

**State of California  
AIR RESOURCES BOARD**

**EXECUTIVE ORDER D-665**

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

Eastern Manufacturing, Inc.  
"Series 840100 Three-way Catalytic Converter"

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

WHEREAS, Eastern Manufacturing, Inc. (Eastern) of 2151 Cabot Blvd., West Longhorne, Pennsylvania 19047, has applied to the Air Resources Board for exemption from the prohibitions in Vehicle Code Sections 27156 and 38391 to market its new aftermarket Series 840100 three-way catalytic converter (TWC) for installation on selected 1996 through 2002 Honda/Acura passenger cars (PC) equipped with on-board diagnostic II (OBD-II) systems as specified in Appendix D-665 and incorporated herein. Series 840100 TWC will be used for a single (1 unit) catalytic converter system application for the selected Honda/Acura PC. The catalytic converter may be sold as a universal or direct fit system.

WHEREAS, pursuant to the authority vested in the Executive Officer by Health and Safety Code Section 39515 and in the Chief, Mobile Source Operations Division by Health and Safety Code Section 39516 and Executive Order G-02-003, the Air Resources Board finds that the above aftermarket catalytic converter complies with the California Vehicle Code Sections 27156 and 38395 and Title 13, California Code of Regulations, Section 2222(h). Emission performance of the catalytic converter was based on durability bench-aging by Johnson Matthey Environmental Catalysts using the Air Resources Board-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.

WHEREAS, emissions tests conducted at the Environmental Research & Development Corp, Ijamsville, Maryland, using a 2001 3.0L Honda Accord, test group 1HNXV03.0M5U, certified to the passenger car and Low Emission Vehicle emission standards (PC, LEV), showed that the vehicle met the applicable emission standards with Series 840100 TWC (1 unit) installed. OBD II compatibility tests performed on the same test vehicle showed that Series 840100 TWC did not affect the vehicle's ability to perform OBD II system monitoring. However, Series 840100 did not comply with the "Proper MIL Illumination Demonstration" required under the new procedures effective January 1, 2009. The following are the test results in grams per mile:

	<u>NMOG</u>	<u>CO</u>	<u>NOx</u>
100K Standards	0.090	4.2	0.3
Series 840100 Test 1	0.086	0.7	0.1
Series 840100 Test 2	0.088	0.7	0.2

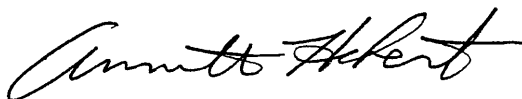
THEREFORE, IT IS HEREBY RESOLVED that Eastern Manufacturing, Inc.'s 840100 TWC is exempted from the prohibitions in Vehicle Code Sections 27156 and 38391 for installation on the approved vehicle applications specified in Appendix D-665 subject to the following conditions:

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 their components, and other factors addressed in this order must be evaluated and approved by the Air Resources Board 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 application other than the ones shown in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. 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 Eastern Manufacturing, Inc., 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 Vehicle Code Sections 27156 and 38391.
4. Eastern Manufacturing, Inc.'s installation instructions for the new catalytic converter must conform to requirements in Section (h) of the "California Evaluation Procedures for New Aftermarket Catalytic Converters," as adopted October 25, 2007.
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 (5) years or 50,000 miles as prescribed in Section (f)(2) of the "California Evaluation Procedures for New Aftermarket Catalytic Converters," as adopted October 25, 2007.
7. Eastern Manufacturing, Inc. 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 (OEM) catalytic converters.
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 the Air Resources Board prior to shipment.

