

APPENDIX G

Aftermarket Parts Verification Guidelines

This document is intended to provide guidance to Smog Check inspectors conducting Smog Check inspections only. It is not intended for aftermarket parts manufacturers, distributors, or dealers.

California Vehicle Code (VC) Section 27156, in part, prohibits modifications to emission control devices or systems without an exemption from California Air Resources Board (CARB). This means that aftermarket parts that modify or affect the original emission controls must be exempted through a CARB Executive Order (EO). In general, Modified Parts and Add-on Parts require an Executive Order (EO) exemption. Replacement Parts and Consolidated Parts do not require an exemption. For more information, see the definitions on page 4.

As a part of the Smog Check inspection, inspectors must verify Modified or Add-on parts have an EO and are acceptable for installation on the vehicle undergoing inspection. The Aftermarket Parts Verification table on the next page identifies which parts and emission control changes do and do not require verification. For the purpose of a Smog Check inspection, inspectors are only required to verify the EO as listed in this table.

Detailed Smog Check inspection procedures are provided in the Smog Check Manual sections 1.3.0 - 1.3.2.

Refer to the following for EO information:

- Part manufacturer's catalog;
- CARB's Web site <http://www.arb.ca.gov/msprog/aftermkt/aftermkt.htm>;
- Call CARB at (800) 242-4450.

Aftermarket Parts Verification

Emission Control System	Add-on / Modified Part(s) / ECS Changes	Requires Verification of EO During Inspection	
		Gasoline ¹	Diesel
Air Induction	Air Cleaner / Assembly – 1995 model-year and older <u>without</u> Thermostatic Air Cleaner. Changes are acceptable provided all required emission controls are connected and appear functioning.		
	Air Cleaner / Assembly – 1996 model-year and newer and all years equipped with Thermostatic Air Cleaner	✓	
	Air Flow Sensor	✓	✓
	Intake Manifold ² – including diesel air horn or elbow.		
	Intercooler - Equipped with the OEM turbocharger / supercharger		✓
Computer Management	Turbocharger/Supercharger - Wastegate, pulleys, etc.	✓	✓
	Variable or Alternate Tuning Devices - “Modules,” “Chips,” “PROMs” “Tuners,” “Pods,” or any device that modifies or conditions ECU inputs or outputs. Including, but not limited to, devices that plug into the ECU, wiring harness, or the OBD connector. (DLC plug-in telemetry or read-only devices are allowed without EO).	✓	✓
Exhaust	Air Injection Rails - Minor configuration changes allowed		
	EGR system modifications. (Aftermarket replacements do not require EO).	✓	✓
	Diesel Engine Exhaust Brake		
	After-treatment Control(s) – Catalyst ³ , Diesel Particulate filters (DPF), sensors(O_2 , NO_x , pressure, temp.), Diesel Exhaust Fluid (DEF) system, etc.	✓	✓
	Customized Exhaust on vehicles without after-treatment components, or installed after last required “Cat-Back”- Crossover pipes, Oversized pipes, etc.		
Fuel	Customized Exhaust before last required after-treatment component – Header ⁵ Heat Risers, Oversized pipes, etc.	✓	✓
	Added or Alternative Fuel Kits – Nitrous, propane, methanol, hydrogen, natural gas Biodiesel ⁴ , etc.	✓	✓
	Carburetor - Changes not originally offered for the specific vehicle application, i.e. changing: 2 to 4 barrel, 4 to 2 barrel, single to multiple carb, carb to fuel inj. Replacement carbs are okay when identified as such by the manufacturer.	✓	✓
	Carburetor Related- Choke Heat Stove for Headers, Under carburetor screen		
	Fuel System- Adjustable fuel pressure regulators, Injectors, Injection pump.	✓	✓
	Fuel System- Diesel Lift Pump, Fuel Filters, Separators, fuel line magnets		
	Fuel Tank(s) - Additional, Oversized	✓	
Ignition (Gasoline)	Water Injection - Vapor / Steam		
	Ignition Bridge		
Other	Ignition System Modification – Performance distributors, control modifications, etc.	✓	
	Air Conditioner Cut-Out		
	Anti-theft System - Primary ignition changes including engine start / stop controls		
	Camshaft - Performance camshafts, adjustable gears, etc.	✓	✓
	Engine Modifications - Performance kits, cylinder head swaps, etc.	✓	✓
	Governor		
	Hybrid Battery Enhancements- Plug-in charger kits, added batteries, etc.		
	Hose(s) - Minor configuration changes are acceptable. Universal replacement hose in place of preformed hose, etc.		
	Oil Separator / Filter - Crankcase gas filter		
	Throttle lockout system		

1) Includes Hybrid Powered Vehicles

2) See Intake Manifolds in this Appendix for more.

