INSTRUCTIONS

XFI eDash
PN 301517

Thank you for choosing FAST™ products; we are proud to be your manufacturer of choice. Please read this instruction sheet carefully before beginning installation, and also take a moment to review the included limited warranty information.

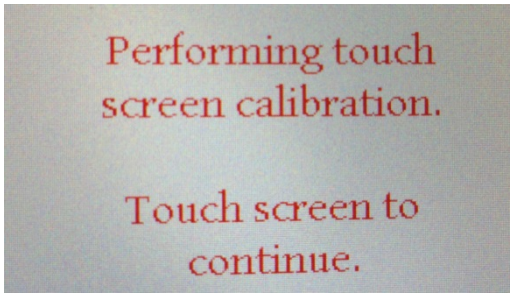


QTY	PART#	DESCRIPTION
1	301517B	eDash
1	30310	Handheld Cable
1	30319	Handheld Cable to CALPORT Adapter
1	30321	XFI 2nd Comm Port Pigtail
1	30493	Suction Cup Mount
1	170671	USB Cable, A to Mini-B

eDash Notes

- The mini-USB port on the top of the eDash is used to connect the eDash to a computer in the event that an eDash update becomes available. The supplied USB cable is not used in normal operation of the eDash.
- Please do not attempt to operate the eDash while driving. For safety, have a passenger monitor live data or adjust settings as needed if the vehicle is moving.
- The eDash is compatible with mounting brackets that fit a Garmin Nuvi 2455LT GPS unit. A suction cup mount for the eDash is included in the kit.
- The eDash has a touch screen calibration procedure that can be accessed by pressing and continuing to hold anywhere on the screen as the eDash is powered on. After about 4 seconds, the calibration screen will appear and walk you through the short calibration process. The purpose of this calibration is to sync up the touch sensitive screen with the graphics on the display so that where you see a “button” on the screen is also where you need to touch to select

it. This calibration is performed at the factory. It is unlikely that it will ever need to be repeated.

