



1994-2003 Ford F-Series Power Stroke 7.3L

Edge Evolution Programmer

Installation Instructions & Manual

OLD P/N: EEF1000

NEW P/N: 15000



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Manual Version 4

THIS IS A HIGH PERFORMANCE PRODUCT. USE AT YOUR OWN RISK.

The installation of this product indicates that the BUYER has read and understands this agreement and accepts its terms and conditions

DISCLAIMER OF LIABILITY

Edge Products, LLC and its successors, distributors, jobbers, and dealers (hereafter **SELLER**) shall in no way be responsible for the product's proper use and service. **THE BUYER HEREBY WAIVES ALL LIABILITY CLAIMS.**

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 that there are no liabilities which extend beyond the description on the face hereof and the **BUYER** hereby waives all remedies or liabilities, expressed or implied, arising by law or otherwise, (including without any obligations of the **SELLER** with respect to fitness, merchantability and consequential damages) or whether or not occasioned by the **SELLER's** negligence.

The **SELLER** disclaims any warranty and expressly disclaims any liability for personal injury or damages. The **BUYER** acknowledges and agrees that the disclaimer of any liability for personal injury is a material term for this agreement and the **BUYER** agrees to indemnify the **SELLER** and to hold the **SELLER** harmless from any claim related to the item of the equipment purchased. Under no circumstances will the **SELLER** be liable for any damages or expenses by reason of use or sale of any such equipment.

The **SELLER** assumes no liability regarding the improper installation or misapplication of its products. It is the installer's responsibility to check for proper installation and if in doubt, contact the manufacturer.

LIMITATION OF WARRANTY

Edge Products, LLC (hereafter "**SELLER**") gives Limited Warranty as to description, quality, merchantability, fitness for any product's purpose, productiveness, or any other matter of **SELLER's** product sold herewith. The **SELLER** shall be in no way responsible for the product's open use and service and the **BUYER** hereby waives all rights other than those expressly written herein. This Warranty shall not be extended or varied except by a written instrument signed by **SELLER** and **BUYER**.

The Warranty is Limited to one (1) year from the date of sale and limited solely to the parts contained within the product's kit. All products that are in question of Warranty must be returned shipping prepaid to the **SELLER** and must be accompanied by a dated proof of purchase receipt. All Warranty claims are subject to approval by Edge Products, LLC.

If the **BUYER** sends back a failed unit that is out of warranty and chooses to buy a refurbished unit, the refurbished unit will only carry a 60 day warranty. If the **BUYER** purchases a new unit at a predetermined discounted rate, it will have the standard 1 year warranty.

Under no circumstances shall the **SELLER** be liable for any labor charged or travel time incurred in diagnosis for defects, removal, or reinstallation of this product, or any other contingent expenses.

Under no circumstances will the **SELLER** be liable for any damage or expenses insured by reason of the use or sale of any such equipment.

IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS AGREEMENT: 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 SIXTY (60) DAYS FROM DATE OF PURCHASE FOR A FULL REFUND.

THE INSTALLATION OF THIS PRODUCT INDICATES THAT THE BUYER HAS READ AND UNDERSTANDS THIS AGREEMENT AND ACCEPTS ITS TERMS AND CONDITIONS.

This warranty is void for any new products purchased through auction websites. Warranty is valid only for new products purchased through Authorized Dealers (proof of purchase required for all warranty claims).

All Edge modules and programmers are built to operate with OEM calibrations. When you take your vehicle to a service center they may, by your request or otherwise, update your vehicles calibrations. Therefore it is important that you return your vehicle to stock before taking it in for service. Edge updates its active products (i.e. those currently being manufactured) to work effectively with updated OEM calibrations. However, this process can take some time as Edge is not always made aware of calibration changes made by the OEM. In the case of discontinued products, Edge cannot ensure that your unit will work effectively if you take your vehicle to a dealership and you are given, by your request or otherwise, a new calibration.

WARNING!