3) See Catalytic Converters in this Appendix for more.

4) See Biodiesel in this Appendix for more.

5) Be aware that some vehicles are factory equipped with tubular exhaust manifolds that appear similar to aftermarket headers.

Note: Any add-on or modified part not otherwise addressed in this table must have an EO and be verified during inspection.

Bio Diesel Conversion Kits

For the purposes of a Smog Check inspection, biodiesel kits installed on 1998-2003 model year vehicles are acceptable without an ARB EO exemption. ARB EO exemption is required for 2004 and newer vehicles.

Intake Manifolds

For the purposes of a Smog Check inspection, an aftermarket intake manifold that includes provisions for the OEM emission controls (EGR, TAC, fuel injection, carburetor, thermal switches, heat stove, exhaust cross-over etc.) is acceptable, provided the manufacturer markets the manifold as a replacement for the factory original. The replacement manifold may be made of a different material than the original, for example aluminum instead of cast iron.

Catalytic Converters

Smog Check Inspectors must check that all required catalytic converters (CATs) are present and appear to be properly installed. This includes making sure there are the correct number of CATs, that they are installed in the original location(s), and that they have no tampers or defects. A change in the number of converters is only acceptable when it is allowed for by the EO exemption.

Since January 1, 2009, all aftermarket catalytic converters installed in California must be equipped with an EO number. If an EO number is not present and/or the wrong converter(s) is installed, the vehicle shall fail the catalyst visual inspection.

For OBDII Equipped Vehicles, inspectors shall use the Executive Order (EO) number and corresponding part number to verify the application for each specific vehicle. To verify application, inspectors must check the ARB EO Aftermarket Catalytic Converter Database located on the ARB Web site. Each EO contains a catalog listing the applicable vehicles.

For Pre-OBDII Vehicles, inspectors shall use the EO number to verify the CAT falls within the correct vehicle category- PC-1, PC-2, T-1, T-2. Refer to ARB's Web site for a separate Pre-OBDII EO Listing containing the EO numbers and corresponding vehicle categories. Inspectors are not required to check specific vehicle application using the series or part numbers.

For older CATs without an EO label, use the general procedure described in the first paragraph above.

Catalytic Converters...continued

The ARB EO Aftermarket Catalytic Converter Database, Pre-OBDII EO Listing, and the ARB Installer's Checklist for New Aftermarket Catalytic Converters are located at
<http://www.arb.ca.gov/msprog/aftermktcat/aftermktcat.htm>.

The catalyst label format is as follows:

D-XXX-XX
YYYYYY
ZZZZ

D-XXX-XX: This is the ARB EO number.

YYYYYY: The manufacturer part number.

ZZZZ: The date of manufacture. The first two digits indicate the month, and the last two the year.

CARB Definitions of Aftermarket Parts

“Replacement Part” means any aftermarket part intended to replace an Original Equipment Manufacturer (OEM) emissions-related part and which is functionally identical to the original equipment part in all respects which in any way affect emissions (including durability) or a consolidated part. These parts are typically advertised for street use on emission controlled vehicles.

California Code of Regulations (CCR) Title 13 § 1900 (b) (20)

Some examples: Replacement air filter elements, spark plugs, spark plug wires, distributor caps, chromed valve covers, replacement EGR valves, and replacement carburetors. (Note: A replacement EGR valve or carburetor must be specified as replacement, by the part manufacturer, for the vehicle on which it is installed).

“Consolidated Part” means a part which is designed to replace a group of OEM parts and which is functionally identical of those original parts in all respects which in any way affect emissions (including durability).

CCR Title 13 § 1900 (b) (2)

Some examples: A parts manufacturer markets a replacement EGR assembly that consolidates the valve and backpressure transducer that were originally two separate components. (Note: A manufacturer may also consolidate part numbers to make the part application more universal).

“Modified Part” means any aftermarket part intended to replace an original equipment emission-related part and which is not functionally identical to the OEM part in all respects which in any way affect emissions, excluding consolidated parts.

CCR Title 13 § 1900 (b) (14)

Some examples: Performance camshafts, adjustable camshaft gears, performance cylinder heads, performance engine kits, performance engine management components, and performance fuel injection components.

“Add-on Part” means any aftermarket part (which is not a modified part or a replacement part) that may in any way affect emissions.

CCR Title 13 § 1900 (b) (1)

Some examples: Add-on supercharger, turbocharger and nitrous oxide kits.