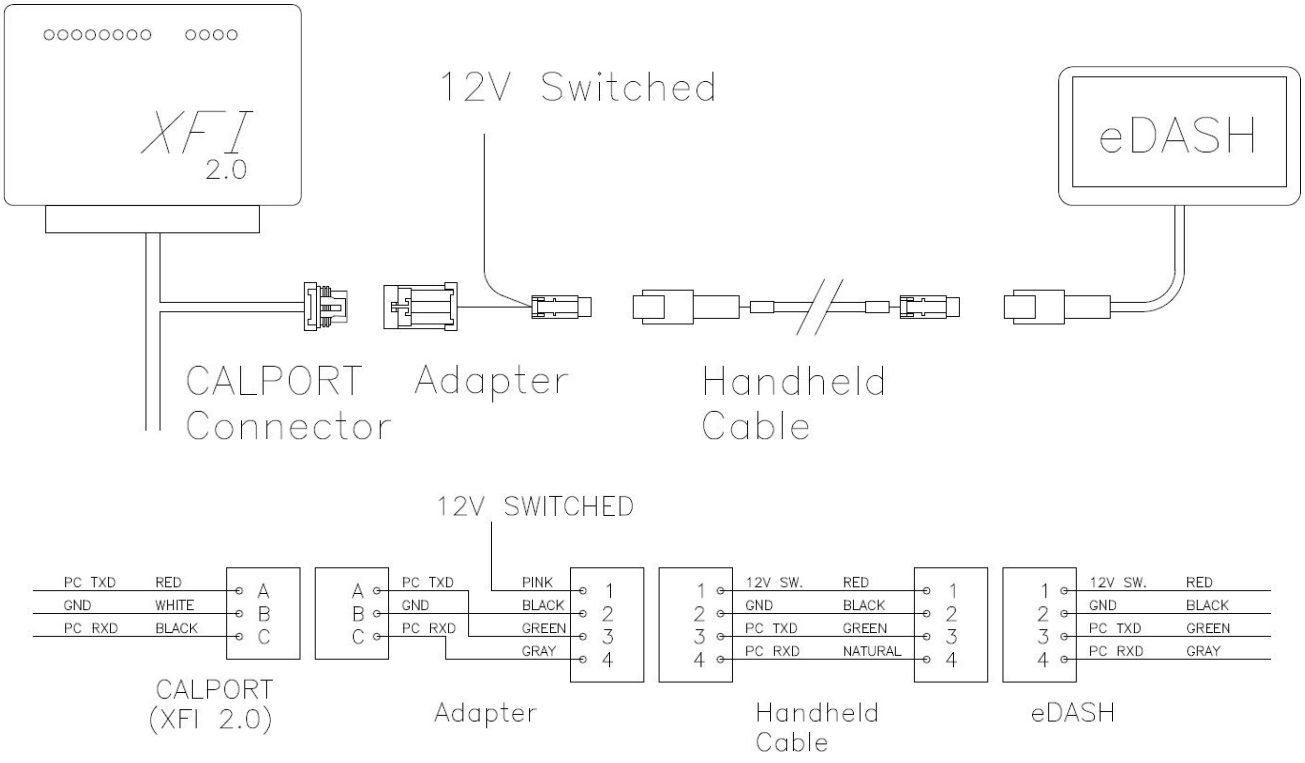


Wiring Connections

A long handheld cable is supplied to connect the eDash to the ECU's harness.

XFI 2.0

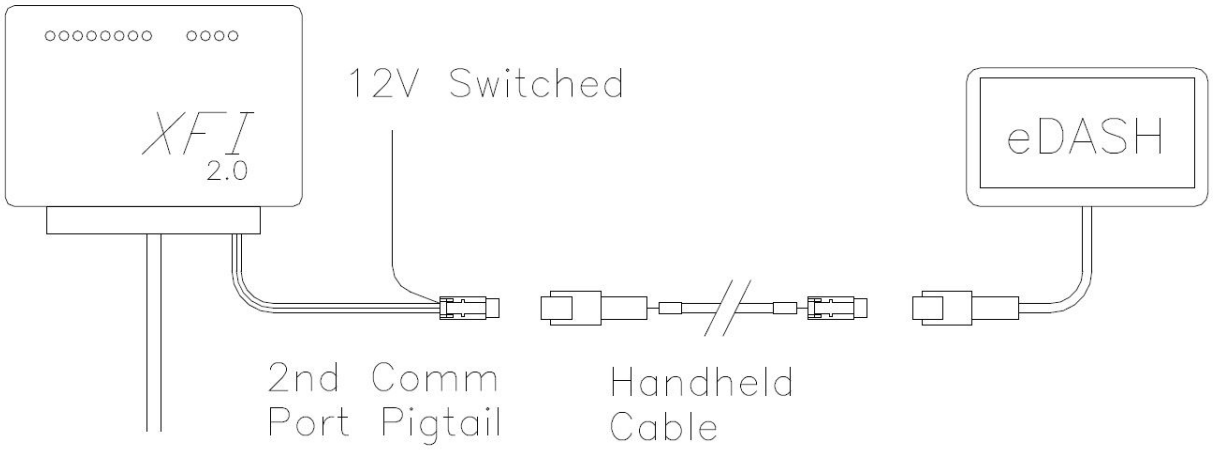
When using an eDash with an XFI 2.0 ECU, there are two options for connecting the handheld cable. The first is using the supplied adapter to connect the handheld cable to the CALPORT connector on the ECU harness. The adapter has a loose pink wire that needs to be connected to a switched 12V source to power the eDash.

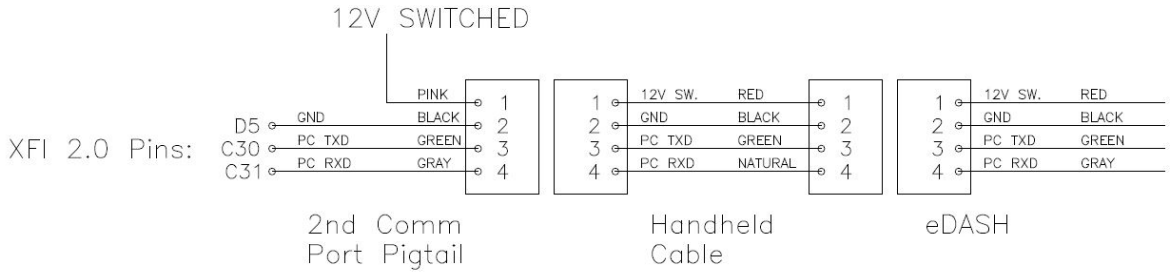


The second option is to install the supplied pigtail to access the XFI's 2nd Comm port. The handheld cable will connect to the installed pigtail. Again, there is a loose pink wire that needs to be connected to a switched 12V source to power the eDash.

