INSTALLATION INSTRUCTIONS
FORD POWERSTROKE PICKUPS
MODEL YEAR 2005–2007

www.dieselturbolifesaver.com

Diesel Turbo Lifesaver (DTLS) is a computer controlled device that allows you to set an automatic engine idle sequence to properly cool your turbocharger before engine shutdown as required by Ford and Navistar. Failure to follow recommended turbo cooling procedures can lead to premature bearing failure that is NOT covered under the factory warranty.

Installing your Diesel Turbo Lifesaver is easily accomplished with common hand tools in a short period of time with little (security features enabled) or no wire cutting (security features disabled). No other product is engineered specifically for your Ford pickup, and thus requires extensive wire cutting and probing that can damage electronics or void your factory warranty. In order to make your installation go as smoothly as possible, it is recommended that you read the instructions and plan your installation before starting.

PARTS LIST:
1 – Diesel Turbo Lifesaver
1 – 1 Amp AGC Fuse
4 – Red Scotchlok Connectors
1 – "Y" adaptor wire
2 – Insulated female spade connectors
1 – Insulated male spade connector
8 – Wire Ties (6 – 4 Inch, 2 – 8 Inch)
1 – #8 x 1/2 Sheet Metal Screw

TOOLS REQUIRED:
13 mm Wrench
Socket Wrench with 7 and 10 mm Sockets
Wire Cutters
Wire Stripper
Wire Crimpers
Pliers
Utility or X-Acto Knife
Drill with 1/8 and 1/4 Inch Bits
Optional – Soldering Iron, Solder & Electrical Tape

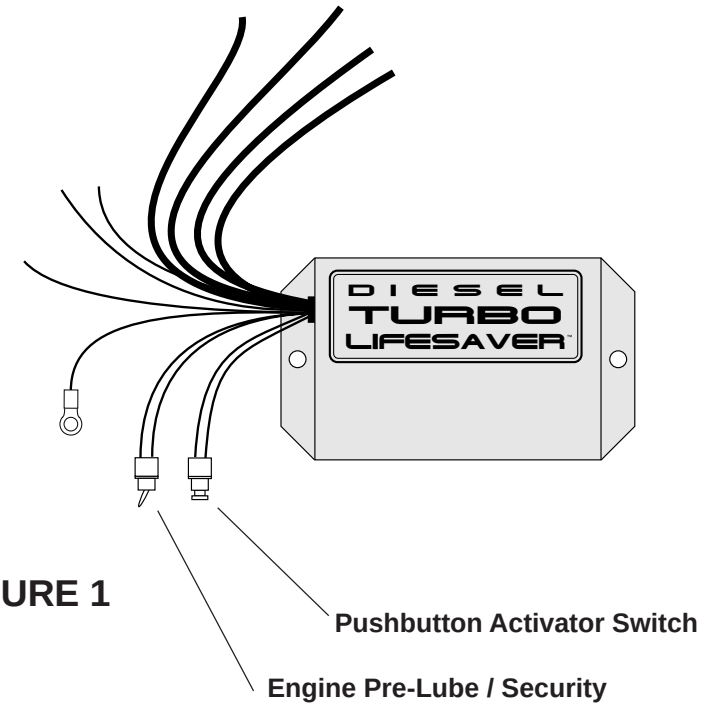
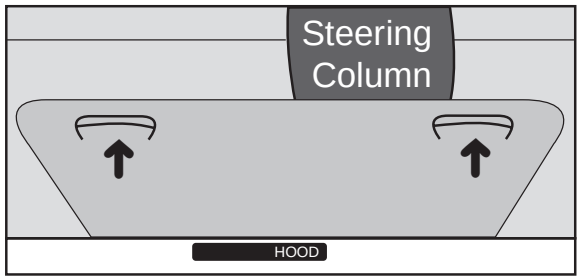


FIGURE 1

STEP 1: DISCONNECT NEGATIVE BATTERY CABLES
Figure Reference: None
Tools Required: Varies

STEP 2: REMOVE UNDER DASH PANEL
Figure Reference: Figure 2
Tools Required: None
⇨ Grab handles molded into under dash panel and pull towards you.
⇨ Drop dash panel free from dashboard.