Programming your vehicle may expose existing defects in your vehicle's PCM that could cause your vehicle to become disabled.

It is strongly advised that you do not program your vehicle in remote locations in case of failure to properly program.

If you have used another tuner/programmer on your truck, you will need to return your truck back to stock before using the *Evolution*.

You will also need to remove any aftermarket chip you have placed on your truck before using the *Evolution*.

NOTE: Failure to remove a plug-on chip before programming the PCM may result in permanent damage the PCM.

About Your Vehicle's Warranty

AFTERMARKET PRODUCTS AND YOUR VEHICLE'S WARRANTY

Many of our customers ask, "Will your product void my vehicle manufacturer's warranty?" While the answer is straightforward from a legal standpoint, we also want to educate our customers (and after-market consumers) on some industry realities and offer some common sense precautions to minimize your risk.

Consumers of aftermarket products are protected by The Federal Magnusson-Moss Warranty Act. The Act states that if something breaks on your vehicle and you take it in for warranty repair, the dealer must honor your warranty unless they can prove that the failure was directly related to whatever modifications you have added to your vehicle.

While as a consumer, you have strong legal protection with regards to your vehicle's warranty, there is also a practical reality that different automotive manufacturers and dealers have greatly varying views on aftermarket products, in particular those that produce horsepower, such as performance enhancement chips, modified intake manifolds, or aftermarket exhaust systems. There are dealers and manufacturers out there that will use the presence of a horsepower upgrade to void your vehicle's warranty. They will do this regardless of whose product you are using. Any aftermarket company that does not acknowledge this is misleading you. The bottom line is that while the law protects the consumer and provides for enforcement of the warranty, it is very difficult for most people to hire an attorney and fight a voided warranty.

Aftermarket products may also interfere with diagnostic equipment. If you should require service or warranty work, Edge Products always recommends that you **disconnect and remove any aftermarket performance products from your vehicle when you take your vehicle to a dealer**, in order not to interfere with diagnostic equipment.

Please keep in mind that Edge Products does not recommend towing in any level higher than level two. These levels are for high performance only.

About the Evolution

Congratulations on purchasing the Evolution by Edge Products, the leader in diesel electronics and power gain technology.

The following manual contains information and instructions on the proper use of the Evolution. Please read carefully before proceeding to program your vehicle.

Note: Read the product disclaimer before programming your vehicle.

Tow Program

This setting is the lowest power setting. It is designed to provide a significant increase in horsepower and torque while still being safe enough to use for towing. While it isn't necessary, a modified exhaust system will help improve overall performance and help reduce your EGT (exhaust gas temperature) levels.

Race Program

If you plan to tow with this program, it is strongly recommended that you make appropriate modifications to your exhaust system and install an EGT (exhaust gas temperature) gauge to aid in the prevention of potential damage to your engine. Note: This setting is legal in California only for racing vehicles which may never be used upon a highway. For more information, consult a qualified diesel mechanic.

Extreme Program

This program is *not* designed for towing. If you plan to tow, program your vehicle to the Tow program. It is strongly recommended that you make appropriate modifications to your exhaust system and install an EGT (exhaust gas temperature) gauge to aid in the prevention of damage to your engine. This setting is legal in California only for racing vehicles which may never be used upon a highway. For more information, consult a qualified diesel mechanic.

Stock Program

It is recommended that you return your vehicle's computer to the stock program prior to returning your vehicle to a service center. This will eliminate the possibility of interfering with any diagnostic equipment.

Diagnostics

The *Evolution* also has a powerful, built-in diagnostics tool. Now you can view any diagnostic trouble codes (DTCs) that may be stored in your vehicle's computer and make appropriate repairs. Once repairs are complete, you can also turn off that annoying "Check Engine" light. No more expensive trips to the dealer for a diagnostics scan.

Display and Keypad

The following screen is a sample *Evolution* screen. Great effort has gone into making the *Evolution* programmer very simple to use. The arrow keys are used to scroll through options on the screen, and the <ENT> (enter) key is used to select desired options from a menu, or move to the next screen. The ESC (escape) key is used to return to the previous screen.