9. Eastern, its associates, vendors, other businesses, and individuals associated with Eastern, 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 the Air Resources Board.
10. Eastern Manufacturing, Inc. shall comply with the quality control procedures and reporting requirements in Section (f)(5) of the "California Evaluation Procedures for New Aftermarket Catalytic Converters," as adopted October 25, 2007.
11. Quality control reports must be submitted on a quarterly basis and warranty information reports must be submitted on a semi-annual basis.
12. Eastern Manufacturing, Inc. must provide a permanent label or stamp as specified under Section (f)(1) of the "California Evaluation Procedures for New Aftermarket Catalytic Converters," as adopted on October 25, 2007.
13. Eastern Manufacturing, Inc.'s vehicle application catalog must conform with the requirements as specified under Section (f)(4) of the "California Evaluation Procedures for New Aftermarket Catalytic Converters," as adopted on October 25, 2007.
14. Since Series 840100 did not comply with "Proper MIL Illumination Demonstration" (PMID), this Executive Order expires two years from the date of signature unless Eastern Manufacturing, Inc. designs and successfully tests a replacement catalytic converter for Series 840100.

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 24 day of September 2009.



Annette Hebert, Chief  
Mobile Source Operations Division

**Appendix D-665  
Eastern Manufacturing, Inc. 840100**

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	1997	Acura	CL	3	VHN3.0VJG2EK	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
2	1997	Acura	CL	3	VHN3.0VJG2EK	TLEV	PC	S	TWC	1	1	U	DIRECT FIT	840154	ALL
3	1997	Acura	TL	3.2	VHN3.2VJGKEK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
4	1997	Acura	TL	3.2	VHN3.2VJGKEK	TIER1	PC	S	TWC	1	1	U	DIRECT FIT	840154	ALL
5	1998	Acura	CL	3	WHNXV03.0ZL2	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
6	1998	Acura	CL	3	WHNXV03.0ZL2	TLEV	PC	S	TWC	1	1	U	DIRECT FIT	840154	ALL
7	1998	Acura	TL	3.2	WHNXV03.2HA1	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
8	1998	Acura	TL	3.2	WHNXV03.2HA1	TIER1	PC	S	TWC	1	1	U	DIRECT FIT	840154	ALL
9	1996	Honda	Accord	2.2	THN2.2VJGKEK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
10	1996	Honda	Accord	2.2	THN2.2VJGKEK	TIER1	PC	S	TWC	1	1	U	DIRECT FIT	840151	ALL
11	1996	Honda	Accord	2.7	THN2.7VJG1EK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
12	1996	Honda	Accord	2.7	THN2.7VJG1EK	TIER1	PC	S	TWC	1	1	U	DIRECT FIT	840150	ALL
13	1996	Honda	Prelude	2.3	THN2.3VJGFEK	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
14	1996	Honda	Prelude	2.3	THN2.3VJGFEK	TIER1	PC	S	TWC	1	1	U	DIRECT FIT	840152	ALL
15	1997	Honda	Prelude	2.2	VHN2.2VJG1EK	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
16	1997	Honda	Prelude	2.2	VHN2.2VJG1EK	TLEV	PC	S	TWC	1	1	U	DIRECT FIT	840155	ALL
17	1998	Honda	Accord	2.3	WHNXV02.3PA3	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
18	1998	Honda	Accord	2.3	WHNXV02.3PL2	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
19	1998	Honda	Accord	2.3	WHNXV02.3PA3	LEV1 LEV	PC	S	TWC	1	1	U	DIRECT FIT	840153	ALL
20	1998	Honda	Accord	2.3	WHNXV02.3PL2	LEV1 LEV	PC	S	TWC	1	1	U	DIRECT FIT	840153	ALL
21	1998	Honda	Prelude	2.2	WHNXV02.2SA1	TIER1	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
22	1998	Honda	Prelude	2.2	WHNXV02.2SA1	TIER1	PC	S	TWC	1	1	U	DIRECT FIT	840155	ALL
23	1999	Honda	Accord	2.3	XHNXV02.3PL2	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
24	1999	Honda	Accord	2.3	XHNXV02.3PL2	TLEV	PC	S	TWC	1	1	U	DIRECT FIT	840153	ALL
25	1999	Honda	Accord	3	XHNXV03.0FL2	TLEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
26	1999	Honda	Accord	3	XHNXV03.0FL2	TLEV	PC	S	TWC	1	1	U	DIRECT FIT	840150	ALL
27	2000	Honda	Accord	2.3	YHNXV02.3PF2	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
28	2000	Honda	Accord	2.3	YHNXV02.3PA3	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
29	2000	Honda	Accord	2.3	YHNXV02.3PF2	LEV1 LEV	PC	S	TWC	1	1	U	DIRECT FIT	840153	ALL
30	2000	Honda	Accord	2.3	YHNXV02.3PA3	LEV1 LEV	PC	S	TWC	1	1	U	DIRECT FIT	840153	ALL
31	2001	Honda	Accord	2.3	1HNXV02.3VH2	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
32	2001	Honda	Accord	2.3	1HNXV02.3VH2	LEV1 LEV	PC	S	TWC	1	1	U	DIRECT FIT	840153	ALL
33	2001	Honda	Accord	3	1HNXV03.0M5U	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
34	2001	Honda	Accord	3	1HNXV03.0M5U	LEV1 LEV	PC	S	TWC	1	1	U	DIRECT FIT	840150	ALL
35	2002	Honda	Accord	3	2HNXV03.0WYC	LEV1 LEV	PC	S	TWC	1	1	U	UNIVERSAL	840100	ALL
36	2002	Honda	Accord	3	2HNXV03.0WYC	LEV1 LEV	PC	S	TWC	1	1	U	DIRECT FIT	840150	ALL

