



INSTALLATION INSTRUCTIONS DODGE CUMMINS PICKUPS MODEL YEARS 1994-2002

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 Cummins and Dodge. 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 because our exclusive in line ignition harness eliminates wire cutting. No other product provides this feature 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 With Ignition Harness
- 1 - 1 Amp AGC Fuse
- 1 - Red Scotchlok Connector
- 8 - Wire Ties (6 - 4 Inch, 2 - 6 Inch)

TOOLS REQUIRED:

- 13 mm Wrench
- #2 Phillips Screwdriver
- T20 Torx Screwdriver
- Wire Cutters
- Pliers
- Utility or X-Acto Knife
- Drill with 1/4 Inch Bit
- Optional - Soldering Iron, Solder & Electrical Tape

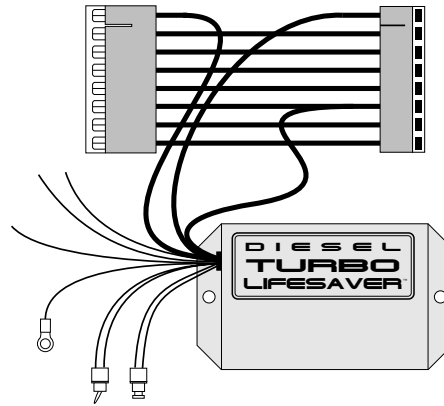


FIGURE 1

STEP 1: DISCONNECT NEGATIVE BATTERY CABLE(S)

Figure Reference: None

Tools Required: 13mm Wrench

STEP 2: REMOVE UNDER DASH PANEL & DASH BRACE (Club Cabs Only)
If your vehicle is a 1994 - 1997 model, please continue with step 2.
If your vehicle is a 1998 - 2001 model, skip to step 2A.

Figure Reference: Figure 2

Tools Required: #2 Phillips Screwdriver

- ⇒ Remove five screws in positions indicated in Fig. 2
- ⇒ Remove dash panel by gently pulling towards rear of vehicle.
- ⇒ CLUB CAB VEHICLES ONLY - Remove metal dash brace (now exposed - was behind dash panel just removed). Remove four screws along bottom edge of dash brace. NOTE: At each bottom corner of dash brace there are three screws - only the middle ones hold dash brace. Remove upper two screws (flanking steering column) that hold dash brace.
- ⇒ Remove dash brace by first swinging top of brace towards you and then lifting brace free of dash.

STEP 2A: REMOVE UNDER DASH PANEL (1998 - 2001 TRUCKS)

Figure Reference: Figure 3

Tools Required: #2 Phillips Screwdriver

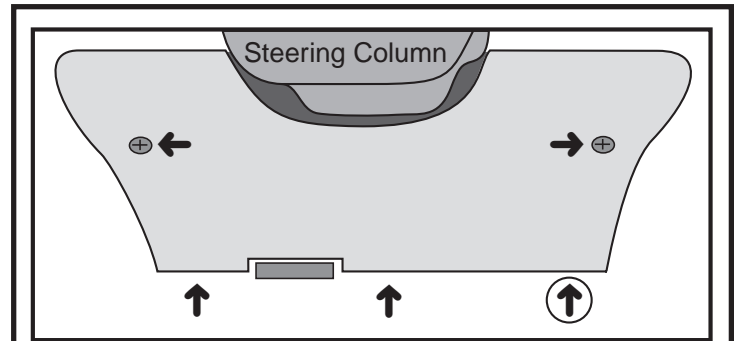
- ⇒ Remove three screws in positions indicated in Fig. 3.
- ⇒ Remove dash panel by gently pulling towards rear of vehicle.

