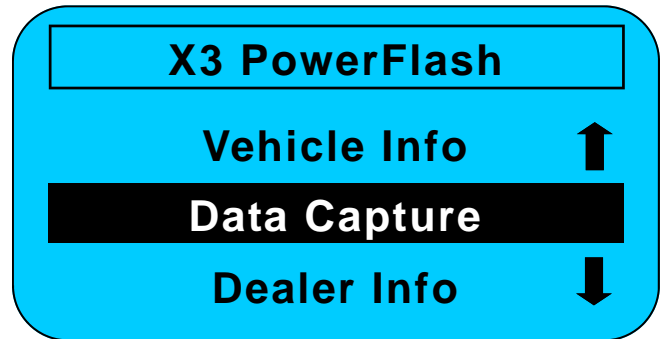


DATA LOGGING / DATA CAPTURE

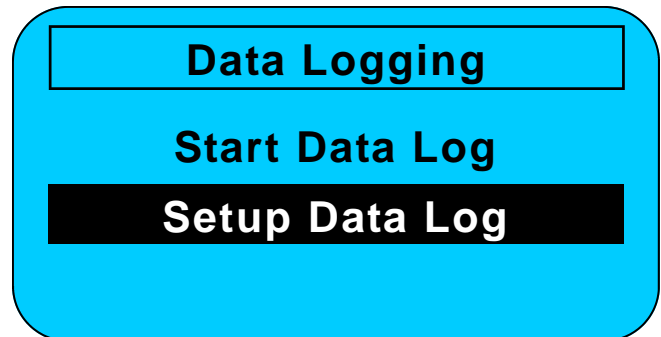
Data Logging

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 using this feature. Press the select key to enter the Data Capture main menu.

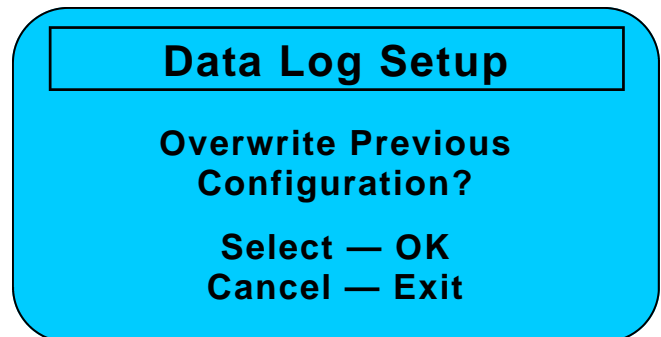
The Data Capture sub-menu allows you to view the instructions for using the data logging feature. It also allows you to load the .DLF parameter file created using SCT's Live Link software, as well as replay previous data logging sessions. Data logged information can be output directly to the screen or viewed through Live Link on a Windows-based laptop or PC.



Enter the Setup Data Log sub-menu to create the data log file. You can select from the default gas and diesel engine files stored in the device or you can download a .DLF file using the Live Link software application. You do not need to setup the file every time you use the feature. You will need to setup the file when you want to change the parameter list.



You will be prompted to confirm that you want to either overwrite the previous file or use the existing configuration. Press the select key to overwrite the previous configuration or press cancel to exit. If this is the first time you have used the feature, you will need to press the select key and enter the Data Log Setup sub-menu.



Note: The Live Link data logging software and user manual can be downloaded from the SCT web site at www.sctflash.com. For technical support using the data logging feature, please visit our technical support forums at www.sctflash.com/forum.

DATA LOGGING / DATA CAPTURE

This sub-menu allows you to choose from default .DLF files, which is recommended when using the standard pre-loaded tune files. For custom .DLF files, consult the Live Link user manual for additional information.

Note: Default parameters are generated from a generic list of readable PCM parameters and will vary based on model and engine. Some parameters may not apply to your vehicle.

Once you select the default .DLF file you will be prompted to choose the parameters you wish to datalog. You are limited to 20 parameters per log and you can only store one data log file on the device at any given time. Once you have created the file, it can be downloaded to a Windows-based laptop or PC for viewing through Live Link software.

