

**State of California
AIR RESOURCES BOARD**

EXECUTIVE ORDER D-724

Relating to Exemptions under Section 27156 and 38391
of the Vehicle Code

Converter Unlimited, Inc.
"Series 280000 Three-way Catalytic Converter"

WHEREAS, Vehicle Code (VC) Sections 27156 and 38395, and Title 13, California Code of Regulations (13 CCR) Section 2222(h), authorize the Air Resources Board (ARB) and its Executive Officer to exempt new aftermarket catalytic converters from the prohibitions of VC Sections 27156 and 38391.

WHEREAS, Converter Unlimited, Inc. (Converter Unlimited) of 6234 Bissel Place, Huntington Park, California 90255, has applied to ARB for exemption from the prohibitions in VC Sections 27156 and 38391 to market its new aftermarket Series 280000 three-way catalytic converter (TWC) for installation on selected 1996 through 2004 model year Chrysler passenger cars (PC) equipped with On-Board Diagnostic II (OBD II) systems as listed in Appendix D-724. The catalytic converters will be sold as a universal system.

WHEREAS, pursuant to the authority vested in the Executive Officer by Health and Safety Code Section (HSC) 39515 and in the Chief, Emissions Compliance, Automotive Regulations and Science Division by HSC Section 39516 and Executive Order G-14-012, ARB finds that the above aftermarket catalytic converter complies with the VC Sections 27156 and 38395 and 13 CCR, Section 2222(h). Emission performance of the catalytic converter was based on durability bench-aging by Johnson Matthey Environmental Catalysts using the ARB-modified RAT-A bench-aging cycle for 75 hours, as specified in Appendix A to the "California Evaluation Procedures for New Aftermarket Catalytic Converters" as adopted on October 25, 2007 (Converter Evaluation Procedures).

WHEREAS, emissions tests conducted at California Environmental Engineering, Santa Ana, California, using a 2003 2.4L Chrysler PT Cruiser, test group 3CRXV02.4VD0, certified to the PC category and Low Emission Vehicle I Low Emission Vehicle emission standards, showed that the vehicle met the applicable emission standards with Series 280000 TWC (1 unit) installed. OBD II compatibility tests performed on the same test vehicle showed that Series 280000 TWC did not affect the vehicle's ability to perform OBD II system monitoring. The following are the test results in grams per mile:

1) 2003 2.4L Chrysler PT Cruiser

	<u>NMOG</u>	<u>CO</u>	<u>NOx</u>
100K Standards	0.090	4.2	0.3
Series 280000 Test 1	0.075	0.7	0.3
Series 280000 Test 2	0.063	0.9	0.4
Series 280000 Test 3	0.067	0.7	0.3

WHEREAS, evaluation of Series 280000 TWC using the procedures and criteria specified in Section (e)(5)(B) of the Converter Evaluation Procedures showed that the catalytic converter meets the requirements for proper MIL illumination demonstration.

THEREFORE, IT IS HEREBY RESOLVED that Converter Unlimited's Series 280000 TWC is exempted from the prohibitions in VC Sections 27156 and 38391 for installation on the approved vehicle applications specified in Appendix D-724 subject to the following conditions:

1. No changes are permitted to the catalytic converter as described in the application for exemption. Any changes to the catalytic converter or any of its components, and other factors addressed in this order must be evaluated and approved by ARB prior to marketing in California.
2. Marketing of the catalytic converter using identifications other than those shown in the exemption application, and in this Executive Order, or marketing of the catalytic converter for applications other than the ones shown in this Executive Order shall be prohibited unless prior approval is obtained from ARB. Exemption of this product shall not be construed as an exemption to sell, offer for sale, or advertise any components of the catalytic converter, as individual devices.
3. Any oral or written references to this Executive Order or its content by Converter Unlimited, its principals, agents, employees, distributors, dealers, or other representatives must include the disclaimer that the Executive Order or the exemption it provides is not an endorsement or approval of any emission reduction claims for the catalytic converter and is only a finding that the catalytic converter is exempt from the prohibitions of VC Sections 27156 and 38391.
4. Converter Unlimited's installation instructions for the new catalytic converter must conform to requirements in Section (h) of the Converter Evaluation Procedures.
5. Installation of the catalytic converter shall not cause the relocation of an oxygen sensor. Oxygen sensors must be installed in the same location, position and orientation as prescribed in the original equipment manufacturer's configurations.
6. Upon installation, the catalytic converter must carry a manufacturer's warranty for five years or 50,000 miles as prescribed in Section (f)(2) of the Converter Evaluation Procedures.
7. Converter Unlimited and its vendors may not advertise the new aftermarket catalytic converter as "high flow or easy flow" catalytic converter or use any phrase that could make them appear to perform better than the original equipment manufacturer catalytic converter.
8. Any marketing arrangement of the new aftermarket catalytic converter by a third party, which involves the use of packaging identification different from the ones described in this Executive Order, must be approved by ARB prior to shipment.
9. Converter Unlimited, its associates, vendors, other businesses, and individuals associated with Converter Unlimited, may not sell or supply new aftermarket catalytic converter substrates to a third party to be assembled in a different facility and marketed under this Executive Order without approval from ARB.

10. Converter Unlimited shall comply with the quality control procedures and reporting requirements in Section (f)(5) of the Converter Evaluation Procedures.
11. Quality control reports must be submitted on a quarterly basis and warranty information reports must be submitted on a semi-annual basis.
12. Converter Unlimited must provide a permanent label or stamp as specified under Section (f)(1) of the Converter Evaluation Procedures.
13. Converter Unlimited's vehicle application catalog must conform with the requirements as specified under Section (f)(4) of the Converter Evaluation Procedures.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after a 30-day written notice of intention to revoke it, during 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 30 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 3rd day of June 2014.


Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

EVALUATION SUMMARY

Manufacturer Name: Converter Unlimited, Inc.

Name of Device: Series 280000 Three-way Catalytic Converter (TWC).

Background:

Converter Unlimited, Inc. (Converter Unlimited) of 6234 Bissel Place, Huntington Park, California 90255, has applied for an exemption from the prohibitions in Sections 27156 and 38395 of the California Vehicle Code for its Series 280000 new aftermarket TWC. The new aftermarket catalytic converter is for installation on selected 1996 through 2004 model year Chrysler passenger cars (PC) equipped with On-Board Diagnostic II (OBD II) systems.

Recommendation:

Grant exemption to Converter Unlimited as requested, and issue Executive Order D-724.

Device Description:

Converter Unlimited's Series 280000 TWC is designed to use one round ceramic monolith substrate configuration. The substrate has a diameter of 3.66 inches and length of 5.00 inches and a volume of 52.60 cubic inches. The substrate is contained in a shell constructed from 409-grade stainless steel. The substrate is wrapped with 3M interam mat paper, to prevent vibration and exhaust by-pass. The wrapped substrate is then sealed in the stainless steel shell by seam weld. Pieces of aluminized heat shield are spot-welded around the converter to protect the vehicle's underbody from excessive heat. The catalytic converter is to be used as a replacement on selected OBD II-equipped PC vehicles with one catalytic converter per exhaust bank. The catalytic converter will be sold as a universal system. The catalytic converter is sold with a warranty for five years or 50,000 miles on the substrates, the container or shell, and the end pipes.