When the 2nd Comm port is used for the eDash, the CALPPORT connector is left available for connecting to a laptop. This way, both an eDash and a laptop can be connected simultaneously.

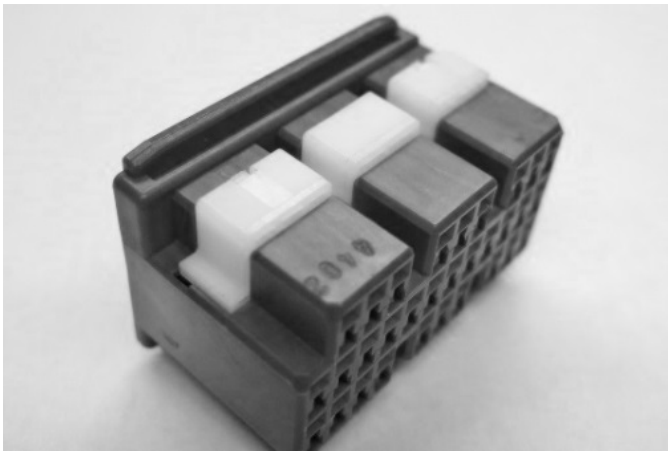
XFI firmware "XFI_Flash_B1.xfi" (March 2014) or later is required to enable the XFI's 2nd Comm port.



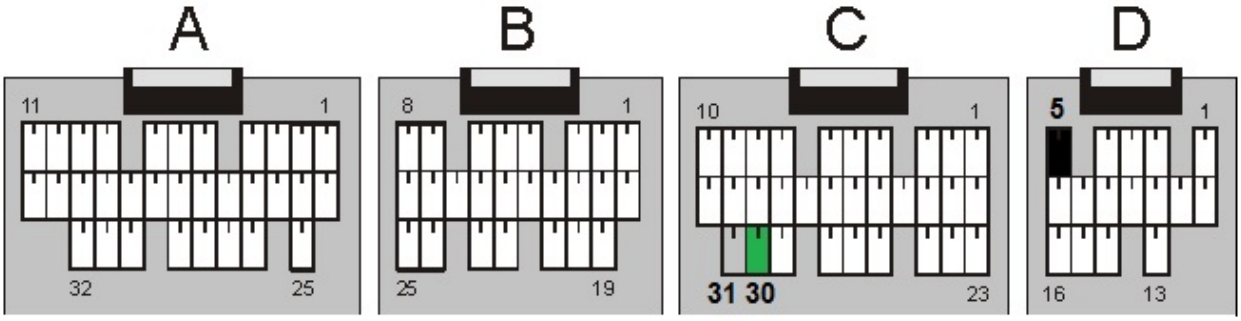


Pigtail installation:

1. Remove the C (31 pin blue) and D (16 pin gray) connectors from the XFI.
2. There are white locks in the connectors that need to be slid out about 1/16” to allow new wires to be inserted. It is easiest to slide the locks out by pushing down through the top of the connectors. Pictured below is the bottom side of a connector with the lock slid out and ready to accept new wires.