STEP 3: LOCATE STOCK IGNITION PLUG
Figure reference: None
Tools Required: None
⇨ Locate Ford's 9 wire ignition plug on steering column. It should be easy to find the GREY plug that is mated to the WHITE block on the steering column.



Underdash fuse panel removal. Grab two handles (indicated by arrows) and pull towards you.

FIGURE 2

INSTALLATION NOTE: INSTALLING DTLS WITH THE SECURITY FEATURE ENABLED REQUIRES THAT ONE OF THE VEHICLE'S WIRES BE CUT. CUTTING THIS WIRE SHOULD NOT CAUSE ANY WARRANTY PROBLEMS WITH FORD.

HOWEVER, SOME CUSTOMERS ARE HESITANT ABOUT CUTTING WIRES, AND THUS DTLS CAN BE INSTALLED WITHOUT CUTTING THIS WIRE. THE ONLY DRAWBACK IS THAT THE SECURITY FEATURE OF THE UNIT WILL BE DISABLED.

WE RECOMMEND INSTALLING DTLS SO THAT THE SECURITY FEATURE IS ACTIVE SO YOUR TRUCK CAN BE SECURED WHILE IT IS RUNNING. HOWEVER, THE TRUCK'S OWNER SHOULD HAVE THE FINAL CHOICE OF WHICH INSTALLATION METHOD IS USED.

FOR STANDARD WIRE HOOKUP (SECURITY FEATURES ENABLED), USE STEP 4.

FOR NO WIRE CUTTING WIRE HOOKUP (SECURITY FEATURES DISABLED), USE STEP 4A.

STEP 4: ATTACH DIESEL TURBO LIFESAVER'S POWER WIRES TO TRUCK'S WIRES (SECURITY FEATURES ENABLED)
Figure Reference: Figure 3
Tools Required: Wire Strippers, Wire Cutters, and Wire Crimpers.
➪ Refer to FIG. 3 to identify wires in main ignition plug that are required to hook up Diesel Turbo Lifesaver.
➪ Find RED / GREEN wire in main ignition plug (Position "C" in FIG. 3).
CAUTION! CUTTING THE RED / GREEN WIRE TOO CLOSE TO THE IGNITION PLUG WILL MAKE CONNECTING THE WIRES FROM DTLS DIFFICULT, IF NOT IMPOSSIBLE TO DO. MAKE SURE YOU LEAVE AMPLE ROOM TO MAKE CRIMP CONNECTIONS ON THE IGNITION PLUG SIDE OF THIS WIRE!
➪ CUT RED /GREEN wire in half approximately 1 1/2 inches from ignition plug.
➪ Strip insulation from end of IGNITION PLUG SIDE of red / green wire and crimp on a FEMALE blue disconnect terminal (supplied).

 = FEMALE DISCONNECT TERMINAL (END VIEW)

 = MALE DISCONNECT TERMINAL (END VIEW)

➪ Strip insulation from end of WIRE HARNESS SIDE of red / green wire and crimp on a MALE blue disconnect terminal (supplied).
➪ Please note that these terminals can be connected together, thus returning the cut wire to stock at any time.
➪ Plug ignition plug side of truck's red / green wire into Diesel Turbo Lifesaver's BLACK WIRE with WHITE BANDS (terminal attached at factory).
➪ Plug harness side of truck's red / green wire into Diesel Turbo Lifesaver's PLAIN BLACK WIRE (terminal attached at factory).

STEP 4A: ATTACH DIESEL TURBO LIFESAVER'S POWER WIRES TO TRUCK'S WIRES (SECURITY FEATURES DISABLED)
Figure Reference: Figures 3 & 4
Tools Required: Wire Strippers, Wire Cutters, Wire Crimpers, and Pliers
➪ Refer to FIG. 3 to identify wires in main ignition plug that are required to hook up Diesel Turbo Lifesaver.
➪ Find RED / GREEN wire in main ignition plug (Position "C" in FIG. 3).
➪ Cut BLACK and BLACK with WHITE BANDS wires of DTLS so that ends of wires are even. Install supplied female disconnect connectors on ends of wires by stripping insulation and crimping connectors on.