Umicore Autocat USA Inc. (Umicore) is the catalyst supplier for Converter Unlimited's Series 280000 TWC,

Discussion/Basis for Exemption Recommendation:

Converter Unlimited submitted data on the Series 280000 TWC from testing conducted at California Environmental Engineering (CEE), Santa Ana, California. Johnson Matthey Environmental Catalysts performed the catalyst bench aging at its Wayne, Pennsylvania laboratory using the ARB-modified RAT-A cycle for 75 hours as specified in Appendix A of "California Evaluation Procedures for New Aftermarket Catalytic Converters" as adopted on October 25, 2007 (Converter Evaluation Procedures). Emission tests were conducted using a 2003 2.4L Chrysler PT Cruiser, test group 3CRXV02.4VD0, equipped with a single catalyst system (1 unit) with Series 280000 TWC installed. The test vehicle was certified to the PC category and Low Emission Vehicle I (LEV I) Low Emission Vehicle (LEV) standards (PC, LEV I LEV). The odometer reading on the test vehicle was approximately 95,356 miles.

Testing consisted of three cold-start CVS-75 tests with Series 280000 TWC installed (Test 1, 2, and 3) because the catalytic converter failed emission compliance in Test 2 and two compliant cold-start CVS-75 tests must meet the testing requirements specified in the Converter Evaluation Procedures. The test results, in grams per mile, are shown below.

CEE, Santa Ana, California				
2003 2.4L Chrysler PT Cruiser (PC, LEV I LEV)				
	NMOG	CO	NOx	Remarks
100K Standard	0.090	4.2	0.3	
Series 280000 Test 1	0.075	0.7	0.3	Pass
Series 280000 Test 2	0.063	0.9	0.4	Fail
Series 280000 Test 3	0.067	0.7	0.3	Pass

The emission results from Test 1 and 3 both comply with the new vehicle certification standards. OBD II system functionality tests with the new aftermarket catalytic converter installed verified its compatibility with the test vehicle's OBD II system.

Umicore performed the furnace-based incremental aging for proper MIL illumination demonstration at its Catoosa, Oklahoma laboratory for a total substrate aging time of 10 hours at a target temperature of 1200°C. Evaluation of Series 280000 TWC using the procedures and criteria specified in Section (e)(5)(B) of the Converter Evaluation Procedures, showed that the catalytic converter meets the requirements for proper MIL illumination demonstration. The test results, in grams per mile, are shown below.

CEE, Santa Ana, California				
2003 2.4L Chrysler PT Cruiser				
	NMOG	CO	NOx	Remarks
100K Standard	0.090 (upper limit is 0.237)	4.2	0.3	
Series 280000 (Proper MIL Illumination Demonstration)	0.108	2.2	0.5	MIL ON / Pass

The Air Resources Board did not conduct emissions confirmatory tests to verify the data obtained at the independent laboratory.