## EVALUATION SUMMARY

Manufacturer Name: Eastern Manufacturing, Inc.

Name of Device: Series 840100 Three-way Catalytic Converter (TWC).

Background:

Eastern Manufacturing, Inc. (Eastern) of 2151 Cabot Blvd, West Langhorne, Pennsylvania 19047, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for its Series 840100 new aftermarket TWC. The new aftermarket catalytic converter is for installation on selected 1996 through 2002 Honda/Acura passenger cars equipped with on-board diagnostic II (OBD II) systems.

Recommendation:

Grant exemption to Eastern Manufacturing, Inc. as requested, and issue Executive Order D-665.

Device Description:

Eastern's Series 840100 new aftermarket TWC is designed to use two round ceramic monolith substrates. The front substrate has a diameter of 4.16 inches and length of 4.50 inches. The rear substrate has a diameter of 4.16 inches and a length of 3.80 inches. The total volume of the two substrates is 113 cubic inches. The substrates are contained in a shell constructed from 409-grade stainless steel. The substrates are wrapped with 3M interim mat paper, to prevent vibration and exhaust by-pass. The wrapped substrates are then sealed in the stainless steel shell by seam weld. A piece of aluminized heat shield is spot-welded to the upper side of the converter to protect the vehicle's underbody from excessive heat. The catalytic converter is to be used as a replacement on selected Honda/Acura OBD II-equipped passenger cars with a single catalytic converter. 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.

Johnson Matthey Environmental Catalysts (Johnson Matthey) is the catalyst supplier for Eastern's Series 840100 TWC.

Discussion/Basis for Exemption Recommendation:

Eastern submitted data on the Series 840100 TWC from testing conducted at Environmental Research & Development Corp (ERDC), Ijamsville, Maryland. Johnson Matthey 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. Emission tests were conducted using a 2001 3.0L Honda Accord, engine test group 1HNXV03.0M5U, equipped with a single catalyst system with Series 840100 TWC installed. The test vehicle was certified to the Low Emission Vehicle (LEV) standards and PC weight category (LEV/PC). The odometer reading on the test vehicle was 62,484 miles.

The evaluation of the new aftermarket catalytic converter is based on the bench aging by Johnson Matthey, and emissions and OBD-II compatibility tests performed by ERDC. The vehicle application coverage for the new Series 840100 TWC will be 1996 through 2002 selected Honda/Acura OBD II passenger cars equipped with a single catalytic converter.