

## Questions and Answers

### **How do I tell if my engines are affected?**

Most 1993-1998 heavy-duty diesel engines are affected. Check the engine manufacturer and engine model in your truck if you have a 1993-1998 model year, electronically-controlled, engine. Compare your engine manufacturer and model with the attached List of Low NOx Rebuild Engines. If you find your engine on the list, low NOx engine software is available for your engine. Your service outlet may be contacted to determine whether or not your engine is eligible or has already been reprogrammed with low NOx engine software. Some 1998 model year engines are in 1999 model year vehicles.

### **What happens if I don't get the low NOx engine software installed on my vehicle?**

If low NOx engine software is not installed on enough vehicles under the Voluntary Program, then you will be required to install low NOx software under a regulation. The low NOx software is available at no charge to the vehicle owner/operator under the Voluntary Program, but you may have to pay for it if the installation is required by regulation.

### **How will it affect my engine performance or fuel economy?**

Manufacturers have stated that low NOx software will not affect the driveability or the safety of your vehicle. Several fleets have had the low NOx software installed prior to rebuild and have reported no noticeable differences in their fuel use. We expect the average fuel economy penalty, if any, to be below one percent.

### **How long will the installation of the low NOx engine software take?**

The low NOx engine software takes about 15 to 30 minutes to install on your vehicle. You may need to allow additional time for driving to and from the authorized dealer facility. There may also be wait time, which could be reduced or eliminated by scheduling your visit.

### **How do I get the software installed?**

Manufacturers have directed all their authorized dealers to install the low NOx software at no charge. Call your local, authorized dealer and make an appointment to get the low NOx software installed. If you have trouble locating a dealer that can install the software, call Staci Heaton at (916) 373-3553, at CTA, or Lisa Jennings at (916) 322-6913, at ARB, for help in locating an authorized dealer.

### **I have a 1993-1999 California-registered truck and I want to have Low NOx Software installed for free under the voluntary program. In the rare event my truck's ECM fails during installation, how likely is it that I will have to pay for it?**

Very unlikely-engine manufacturers have agreed to cover the cost of the ECM replacements in most cases under the voluntary program. Customer neglect or damage is an example of a case where the manufacturers would probably choose not to cover the cost of an ECM replacement. Manufacturers reserve the right to determine which ECM replacements they will cover.

Most of the time Low NOx Software installation happens quickly and with no problems. In a small percent of cases, installation may not go smoothly. Sometimes this can be fixed by additional technical work. In a few cases there may be failure of the Engine Control Module (ECM) hardware, and the ECM may need to be replaced.

- **ECM failure are rare.** Based on a pilot incentive program in Sacramento, ECM failure only happened one half of one percent of the time - consistent with what one engine manufacturer reported for their nationwide technical support line.
- **Engine manufacturers have agreed to cover the cost in most cases.** If an ECM failure occurs during installation of Low NOx Software on a California-registered vehicle covered under the Voluntary Program, and dealers working with the appropriate technical support were unable to fix the problem, engine manufacturers have agreed to cover the cost of ECM replacement in most cases.
- **Most engine manufacturers and dealers have not been charging the customer. Detroit Diesel Corporation customers have been charged and reimbursed.** In the handful of failures that have occurred, most of the engine manufacturers and their dealers have not charged the customer. Owners of Detroit Diesel engines that have had a failed ECM during a voluntary software installation have been charged for the ECM and then reimbursed. Detroit Diesel Corporation has stated that they typically resolve such policy claims within 30 days. Charges for ECM replacement vary, but average around \$1500.

California Trucking Association  
Contact: **Staci Heaton**  
E-mail Address: [sheaton@caltrux.org](mailto:sheaton@caltrux.org)  
Phone Number: (916) 373-3553  
CTA website: [www.caltrux.org](http://www.caltrux.org)

California Air Resources Board  
Contact: **Lisa Jennings**  
E-mail Address: [ljennings@arb.ca.gov](mailto:ljennings@arb.ca.gov)  
Phone Number: (916) 322-6913  
Low NOx engine software webpage:  
[www.arb.ca.gov/msprog/hdsoftware/hdsoftware.htm](http://www.arb.ca.gov/msprog/hdsoftware/hdsoftware.htm)