

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-176-13  
Relating to Exemptions Under Section 27156  
of the Vehicle Code

DINAN ENGINEERING  
Performance Chips & Software

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Section 39515 and Section 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the installation of the Performance Chips & Software, manufactured and marketed by Dinan Engineering, Inc., 150 S. Whisman, Mountain View, California 94041 has been found not to reduce the effectiveness of the applicable vehicle pollution control system and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for those applicable 1987 to 2000 BMW vehicles listed in Exhibit A. Vehicles certified to an ultra low emission vehicle (ULEV) standard are excluded.

The Performance Chips and Software are designed to enhance the vehicle's performance at wide open throttle conditions which is achieved by modifying such PROM tables as fuel delivery and timing. The Performance Chips are applicable to older vehicles which use a removable PROM chip in the electronic control module (ECM) for engine calibration. On newer vehicles which are equipped with a FLASH memory chip, new software is downloaded using a Dinan Mobile Instant Power Programmer. Software downloads can only be conducted by an authorized Dinan dealer. **Dinan recommends use of high octane fuel with the Performance Chips & Software.**

This Executive Order is valid provided that the installation instructions for the Performance Chips & Software will not recommend tuning the vehicle to specifications different from those of the vehicle manufacturer.

This Executive Order shall not apply to any Dinan Engineering, Inc. Performance Chips & Software advertised, offered for sale, or sold with or installed on, a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

Changes made to the design or operating conditions of the Performance Chips & Software, as exempt by the Air Resources Board, which adversely affect the performance of the vehicle's pollution control system shall invalidate this Executive Order.

Marketing of the Performance Chips & Software using any identification other than that shown in this Executive Order or marketing of the Performance Chips & Software for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board.

This Executive Order does not constitute any opinion as to the effect the use of the Performance Chips & Software may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on the following submitted emissions test data on a 1999 BMW 740i certified to a low emission vehicle standard. The vehicle in the modified configuration met the applicable emission standards. Testing consisted of one Cold Start CVS-75 Federal Test Procedures in the modified configuration. The following test results are in grams per mile with deterioration factors applied:

1999 BMW 740i

|          | NMOG  | CO  | NOX | HCHO  |
|----------|-------|-----|-----|-------|
| Standard | 0.075 | 3.4 | 0.2 | 0.015 |
| Device   | 0.038 | 0.6 | 0.1 | 0.001 |

This Executive Order is also based on On Board Diagnostic II (OBD II) testing conducted on the same vehicle. Test data showed that the Software when installed on the vehicle did not affect the vehicle's ability to perform its OBD II monitoring.

The ARB finds that reasonable grounds exist to believe that use of the Performance Chips & Software may adversely affect emissions of motor vehicles when operating under conditions outside the parameters of the previously prescribed test procedures. Accordingly, the ARB reserves the right to conduct additional emission tests, in the future, as such tests are developed, that will more adequately measure emissions from all cycle phases. If such test results demonstrate that the Performance Chips & Software adversely affect emissions during off-cycle conditions (defined as those conditions which are beyond the parameters of the Cold-Start CVS-75 Federal Test Procedure), this Executive Order shall be effectively rescinded as of the date the test results are validated. Further, if such test results or other evidence provides the ARB with reason to suspect that the Performance Chips & Software will affect the durability of the emission control system, Dinan Engineering, Inc. shall be required to submit durability data to show that the durability of the vehicle emission control system is not, in fact, affected and/or that the add-on or modified part demonstrates adequate durability.

In addition to the foregoing, the ARB reserves the right in the future to review this Executive Order and the exemption provided herein to assure that the exempted add-on or modified part continues to meet the standards and procedures of Title 13, California Code of Regulations, Section 2222, et seq.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF DINAN ENGINEERING'S PERFORMANCE CHIPS & SOFTWARE.

No claim of any kind, such as "Approved by the Air Resources Board", may be made with respect to the action taken herein in any advertising or other oral or written communication.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after a ten-day written notice of intention to revoke the order, in which period the holder of the order may request in writing a hearing to contest the proposed revocation. If a hearing is requested, it shall be held within ten days of receipt of the request and the order may not be revoked until a determination after hearing that grounds for revocation exist.

Executed at El Monte, California, this 20<sup>th</sup> day of December 1999.