Appendix D-724
Converter Unlimited, Inc. 280000

No.	Model Year	Make	Model	Engine Size (liters)	Test Group Name	Certification Level	Weight Class	Exhaust Type	Converter Type	Total Converter	Monitored Converter	Conv. Location	Converter Part Type	MFR Part Number	Application Type
1	1996	Chrysler	Cirrus	2	TCR122VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
2	1996	Chrysler	Cirrus	2.4	TCR148VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
3	1996	Chrysler	Cirrus	2.5	TCR152VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
4	1996	Chrysler	Sebring	2.4	TCR148VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
5	1996	Chrysler	Sebring	2.4	VCR148VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
6	1996	Chrysler	Sebring	2.5	TCR152VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
7	1997	Chrysler	Cirrus	2.4	VCR148VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
8	1997	Chrysler	Cirrus	2.5	VCR152VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
9	1997	Chrysler	Sebring	2.5	VCR152VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
10	1998	Chrysler	Cirrus	2.4	WCRXV0148V20	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
11	1998	Chrysler	Cirrus	2.5	WCRXV0152V20	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
12	1998	Chrysler	Sebring	2.4	WCRXV0148V20	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
13	1999	Chrysler	Cirrus	2.4	XCRXV0148V30	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
14	2000	Chrysler	Cirrus	2.4	YCRXV0148V30	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
15	2001	Chrysler	PT Cruiser	2.4	1CRXV02.4VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282001	ALL
16	2001	Chrysler	Sebring	2.4	1CRXV02.4VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282086	ALL
17	2002	Chrysler	PT Cruiser	2.4	2CRXV02.4VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282001	ALL
18	2002	Chrysler	Sebring	2.4	2CRXV02.4VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282086	ALL
19	2003	Chrysler	PT Cruiser	2.4	3CRXV02.4VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282001	ALL
20	2003	Chrysler	Sebring	2.4	3CRXV02.4VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282086	ALL
21	1996	Dodge	Intrepid	3.3	TCR201V8G2EK	TLEV	PC	D	2TWC	2	2	U	UNIVERSAL	282084	ALL
22	1996	Dodge	Neon	2	TCR122VJG2EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
23	1996	Dodge	Stratus	2	TCR122VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
24	1996	Dodge	Stratus	2.4	TCR148VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
25	1996	Dodge	Stratus	2.5	TCR152VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
26	1997	Dodge	Intrepid	3.3	VCR201V8G2EK	TIER1	PC	D	2TWC	2	2	U	UNIVERSAL	282084	ALL
27	1997	Dodge	Neon	2	VCR122VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
28	1997	Dodge	Stratus	2	VCR122VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
29	1997	Dodge	Stratus	2.4	VCR148VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
30	1997	Dodge	Stratus	2.5	VCR152VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
31	1998	Dodge	Intrepid	2.7	WCRXV0165V20	TLEV	PC	D	2TWC	2	2	U	UNIVERSAL	282084	ALL
32	1998	Dodge	Neon	2	WCRXV0122V30	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
33	1998	Dodge	Stratus	2	WCRXV0122V30	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
34	1998	Dodge	Stratus	2.4	WCRXV0148V20	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
35	1998	Dodge	Stratus	2.5	WCRXV0152V20	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
36	1999	Dodge	Intrepid	2.7	XCRXV0165V20	TLEV	PC	D	2TWC	2	2	U	UNIVERSAL	282084	ALL
37	1999	Dodge	Neon	2	XCRXV02.0VB2	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
38	1999	Dodge	Stratus	2	XCRXV0122V30	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
39	1999	Dodge	Stratus	2	XCRXV02.0VB1	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
40	1999	Dodge	Stratus	2.4	XCRXV0148V30	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
41	2000	Dodge	Intrepid	2.7	YCRXV0165V30	TLEV	PC	D	2TWC	2	2	U	UNIVERSAL	282084	ALL
42	2000	Dodge	Neon	2	YCRXV0122V30	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282086	ALL

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Converter Unlimited, Inc. 280000

No.	Model Year	Make	Model	Engine Size (liters)	Test Group Name	Certification Level	Weight Class	Exhaust Type	Converter Type	Total Converter	Monitored Converter	Conv. Location	Converter Part Type	MFR Part Number	Application Type
43	2000	Dodge	Stratus	2	YCRXV0122V31	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
44	2000	Dodge	Stratus	2.4	YCRXV0148V30	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282084	ALL
45	2001	Dodge	Intrepid	3.5	1CRXV03.5VD0	LEV1 LEV	PC	D	2TWC	2	2	U	UNIVERSAL	282084	ALL
46	2001	Dodge	Neon	2	1CRXV02.0VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282086	ALL
47	2001	Dodge	Stratus	2.4	1CRXV02.4VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282086	ALL
48	2002	Dodge	Intrepid	2.7	2CRXV02.7VD0	LEV1 LEV	PC	D	2TWC	2	2	U	UNIVERSAL	282084	ALL
49	2002	Dodge	Neon	2	2CRXV02.0VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282086	ALL
50	2002	Dodge	Stratus	2.4	2CRXV02.4VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282086	ALL
51	2003	Dodge	Neon	2	3CRXV02.0VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282086	ALL
52	2003	Dodge	Stratus	2.4	3CRXV02.4VD0	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	282086	ALL
53	2004	Dodge	Intrepid	3.5	4CRXV03.5VM0	LEV1 LEV	PC	D	2TWC	2	2	U	UNIVERSAL	282084	ALL