 = FEMALE DISCONNECT TERMINAL (END VIEW)

➪ Plug female disconnect connectors of DTLS's black and black/white wires into supplied "Y" adaptor wire.
➪ Using supplied red Scotchlok, connect remaining end of "Y" adaptor wire to RED / GREEN ignition wire of truck.

STEP 5: ATTACH REMAINING WIRES TO TRUCK'S WIRES
Figure Reference: Figure 3
Tools Required: Wire Cutters & Pliers
➪ Find Ford's YELLOW wire in main ignition plug (Position "B" in FIG. 3).
Use supplied red Scotchlok to connect RED wire of DTLS to YELLOW wire of vehicle.

EXTENDED RUN TIME DIESEL TURBO LIFESAVERS ONLY:
Note: Standard run time Turbo Lifesavers DO NOT have yellow wire.
➪ Find Ford's GRAY / YELLOW wire in main ignition plug (Position "A" in FIG. 3).
Use supplied red Scotchlok to connect YELLOW wire of DTLS to GRAY/YELLOW wire of vehicle.
➪ Secure all wires used in this step in a neat and tidy manner using supplied cable ties. Clip excess ends of cable ties off.

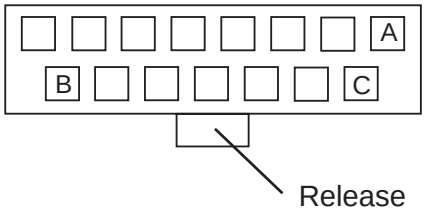
STEP 5: ATTACH BLACK GROUND WIRE
Figure Reference: None
Tools Required: Varies
➪ Attach black wire of DTLS to solid ground. Many locations exist under dash to ground wire.

STEP 6: CONNECT WHITE WIRE (BRAKE VOLTAGE WIRE)
Figure Reference: Figure 5
Tools Required: Utility Knife, Pliers. Optional – Soldering Iron, Solder & Electrical Tape
➪ Brake light switch and harness of vehicle can be found attached to the upper part of the brake pedal arm.
➪ Connect white wire to solid green wire in brake light switch harness. The green wire should only show voltage when the brake pedal is depressed. You may have to use your knife to cut some electrical tape from Ford's harness in order to create enough slack to connect wires together. Solder wires together and insulate (preferred) or use supplied scotchlok connector.

STEP 7: RECONNECT BATTERIES / TEST FOR PROPER OPERATION
Figure reference: None
Tools required: Varies

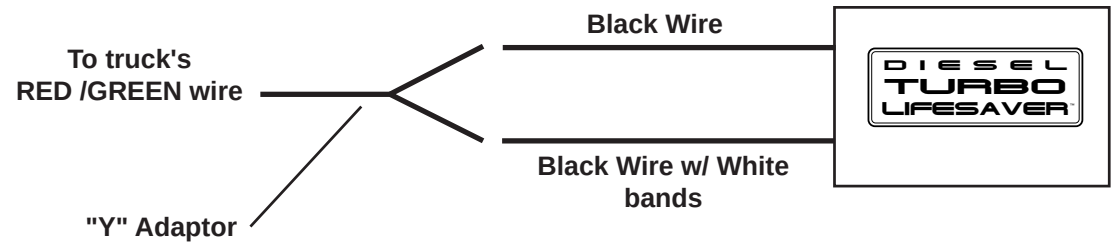
FORD IGNITION PLUG WIRE POSITIONS AND DTLS HOOK UP CHART

Ford ignition plug
Note: Wire side shown



Position	Wire Color	DTLS Wire Color
A	Grey / Yellow	Yellow
		(Extended Run Time Units Only)
B	Yellow	Red
C	Red / Green	Black & Black with White Bands