Once you have selected the parameters to data log, you will be prompted to confirm and save the data log configuration. You can go back to the list by pressing the arrow left Key, or you can continue with saving by pressing the select key.

To start the data log, enter the Start Data Log sub-menu. You will automatically be prompted to start the vehicle and press the select key once the vehicle is running. The data log will start automatically once the select key is pressed.

Select DLF File

Diesel.dlf

Gasoline.dlf

Select PID/DMRs

accel_pedal_pos
battery_voltage
bst_psi_gauge
coolant_temp
engine_oil_temp

Select PID/DMRs

Save Data Log
Configuration?
Select — OK
Left — Back
Cancel — Exit

Data Logging

Start Data Log

Setup Data Log

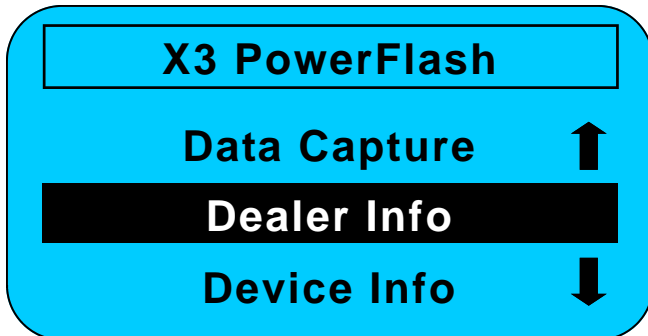
Data Log

Make sure vehicle is
running, then press
select to start.

DEALER / DEVICE INFORMATION MENU

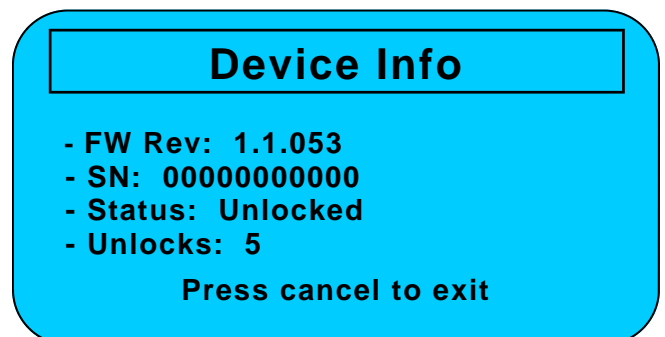
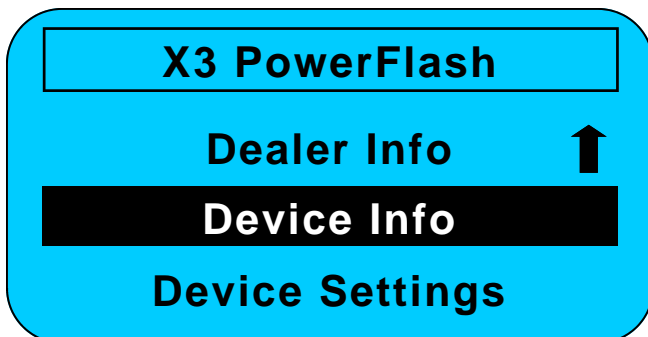
Dealer Information Menu

This menu allows you to view the dealer and device information. The default dealer information is SCT product name and web address.



