LIVEWIRE TS+

USER GUIDE
PART #'S: FORD® 5015P | GM® 5416P

IMPORTANT NOTES

Alterations made to the OEM configuration of a vehicle may violate the Clean Air Act if such alterations bypass, defeat, or render inoperative Elements of Design installed on a vehicle in compliance with the Clean Air Act. Users who alter Derive's products in any way are required to make their own individual determination that the altered products do not violate the Clean Air Act.

This device is not legal for sale or use in California on pollution controlled vehicles.

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 or disable the vehicle's stereo, HVAC system and any aftermarket electronics. 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 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 "Vehicle Info" main menu screen and send that information to your custom tuning dealer. (See Section 4.1)

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 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 Functions" menu.

IMMEDIATE CONSUMER ACTION REQUIRED!

You must register your Livewire TS⁺ device within 30 days of purchase to validate your 1 year limited warranty. You can register your device from our homepage at: www.sctflash.com/user/product-registration

1.1 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 visit www.sctflash.com/support. Make sure you have returned your vehicle back to stock before updating your unit.

1.2 ABOUT YOUR SCT DEVICE

AVAILABLE GASOLINE TUNES: 93, 91, and 87 octane.

AVAILABLE DIESEL TUNES: Performance, Street, Towing.

Note: Not all options are available for all vehicles.

- Livewire TS+ VIN locks (marries) 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. For additional troubleshooting and support, please see our knowledge base online at www.sctflash.com/support.

- Some 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 SCT of one of our authorized SCT Custom Tuning Dealers. To locate a dealer near you use the dealer locator on the SCT website at www.sctflash.com/where-to-buy.

- 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.

NOTE: read your vehicle's warranty carefully before installing or using this Product. You are solely responsible for determining whether use or installation of this Product will negate or diminish any applicable warranty coverage. Under no circumstances will the Seller be liable for the voidance of all or any part 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 in whole or in part due to use or installation of this product.

2.1 POWERING ON THE LIVEWIRE TS+

There two ways to power on the device. If you would like to flash your 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 II port. This port 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 II 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 Livewire TS+ to the vehicles OBD II port.
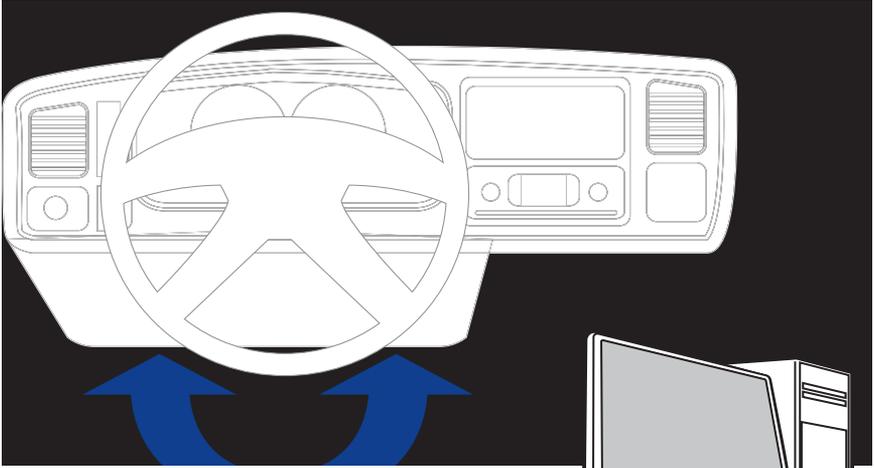
USING THE COMPUTER

1. Install SCT Device Updater www.sctflash.com/support *before* connecting your unit via USB (Updater Download)

2. Locate the computer's USB port. This port can usually 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 right side of the Livewire TS+.
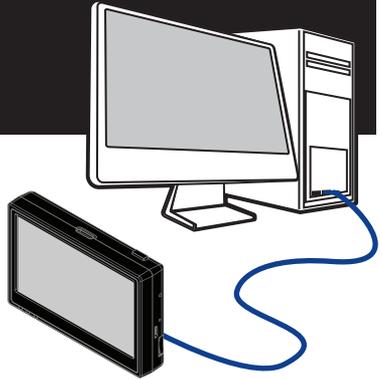
2.2 LOADING EMAIL CUSTOM TUNES TO THE LIVEWIRE TS+

1. Before connecting your LWTS+, Install SCT Device Updater www.sctflash.com/support.

2. Connect your device with the USB cable provided to your computer. (Allow about 30 seconds for the drivers to install).

