



**Aftermarket Parts Procedures Modification Workgroup
Superchargers and Turbochargers**

DATE: Monday, October 15, 2018
TIME: 10:00 a.m. – 1:00 p.m. (PDT)
LOCATION: California Air Resources Board
Annex 4 Auditorium
9530 Telstar Avenue
El Monte, CA 91731

If you are unable to attend in person, the workshop will be available via webinar.
Visit the [webinar page](#), for details.

Agenda

Introductions and background

Discussion Topics

Current Process in Evaluating Superchargers and Turbochargers

- Manufacturer submits exemption application (Form A and Form C)
 - Vehicle application list
 - Installation instructions
 - Part Numbers
 - Description of supercharger or turbocharger
 - Pulley sizes (supercharger)
 - Impeller size (turbocharger)
 - Maximum boost pressure
- Full disclosure of modifications being made
 - ECU changes and calibration tables
 - Sensor signal modulations
 - Fuel system (injector size, pump, etc.)
 - Air intake system (Open element, stock air box, HCA, etc.)
 - Sensor changes or relocation
 - Etc.

- Applications incomplete or missing information
 - Vehicle application list missing key information
 - Installation instructions incomplete, missing, or recommending non-exempt parts be added to the kits
 - Part numbers for all items in the kit
 - Not all modifications disclosed or explained
 - User adjustable options not listed
- Applications are too complex for one application
 - Multiple OEMs
 - Multiple Engine Technologies
 - Multiple Engine Configurations
 - Multiple OBD groups
 - Different Emission Standards
 - User adjustability
 - Product features (e.g. downloadable tunes)
- Application review includes:
 - Verify devices are production ready (requirement)
 - Review each set of installation instructions, cross-check OEM service manuals
 - Research out each vehicle on list for worst case test vehicle(s) selection
 - Research OBD interaction with device-modified parameters
 - Investigate advertising claims, user reviews, online videos
 - Request sample devices for verification and anti-tampering resistance
- Application follow-up may include:
 - Send need info letter
 - Long response time for manufacturers
 - Incomplete manufacturer responses
 - Manufacturer debating/challenging/withholding requested information
 - Prepare a test memo
 - Complex applications require multiple vehicle/complex test letter
 - Worst-case vehicle(s) determination based on multiple criteria

Expectations for New Aftermarket Parts Regulation to Streamline the Process

- Smaller applications based on:
 - One OEM per application
 - Same engine design - V8, V6, L4, Etc.
 - Same weight category (PC or LDT or MDV)
 - Same engine technology or emissions control system
- Incorporate part number or Executive order number into the calibration
- Disclose Calibration Identification Number (Cal ID and CVN)
- Transparent application requirements
 - Detailed descriptions
 - Vehicle list requirements
 - Installation guide requirements
 - EO Label requirements

Goals for New Aftermarket Parts Regulation

- Make process flexible
 - Future vehicles are an unknown
 - New regulation should have longevity/flexibility
- Streamline issuance of EO; time will be reduced due to smaller applications
- Goal is to structure applications so that
 - One test required for new parts/devices/vehicles
 - EO is issued quicker for “update” applications
 - Manufacturers are more clear on regulations and test requirements
- Electronic submissions
 - Online system
 - Automatically reject your application if anything is missing
 - Requirements unique to this type of device

OBD Concerns

- Verifying that the modifications do not harm the OBD system
- OBD must operate as designed by the OE

Other Ways to Evaluate

Any ideas?

CARB responsibility

Ensure that the aftermarket part continues to have no adverse emissions impact on the original certified engine/vehicle and any emission control systems/components for all covered engines/vehicles