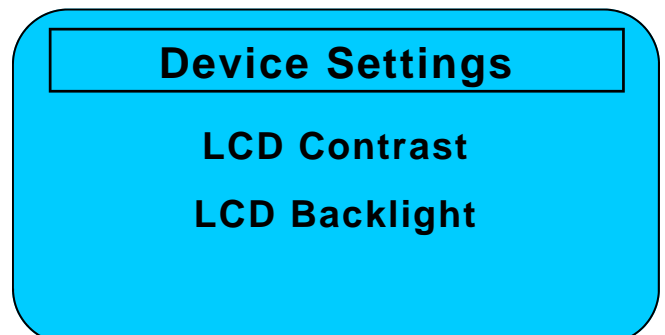
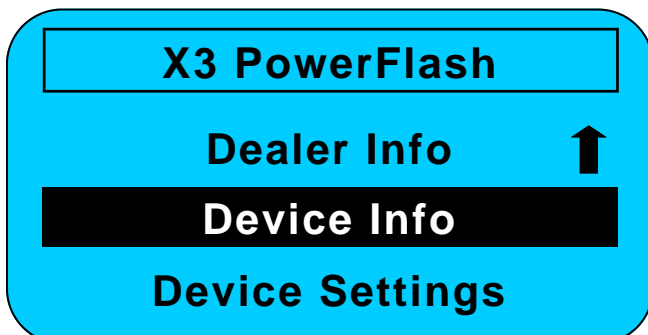
Device Information Menu

This menu allows you to view the firmware revision number, serial number, device status (locked / Unlocked), and the number of unlocks left (5 maximum).



Device Settings Menu

This menu allows you to view and adjust the contrast and turn the backlight ON / OFF. Use the arrow up and down keys to modify the contrast. The select and cancel keys will allow you to save or exit the device settings.



USER ADJUSTMENT OPTIONS

Many different combinations of tunes are available for each supported vehicle, however not each vehicle has the same available options.

6.0 Diesel

Towing, Street Performance, Race, Jake Brake, Locked Convert @ CT, aggressive Tow/Haul, Lockup in 1,2,3, Speed Limiter, Shift Point Up / Down, Shift Firmness, Idle Drive, Idle Neutral, Rev Limiter, Cooling Fans, Tire Size, Axle Ratio

7.3 Diesel

Towing, Street Performance, Race, Lock Convert @ CT, Speed Limiter, Shift Point, Shift Firmness, Idle Drive, Idle Neutral, Rev Limiter

'04-'06 F-Series 4.2-6.8L

87 Octane, 91 Octane, 93 Octane, Towing, Economy, Speed Limiter, Idle Drive, Idle Neutral, Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio

Lightning 5.4L

87 Octane, 91 Octane, 93 Octane, Towing, Economy, Speed Limiter, Idle Drive, Idle Neutral, Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio

Harley 5.4L

93 octane, Towing, Economy, Speed Limiter, Idle Drive, Idle Neutral, Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio, BA2400 MAF, BA2800 MAF, 60LB Injectors, Twin Screw SC

'94-95 3.8 Mustang

87 Octane, 91 Octane, 93 Octane, Economy, Speed Limiter, Idle Drive, Idle Neutral, Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio, 24lb Injector, 30lb injector, 80mm Lightning MAF

'96-04 4.0-4.6 Mustang

87 Octane, 91 Octane, 93 Octane, Economy, Speed Limiter, Idle Drive, Idle Neutral, Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio, 24lb Injector, 30lb injector, 90mm Lighting MAF, Big Air 2400, PI Cylinder Heads ('96-98)

USER ADJUSTMENT OPTIONS

'05-06 Mustang GT

87 Octane, 91 Octane, 93 Octane, Economy, Speed Limiter, Idle Drive, Idle Neutral, Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio, 30lb injector, 42lb injector, 90mm Lightning MAF, C&L CAI, JLT CAI, PHP CAI, Steeda CAI

'96-'01 Cobra

93 Octane, Race Fuel, Speed Limiter, Idle Drive, Idle Neutral, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio, 30lb injector, 42lb injector, 90mm Lightning MAF

'03-04 Cobra

93 Octane, Speed Limiter, Idle Drive, Idle Neutral, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio, 60lb injector, Big Air 2400, Big Air 2800, Twin Screw SC Tune

5.4 Cobra R

93 Octane, Speed Limiter, Idle Drive, Idle Neutral, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio, 30lb Injector, Big Air 2400

Mach 1

Octane, Race Fuel, Speed Limiter, Idle Drive, Idle Neutral, Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio, 30lb injector, 42lb injector, 90mm Lightning MAF