Use the arrow keys to scroll through and select options on the screen.

To select an option, scroll to the desired option with the arrow keys and press the <ENT> button. In the example below, Power Programming is selected.

Use the <ENT> key to accept a selected option, or to move to the next screen. Use the <ESC> key to return to the previous screen.



Getting Started

This manual is designed to help you understand the process of programming your vehicle as well as performing simple diagnostics on your vehicle using the built-in scan tool. There are also convenient troubleshooting tips included in this manual.

If you experience problems using this product that are not covered in this manual, please contact our technical support line at (801) 476-3343. To handle your call quickly and efficiently, please have the product Part Number (ex. EEF1000), the current Version Number (ex. E1.24.15) and the Date of Manufacture ready prior to calling. This information is listed on the silver sticker attached to your Evolution programmer.

IMPORTANT STEPS (Prior to Programming):

- Make sure your battery is fully charged before programming your vehicle.
- Do NOT unplug the *Evolution* while programming is in process. This could cause your vehicle to become disabled.
- Some types of radio equipment, electrical accessories, and cellular communications devices can interfere with the programming process. Either turn off or remove all devices from the vehicle.
- Close the doors on your vehicle and keep them closed during the programming process.
- Set the parking brake on your vehicle to deactivate the daytime running lights.
- Remove any other electronic power enhancing modules from your vehicle before programming. This includes aftermarket programmers and chips.

IMPORTANT NOTE:

ALWAYS Disconnect your *Evolution* while your truck is not in use. The *Evolution* does not turn itself off and uses the power from the truck's battery. Failure to unplug the *Evolution* is equal to leaving your dome light on and could drain your battery.

Connecting the Evolution

1. Turn the ignition switch to the OFF position. Locate the diagnostic connector under the dash near the steering column or under the glove compartment and connect the *Evolution* cable to this connector.

After making the connection, the screen will first display the Edge Products logo and then the main startup displays:



The numbers in the upper left portion of the screen represent the version number of the *Evolution* programmer. The character in the upper right portion of the screen represents the current programmed state of your vehicle. The following letters may appear:

I – Programming was interrupted. (See Programming Interrupted section for more information)

1 – Vehicle has been programmed to L1 - TOW.

2 – Vehicle has been programmed to L2 - RACE.

3 – Vehicle has been programmed to L3 - EXTREME.



2. Select your desired option by pressing the up or down keys on the left side of the programmer and press <ENT>. Continue to the next section.

Power Programming

"Caution: Vehicle manufacturers do not recommend vehicle programming in extreme temperature. Please see the service manual of your vehicle to ensure that programming is being done in accordance to the original equipment manufacturers specifications."

If you selected Diagnostics from the Main Menu, go to that section in this instruction manual and follow the steps.

If you selected Performance from the Main Menu, go to that section in this instruction manual and follow the steps.

If you selected Power Programming, the screen displays the following message:



1. After turning the key ON (do not start the engine) and pressing <ENT>, the screen displays the following message:



- The *Evolution* will check the PCM and determine if it is in the Master Calibration list. If the calibration is available, you will see the following message:



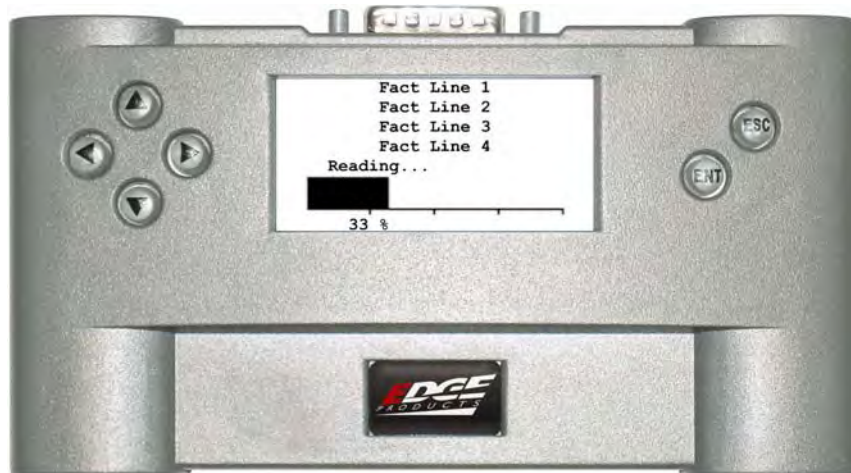
Otherwise you will see the following message (See Update Required for more information):



