Air Resources Board

Mary D. Nichols, Chair
9480 Telstar Avenue Suite 4
El Monte, California 91731 • www.arb.ca.gov

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

March 15, 2016

MANUFACTURERS ADVISORY CORRESPONDENCE (MAC) 2016-01

TO: ALL MANUFACTURERS OF
- PASSENGER CARS (PC)
- LIGHT-DUTY TRUCKS (LDT)
- MEDIUM-DUTY VEHICLES (MDV) AND ENGINES USED IN SUCH VEHICLES (MDE)
- OFF-ROAD LARGE SPARK-IGNITION ENGINES (LSIE)
- ALTERNATIVE FUEL RETROFIT SYSTEMS FOR ON-ROAD VEHICLES AND ENGINES, INCLUDING PC, LDT, MDV, MDE, AND HEAVY-DUTY ENGINES (HDE) AND VEHICLES (HDV)

ALL OTHER INTERESTED PARTIES

SUBJECT: Cost Limit for High-Priced Warranted Parts for 2017 Model-Year (MY) New On-Road (ONR) Vehicles/Engines, Off-Road Large Spark-Ignition Engines (LSIE), and Alternative Fuel Retrofit (AFR) Systems for In-Use ONR Vehicles/Engines Certified During 2016 and 2017 Calendar Years (CY)

This letter provides a Manufacturers Advisory Correspondence (MAC) that identifies the cost limit for high-priced warranted parts of MY 2017 PC, LDT, MDV and MDE, LSIE, and AFR systems certified during CY 2016 and CY 2017. Also included is identification of the highest-cost metropolitan area of California for the purpose of calculating labor cost when determining the total replacement cost of a warranted part.

Item 7 in this MAC discusses the inapplicability of the replacement cost limit to warranties for vehicles voluntarily certified to the requirements of Title 13, California Code of Regulations, Section 1962.1(c) (13 CCR §1962.1(c)); that is, vehicles for which the manufacturer has requested partial zero-emission vehicle (PZEV) credit allowances. Similarly, Item 8 discusses the inapplicability of the replacement cost limit to warranties for PC, LDT and MDV optionally certified to the provisions in 13 CCR §1961.2 (a)(9); that is, vehicles certified to "LEV III" standards that earn additional "NMOG+NOx" Fleet Average Credit.

Items 2.b. and 2.c. provide the replacement cost limits to warranties for AFR systems certified during CY 2016 and CY 2017 for installation on MY 2004 and subsequent (MY 2004+), and MY 1994-2003, respectively, in-use PC, LDT, MDV and MDE, and heavy-

duty engines and vehicles (HDE/V) (hereinafter, altogether "ONR vehicles/engines"). It should be noted that for AFR systems for MY1994-2003 ONR vehicles/engines, the baseline consumer price index (CPI) upon which the cost limit is adjusted annually is different than that for the other categories (i.e., new PC, LDT, MDV and MDE, and MY 2004+ AFR systems) and, as a result, the cost limits for MY 1994-2003 AFR systems differ, slightly, from those for the other categories.

Item 10, new in this MAC, provides guidance on what is considered an emissions related part that must illuminate the Malfunction Indicator Lamp (MIL) and be covered by the emissions warranty in the event of a malfunction even when the primary function of the part is not emission control.

If you have any questions regarding LSIE warranty matters, please contact Mr. Byron Ng, Air Pollution Specialist, Off-Road Spark-Ignited Engine Certification Section, at (626) 459-4312 or by e-mail at Byron.Ng@arb.ca.gov. For questions regarding warranty matters for MDE and for MY 2004+ AFR systems for HDE/V and MDE (and MDV into which such MDE is installed), please contact Mr. Zachary Evans, Air Resources Engineer, Compression-Ignition and Heavy-Duty Certification Section, at (626) 450-6114 or by e-mail at Zachary.Evans@arb.ca.gov. For questions regarding parts that upon failure must illuminate the MIL and be covered by the emissions warranty, please contact Mr. John Ellis, Manager, Gasoline On-Board Diagnostics Section, at (626) 350-6516 or by e-mail at John.Ellis@arb.ca.gov, or Mr. Tom Montes, Manager, Diesel On-Board Diagnostics Section, at (626) 575-6777 or by e-mail at Thomas.Montes@arb.ca.gov. For questions regarding warranty matters for MY 1994-2003 AFR systems, please contact Mr. Tony Martino, Manager, Aftermarket Parts Section, at (626) 575-6848 or by e-mail at Antonio.Martino@arb.ca.gov. For all other matters in this MAC, please contact Mr. Steven Hada, Air Resources Engineer, On-Road Light-Duty Certification Section, at (626) 575-6641 or by e-mail at Steven.Hada@arb.ca.gov.