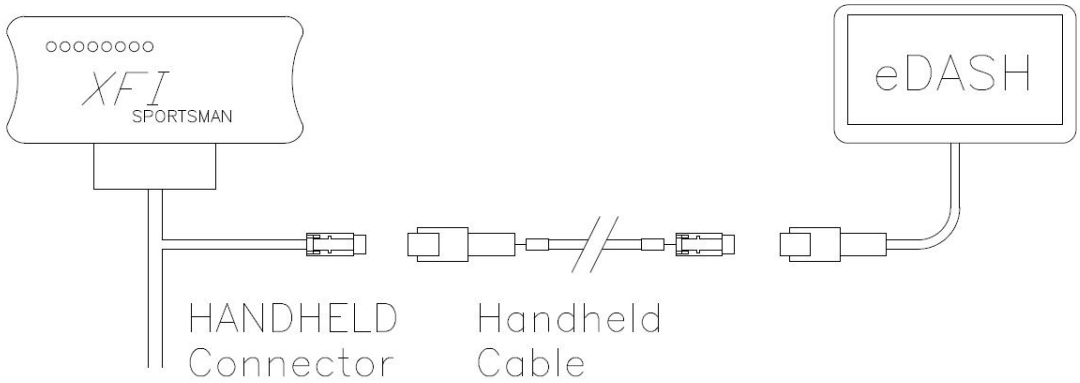
3. With the white locks slid out, insert the three wires with XFI terminals into the XFI connectors. They should lock into place.
    - Black – D5
    - Green – C30
    - Gray – C31

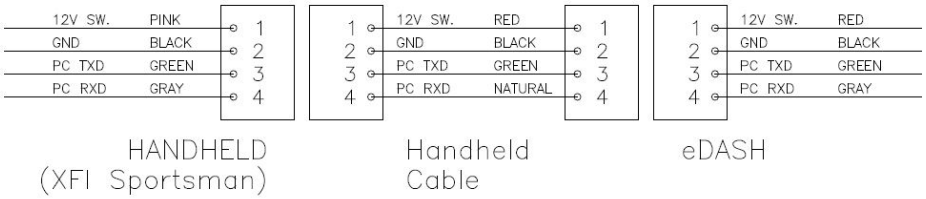


4. After the new wires are inserted, press the white locks on the connectors back into place so that they are flush with the connector bodies.

XFI Sportsman

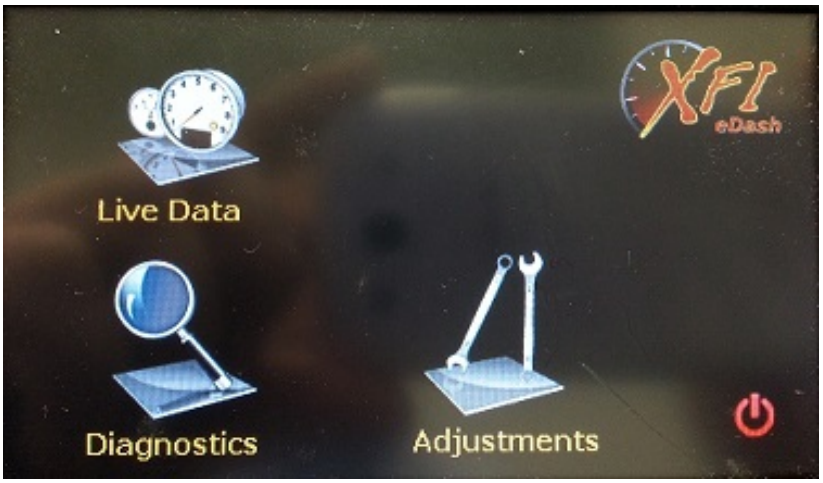
When using an eDash with an XFI Sportsman ECU, the handheld cable connects directly to the HANDHELD connector on the ECU harness.





eDash Screens

Home Screen



Live Data
Pressing the Live Data icon navigates to a series of dashes that display live ECU data.

Diagnostics
The Diagnostics area offers access to error codes and other system information and tools.

Adjustments
The Adjustments menu allows access to the adjustments and settings that the eDash provides.



Screen Disable

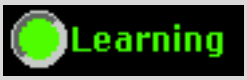
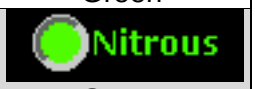
This button turns the screen blank. Touching anywhere on the screen will bring back the normal display.

Live Data

The Live Data section of the hand-held consists of a series of dashes that display live ECU data.