  
R. B. Summerfield, Chief  
Mobile Source Operations Division

Exhibit A

Dinan "Performance Chip" Vehicle Application

| <u>BMW Model</u> | <u>Model Years</u> | <u>Disp Bosch ECU#</u> | <u>Dinan Part#</u>   |
|------------------|--------------------|------------------------|--|
| 318iC*           | 1990-93            | 1.8L0261200175         | D900-1833  |
| 318i, is, iC, ti | 1994               | 1.8L0261203590         | D900-1837-E  |
| 318i, is, iC, ti | 1/95->             | 1.8L0261203357         | D900-1935-E  |
| 325iX            | 1989-91            | 2.5L0261200351         | D900-2536  |
| M3               | ->12/94            | 3.0L0261203506         | FPR D903-2941 965A2<br>AFM D903-2941 965A3   |
| M3               | 1/95->             | 3.0L0261203413         | FPR D903-2943 715A2<br>FPR D903-2943 715B2<br>FPR D903-2943 715C2<br>AFM D903-2943 715A3<br>AFM D903-2943 715B3<br>AFM D903-2943 715C3 |
| M5 USA           | 1987-88            | 3.5L0261200079         | D900-3422  |
| M6 USA           | 1987-88            | 3.5L0261200079         | D900-3422  |
| 525i, iT*        | 9/92-12/94         | 2.5L0261200413         | D900-2550-E  |
| 530i, iT (E34)   | ->12/94            | 3.0L0261200404         | D900-3141-E  |
| 530i, iT         | 1/95->             | 3.0L0261203484         | D900-3143-E  |
| 740i, iL*        | 1993-94            | 4.0L0261200404         | D900-4042-E  |
| 740i, iL (E38)*  | ->12/94            | 4.0L0261200404         | D900-4143-E  |
| 840i (E31)*      | ->12/94            | 4.0L0261200404         | D900-4042-E  |

NOTES:

1. Applications identified with an asterisk denote part numbers which are exempt under CARB E.O. D-176-8.
2. Part numbers noted with a "FPR" indicate chips to be used with the Dinan Fuel Pressure Regulator.
3. Part numbers noted with an "AFM" indicate chips to be used with the Dinan High Flow Air Flow Meter.

Exhibit A Cont.

Dinan "Performance Software" Vehicle Application

| <u>BMW Model</u> | <u>Model Years</u> | <u>Engine Size</u> | <u>Dinan Part#</u>                         |
|------------------|--------------------|--------------------|--|
| 318i, is, ti     | 1/96-99            | 1.9L               | D900-193<br>CAI D903-1932                  |
| 323is coupe      | 1998-99            | 2.5L               | D900-233<br>CAI D903-2332                  |
| 323i sedan       | 1999-00            | 2.5L               | D900-253TU<br>CAI D903-253TU2              |
| 323Ci coupe      | 2000               | 2.5L               | D900-253TU<br>CAI D903-253TU2              |
| 328is coupe      | 1996-99            | 2.8L               | D900-283<br>CAI D903-2832                  |
| 328i sedan       | 1996-99            | 2.8L               | D900-283<br>CAI D903-2832                  |
| 328i sedan       | 1999-00            | 2.8L               | D900-283TU<br>CAI D903-283TU2              |
| 328Ci coupe      | 2000               | 2.8L               | D900-283TU<br>CAI D903-283TU2              |
| M3               | 1996-99            | 3.2L               | D900-32M<br>CAI D903-32M2<br>AFM D903-32M3 |
| Z3 1.9           | 1/96-99            | 1.9L               | D900-193<br>CAI D903-1932                  |
| Z3 2.3           | 1999-00            | 2.5L               | D900-25ZTU<br>CAI D903-25ZTU2              |
| Z3 2.8           | 1996-99            | 2.8L               | D900-28Z<br>CAI D903-28Z2                  |
| Z3 2.8           | 1999-00            | 2.8L               | D900-28ZTU<br>CAI D903-28ZTU2              |
| Z3 Coupe 2.8     | 1999-00            | 2.8L               | D900-28ZTU<br>CAI D903-28ZTU2              |
| M Roadster       | 1998-00            | 3.2L               | D900-32Z<br>CAI D903-32Z2<br>AFM D903-32Z3 |
| M Coupe          | 1998-00            | 3.2L               | D900-32Z<br>CAI D903-32Z2<br>AFM D903-32Z3 |
| 528i             | 1996-99            | 2.8L               | D900-285<br>CAI D903-2852                  |
| 528i             | 1999-00            | 2.8L               | D900-285TU<br>CAI D903-285TU2              |
| 540i             | 10/95-9/98         | 4.4L               | D900-445<br>CAI D903-4452                  |
| 540i             | 1999-00            | 4.4L               | D900-445TU<br>CAI D903-445TU2              |
| 740i, iL         | 3/96-9/98          | 4.4L               | D900-447<br>CAI D903-4472                  |
| 740i, iL         | 1999-00            | 4.4L               | D900-447TU<br>CAI D903-447TU2              |
| 840i             | 1/96-9/97          | 4.4L               | D900-448                                   |

NOTES:

1. Part numbers containing "TU" denote applications for engines certified to the LEV emission standard.
2. Part numbers noted with an "CAI" indicate software to be used with the Dinan Cold Air Intake.
3. Part numbers noted with an "AFM" indicate software to be used with the Dinan High Flow Air Flow Meter.