Sincerely,

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

State of California
AIR RESOURCES BOARD

MANUFACTURERS ADVISORY CORRESPONDENCE (MAC) 2016-01

SUBJECT: Cost Limit for High-Priced Warranted Parts for 2017 Model-Year (MY) New Passenger Cars (PC), Light-Duty Trucks (LDT), Medium-Duty Vehicles (MDV) and Engines Used In These Vehicles (MDE), Off-Road Large Spark-Ignition Engines (LSIE), and Alternative Fuel Retrofit (AFR) Systems Certified During 2016 and 2017 Calendar Years (CY)

APPLICABILITY:
- New MY 2017 PC, LDT, MDV, MDE, and LSIE
- AFR Systems for PC, LDT, MDV, MDE, Heavy-Duty Vehicles and Engines Used In These Vehicles (HDV/E) Certified During CY 2016 and CY 2017

REFERENCES:

1. California Health and Safety Code Section 43205 (HSC §43205)

2. Emission Control System Warranty Regulations [Title 13, California Code of Regulations, Sections 2035 et seq. (13 CCR §2035 et seq.)]

3. Zero-Emission Vehicle Standards for 2009 Through 2017 Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles [13 CCR §1962.1(c)]

4. Defects Warranty for 2001 and Later Off-Road Large Spark-Ignition Engines [13 CCR §2435]

5. "California Certification And Installation Procedures For Alternative Fuel Retrofit Systems For 1994 Through 2003 Model Years And For 1994 Through 2003 Model Year Motor Vehicle Retrofit Systems Certified For Emission Reduction Credit", amended on August 8, 2014, (1994-2003 AFR System Certification and Installation Procedures) incorporated by reference in 13 CCR §2030 and §2031.

6. "California Certification And Installation Procedures For Alternative Fuel Retrofit Systems For 2004 And Subsequent Model Year On-Road Motor Vehicles And Engines", adopted on August 8, 2014, (2004+ AFR System Certification and Installation Procedures) incorporated by reference in 13 CCR §2030 and §2031.

7. Manufacturers Advisory Correspondence No. 90-08

POLICY:

1. Identification of the Highest-Cost Metropolitan Area of California for New MY 2017 PC, LDT, MDV/E, and LSIE, and MY 1994 And Subsequent AFR Systems Certified During CY 2016 And CY 2017

According to HSC §43205(b), and 13 CCR §2037(c), §2435(b), the 1994-2003 AFR System Certification Installation Procedures, or the 2004+ AFR System Certification and Installation Procedures as applicable, the high-priced warranted parts list is based on a periodically revised cost limit as calculated for the highest-cost metropolitan area of California. For MY 2017, and CY 2016 and CY 2017 as applicable for AFR systems, the highest-cost metropolitan area of California is determined to be San Francisco.

The labor cost, as part of a manufacturer's determination of the total replacement cost of a warranted part, is to be based on the manufacturer's labor rate in the identified highest-cost metropolitan area or, if the manufacturer has no dealerships in this area, a comparable alternative area in California.

2. a. Cost Limit for High-Priced Warranted Parts for New MY 2017 PC, LDT, MDV, MDE and LSIE

According to 13 CCR §2037(c) or §2435(b), as applicable, the cost limit for high-priced warranted parts for MY 2017 PC, LDT, MDV, MDE, and LSIE is calculated using the annual average nationwide urban Consumer Price Index (CPI) for 2015, i.e., the calendar year two years prior to the model-year for which the cost limit is being calculated. This CPI is published by the U.S. Bureau of Labor Statistics. Rounded to the nearest ten dollars, the MY 2017 cost limit is $600, as calculated below:

$$\begin{aligned} \text{MY 2017 Cost Limit} &= \$300 \times (\text{calendar 2015 CPI/baseline CPI}) \\ &= \$300 \times (237.0/118.3) \\ &= \$600 \end{aligned}$$

b. Cost Limit for High-Priced Warranted Parts for MY 2004 and Subsequent AFR Systems Certified During CY 2016 and CY 2017

According to the 2004+ AFR System Certification and Installation Procedures, the cost limits for high-priced warranted parts for MY 2004+ AFR systems certified during CY 2016 and CY 2017 are calculated using the annual average nationwide urban CPI for 2014 and 2015, respectively, i.e., the calendar year two years prior to the calendar year for which the cost limit is being calculated. This CPI is published by the U.S. Bureau of Labor Statistics. Rounded to the nearest ten dollars, the CY 2016 and CY 2017 cost limits are $600 and $600, respectively, as calculated below:

CY 2016 Cost Limit = $300 × (calendar 2014 CPI/baseline CPI)
= $300 × (236.7/118.3)
= $600

CY 2017 Cost Limit = $300 × (calendar 2015 CPI/baseline CPI)
= $300 × (237.0/118.3)
= $600

c. Cost Limit for High-Priced Warranted Parts for MY 1994-2003 AFR Systems Certified During CY 2016 and CY 2017

According to the 1994-2003 AFR System Certification and Installation Procedures, the cost limits for high-priced warranted parts for MY 1994-2003 AFR systems certified during CY 2016 and CY 2017, respectively, are calculated using the annual average nationwide urban CPI for 2014 and 2015, i.e., the calendar year two years prior to the certification's calendar year for which the cost limit is being calculated. This CPI is published by the U.S. Bureau of Labor Statistics. Rounded to the nearest ten dollars, the CY 2016 and CY 2017 cost limits are $580 and $580, respectively, as calculated below:

CY 2016 Cost Limit = $300 × (calendar 2014 CPI/baseline CPI)
= $300 × (236.7/121.9)
= $580

CY 2017 Cost Limit = $300 × (calendar 2015 CPI/baseline CPI)
= $300 × (237.0/121.9)
= $580

Tables 1 and 2 at the end of this MAC are a summary of these cost limits for MY 2017 new PC, LDT, MDV/E, and LSIE, and AFR systems for MY 1993 and subsequent PC, LDT, MDV/E, and HDV/E.

3. High-Priced Warranted Parts Cost Documentation in the Applications for Certification

Manufacturers must submit in their applications for certification the documentation used to identify the high-priced warranted parts in accordance with 13 CCR §2037(c)(3), §2435(b), Sections 3(c)(v), 4(c)(ii) and 9 of the 1994-2003 AFR System Certification and Installation Procedures, or Sections 3(f)(5), 3(g), 7(b)(2) and 9 of the 2004+ AFR System Certification and Installation Procedures as applicable. The documentation shall include all emission-related parts costing more than $500 or $480 as applicable (i.e., calculated cost limit minus $100) to replace. This documentation shall substantiate that the list includes all potential high-priced parts. The documentation shall include the estimated retail parts costs, labor rates in dollars per hour, and the labor hours necessary to replace the parts including standard diagnosis. If the labor hours being charged for customer-pay repairs are different from those specified by the manufacturer for warranty repairs, the manufacturer shall substantiate the labor hours specified. ***All applications and required documentation (i.e., high-priced warranted parts cost list) must be submitted using the Air Resources Board's Document Management System.***

4. Voluntary Inclusion of Parts on the High-Priced Warranted Parts List

Manufacturers may include any emission-related parts on the high-priced warranted parts list without having to provide the required cost documentation if the parts are identified by the manufacturer as being consistently above the cost limit. These parts will remain on the high-priced warranted parts list until documentation is submitted by the manufacturer, and approved by the Executive Officer, to show that the total replacement cost of such an item has dropped below the identified cost limit. In this event, the manufacturer may exclude the relevant part in the high-priced warranted parts list at the beginning of the next applicable model year.

5. Warranted Parts That Are Integral Parts

If a warranted part **A** is an integral component of an assembly **B** and can only be repaired by replacing the assembly **B,** then the total replacement cost for the warranted part **A** must be determined as follows. The part's retail price and labor cost are those for the assembly **B**. The diagnostic cost shall be the highest for any diagnostic procedure for any warranted parts that are included in the assembly **B**.

For example, a vehicle's "Check Engine" lamp is a warranted part. A burned-out "Check Engine" lamp may be an integral component of the instrument dash and can only be repaired by replacing the entire instrument dash. The total replacement cost for this "Check Engine" lamp shall include the retail price and labor cost of the instrument dash. The diagnostic cost shall be the highest for the procedure related to the "Check Engine" lamp or any other warranted part(s), if any, that are also integral components of the instrument dash (e.g., "oxygen sensor" replacement lamp, if applicable).