STEP 3: REMOVE STEERING COLUMN SHROUDS

Figure reference: Figure 4

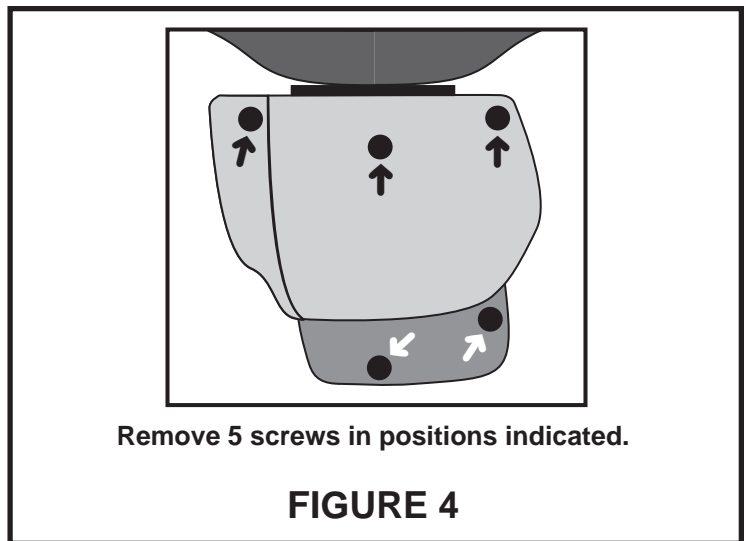
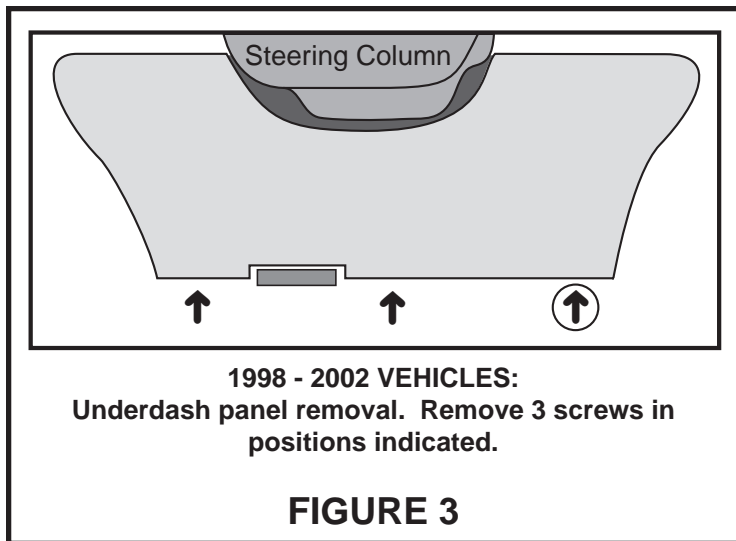
Tools Required: T20 Torx Screwdriver

- ⇒ Remove five Torx screws from bottom of steering column shrouds. Note that silver machine screws are in the center of each shroud.
- ⇒ Remove bottom half of shroud #1 (closest to steering wheel) by simultaneously pulling down while gently wiggling to release mounting clips. The clips on some vehicles are stubborn, just keep wiggling and pulling down to release.
- ⇒ Remove bottom half of shroud #2 (farthest from steering wheel) by swinging right side towards floor.



1994 - 1997 VEHICLES:
Underdash panel removal. Remove 5 screws in positions indicated. Note: Bottom 3 screws are facing floor and are not visible in illustration.