3. Save your custom tunes from your email to your desktop.

4. Open SCT Device Updater software that you just installed, there will be a shortcut icon with a white 'U' on a red background on your desktop.

5. Now select "Load Custom Tune File" from the Basic Operations menu followed by clicking on "Locate Custom Tunes".

6. Select the desire tune on the left under "Available Tunes". Then select the "Add to Device" button in the middle of the screen. This will transfer your tune file to the "On Device" section on the right.

7. Press "Program" when ready to transfer the custom tune to the LWTS+.
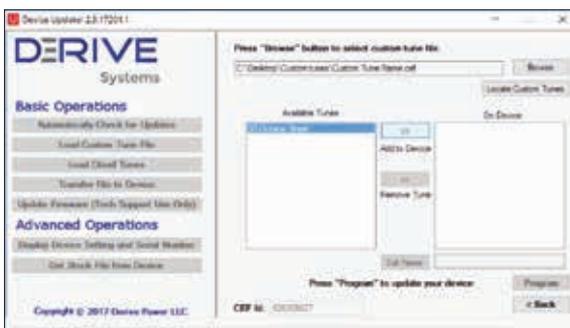
8. Repeat steps 5-7 if you wish to load more than one file.

2.3 MENU NAVIGATION

PROGRAM VEHICLE
- Return to Stock
- Strategy Tunes
- Custom Tunes

GAUGES / DATALOG
- Configuration
- Monitor

DIAGNOSTICS
- Read DTC
- Clear DTC

PERFORMANCE TESTS
- 0-60 MPH
- ¼ Mile
- Braking

VEHICLE INFO
- Vin
- Strategy
- Vehicle Weight

DEVICE SETTINGS
- LCD Brightness Day Time
- LCD Brightness Night Time
- Theme: Red / Blue / Dark
- Ambient Light Sensor
- Audio
- Ignition Key Check
- Power Save Mode

DEVICE INFO
- Device Name
- Device Part #
- Serial Number
- Firmware Version
- Preloaded Tuning
- Custom Tuning
- Tune Revision
- Market
- Unlocks Left
- Married Status
- Current Flash
- Total Flashes
- Support Info
- Vehicle Batt
- Vehicle Board FW
- License Notice

2.4 USING THE TOUCH SCREEN

The screen on the Livewire TS+ is pretty simple to use, simply use your index finger to scroll through the sub-menu options by pressing firmly on the screen of the LWTS+. When you see the menu you would like to choose, press firmly on the icon with your finger. If you'd like to back out of a menu simply press the Exit 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 READING VEHICLE STRATEGY

Ford will often times update the computer in your vehicle. The new update ID (calibration ID) that is loaded into your computer is called a strategy. Your vehicle strategy will be required when acquiring custom tunes from your SCT dealer or troubleshooting your device.

1. Once the device is powered on using the OBDII cable provided, swipe from right to left once to get to the "VEHICLE INFO" icon.

2. Press on the "VEHICLE INFO" icon; you will be prompted to turn the key to the On Position, or Second-click.

3. Turn the key forward until your dashboard lights display but *do not start the engine* of the vehicle.

4. Once the Livewire TS+ has detected you turned the key on, it will proceed to display your VIN, COMM and ECU Strategy.

2.6 READING/CLEARING VEHICLE DTCS

If you are experiencing a check engine light on your dashboard, you will be able to retrieve the code and read the cause of the code using your Livewire TS+. You will also have the ability to clear these codes if you have gone ahead and taken care of the problem that was causing the check engine light.

1. Once the device is powered on using the OBDII cable provided, on the bottom right of the screen press the "DIAGNOSTICS" function.

2. From the Vehicle Function option you can choose Read DTC or Clear DTC, make your selection by pressing the appropriate option.

• READ DTC: Turn key ON, the device will automatically detect it; if any codes are present they will be listed on the next screen. You will be able to read the meaning of the code by simply touching the code being displayed. To go back to the list of DTC's present simply press the OK button.

• CLEAR DTC: Turn Key On, the device will automatically detect it; when the codes have been deleted successfully the device will let you know it.

3.1 INSTALLING A PRELOADED TUNE FILE

1. Connect the Livewire TS+ to your vehicle's OBD II port and power on the device by pressing down on the power button in the upper right hand corner of the device as you are looking at the screen.