6. Cost Limit for High-Priced Warranted Parts for New MY 2018 and Later Vehicles and Engines Certified Before a Newer Cost Limit Is Determined by the ARB

   Manufacturers certifying prior to the issuance of a newer cost limit MAC have two options in obtaining a cost limit value for their certification purposes. First, the cost limit may be calculated using the annual average CPI (if available) or the average of the available monthly nationwide urban CPI figures for the most recent twelve (12) months. The calculated cost limit must be submitted for review and approval by the staff. Under the second option, the manufacturer may continue using the cost limit value from the most current cost limit MAC. This cost limit value in either option will be the manufacturer's official cost limit for those vehicles so certified (i.e., certified prior to the ARB issuing the newer cost limit MAC). For those vehicles, the manufacturer will not be permitted to delete items from the high-priced warranted parts list if the ARB calculated cost limit is greater

7. Inapplicability of Cost Limit to Warranty for Partial Zero-Emission Vehicles (PZEVs)

   Any vehicles for which the manufacturer has requested certification to the requirements in 13 CCR §1962.1(c) (i.e., vehicles for which PZEV credit allowances are requested) are required under 13 CCR §1962.1(c)(2)(D) to have an extended defects and performance warranty period of 15 years (10 years for batteries for traction of hybrid electric PZEVs) or 150,000 miles, whichever occurs first. Since this warranty is not affected by the cost of a part, Items 1-6 of this MAC are not applicable to vehicles certified as PZEVs.

8. Inapplicability of Cost Limit to Warranty for LEV III Vehicles That Generate Additional NMOG+NOx Fleet Average Credits

   Any vehicles for which the manufacturer has requested optional certification to the requirements in 13 CCR §1961.2(a)(9) (i.e., non-PZEVs that generate additional NMOG+NOx fleet average credits) are required to have an extended defects and performance warranty period of 15 years (10 years for a zero emission energy storage device, e.g., battery, ultra capacitor, other electric storage device, etc.) or 150,000 miles, whichever occurs first. Since this warranty is not affected by the cost of a part, Items 1-6 of this MAC are not applicable to non-PZEVs that generate additional NMOG+NOx fleet average credits.

9. Cost Limit For AFR Systems Determined By The Calendar Year In Which Certification Is Granted

   The high-priced warranted parts list and associated cost limit for AFR systems is determined by the calendar year in which certification is granted; that is, the date the Executive Order is signed. The cost limit for AFR systems is not determined by the model year of the base vehicle/engine or when the AFR system is actually installed.

AFR system manufacturers use the specified cost limit to identify high-priced parts for extended warranty required under regulation. A list of such high-priced, extended warranty parts are required to be submitted as part of an application for certification for ARB approval. Each vehicle retrofitted with the AFR system must be provided with the list of such parts identified for extended warranty. Upon installation, these parts have the extended warranty coverage, irrespective of when such installation happens. For example, an AFR system for MY 2009 PC is certified in 2014, whose part X is on the high-priced warranted parts list. Whether the AFR system is installed on the MY 2009 PC in the year 2014 or 2019, part X will have extended warranty (7 years/70,000 miles, whichever occurs first) starting from the date of completed installation.

10. Identification of Emission-Related Parts

Emission-related parts include any components that can illuminate the Malfunction Indicator Lamp (MIL) in the event of a malfunction, even if the primary function of the component is not emission control. For example, if a vehicle contains an 'entertainment/HVAC module' whose primary function is control of features such as radio and climate control, but the module also contains the engine off timer utilized by the vehicle for on-board diagnostic monitoring purposes and a failure of the timer is required to illuminate the MIL per 13 CCR §1968.2, then the module is an emissions-related part. It must be included on the high-priced warranted parts list if the cost of the module and labor exceed the specified thresholds. Manufacturers are not obligated to warrant non-emissions-related failures of these components under emission control warranties, but emissions-related failures must be warranted and the components must be included on the high-priced warranted parts list as applicable.

TABLE 1
Cost Limits For High-Priced Warranted Parts For New PC, LDT, MDV/E, and LSIE[3]

Model Year[1]	Cost Limit
2014	$580
2015	$590
2016	$600
2017	**$600**

TABLE 2
Cost Limits For High-Priced Warranted Parts For AFR Systems

Calendar Year[2]	Cost Limit For 2004+	Cost Limit For 1994-2003
2014	$580	$560
2015	$590	$570
2016	**$600**	**$580**
2017	**$600**	**$580**

(1) Model Year means the model year of the test group/engine family, irrespective of the date the Executive Order is signed.

(2) Calendar Year means the calendar year in which certification of the AFR system is granted, i.e., the date (during January 1 – December 31) the Executive Order is signed, irrespective of the model year of the base vehicle/engine.

(3) The high-priced warranted parts cost limit does not apply to new HDE/V.