FIGURE 2



STEP 4: UNPLUG AND ROUTE DODGE IGNITION HARNESS

Figure Reference: Figures 5, 6 and 7

Tools Required: Manual Transmission vehicles: None

Automatic transmission vehicles: Utility or X-Acto Knife

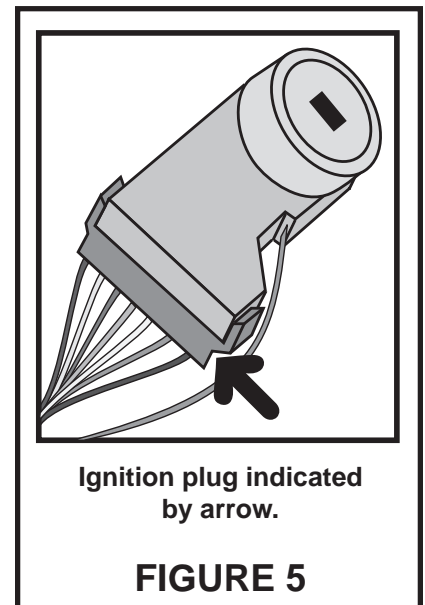
- ⇒ All vehicles: Unplug stock ignition plug from ignition key assembly. Do not break retainers at end of harness plug. See Fig. 5.
- ⇒ 5 and 6 speed vehicles: Route plug of Dodge harness as shown in Fig. 6.
- ⇒ Automatic transmission vehicles: Using knife, CAREFULLY slit electrical tape on Dodge harness down to plastic wire holder (see Fig. 7). Cut only the tape – do not cut the insulation of the wires! Release ignition plug wires from rest of harness as shown in Fig. 7.

STEP 5: PLUG IN DIESEL TURBO LIFESAVER'S HARNESS

Figure Reference: Figures 8 & 9

Tools Required: None

- ⇒ Plug Dodge ignition harness into female plug of Diesel Turbo Lifesaver's in line harness. Plug male end of Diesel Turbo Lifesaver's harness into vehicle's key assembly.
- ⇒ 5 and 6 speed vehicles: In line harness should make a "u" turn as shown in Fig. 8.
- ⇒ Automatic transmission vehicles: Union of inline harness and Dodge ignition plug occurs as low as possible as shown in Fig. 9.



STEP 6: REINSTALL STEERING COLUMN SHROUDS

Figure Reference: Figures 8 & 9

Tools Required: T20 Screwdriver

- ⇒ 5 and 6 speeds: Tuck ignition plug into "hole" in upper shrouds. Install bottom of shroud #2. make sure silver machine screw DOES NOT pinch any wires. Ignition plug will fit (sometimes tightly). Keep trying. If for some reason it does not fit, you can always run the harness in the manner required on the automatic transmission vehicles. Reinstall bottom of shroud #1. Check tilt steering wheel for proper operation. Automatics: Reinstall bottom of shrouds #1 & 2. Make sure silver machine screws DO NOT pinch any wires. Check tilt steering wheel for proper operation.

STEP 7: GROUND BLACK WIRE

Figure Reference: None

Tools Required: #2 Phillips Screwdriver

- ⇒ Attach black wire to solid ground. Many locations exist under dash to ground wire.

STEP 8: CONNECT WHITE WIRE (BRAKE VOLTAGE WIRE)

Figure Reference: Figure 7

Tools Required: Utility Knife, Pliers. Optional – Soldering Iron, Solder & Electrical Tape

- ⇒ Connect white wire of DTLS to white with brown stripe wire in brake light switch harness. This wire should only show voltage when the brake pedal is depressed. You may have to use your knife to cut some electrical tape from Dodge's harness in order to create enough slack to connect wires together. Solder wires together and insulate (preferred) or use supplied scotchlok connector.



STEP 9: 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 instruc-

tions 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 DODGE WIRE THAT RECEIVES VOLTAGE ONLY WHEN BRAKE PEDAL IS DE-PRESSED. 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 10: 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. Make sure the mounting location you choose will not interfere with the metal dash brace (1994-1997 club cab vehicles only) and under dash panel when they are reinstalled. 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 11: 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.

STEP 12: 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 13: REINSTALL METAL DASH BRACE (94-97 CLUB CABS) AND UNDER DASH PANEL (ALL YEARS)

Figure Reference: Figures 2 & 3

Tools Required: #2 Philips Screwdriver

⇒ 1994 – 1997 club cab vehicles: Reinstall metal dash brace. Make sure you do not pinch any wires.