- You will then be instructed to turn the key OFF, Press <ENT> and turn the key back to ON (do not start) to begin saving STOCK:



During the storing process, you will see the following display:



4. If this is the first time the unit is used on a particular vehicle, the *Evolution* will build and verify the modified calibrations (Skip to step 5 for subsequent programming operations). During this process, you will see the following displays:



And



5. Once storing is complete, you will see the following display:



Select your desired option by pressing the arrow keys and pressing <ENT>. Depending on your selection, you will see one of the following displays:

TOW



RACE



EXTREME



STOCK (This selection only appears after the first use)

6. Press <ENT> to continue or <ESC> to return the Choose a Program menu.
7. After pressing <ENT> to verify the calibration selection, the following screen appears:



Please read and understand the following:

SPEED LIMITER WARNING:

Installing the RACE and EXTREME power levels removes the vehicle's **speed limiter**. The speed limiter is designed to govern the vehicle's speed based on the manufacturer's

TOWING CAPACITY WARNING

The *Evolution* programmer is designed to increase your vehicle's power output. It **DOES NOT** alter the engine, drive train, or suspension components that limit the maximum towing capacity. Towing trailers that exceed the manufacturer's limitations and recommendations may cause damage to your vehicle's engine, transmission and produce

8. After reading and accepting the disclaimer, the *Evolution* prepares to program the PCM. You will see the following display:



9. You are then instructed to turn the key OFF. Press <ENT> when ready:



10. The following display instructs to turn the key ON. Do not start the engine:



11. The *Evolution* begins programming the PCM. During this process, you will see the following display:



The programming process takes approximately 2 to 3 minutes to complete.

12. When the programming process is finished, the following screen appears:



13. After turning the key OFF, the following screen appears:



14. After pressing <ENT>, the *Evolution* tests the PCM for communications. If successful, a truck does a "Burnout" and the FINISHED screen appears:



Programming is now complete. You may now disconnect the *Evolution* from the Diagnostic Port:



Update Required:

It is possible that there may be a vehicle that is not currently in our database. (A result of a vehicle getting the latest file update from a dealer for example.) When this occurs, the message "Update Required" appears immediately after storing the Stock calibration. The following display shows an example:



If this should occur, please contact Edge Products for a return authorization number (RMA number) and return the unit to Edge Products. We will extract your original calibration from the unit, then reprogram the unit and return it to you at no charge.

Programming Interrupted:

If at any time the programming should be interrupted for whatever reason, the *Evolution* should be able to completely recover the PCM. Simply reconnect the programming cable into the Diagnostic Port of the vehicle and restart the programming process. In order to simplify the recovery process, the *Evolution* will only program the original calibration and you will not be able to select any performance options. This is to ensure the complete, original calibration is returned to the PCM. Once recovery is complete, the *Evolution* function will return to normal.

Diagnostics

The diagnostics scanner built into your *Evolution* is a powerful tool that allows you to view and clear trouble codes on your vehicle. Trouble codes are the messages your vehicle's computer logs to let you know there may be something wrong with your vehicle. The "Check Engine" light on your dash is activated by the presence of some trouble codes.

If you selected *Diagnostics* from the initial option screen after plugging in the *Evolution*, the screen displays the following message:



Retrieving Codes

If you want to retrieve and view the trouble codes on your vehicle (trouble codes are what makes your “check engine” light come on) select the *Retrieve* option. Make sure your ignition is in the ON position, but the vehicle is not started.