To switch between dashes or to return to the home screen, use the tabs at the bottom of the screen. The text will highlight green to indicate the current screen.

Across the top of every dash are 4 LEDs that indicate the following:

LABEL	DESCRIPTION	OFF	ON
Learning	This indicates that all of the enable conditions for learning are met and that learning is currently enabled. This can be used as feedback to give the driver a feel for when the ECU will or will not learn.	 Gray	 Green
O2 On	The oxygen sensor has been initialized and is providing feedback to the ECU. This must be ON before closed loop fuel control is possible.	 Gray	 Green
Nitrous	The Power Adder Enable input has been activated.	 Gray	 Green
Error	The ECU's on-board diagnostics has detected a problem. Refer to the Codes screen in the Diagnostics section of the eDash to determine what code has been set.	 Gray	 Red

Dash 1



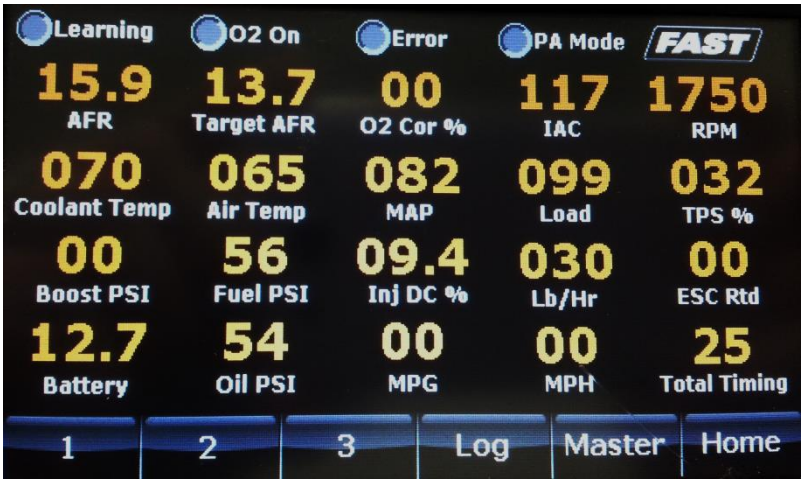
Dash 2



Dash 3



Master Dash



The Master Dash is designed for easy viewing of all sensors and user accessible values that the eDash will view. For example, this dash may be used as an overview to quickly verify that all sensors are reading expected values.

Logging

The eDash is capable of logging. It will log the minimum and maximum values of all of the sensors displayed on the Master Dash. To operate this feature, press the Log button at the time you wish to start the logging function. The Master button will now display the text Logging, indicating that it is recording all minimum and maximum values that are being shown on the dash. There is no time limit on logging, as it is only keeping track of minimums and maximums. To stop the logging function, press the Stop button. The Stop button will now indicate if the minimum or maximum values are being displayed on the screen. To see the next values press the Min or Max button. To clear the log and prepare for a new logging session, press the Clear button. The Clear button returns the Master button and you can now start a new log by pressing the Log button.

