INSTALLATION INSTRUCTIONS
GM DURAMAX PICKUPS
MODEL YEARS 2000–2007

www.dieselturbolifesaver.com

Diesel Turbo Lifesaver is a computer controlled device that allows you to set an engine idle sequence to properly cool your turbocharger before engine shutdown as required by GM and all other manufacturers of turbocharged diesel engines. Failure to follow recommended turbo cooling procedures can lead to premature bearing failure that is NOT covered under factory warranty.

Installing your Diesel Turbo Lifesaver is easily accomplished with common hand tools in a short period of time with little (pre-lube and security features enabled) or no wire cutting (pre-lube and security features disabled). No other product is engineered specifically for your GM 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
2 – Large yellow Scotchlok connectors
2 – Blue Scotchlok connectors
1 – Red Scotchlok connectors
1 – "Y" adaptor wire
2 – Insulated female spade connectors
1 – Insulated male spade connector
1 – 1 Amp AGC Fuse
8 – Wire Ties (6 – 4 Inch, 2 – 8 Inch)

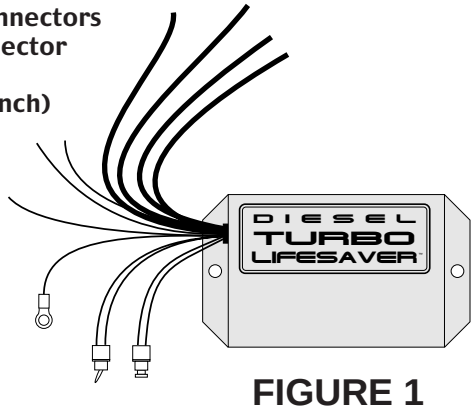
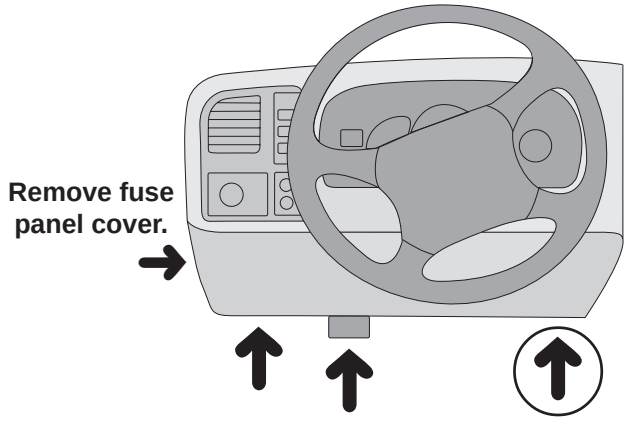


FIGURE 1

TOOLS REQUIRED:
13 mm Wrench
7 mm Socket
10mm Socket
Socket wrench
Wire Cutters
Wire Stripper
Wire Crimpers
Pliers
Utility or X-Acto Knife
Optional – Soldering Iron, Solder & Electrical Tape



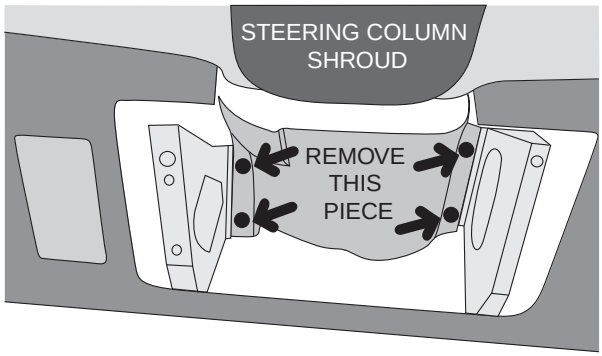
Underdash panel removal. Remove two 7mm bolts (outer arrows) and 10mm bolt under parking brake release (center arrow). Note: circled arrow used in step 13.

FIGURE 2

STEP 1: DISCONNECT NEGATIVE BATTERY CABLE(S)
Figure Reference: None
Tools Required: 13mm Wrench

STEP 2: REMOVE UNDER DASH PANEL
Figure Reference: Figure 2
Tools Required: 7mm & 10mm sockets & socket wrench
➪ Remove fuse panel cover on side of dashboard.
➪ Remove three bolts in positions indicated in Fig. 2
➪ Outer bolts are 7mm, center bolt is 10mm.
➪ Remove dash panel by gently pulling towards rear of vehicle.