2. Start with the unit powered on and connected to the vehicle, press the "Program Vehicle" button on the screen.

3. Next you will be prompted with a "Street Use Notice" which you must agree to and approve to begin tuning. If you approve and agree press the "Continue" button on the screen to proceed.

4. You may be prompted to "Turn Key On". If so, please turn the ignition key to the "On" position but do not start the vehicle.

5. A screen will appear asking you to select your vehicle. Touch the menu item that contains your vehicle.

6. Next you will be prompted to adjust options. These options are items available from SCT to make minor adjustments to the calibration being loaded. It is not necessary to make adjustments in this area. If you wish to make an adjustment, simply press the option you would like to change and the screen will change to display the available values for that option. When you are satisfied with the values of these options or if you do not wish to change them, touch "Approve".

7. You will now be prompted with a screen to review your vehicle and options Press "Continue".

8. The next screen, possibly two, will differ between vehicles. You will be prompted to "Turn key Off" and/or "Turn Key On". It's important here to follow the prompts from the device.

9. Livewire TS+ will now upload the current file that is in your vehicle, referred to as the "Stock File", and will proceed to download the new calibration you have selected with all options applied.

10. After this is complete the device will display a "Download Complete" screen. You can now turn the key to the off position. GM vehicles may see a "Power Down ECU" screen while the vehicle completes some power down procedures.

11. The installation process is now complete.
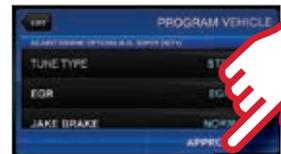
3.1 INSTALLING A PRELOADED TUNE FILE

Which tune file do I choose?

GASOLINE ENGINE:

Tunes are based on Octane, make sure you choose the correct octane rating based on the octane you are running in your vehicle.

- 87 Octane
- 91 Octane
- 93 Octane

DIESEL ENGINE:

We offer a few tunes based on what you're going to be doing with your truck.

- Street: Less power than Performance. Moderate gain over stock, safe for light towing, under 5k lbs.

- Performance: The most aggressive preloaded diesel tune. Good for everyday use, racing, economy but not recommended for any type of towing.

- Tow: This tune should be used when towing any significant load. With this tune shifting is towing-centered.

How do I know what the Options do?

Section 3.4 contains a list of options, their functions and a brief explanation of those functions.

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

3.2 INSTALLING A CUSTOM TUNE FILE

1. Start with the unit powered on and connected to the vehicle, press the "Program Vehicle" button on the screen.

2. You will be prompted with a "Street Use Notice" which you must agree to and approve to begin tuning. If you approve and agree press the "Continue" button on the screen to proceed.

3. You may be prompted to "Turn Key On". If so, please turn the ignition key to the "On" position but do not start the vehicle.

4. A screen will appear asking you to select your vehicle. Please scroll down until you see the area "Available Custom Tunes" and touch the menu listing that contains the custom tune you would like to load.

5. Next you will be prompted to adjust options. If you do not see this screen then your custom tuning dealer deactivated these options based on vehicle upgrades.

6. You will now be prompted with a screen to review your vehicle and options. Press "Continue".

7. The next screen, possibly two, will differ between vehicles. You will be prompted to "Turn key Off" and/or "Turn Key On". It's important here to follow the prompts from the device.

8. Livewire TS+ will now Upload the current file that is in your vehicle, referred to as the "Stock File", and will proceed to download the new calibration you have selected with all options applied if you have selected any.

9. After this is complete the device will display a "Download Complete" screen. You can now turn the key to the off position. For GM vehicles you may see a "Power Down ECU" screen while the vehicle completes some power down procedures.
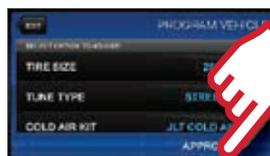
NOTE: Custom tunes are built by SCT's network of Custom tuning Dealers and any questions related to them need to be directed towards the tuning dealer.

3.3 RETURNING YOUR VEHICLE TO STOCK

1. Start with the unit powered on and connected to the vehicle, press the "Program Vehicle" button on the screen.

2. Next you will be prompted with a "Street Use Notice" which you must agree to and approve to begin the Return to Stock procedure. If you approve and agree press the "Return Stock" button on the screen to proceed.