⇒ All vehicles: reinstall under dash panel. Leave screw circled in Fig. 2 out until step 14.

STEP 14: MOUNT ACTIVATOR SWITCH

Figure Reference: Figures 2 & 10

Tools Required: #2 Philips Screwdriver

⇒ 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.

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.

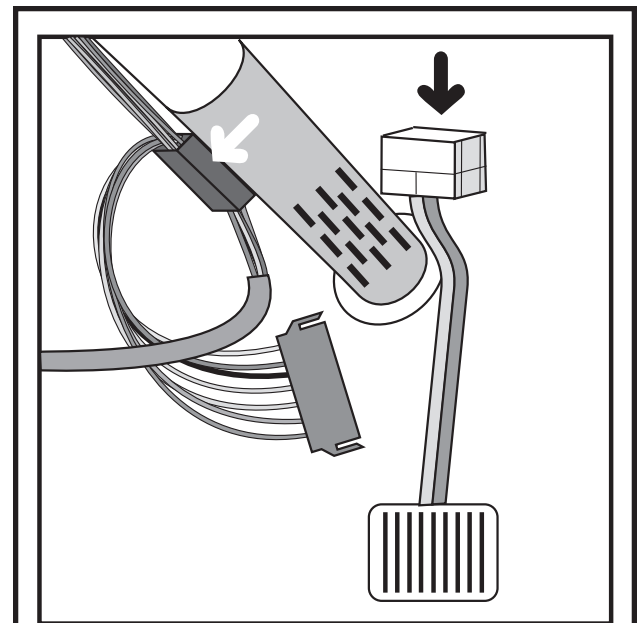
Due to the variables in alarm systems, how they operate, and differences in installation techniques, it is recommended that you have your alarm installer perform any interfacing that may be required. If you installed your own alarm system, please obtain wiring schematic and call our tech line for assistance.

Output Specifications For Interface Wires:

Output Type: NEGATIVE

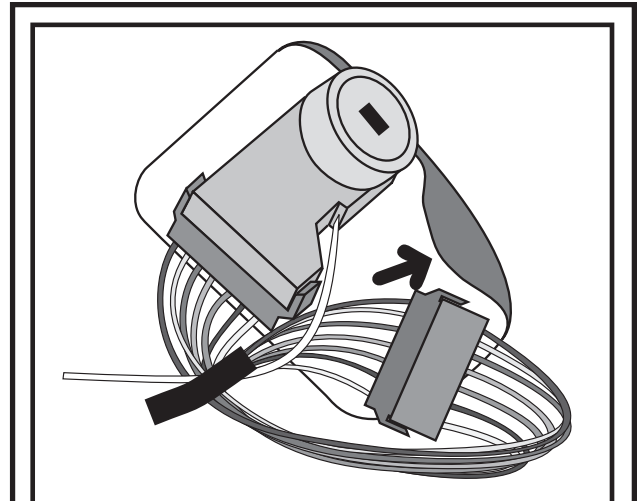
Maximum current draw (each) – 500 Milliamps

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.