STEP 3: REMOVE WIRING SHIELD
Figure reference: Figure 3
Tools Required: 10mm socket & socket wrench
➪ Remove four 10mm nuts in positions indicated.
➪ Remove wiring shield



WIRING SHIELD REMOVAL
Remove 4 - 10mm nuts in positions indicated by arrows.Remove wiring shield.

FIGURE 3

STEP 4: LOCATE TRUCK'S MAIN IGNITION HARNESS AND POWER WIRE.
Figure Reference: Figure 4
Tools Required: None
➪ Locate main ignition harness that runs from steering column to upper left corner of the fuse box.
➪ Locate Red / White OR Solid Red main power wire.
➪ 2003 – 2007 Vehicles Only – Locate PINK 14 gauge ignition wire in same plug as main power wire (see Figure 4).

STEP 5: RUN DIESEL TURBO LIFESAVER'S POWER WIRES
Figure Reference: Figure 5
Tools Required: None
➪ **Place Diesel Turbo Lifesaver on floor of vehicle.**
➪ **Run main power harness from bottom of the dash to "tie off point" as shown in Fig. 5.**
➪ **Use supplied wire tie to secure power wires to existing BCM (Body Control Module) wires at the tie off point.**

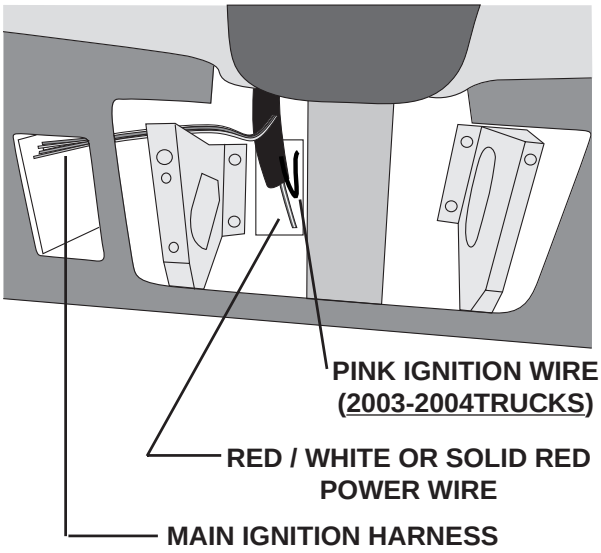


FIGURE 4

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

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 AND PRE-LUBE FEATURES ENABLED), USE STEP 6.

FOR NO WIRE CUTTING WIRE HOOKUP (SECURITY AND PRE-LUBE FEATURES DISABLED), USE STEP 6A.

STEP 6: ATTACH DIESEL TURBO LIFESAVER'S POWER WIRES TO TRUCK'S WIRES (SECURITY AND PRE-LUBE ENABLED)
Figure Reference: Figure 5
Tools Required: Wire Strippers, Wire Cutters, and Wire Crimpers
NOTE: ALL CONNECTIONS SHOULD BE MADE IN AREA INDICATED BY CIRCLE IN FIG. 5 TO ALLOW WIRING SHIELD (REMOVED IN STEP 3) TO BE EASILY REINSTALLED.
➪ **Locate pink ignition wire of vehicle.**
For 2000 – 2002 model years, pink wire is located in main ignition harness.
For 2003 – 2007 model years, pink wire is located in same connector as main power wire (see figure 4).
➪ **CUT PINK wire in half. WHEN CUTTING PINK WIRE, MAKE SURE YOU DO NOT CUT IT TOO CLOSE TO THE CONNECTOR BLOCK. CUTTING THIS WIRE TOO CLOSE TO THE CONNECTOR BLOCK WILL HAMPER THE NEXT STEPS.**
➪ **Strip insulation from end of KEY SIDE of pink 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 FUSE BOX (2000-2002 TRUCKS) OR CONNECTOR BLOCK (2003-2007 TRUCKS) SIDE of pink 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 pink wire into Diesel Turbo Lifesaver's BLACK WIRE with WHITE BANDS (terminal attached at factory).**
➪ **Plug fuse box (2000-2002 trucks) or connector block (2003-2007 trucks) side of truck's pink wire into Diesel Turbo Lifesaver's PLAIN BLACK WIRE (terminal attached at factory).**