3. A verification screen will now be displayed confirming your selection to return to the stock tune. Simply touch "Continue" here to confirm.

4. Depending on your device settings you may be prompted to "Turn Key On". If so, please turn the ignition key to the "On" position but do not start the vehicle.

5. The next screen, possibly two, will differ between vehicles. You will be prompted to "Turn key Off" and/or "Turn Key On". It's important here to follow the prompts from the device.

6. Livewire TS+ will now load the original file saved from when you tuned the vehicle ("Stock File") back into the vehicle.

7. After this is complete the device will display a "Download Complete" screen. You can now turn the key to the off position. For GM vehicles you may see a "Power Down ECU" screen while the vehicle completes some power down procedures.

8. You have now successfully returned your vehicle to Stock.

3.4 USER ADJUSTABLE OPTIONS EXPLAINED

User Adjustable Options are contained within the pre-loaded tuning files. You will be prompted to Adjust Options during the tuning process. The Adjust Options menu will appear and you will navigate through the options using the touch screen. To enter the option or select the option, use the approve button. To cancel the option or go back to the previous screen, press the cancel button.

The user adjustable options allow you to adjust common vehicle parameters such as the list provided below. 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, you will be prompted to continue the upload process.

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

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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, under 5k lbs.

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.

3.4 USER ADJUSTABLE OPTIONS EXPLAINED

DIESEL & 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:

TUNE TYPE: 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 O_2s and eliminates CEL caused by rear O_2 removal.

GLOBAL SPARK: Add or Remove Timing to the entire RPM range.

SPARK BY RPM: Add or Remove Timing by RPM Range. (0-2k), (2-4k,) (4-8k)

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 DRIVE: Sets Rev Limit in RPM while in Drive

REV LIMITER NEUTRAL: Sets Rev Limit in RPM while in Neutral

SPEED LIMIT: Remove, Increase or Decrease the vehicle speed limiter. (Speed Governor).

4.1 ON-DEVICE DATA LOGGING AND MONITORING

This menu accesses the Monitoring and Data Logging feature. This menu is also used when collecting data from the analog input on the device.

1. With your key out of the ignition connect your device to the OBDII port and power on your Livewire TS+, on the bottom left of the screen press Gauges/Datalog.

2. The device will automatically detect when you have turned the key to the ON position, which will take you to the main gauge display.

3. Tap the screen once and select "Configuration". Select the appropriate Preloaded Datalog File displayed on the screen that matches your vehicle and then press continue.

4. From the main gauge screen you can configure what is being displayed.

EDITING A GAUGE

To edit a gauge you will tap twice on the gauge you would like to edit. You will be taken to the edit screen where you can choose what parameter you would like to monitor.

ITEM: Here you will find a list of parameters that are preloaded on your device. You can find the Analog Inputs at the bottom of this list.

EQUATION: We have preset the most common equations below

• V (this would be Voltage)	• SCT EGT ˚ F
• PLX EGT ˚ F	• AEM X-WIFI EGT ˚ F
• SensorConnection EGT ˚F	• ExhaustGasTech EGT ˚F
• LM1	• TE 2A0
• PLX	• LC1
• AEM	• AFM1000
• G100	• Dyno Jet WBC
• GM 1Bar MAP	• GM 2Bar MAP
•GM 3Bar MAP	

RANGE: You will be able to set the range of the senor or PID selected. The range is automatically modified based on the parameter selected. (excludes analogs).

ALERT: Setting a Min and Max value will cause the device to alert you when these values have been exceeded.

INDICATOR: You may choose the color of the alert to be displayed by your LWTS+
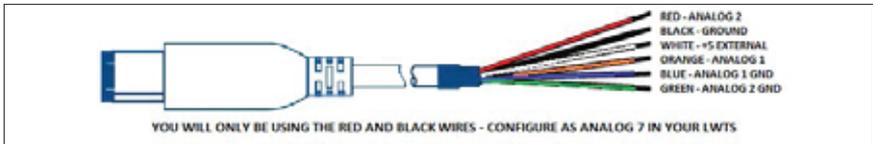
EDITING GAUGE LAYOUT

There are eight (8) preset gauge layouts available to choose from

1. From the Main Gauge display, single tap the screen, select "LAYOUT" that will appear on the bottom left of the screen.