If you have trouble codes, they appear on the screen like the following example:



If you have no trouble codes, the following screen appears:



Clearing Codes

If you want to clear the trouble codes on your vehicle (trouble codes are what makes your “check engine” light come on) select the *Clear* option.

After selecting the *Clear* option, any current trouble codes are cleared from your vehicle’s PCM and the “check engine” light goes out. However, if you do not address the issue that caused the trouble code in the first place, the light will eventually come back on. The screen looks like the following:



Data Stream Monitor

The *Evolution* also monitors 5 PIDs (**P**arameter **I**dentification), often called 'Data Streams' from your truck. These values might be useful to monitor, particularly the transmission fluid temperature.

NOTE: Always remember to disconnect the *Evolution* when you turn the vehicle off so you don't drain the battery.

1. After selecting the *Diagnostics* option, the following screen appears:



2. Select the *Data Stream* option and press [Enter]. The following screen appears:



Since these values are constantly changing, you have the option of freezing the screen to capture these values. The following list describes the displayed PIDs:

Engine RPM - This is the actual RPM value calculated by the PCM
EOT Deg. F - Engine Oil Temperature in Degrees (Fahrenheit)
TFT Deg. F - Transmission Fluid Temperature in Degrees (Fahrenheit)
Line Pr. PSI - Transmission MAIN line pressure (this is controlled by the PCM)
Exh. B/P PSI - Exhaust Backpressure reading before turbo in PSI (absolute)

Performance Testing

The *Evolution* allows you to test the performance of your vehicle by timing the 0-60 and the quarter mile times. You also have the option to save and recall one of your 1/4 mile performance runs.

NOTE: It is helpful to remember these might not be results you would receive from actual races. Modified tire sizes and gear ratios as well as tire slippage can cause the speedometer to read incorrectly causing slight miscalculations in the displayed results.

To run these tests, perform the following steps:

1. From the *Main Menu*, select the *Performance* option:



2. The following screen appears:



3. Select the desired performance test and press <ENT>. If your vehicle is moving at this time, the following screen appears:



4. When your vehicle is at a complete stop, the following screen automatically appears:



When you press the accelerator pedal, the test automatically begins. As you drive, the screen should be displaying your current speed. When the test is complete (the desired distance or speed is reached), the test will automatically stop and your result will be displayed on the screen.

Quarter Mile Display



The *Evolution* displays your 60 foot, 1/8 mile, and 1/4 mile times in addition to your MPH at 1/4 mile.

The quarter mile run also has the option to save one run. You can recall this run at anytime. You can also save over it with a better run if desired.

0 to 60 Display



The *Evolution* displays the time it took to go from 0 to 60 MPH.

5. After the test is complete, press <ESC> to return to the *Performance Menu*.

Power Gains

The following power gains are representative of an actual test vehicle in factory stock configuration. Power gains may vary from vehicle to vehicle depending on model year, engine condition, fuel quality or geographic location. In addition, modifications to the engine, turbocharger and/or fuel delivery system may significantly affect power output.

Programmer Setting	Horsepower Gains	Torque Gains
Level 1 (Tow)	60	100
Level 2 (Race)	80	140
Level 3 (Extreme)	100	200

Troubleshooting/Tips

Tip: Programming your vehicle may expose existing defects in your vehicle's PCM that could cause your vehicle to become disabled.

It is strongly advised that you do not program your vehicle in remote locations in case of failure to properly program.

Tip: Keep in mind that the *Evolution* is a high performance product and that not all vehicles deliver the exact same power output when programmed with the *Evolution*. It is recommended that you select a program that will best fit your needs. Whether towing, or traveling long distances at high speeds, choose your power level wisely and keep in mind the condition and tolerances of your vehicle when selecting a suitable power level.