STEP 6A: ATTACH DIESEL TURBO LIFESAVER'S POWER WIRES TO TRUCK'S WIRES (SECURITY AND PRE-LUBE DISABLED)
Figure Reference: Figures 5 and 6
Tools Required: Wire Strippers, Wire Cutters, Wire Crimpers, and Pliers
NOTE: ALL CONNECTIONS SHOULD BE MADE IN AREA INDICATED BY CIRCLE IN FIG. 5 TO ALLOW WIRING SHIELD (REMOVED IN STEP 3) TO BE EASILY REINSTALLED.
➪ **Cut black and black with white bands wires of DTLS so that ends of wires are even (see Fig. 6). Install supplied female spade connectors on ends of wires by stripping insulation and crimping connectors on.**
➪ **Plug spade connectors crimped on wires into supplied "Y" adaptor wire.**
➪ **Locate pink ignition wire of vehicle.**
For 2000 – 2002 model years, pink wire is located in main ignition harness.
For 2003 – 2007 model years, pink wire is located in same connector as main power wire (see figure 4).
➪ **Using supplied yellow scotchlok connector, connect remaining end of "Y" adaptor wire to pink ignition wire of truck.**

STEP 7: FINISH ATTACHING DIESEL TURBO LIFESAVER'S WIRES TO TRUCK'S WIRES
Figure Reference: Fig. 5
Tools Required: Wire Strippers, Wire Cutters, Wire Crimpers, and Pliers

NOTE: ALL CONNECTIONS SHOULD BE MADE IN AREA INDICATED BY CIRCLE IN FIG. 5 TO ALLOW WIRING SHIELD (REMOVED IN STEP 3) TO BE EASILY REINSTALLED.
➪ Use large yellow scotchlok connector to connect DTLS's red wire to main power wire of truck (red with white stripe or solid red).
➪ Using supplied blue scotchlok connector, connect DTLS's yellow wire to orange wire in main ignition harness of truck.
➪ Using supplied blue scotchlok connector, connect DTLS's white / brown stripe wire to white wire in main ignition harness of truck.
➪ Secure all wires used in this step in a neat and tidy manner using supplied cable ties. Clip excess ends of cable ties off.

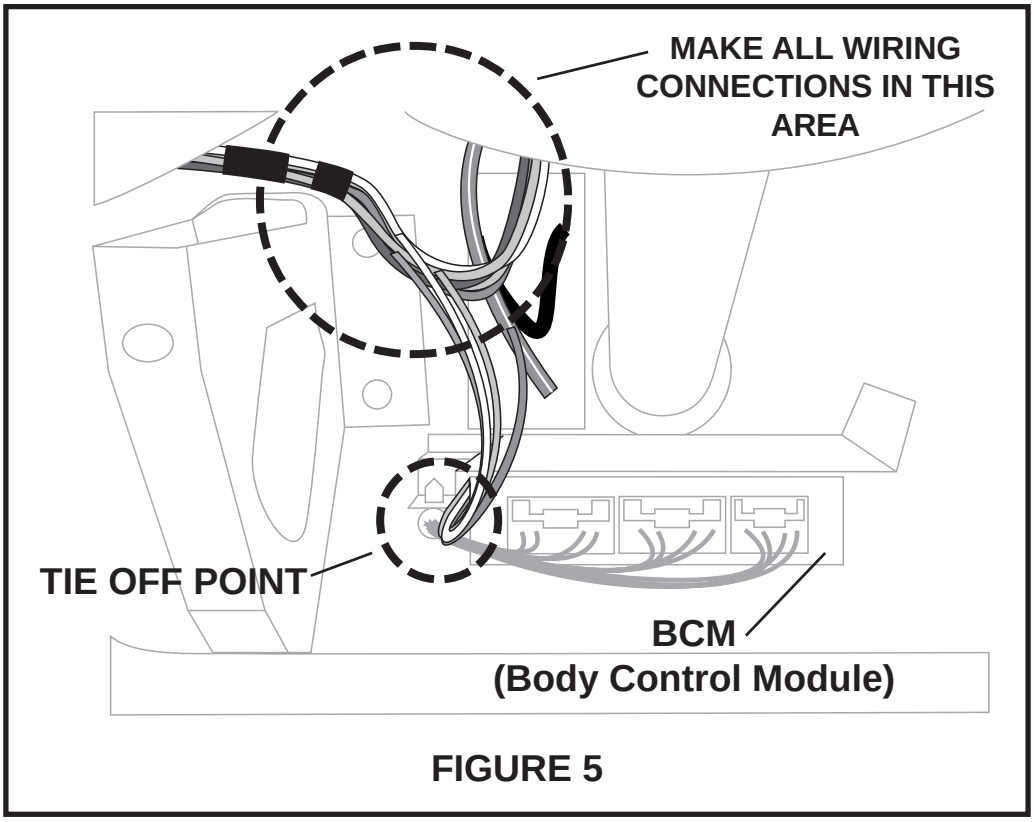
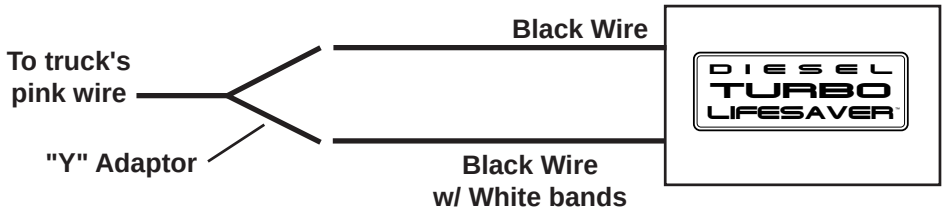