Marauder

93 Octane, Economy, Speed Limiter, Idle Drive, Idle Neutral, Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio

SVT Focus

93 Octane, Economy, Speed Limiter, Idle Drive, Idle Neutral, Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio

ZTEC Focus

87 Octane, 91 Octane, 93 Octane, Economy, Speed Limiter, Idle Drive, Idle Neutral, Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4, Rev Limiter, Cooling Fans, Spark 0 - 2000, Spark 2000 - 4000, Spark 4000 - 8000, WOT FUEL, Axle Ratio

USER ADJUSTMENT OPTION NOTES

Some options, such as Shift Point 1-2, Shift Point 2-3, Shift Point 3-4, Shift Firmness 1-2, Shift Firmness 2-3, Shift Firmness 3-4 will show up as a choice for vehicles that have a manual transmission. In these cases simply move to the next item without making adjustments to them. As noted, the only blower tunes available are for vehicles originally equipped with a blower from Ford, such as '03-04 Cobra, '99 and up Lightning and Harley SC trucks. In some cases on these vehicles there is the option for adding a twin screw blower tune.

If you later add a blower, turbo or nitrous to your vehicle or add a more 'wild' naturally aspirated combination of parts, you will need to obtain a custom tune from an SCT dealer. The X3 Power Flash is flexible enough so that your original investment will not be lost - it can be loaded with a custom tune from the SCT dealer. Additionally, the X3 Power Flash should NOT be used on vehicles that you have installed power adders on because the tuning options, while very flexible, are not comprehensive enough to support such changes. You risk serious engine damage if you add such upgrades to your vehicle and attempt to tune for the combo with the X3 Power Flash. A custom tune from a dealer is necessary in all such cases.

Other Information:

In the event the X3 Power Flash does not successfully flash the vehicle it will display an error message. If this happens, you must recover the ECU. Turn the key off and reflash the vehicle with the RETURN TO STOCK option. You may then try again.

Caution:

On 1994-1997 vehicles that are flashed, it is necessary to remove the battery cable after re-flashing to clear the PCM's adaptive memory.

Important Points to Remember

- Remove the fuel pump fuse and fan fuse before flashing. Be sure heater fans, windshield wipers or any other current draw is minimized during flashing.
- Do NOT interrupt the flashing process once it has begun, by disconnecting the cable of battery or pulling the diagnostic cable.
- The X3 Power Flash will not operate if there is a chip or other aftermarket device in the J3 port. Remove all chips.
- Never attempt to reflash 'on the fly' or with the engine running as this will damage the X3 Power Flash and processor.
- Running with lower octane fuel than was intended for the tune in use can result in engine damage.
- The X3 Power Flash becomes 'VIN' locked to the vehicle once it is used.
- On 1994-1997 vehicles that are flashed, it is necessary to remove the battery cable after re-flashing to clear the PCM's adaptive memory.
- Never operate the motor vehicle and attempt to datalog.
- Have someone else drive the car if you need to do this.
- Obey all traffic laws.