- **NO RESPONSE / NO DISPLAY** - If you do not get a response from the *Evolution* or the *Evolution* fails to power up when you plug it into the OBD-II diagnostics port, check all of your fuses and make sure your battery is fully charged. A blown fuse or low battery can prevent the *Evolution* from powering up or properly communicating with the vehicle.
- **THEFT LIGHT (on Excursions)** - If the theft light flashes rapidly after programming and the vehicle won't start, the Passive Anti-theft system (PATS) will need to be reset. To reset the PATS, perform the following steps:
 1. Turn the key on, but do not attempt to start the vehicle.
 2. Wait for the theft light to quit flashing rapidly. This should take about 45 seconds, after which the THEFT light will flash multiple times about every 3 seconds.
 3. Turn the key off and remove the key from the ignition for 30 seconds.
 4. Insert the key and turn the ignition to the ON position.
 5. The THEFT light should illuminate for about 5 seconds and then go out.
 6. Continue to start the vehicle normally.

Technical Support

888-360-3343

To expedite your support call, please have part number (i.e., EEF1000), version number, and Date of Manufacture ready prior to calling support.

Commonly Used Acronyms

ACT	= Air Charge Temp	ITS	= Idle Tracking Switch
ACV	= Thermactor Air Control Sensor	IVS	= Idle Validation Switch (Diesel)
AOD	= Automatic Overdrive Transmission	KAM	= Keep Alive Memory
APP	= Accelerator Pedal Position (Diesel)	KOEO	= Key On Engine Off
AXOD	= Automatic Overdrive Transmission	KOER	= Key On Engine Running
BCM	= Body Control Module	KS	= Knock Sensor
BOO	= Brake On/Off Switch	LOS	= Limited Operation Strategy
BP	= Barometric Pressure Sensor	LUS	= Lock-up Solenoid
CCD	= Computer Controlled Dwell	MAF	= Mass Airflow Sensor
CCO	= Converter Clutch Override	MAP	= Manifold Absolute Pressure
CDR	= Crankcase Depression Regulator	MAT	= Manifold Air Temp
CEL	= Check Engine Light	MCU	= Microprocessor Control Unit
CFI	= Central Fuel Injection	MIL	= Malfunction Indicator Light
CID	= Cylinder Identification Sensor	OHC	= Over Head Camshaft
CKP	= Crank Position Sensor	OSS	= Output Shaft Speed Sensor
CMP	= Cam Position Sensor	PCM	= Powertrain Control Module
CPS	= Crankshaft Position Sensor	PFE	= Pressure Feedback EGR Sensor
DTC	= Diagnostic Trouble Codes	PIP	= Profile Ignition Pickup
ECA	= Electronic Control Assembly	PSPS	= Power Steering Pressure Switch
ECM	= Electronic Control Module	SES	= Service Engine Soon
ECT	= Engine Coolant Temp	SIL	= Shift Indicator Light
EDF	= Electric Drive Fan Relay	SPOUT	= Spark Output Signal (from ECA)
EDIS	= Electronic Distributor	STAR	= Self Test Automatic Readout
EGO	= Exhaust Gas Oxygen Sensor	TAPS	= Throttle Angle Position Sensor
EGR	= Exhaust Gas Recirculation	TCM	= Transmission Control Module
EGRC	= EGR Control Solenoid	TFI	= Thick Film Ignition System
EVP	= EGR Position Sensor	TGS	= Top Gear Switch
EVR	= EGR Valve Regulator	THS	= Transmission Temperature Switch
FDM	= Fuel Delivery Module	TPS	= Throttle Position Sensor
FPM	= Fuel Pump Monitor	TTS	= Transmission Temperature Switch
HEGO	= Heated Exhaust Gas Sensor	VAF	= Vane Air Flow Sensor
IAT	= Intake Air Temp	VAT	= Vane Air Temperature
ICM	= Integrated Controller Module	VSS	= Vehicle Speed Sensor
IDM	= Ignition Driver Module	WAC	= WOT A/C Cut-off Switch
ISC	= Idle Speed Control	WOT	= Wide Open Throttle

