

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-712

Relating to Exemptions Under Section 27156  
of the California Vehicle Code

Stephan's Auto Haus  
VW Vanagon 1.8 Liter Turbo Engine Conversion Kit

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-02-003;

**IT IS ORDERED AND RESOLVED:** That installation of the Stephan's Auto Haus VW Vanagon 1.8 Liter Turbo Engine Conversion Kit (Conversion Kit), manufactured and marketed by Stephan's Auto Haus, 3950 Attawa Avenue, Sacramento, California 95822, has been found not to reduce the effectiveness of the applicable vehicle pollution control systems and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for all 1980 to 1991 model year VW Vanagons.

This conversion kit is designed to provide all the necessary parts to replace the stock 1980 to 1991 model years VW Vanagon engine with a used 2002 to 2006 model year 1.8 liter VW turbocharged engine applicable to the Jetta, Golf, GTI, Beetle Turbo S, or Audi TT. These engines are certified to Low Emission Vehicle I Low Emission Vehicle (LEV I LEV) or Low Emission Vehicle I Ultra Low Emission Vehicle (LEV I ULEV) exhaust emissions standards for passenger cars.

This conversion kit includes the following components: an engine to transmission adaptor plate, a flywheel for a manual transmission or a flexplate for an automatic transmission, a modified turbo outlet pipe, customized SAH silicon air intake plumbing, a customized engine bay wiring harness, a customized exhaust system using the VW stock catalyst or legal aftermarket catalyst applicable to the 2002-2006 model years 1.8L VW turbo charged engine, and a Chrysler/Dodge closed air filter box with part numbers 4458052 and 4458053 or California legal aftermarket air filter assembly. These original 1.8 T engine components are also supplied: carbon canister, leak detection pump, MAF sensor, coolant temp sensor, and oxygen sensors. Also, all sensors, solenoids, and valves related to the evaporative emissions, air intake, and turbo systems are included. A thermostat and housing are also included as is the intercooler and cooling fan. The kit does not include an ECU (with only the immobilizer removed) or the donor motor. Automatic transmission Vanagon's must use a Manual transmission ECU.

Air cooled Vanagons must have a 1983 or newer Vanagon water cooled system installed and water cooled Vanagons will retain their original cooling system. The original Vanagon fuel tank is retained and connected to the stock 1.8T evaporative emissions systems carbon canister and leak detection pump. The following Vanagon Stock components are removed: the engine, exhaust system, intake system, engine bay wiring harness and ECU. A check engine light must be installed and wired to the new VW ECU. The following OBD II monitors may be logged as trouble codes: Instrument cluster monitor, ABS system module, and air bag module. The Vanagon hardware does not support these electrical

functions. The VW 1.8 liter turbo charged engine retains the stock catalyst or California legal aftermarket catalyst. Also used are stock solenoids, sensors, and valves related to the operation of the engine, air intake system, and turbo system. The stock intercooler and stock evaporative emissions components including the carbon canister and leak detection pump are also used. The SAH silicon air intake hoses and emission related hoses are routed so as to fit properly in the engine bay within these two systems all stock sensors, solenoids, and valves are used in their proper locations and installed as per VW diagrams.

This Executive Order is valid provided that the installation instructions for the Conversion Kit will not recommend tuning the vehicle to specifications different from those submitted by the device manufacturer.

Changes made to the design or operating conditions of the VW Vanagon 1.8 Liter Turbo Engine Conversion Kit, 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 Conversion Kit using any identification other than that shown in this Executive Order or marketing of the Conversion Kit 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 is granted based on submitted emission test data generated on a 1990 model year VW Vanagon modified with the Conversion Kit. Test results showed that emission levels, with the Conversion Kit installed, met the applicable emission standards when tested using the Cold-Start CVS-75 Federal Test Procedure (FTP) test cycle. Examination of the OBD II system showed the Conversion Kit did not affect OBD II system operation. Results from emission testing conducted at Automotive Testing and Development Services, Inc. of Ontario, California are shown below (in grams per mile).

	CVS-75 FTP		
	HC	CO	NOx
Standards 50k	0.50	9.0	1.0
Device	0.04	0.6	0.02

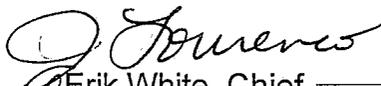
The Air Resources Board reserves the right in the future to review this Executive Order and the exemption provided herein to assure that the exempted add-on or modified part continues to meet the standards and procedures of Title 13, California Code of Regulations, Section 2222, et seq.

**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 THE CONVERSION KIT.**

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 is made after the hearing that grounds for revocation exist.

Executed at El Monte, California, this 26<sup>th</sup> day of August 2013.

  
Erik White, Chief \_\_\_\_\_  
Mobile Source Operations Division