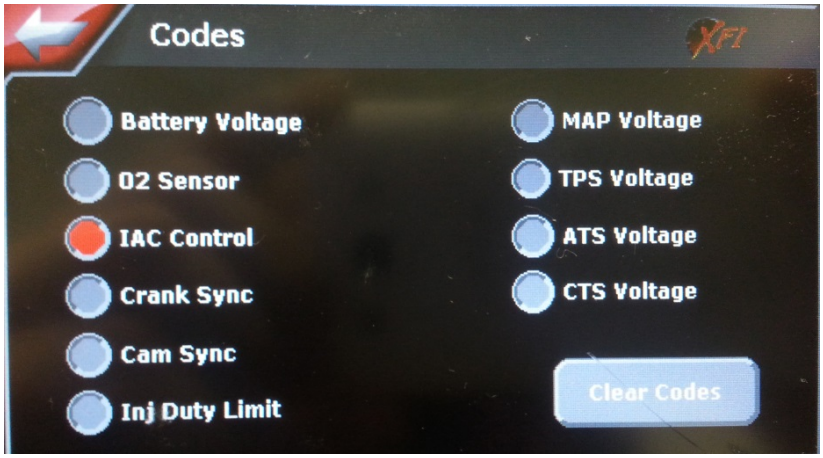
DATA LABEL	DESCRIPTION
AFR	Air/Fuel Ratio. The reading from the wideband oxygen sensor.
Air Temp	This is the temperature of the air entering the throttle body.
Battery	Battery voltage.
Boost PSI	Displays the Boost reading in pounds for square inch.
Coolant Temp	This is the temperature of the engine.
ESC Rtd	ESC Retard displays the amount of timing in degrees that the XFI is pulling from the commanded timing value due to knock, if you are using the knock sensor input.
Fuel PSI	Displays Fuel pressure in PSI, if a fuel pressure sensor is being used on the pre-setup fuel pressure channel of the XFI.
IAC	Idle Air Control. This is the position of the idle motor. At idle, it will move around to maintain the target idle speed. Displayed in “counts”. Higher counts mean the idle motor is open more and allowing more air to bypass the throttle blades. Its range is from 5 to 180.
Inj DC %	Injector duty cycle. This is a comparison of how long the injectors are open compared to how much total time is available for them to be open. At higher RPM, there is less time between injector openings. If this reaches 100%, it means the injectors physically cannot flow any more fuel. They are already being held wide open.
Lb/Hr	Current total fuel flow rate into the engine. Given in pounds per hour. This can be used to get a rough approximation of current engine power. Horsepower = Fuel Flow (lbs/hr) x 2
Load	Calculated Load. A comparison of the current manifold pressure vs. the ambient atmospheric pressure. Unlike the reading from the MAP sensor – which is affected by altitude – Load should always be consistent. That is, wide open throttle should always be around 100% regardless of altitude and ambient atmospheric pressure.
MAP	Manifold Absolute Pressure. This is a measure of the load on the engine. It is displayed in kPa (kilopascals). With the engine off, this will read around 100 kPa. It will drop down when the engine is started.
MPG	Miles per gallon will be displayed if a speed sensor is being used.
MPH	Miles per hour reading from the XFI, if a speed sensor is being used.
O2 Cor %	Current closed-loop correction based on the reading from the wideband oxygen (O2) sensor. This is the percent of fuel being added (displays as a positive number) or removed (displays as a negative number) to achieve the target air/fuel ratio.
Oil PSI	Displays Oil pressure in PSI, if an oil pressure sensor is being used on the pre-setup oil pressure channel of the XFI
RPM	Engine speed

Target AFR	Target Air/Fuel Ratio. The ratio the ECU is working to maintain.
Total Timing	The final timing value the engine sees. A timing light should agree with this value.
TPS %	Throttle Position Sensor. This tells you how far the throttle blade(s) are open.

Diagnostics



Codes

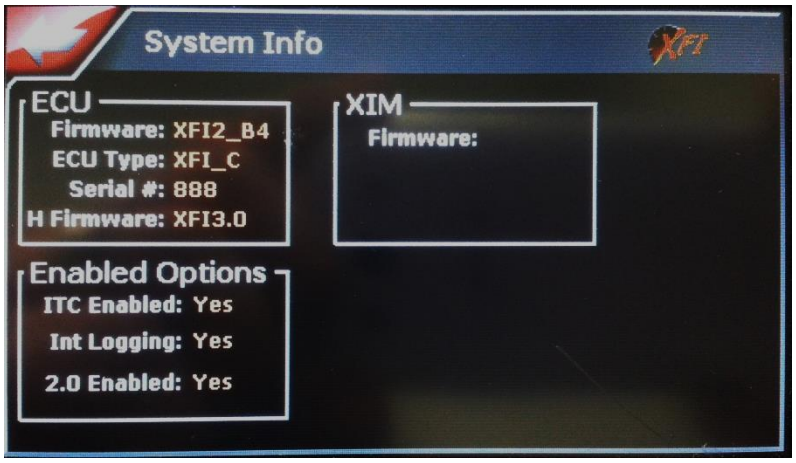


When an error code is set, the "Error" LED displayed on the eDash's Live Dashes will turn on. If that happens, use this screen to find out which code has been set. Codes can also be cleared here.