FIGURE 5

STEP 8: GROUND BLACK WIRE
Figure Reference: None
Tools Required: 7mm socket & socket wrench or #2 Philips Screwdriver
➪ Attach black wire to solid ground. Many locations exist under dash to ground wire.

STEP 9: CONNECT WHITE WIRE (BRAKE VOLTAGE WIRE)
Figure Reference: None
Tools Required: Utility Knife, Pliers. Optional – Soldering Iron, Solder & Electrical Tape
➪ Connect white wire of DTLS to white wire in truck's brake light switch harness. This wire can easily be found as the brake light switch is mounted to the brake pedal arm. This wire should show voltage ONLY when the brake pedal is depressed. You may have to use your knife to cut some electrical tape from GM's harness in order to create enough slack to connect wires together. Solder wires together and insulate (preferred) or use supplied red scotchlok connector.



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

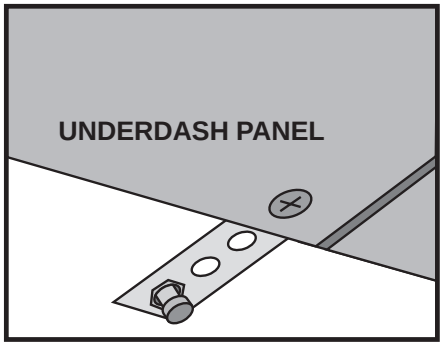
FIGURE 6

STEP 10: TEST FOR PROPER OPERATION
Figure reference: None
Tools required: 13mm Wrench
➪ 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 GM 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 11: MOUNT DIESEL TURBO LIFESAVER ENCLOSURE
Figure reference: None
Tools 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.

STEP 12: MOUNT SECURITY (TOGGLE) SWITCH
Figure reference: Figure 2
Tools Required: None or Optional Drill With 1/4 Inch Bit
➪ 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.
➪ Make sure wires from activator switch have enough slack to allow switch and attached bracket to be mounted on screw with circled location as shown fig. 2. Do not mount activator switch at this time.
➪ 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. Clips excess ends off wire ties.



Typical mounting of activator switch and bracket.

FIGURE 7

STEP 13: REINSTALL WIRING SHIELD, UNDER DASH PANEL & FUSE PANEL COVER
Figure Reference: Figure 2
➪ Reinstall wiring shield removed in step 3.
➪ Reinstall dash panel first and then reinstall fuse panel cover. Leave circled screw out for step 15.

STEP 14: MOUNT ACTIVATOR SWITCH
Figure Reference: Figure 2
➪ Mount activator switch bracket with screw circled in Fig. 2. Mount bracket between under dash panel and metal dash piece as show in Fig. 10. Once the switch bracket is secured, you can bend it up to hide the switch.

ALARM INTERFACING
Diesel Turbo Lifesaver provides you with two auxiliary outputs (purple wires) to allow 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 wiring schematic and call our tech line for assistance.
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/ P.O. 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 IS ALSO AVAILABLE FOR: DODGE CUMMINS TRUCKS, FORD POWERSTROKE TRUCKS, MOTORHOMES AND OTHER DIESEL EQUIPMENT

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™

GM Duramax 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 Trucks Due to Wiring Changes Made By GM)

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!