FIGURE 3



"Y" ADAPTOR WIRING SCHEMATIC - SECURITY AND PRE-LUBE FEATURES DISABLED

FIGURE 4

⇨ **Reattach negative battery cables and insert 1 Amp AGC fuse into Diesel Turbo Lifesaver. Make sure vehicle is parked where there is adequate ventilation and that security switch of Diesel Turbo Lifesaver is in the OFF position. Read operating instructions and test for proper operation.**

NOTE: If unit DOES NOT operate properly, check fuse, ground wire, and brake input wire connections. IF WHITE WIRE IS RECEIVING CONSTANT +12 VOLTAGE NO TURBO COOLING CYCLES CAN BE SET. RECONNECT WHITE WIRE TO FORD WIRE THAT RECEIVES VOLTAGE ONLY WHEN BRAKE PEDAL IS DEPRESSED. If unit is still not operating properly, call our technical services department at (970) 879-4201 Monday - Friday 9:00AM to 4:00PM MST.

STEP 8: MOUNT DIESEL TURBO LIFESAVER ENCLOSURE
Figure reference: None
Tool Required: Wire Cutters
⇨ **Use supplied 8 inch wire ties to tie Diesel Turbo Lifesaver's enclosure to an existing wire harness under the dash. Loop the wire ties through the mounting feet on the enclosure and around an existing wiring harness. BE ABSOLUTELY SURE THERE IS NO WAY THE ENCLOSURE OF DIESEL TURBO LIFESAVER CAN FALL (OR SAG) AND INTERFERE WITH THE OPERATION OF THE PEDALS - ESPECIALLY THE BRAKE PEDAL! Clip excess ends off cable ties.**

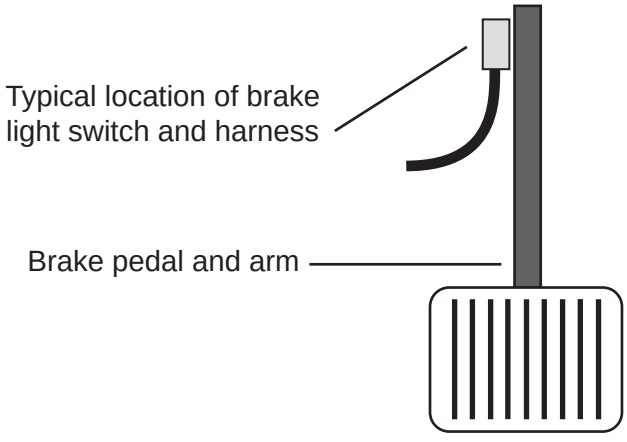


FIGURE 5

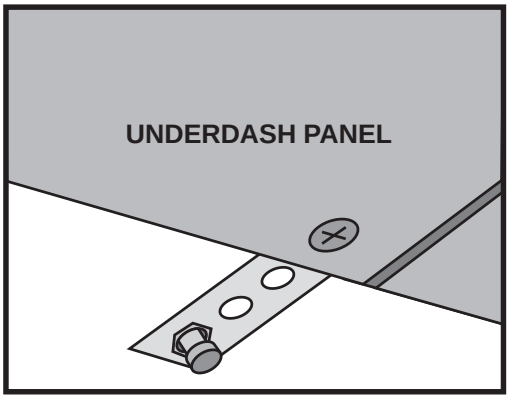
STEP 9: MOUNT SECURITY AND ACTIVATOR SWITCHES
Figure reference: Figure 6
Tools Required: #2 Philips Screwdriver, Socket Wrench with 7mm Socket and Drill with 1/8 and 1/4 inch bits.
⇨ **When selecting a location for switches, find a location where the switches will not be kicked when you enter and exit the vehicle.**
⇨ **Mount activator switch and bracket in a location that can be reached when dash panel is reattached. Activator switch works well if it is mounted so that the red button faces the floor of the vehicle. Drill 1/8 inch hole and mount bracket with supplied sheet metal screw or mount bracket under a factory screw.**
⇨ **Find a location for security switch. You can either mount or hide the security switch - it's up to you. Others have hidden the switch (underneath carpets) without mounting it, and others prefer to mount it (requires 1/4 inch hole). In order to make it difficult for thieves, we have no preferred location - be as creative as you like.**

STEP 10: SECURE WIRES WITH WIRE TIES
Figure Reference: None
Tools Required: Wire Cutters
⇨ Use supplied wire ties to secure all wires in a neat and tidy manner. Make sure wires are not touching any sharp metal edges that can wear through insulation over time and cause short circuits. Clip excess ends off wire ties.