Master Dash

Brings up the Master Dash for a quick overview of all available sensor readings. See the Live Data section for more detail.

System Info



ECU
This section shows information about the ECU and Handheld.

XIM
This section shows information about the XIM, if being used.

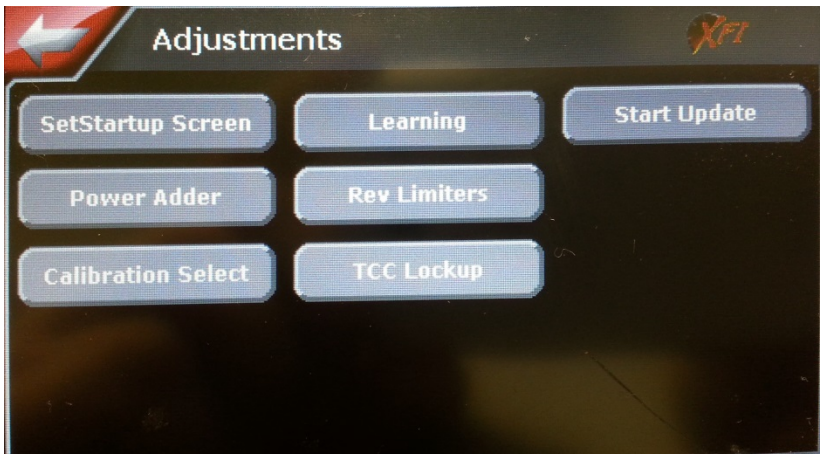
Enabled Options
This section shows what options have been enabled on the XFI.

Hand-Held Help

Provides basic how-to's related to using the hand-held.

Adjustments

The Adjustments Menu is where you can access the adjustable features in the tune of the ECU.



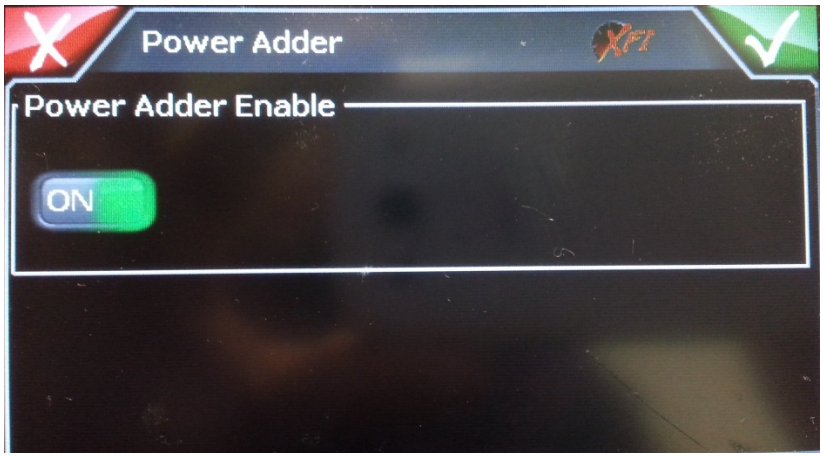
Adjustments Navigation Buttons			
"CANCEL" Discard changes. Return to Adjustments screen.			"CONFIRM" Save changes. Return to Adjustments screen.

Set Startup Screen



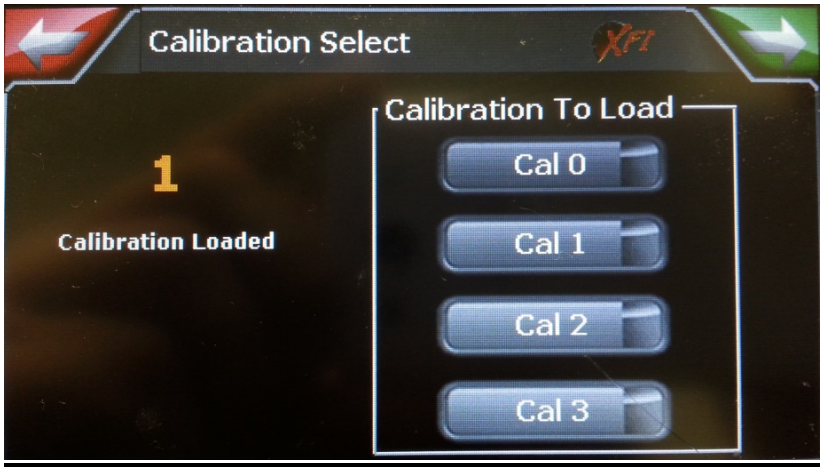
The Set Startup Screen allows you to select the first screen the unit powers up to. The Home screen is the stock Main Menu screen.