DTC DIAGNOSTIC TROUBLE CODES

Some of the More Common DTC Codes

P0100 Mass or Volume Air Flow Circuit Malfunction
P0109 Intake Air Temperature Circuit Malfunction
P0114 Intake Air Temperature Circuit Intermittent
P0115 Engine Coolant Temperature Circuit Malfunction
P0120 Throttle/Pedal Position Sensor/Switch A Circuit Malfunction
P0125 Insufficient Coolant Temperature for Closed Loop Fuel Control
P0170 Fuel Trim Malfunction (Bank 1)
P0171 System too Lean (Bank 1)
P0172 System too Rich (Bank 1)
P0173 Fuel Trim Malfunction (Bank 2)
P0174 System too Lean (Bank 2)
P0175 System too Rich (Bank 2)
P0190 Fuel Rail Pressure Sensor Circuit Malfunction
P0195 Engine Oil Temperature Sensor Malfunction
P0200 Injector Circuit Malfunction
P0213 Cold Start Injector 1 Malfunction
P0214 Cold Start Injector 2 Malfunction
P0217 Engine Overtemp Condition
P0218 Transmission Over Temperature Condition
P0219 Engine Overspeed Condition
P0230 Fuel Pump Primary Circuit Malfunction
P0300 Random/Multiple Cylinder Misfire Detected
P0320 Ignition/Distributor Engine Speed Input Circuit Malfunction
P0325 Knock Sensor 1 Circuit Malfunction (Bank I or Single Sensor)
P0335 Crankshaft Position Sensor A Circuit Malfunction
P0340 Camshaft Position Sensor Circuit Malfunction
P0350 Ignition Coil Primary/Secondary Circuit Malfunction
P0382 Exhaust Gas Recirculation Flow Malfunction
P0410 Secondary Air Injection System Malfunction
P0420 Catalyst System Efficiency Below Threshold (Bank 1)
P0440 Evaporative Emission Control System Malfunction
P0480 Cooling Fan I Control Circuit Malfunction
P0484 Cooling Fan Circuit Over Current
P0485 Cooling Fan Power/Ground Circuit Malfunction
P0500 Vehicle Speed Sensor Malfunction
P0501 Vehicle Speed Sensor Range/Performance
P0505 Idle Control System Malfunction
P0506 Idle Control System RPM Lower Than Expected
P0507 Idle Control System RPM Higher Than Expected
P0510 Closed Throttle Position Switch Malfunction
P0550 Power Steering Pressure Sensor Circuit Malfunction
P0560 System Voltage Malfunction
P0561 System Voltage Unstable

DTC DIAGNOSTIC TROUBLE CODES

P0562 System Voltage Low
P0563 System Voltage High
P0606 PCM Processor Fault
P0700 Transmission Control System Malfunction
P0701 Transmission Control System Range/Performance
P0702 Transmission Control System Electrical
P0705 Transmission Range Sensor Circuit malfunction (PRNDL Input)
P0710 Transmission Fluid Temperature Sensor Circuit Malfunction
P0712 Transmission Fluid Temperature Sensor Circuit Low Input
P0713 Transmission Fluid Temperature Sensor Circuit High Input
P0720 Output Speed Sensor Circuit Malfunction
P0723 Output Speed Sensor Intermittent
P0730 Incorrect Gear Ratio
P0731 Gear 1 Incorrect ratio
P0732 Gear 2 Incorrect ratio
P0733 Gear 3 Incorrect ratio
P0734 Gear 4 Incorrect ratio
P0735 Gear 5 Incorrect ratio
P0736 Reverse incorrect gear ratio
P0740 Torque Converter Clutch Circuit Malfunction
P0745 Pressure Control Solenoid Malfunction
P0750 Shift Solenoid A Malfunction
P0755 Shift Solenoid B Malfunction
P0760 Shift Solenoid C Malfunction
P0765 Shift Solenoid D Malfunction

FREQUENTLY ASKED QUESTIONS

Q: Do I need to remove my aftermarket performance chip from the PCM before tuning the vehicle?

A: You must remove all chips from the PCM prior to starting the tuning process.

Q: Can the vehicle be tuned while the engine is running?

A: NO - This can cause severe damage to the vehicle and PCM.

Q: Can I use a lower octane fuel than what the tuning file is designed to run?

A: NO - You must use the same octane fuel that the vehicle is tuned for. Failure to use the proper octane fuel can result in severe engine damage.

Q: Can I datalog the vehicle while driving?

A: YES, but please make sure that you have someone else in the vehicle with you. Never attempt to datalog the vehicle yourself, while driving the vehicle.

Q: Is it necessary to disconnect the battery after tuning the vehicle?

A: On 1994 - 1997 vehicles, you must disconnect the battery cable for 10 seconds or more to reset the PCM's adaptive memory.

Q: Does the vehicle need to be running to use or display the performance monitor?

A: Yes, the vehicle must be running to monitor or datalog data through the device.

1999 - 2005 Diesel-powered Ford Excursion

When flash tuning the diesel-powered Ford Excursion, you will be required to reset the PATS system. The following procedure is critical. Be sure to start the procedure with the key completely out of the ignition.