STEP 11: REINSTALL UNDER DASH PANEL
Figure Reference: Figure 2
Tools Required: None
⇨ Reinstall under dash panel by reversing step 2.

ALARM INTERFACING
Diesel Turbo Lifesaver provides you with two auxiliary outputs (purple wires) to allow it to interface with alarm systems. Interfacing with alarm systems may be required if: 1) Alarm will not arm when turbo is cooling off OR 2) Alarm arms but false alarms (due to motor vibrations) when turbo is cooling off.

Due to the variables in alarm systems, how they operate, and differences in installation techniques, it is recommended that you have your alarm installer perform any interfacing that may be required. If you installed your own alarm system, please obtain alarm's wiring schematic and call our tech line for assis-tance.



Typical mounting of activator switch and bracket.

FIGURE 6

Output Specifications For Interface Wires
Output Type: NEGATIVE
Maximum current draw (each) – 500 Milliamps
DO NOT, UNDER ANY CIRCUMSTANCES, APPLY 12 VOLTS TO INTERFACE WIRES. DOING SO MAY CAUSE DAMAGE TO THE UNIT THAT IS NOT COVERED UNDER WARRANTY.

DIESEL TURBO LIFESAVER

Is Manufactured By:
Baker Auto Accessories
2955 Village Dr. #5/ Box 880707
Steamboat Springs, CO 80488
TECHNICAL Mon – Fri 9:00 AM to 5:00 PM MST:
(970) 879-4201 (970) 879-6097 FAX

DIESEL TURBO LIFESAVER LIMITED WARRANTY

Baker Auto Accessories (B.A.A.) warrants Diesel Turbo Lifesaver to be free from manufacturing defects under normal use and conditions for three years from date of original user purchase. Baker Auto Accessories, at its sole discretion, will either repair the product or replace the product, provided the manufacturing defect is verified along with proof of purchase. To obtain warrant service call 1-970-879-4201.

This warranty is void if the product is:
A) Damaged through negligence, misuse, abuse or accident.
B) Modified, repaired, or tampered with by anyone other than B.A.A.
C) Units on which the serial number has been defaced, modified or removed.

This warranty does not cover:
A) Damage due to improper installation.
B) Water, smoke, or heat damage.
C) Damage or improper operation of unit caused by customer abuse, misuse, negligence, or failure to follow correct installation procedures as provided with product.
D) Costs of shipping of the product to and from B.A.A.

This warranty is non-transferable and applies only to the original purchaser and does not extend to subsequent owners of the product. Any applicable implied warranties, including the warranty of merchantability, are limited in duration to a period of the expressed warranty as provided herein beginning with the date of original purchase at retail and no warranties, whether expressed or implied, shall apply to the product thereafter. Baker Auto Accessories makes no warranty as to the fitness of the product for any particular purpose or use.

The extent of Baker Auto Accessories' liability under this limited warranty is the repair or replacement provided above and, in no event , shall Baker Auto Accessories' liability exceed the purchase price paid by the purchaser of the product. Under no circumstances shall Baker Auto Accessories be liable for any loss, direct, indirect, incidental, special, or consequential damage arising out of or in connection with the use of this product.

STEP 1: Set Parking Brake

1. While engine is running, depress and HOLD brake pedal.

2. Set parking brake FIRMLY.

3. Vehicles with automatic transmission: Put transmission in PARK.
3A. Vehicles with manual transmission: Put transmission in NEUTRAL.

4. Release brake pedal and make sure vehicle DOES NOT roll or creep. If vehicle rolls or creeps, reapply parking brake. IF PARKING BRAKE CANNOT PREVENT VEHICLE FROM ROLLING, DO NOT USE DIESEL TURBO LIFESAVER UNTIL YOU HAVE A QUALIFIED MECHANIC ADJUST YOUR PARKING BRAKE.