Power Adder



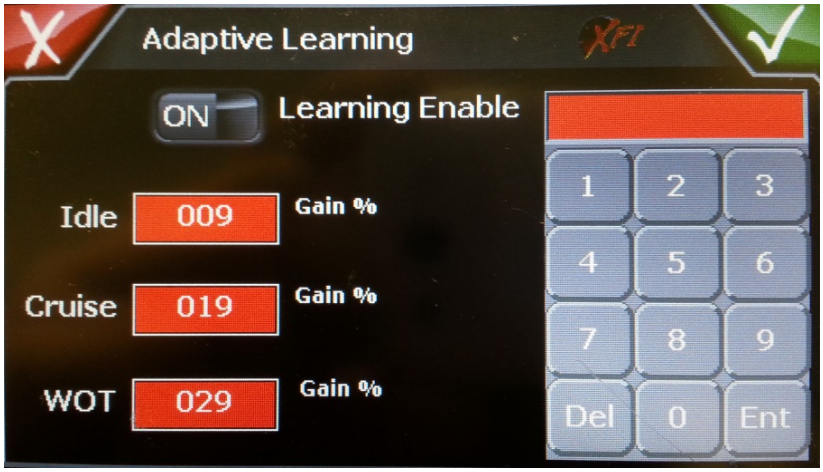
The Power Adder screen will allow the Power Adder Enable to be set to ON or OFF.

Calibration Select



The Calibration Select screen allows the user to select which calibration the ECU will load, use, and make changes too. The Calibration Loaded number is the calibration that is currently active. Press the button indicating the tune you wish to load. WARNING! The new calibration will not be loaded until the ECU has been powered down (power-cycled).

Learning



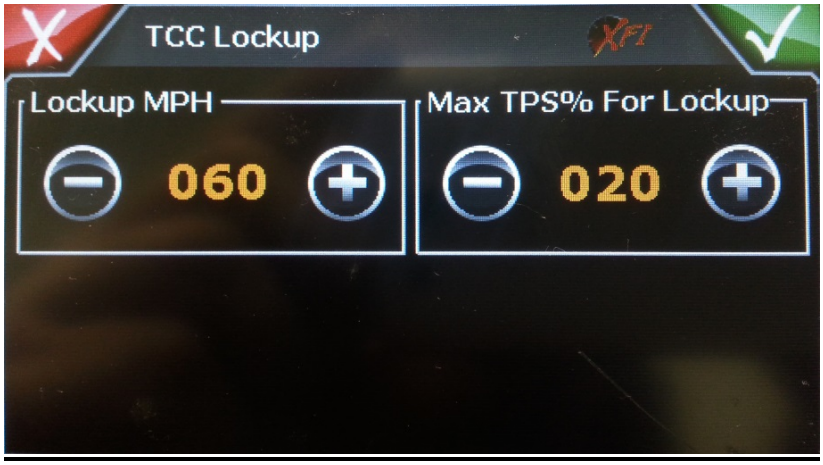
The Adaptive Learning screen provides the Adaptive Learning feature to be enabled or disabled. It will also allow the user to set the learning gain percent by selecting the value to adjust, typing the value on the keypad, and pressing Enter.

Rev Limiters



The Rev Limiters screen allows for the adjustment of the Rev-limiter 1 and 2. This can be done by selecting the value to adjust, typing the value on the keypad, and pressing Enter.

TCC Lockup



The TCC Lockup screen sets the minimum MPH required and the Max TPS% allowed for torque converter lockup.

Start Update

The Start Update button is used when you are updating the handheld's firmware and graphics with a new update from FAST.