2. You may scroll using your finger to the selection to choose from.

3. Tap the image of the layout you'd like to use. You need to edit gauges once more.

4.2 CONNECTING EXTERNAL ANALOG INPUTS

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.

RED - ANALOG 2
BLACK - GROUND
WHITE - +5 EXTERNAL
ORANGE - ANALOG 1
BLUE - ANALOG 1 GND
GREEN - ANALOG 2 GND

YOU WILL ONLY BE USING THE RED AND BLACK WIRES - CONFIGURE AS ANALOG 7 IN YOUR LWTS

Example of an EGT being Configured to an EGT Kit to work with your LWTS+

1. Connect 6 PIN firewire analog cable into the built-in firewire port on the OBDII cable.

2. Power on your LWTS+, on the bottom left of your home screen you will see "Gauges/Datalog", select it.

3. You will be prompted to turn the key to the ON position; the LWTS+ will automatically detect your key being turned on.

4. Select the appropriate Preloaded Datalog File displayed on the screen that matches your type of vehicle, (in this example we will use Ford Diesel 6.0L and 7.3L) Press Continue.

5. When the main gauge display comes up, Double tap on the gauge you would like to edit.

    a. Single Tap: Views the Menu

    b. Double Tap: Edits Gauges

6. Once you've double tapped the gauge, you will be brought to a screen where you can select the proper Item to monitor, proper equation for analogs and add a Min and Max Range.

    a. Item: Press and hold on the screen to scroll, all the way at the bottom where the Analogs are located, tap "Analog In 7 Red-Wire"

    b. Equation: Tap "SCT EGT F"

    c. You may now modify Min and Max Value's

7. 7. Select "Approve" to confirm the changes and view the EGT signal real-time.

4.3 PERFORMANCE TESTS

Using the LWTS+ Performance Test to measure your vehicle's performance: The LWTS+ Performance Test feature allows you to measure the 0-60 MPH, ¼ Mile ET and Braking ET all in one test or individually. (You many select more than one test at a time).

NOTE: Prior to using the LWTS+ Performance Test, you must configure your vehicle's weight within the Vehicle Info Menu. The option to modify weight will appear only after you have successfully read Vehicle Info.

4.4 DEVICE SETTINGS

Within the Device Settings menu, we have given the options to customize your device for exactly your needs. Below is an outline of all options and their functions.

CD BRIGHTNESS DAY TIME: Allows you to modify the brightness of the screen.

LCD BRIGHTNESS NIGHT TIME: Allows you to modify the brightness of the screen.

THEME: Change the appearance of the menu screens with a Blue (Default), Red or Dark Black theme.

AUDIO: You may turn the sound Off or On of the device, this includes the beeping noise the device makes when selecting the menus and options.

IGNITION KEY CHECK: Will allow the device to automatically identify the key being turned on automatically, you may shut this function off. It's recommended to leave this On.

POWER SAVE MODE: You can choose from Auto or Always On.

AUTO: When the device sees you have shut off the vehicle the programmer will start a counter to automatically shut down in 5 minutes.

ALWAYS ON: Your device will remain on whether you shut off the vehicle or not. The device will need to be manually turned on after 24 hours as it completely shuts off to prevent draining the battery.

STARTUP FUNCTION: When the device is turned on you can allow the device to go directly to either:

MAIN MENU

GAUGES / DATALOG

PERFORMANCE

NOTE: To load custom tunes or update the vehicle the device has to be on the main menu. If enabled, you will need to exit the gauge screen to interface with your computer.

ON-SCREEN TUTORIAL: Provides on screen assistance using your touch screen. On or Off

DEMO MODE: Simulates the functions of the programmer such as Programming and Monitoring Gauges.

NOTE: Demo Mode will need to be disabled before programming your vehicle.

FACTORY RESET: This will DELETE all custom tunes and restore preloaded tunes.

SHUTDOWN: Powers down your device.

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 module?"

No, all Chips/Tuning Products must be removed before tuning with SCT.

"Can I tune more than one vehicle with this programmer?"

Yes, you may return to stock and tune another vehicle up to 5 times. However, only one vehicle can be tuned at a time.

"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 Livewire TS+ 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 on my Livewire TS+?"

No, the pre-loaded tune files within the Livewire TS+ 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.

5.1 CONTACTING SCT PERFORMANCE

Email Support : support@sctflash.com

Live On-Line Chat Support (available at www.sctflash.com)

Free Technical Support at:
www.sctflash.com/support