STEP 2: Set Turbo Cooling Cycle

NOTE: For safety reasons, Diesel Turbo Lifesaver WILL NOT allow you to set a turbo cool down time when the brake pedal is depressed. THE BRAKE PEDAL (NOT PARKING BRAKE!) MUST BE RELEASED IN ORDER TO INSURE THAT THE VEHICLE DOES NOT ROLL OR CREEP. SEE STEP 1!

1A: TO SET COOL DOWN CYCLES BETWEEN 1 – 10 MINUTES:
With engine running, set idle time by depressing and holding the activator switch in while counting the "beeps" emitted by Diesel Turbo Lifesaver. Release activator to set run time. Example . . . Press button, "beep", "beep", "beep", release button equals three minutes of run time.

1B: TO SET 20 – 250 MINUTES OF RUN TIME (IN TEN MINUTE INTERVALS):
Follow steps in 1A, but continue to hold activator switch in after the 10th "beep". Each subsequent "high pitched" beep will add ten minutes of run time to the original 10 minutes programmed in step 1A.

2. Remove ignition key – if you want to activate security feature, turn security switch to on position.

3. Exit vehicle, engine will idle to cool turbo and automatically shut off when time you set elapses. If security function was activated, the engine will now be disabled.

NOTE: You will hear a short "beep" from Diesel Turbo Lifesaver once every ten seconds when it is idling your engine. Ten seconds before your engine shuts off, you will hear a series of rapid "beeps".

DIESEL TURBO LIFESAVER™

FORD POWERSTROKE Extended Run Time OPERATING INSTRUCTIONS

OTHER FEATURES OF DIESEL TURBO LIFESAVER:

EMERGENCY ENGINE STOP OR CANCEL COOLING CYCLE

Diesel Turbo Lifesaver allows you to stop your engine at any time when a run cycle is engaged. To stop your engine, depress BRAKE PEDAL or ACTIVATOR SWITCH.

ANTI THEFT FUNCTION

When security switch is on, your vehicle cannot be started . . . Even if the thief has a key! To set security function, move security switch lever to the on position. NOTE: Security switch has on and off stamped into the side of switch body.

ENGINE PRE LUBE FUNCTION (NOT FUNCTIONAL ON 2003–2007 6.0 LITER TRUCKS DUE TO CHANGES MADE BY FORD)

Prolong engine life by eliminating dry starts after oil changes or long periods of inactivity. To pre lube your engine, turn security switch ON and crank engine (with key) for 5 – 10 seconds (engine will crank, but will not start). Turn security switch off and start vehicle. Observe how quickly oil pressure builds when engine starts.

Diesel Turbo Lifesaver
Is designed and manufactured in the USA by:
Baker Auto Accessories
970.879.4201
www.dieselturbolifesaver.com

HOW LONG SHOULD I COOL MY TURBOCHARGER?

Turbo temperature is dependent on these variables:

- **What is the air temperature?**
- **How "hard" are you working your engine?**
- **Are you driving in hills or mountains?**
- **Is there a headwind?**
- **Are you towing a load? How large?**
- **Has your engine been modified for higher performance?**

As a rule of thumb, increasing any of these variables will cause turbo temperatures to rise. The higher the turbo temperature, the longer the turbo should be cooled down. Generally speaking, match these cool down times to your driving conditions:

1–4 Minutes: Light throttle, non towing situations at moderate speeds in cold to moderate temperatures. Example: City driving.

5–7 Minutes: Medium throttle, non towing situations or when towing moderate loads. Medium to high speed driving with moderate headwind or hills in all temperatures. Example City or interstate driving.

8–15 Minutes: Driving conditions with any of the following: Heavy loads, heavy throttle, long or steep hill climbs or high headwinds.

If ever in doubt, set an extra minute or two of cool down time. Diesels use very little fuel when idling, and a few pennies in fuel can save a turbocharger worth thousands of dollars and prevent you from being stranded with an inoperative turbo!