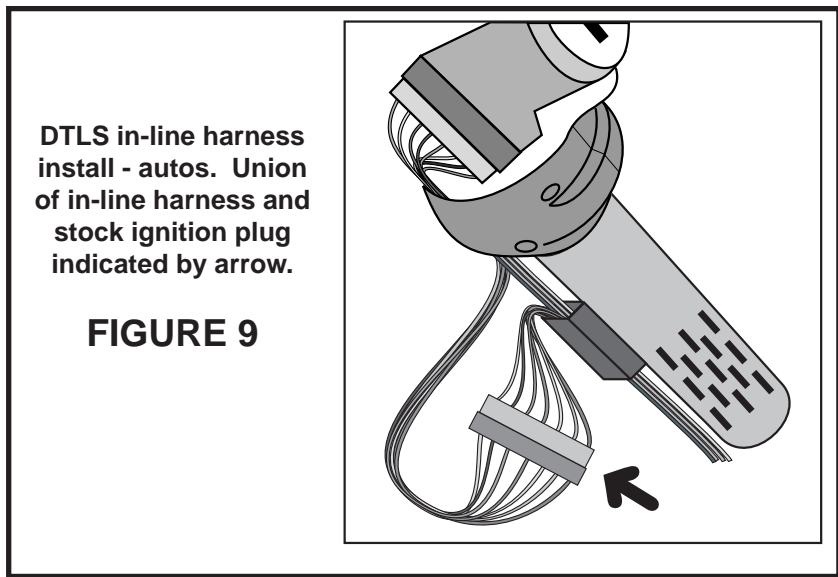
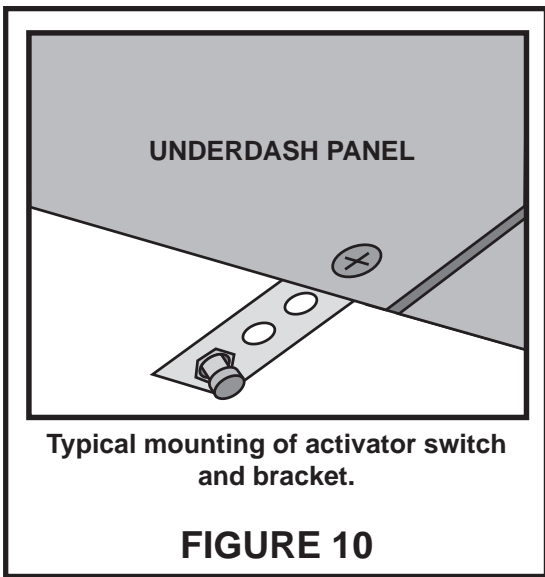
Plastic wire holder indicated by white arrow.
Brake light switch indicated by black arrow.

FIGURE 7



DTLS in line harness install - 5/6 speed vehicles. Note "Hole" to tuck molded plugs indicated by arrow.

FIGURE 8



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 PHONE (970) 879-6097 FAX

DIESEL TURBO LIFESAVER
IS ALSO AVAILABLE FOR:
FORD POWERSTROKE TRUCKS
GM DURAMAX 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

- WHEN YOU COME TO A STOP, LEAVE ENGINE RUNNING WITH KEY AND . . .
1. Automatic transmission vehicles: Place transmission in PARK.
 2. Stick shift vehicles: Place transmission in NEUTRAL.
 3. Engage parking brake securely, remove foot from 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.**

**D I E S E L
TURBO
LIFESAVER™**

DODGE CUMMINS EXTENDED RUN TIME OPERATING INSTRUCTIONS

To Cancel A Cooling Cycle Or Emergency Engine Stop:

Diesel Turbo Lifesaver can be shut off in the following manner:
Pressing on brake pedal will turn unit off.

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".

Additional Features:

ANTI THEFT FUNCTION

When security switch is on, your vehicle cannot be started . . . Even if the thief has a key! You can turn the switch on after a timing cycle is set and Diesel Turbo Lifesaver will turn the security function on automatically after shutting off your engine. 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

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 – 7 seconds (engine will crank, but will not start). Turn security switch off and start vehicle. Observe how quickly oil pressure builds when engine starts.

NOTES ON 2004 – 2005 CUMMINS "600" ENGINES AND PRE-LUBING:

If you use the pre-lube function on 2004 – 2005 model year vehicles with the "600" engine, the self diagnostics of the truck will occasionally set some warning lights on the dash immediately after pre lubing. Most commonly this will be your ABS and / or brake warning lights. This is a normal condition as this is a side effect of using the pre lube function. After restarting your truck a few times with the key, the warning lights will turn off when the vehicle's computers sense all is well.

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:

1–2 Minutes: Light throttle, non towing situations at moderate speeds in cold to moderate temperatures. Example: City driving.

2–4 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.

4–5 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!