- 1) Remove the key from the ignition.
- 2) Insert key into the ignition.
- 3) Turn key to the on position - Do NOT start the vehicle.
- 4) Look at the theft light on the dash. The light should be blinking rapidly (3 blinks per second).
- 5) After 30 - 45 seconds, the theft light will blink slowly or go out altogether.
- 6) Turn the ignition key off and remove it from the ignition - Do NOT start the vehicle.
- 7) Wait 10 seconds and insert the key into the ignition.
- 8) Turn key to the on position - Do NOT start the vehicle.
- 9) Look at the theft light on the dash. The theft light should be blinking slowly (1 blink per second) - Once the wait to start light goes out and the glow plugs are warm, start the vehicle.

Additional Information

Upgrading to the Pro Racer Package

While the X3 Power Flash gives you control over your vehicle's tune, you may decide that you would like total control over ALL the parameters in your tune. SCT has the answer for this, the Pro Racer Package. It is available from most SCT dealers and includes a base tune and the full SCT Advantage software used by SCT dealers. Please contact your SCT dealer for pricing details.

Big Air MAFs

The mass air meter or MAF is the heart of your vehicle. It is used by the car's computer to determine the airflow going into the engine. When tuned properly, it automatically compensates for variations in airflow, air temperature and barometric pressures. The one thing a MAF cannot do is exceed a set limit of airflow. Once the limit is reached, the car's computer will no longer supply sufficient fuel and the load calculations in the vehicle's computer will also be erroneous. This is called 'pegging' the MAF. What happens when a MAF pegs is the air to fuel mixture goes lean and timing goes up. A very bad set of circumstances for any engine. The answer to this problem is to use a MAF of sufficient electronic capacity so this does not happen. SCT offers the BA 2600 MAF which is good to about 625-650 rear wheel horsepower (RWHP) in a draw-through setup. SCT also offers the BA 3000, which will not peg until 750-825 RWHP. Both MAFs will give factory like driveability because they are made identically to the way an OEM MAF is made. You may also use these MAFs in a blow-through setup, however the limits will be decreased significantly.

SCT Support Options

Your first option for support is your SCT dealer. SCT also offers several support options after you have purchased your X3 Power Flash. SCT maintains a support forum which is available at: <http://www.sctflash.com/forum/> SCT employees, SCT dealers and knowledgeable SCT customers are always there and ready to help with any problem. You can also contact SCT via phone, FAX or US postal service.

**975 Florida Central Parkway, Suite 1900
Longwood FL 32750
Phone: 407.774.2447; Fax: 407.260.6275**

SCT also offers a download area that contains free software, updates, and firmware for your X3 Power Flash. The download area does not require any registration and is located at: <http://www.sctflash.com/downloads.php>

X3 POWER FLASH LIMITED WARRANTY

IMMEDIATE CONSUMER ACTION REQUIRED!

YOU MUST REGISTER YOUR X3 POWER FLASH WITHIN 30 DAYS OF PURCHASE TO VALIDATE YOUR 1 LIMITED YEAR WARRANTY. Please visit www.sctflash.com for more information.

SCT, LLC LIMITED WARRANTY FOR LIVEWIRE PRODUCT

What Does This Warranty Cover?

This warranty covers any defects or malfunctions in your SCT Livewire 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 Livewire 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 Livewire 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 Livewire 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.

How Do You Get Service?

In order to be eligible for service under this warranty you MUST complete the online registration information within thirty (30) days of purchase. To register your Livewire product, please log on to www.sctflash.com, click on "Warranty Registration" and follow the simple steps provided on the website. If you do not have internet access, or encounter difficulties with the online registration process, please contact SCT at 407.774.2447. To initiate a claim under this warranty, you can either log on to the SCT website and follow the warranty claim instructions or you can call 407.774.2447 and instructions will be provided.

Can This Warranty Be Transferred?

This warranty is not transferable and applies only to the consumer who originally purchased the Livewire 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.

For questions regarding SCT's products or warranties please contact SCT at 407.774.2447.



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