



## EXEMPTION APPLICATION

### Category VI – Supercharger and Turbocharger Kits or Modifications

Supercharger and Turbocharger kits or modifications made to a stock supercharger or turbocharger.

### **APPLICANT INFORMATION**

Name of Device Manufacturer with design control:		
Device Name:		
Name of Authorized Device Manufacturer Contact:		
Mailing Address:		
City:	State:	Zip Code:
Telephone Number:		Email Address:
Name of Authorized Representative (if different from above):		
Mailing Address:		
City:	State:	Zip Code:
Telephone Number:		Email Address:

### **APPLICATION REQUIREMENT OVERVIEW**

The application must include all of the following:

1. A vehicle coverage list that meets the following criteria:
  - a. Single original equipment vehicle/engine manufacturer
  - b. Same vehicle class unless combined under same engine test group
  - c. Same engine configuration (e.g., I4, V6, V8, method of aspiration)
  - d. Same fuel type (flex-fuel may be included with gasoline)

- e. Same emissions control technology (grouping patterns follow those of On-Road New Vehicle or Engine Certification Executive Orders).
  - f. Same emission standards (e.g., LEV III ULEV 125 and LEV III ULEV 70 are unique emission standards).
1. A list of part numbers assigned by the manufacturer for each unique design or modification.
  2. For each kit or stand-alone part number, step-by-step installation instructions with associated parts list and diagrams/pictures/schematics for proper installation of each part number. Installation instructions that represent more than one part number must have all applicable part numbers clearly presented in the instructions, along with applicable vehicles covered.
  3. A detailed description, as described in the section titled “**DETAILED DEVICE DESCRIPTION**” below, to assist CARB staff in understanding its operation, including technical operating principles, dimensional drawings, schematics, and material specifications. Manufacturers shall also identify, by name and part number, any OEM parts, components, or systems that are impacted by installation, resulting in changes to performance, fuel economy, drivability, emission control components, OBD, and emissions.
  4. A facsimile of the exemption label (see Section VIII of the Procedures for labeling requirements). Manufacturers with a previously issued exemption Executive Order must include an actual physical label with the first application submission of each calendar year.
  5. A plan to collect vehicle identification numbers (VIN) from purchasers’ vehicles for any device that modifies a stock engine, body, or transmission control module’s software, excluding speedometer and/or wheel speed adjusters.
  6. Sample kit or part, only when needed to assist Executive Officer in understanding the device’s operation and effects on emissions (if requested by the Executive Officer and after receipt of the application).

### **OPTIONAL APPLICATION SUBMISSIONS**

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The application may include the following (if not submitted with the initial application, the Executive Officer may request these items during application review):

1. Independent laboratory report (in the format as detailed in Section V(e) of the Procedures) from emissions and OBD II testing, if previously completed.
2. Stock and modified maximum boost pressure graphs or maximum horsepower/torque graphs, if previously completed.

## VEHICLE/ENGINE COVERAGE LIST\*

(Attach applicable file)

Please provide a spreadsheet (Excel compatible) in the following format with all applicable vehicle(s) or engine(s) coverage information.

Part Number	Model Year	Model	Engine Size	Test Group	Evaporative Family	New Vehicle Cert. Executive Order #	Performance Impact (e.g. HP, TQ, or Boost)
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Supercharger Pulley Size	Crank Pulley Size	Injector Fuel Rate	Handheld Tuner Model	ECU Calibration Identifier	Air Intake Part Number	HCA in Air Intake?	Intercooler Part Number
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The file name should identify the vehicle list as follows:

Mfr\_Device\_OEM\_Class\_Engine-Config.\_Fuel Type\_Emissions Std

*For example: Supercharger-Maker\_Super-Charger\_Ford\_LDT\_V6-TC\_Gas\_LEV3ULEV70*

\*If applicable, provide a list of excluded vehicles/models/configurations that would otherwise fall within the scope of requested vehicle or engine coverage.

## INSTALLATION INSTRUCTIONS

(Submit all applicable installation instructions)

Total number of uploaded or attached installation instruction files:

## DETAILED DEVICE DESCRIPTION

### Attach separate document(s) for device description

Include all technical operating principles, dimensional drawings, electrical schematics, material specifications, and impacts to performance, fuel economy, drivability, and emissions for the following affected parts, components, and/or systems (if applicable).

### Supercharger or Turbocharger Add-On or Modifications to Stock

1. New add-on systems
  - a. Supercharger (make, model, unit type, size, drive and crank pulley diameters)

- b. Turbocharger (make, model, unit type, variable or fixed geometry, pneumatic or electronic waste gate, compressor and turbine impeller sizes, turbine housing area ratio (A/R), area of throat, turbine inlet and outlet pipes, and flange sizes)
  - c. Boost pressure
  - d. Fuel system hardware modifications
  - e. Throttle body and intake manifold
2. Modifications made to stock system only
- a. Supercharger or turbocharger
  - b. Boost pressure
  - c. Intake or exhaust system
  - d. Fuel system hardware
  - e. Fuel and timing calibration
  - f. Turbine inlet and outlet pipes

### ECU Modifications

1. Identify all parameters being sensed and engine parameters or components being controlled by your device. Attach a table and/or spreadsheet to support your explanation with the following:
  - a. Include all parameters sensed and parameters controlled.
  - b. Explain how and to what degree these parameters/components are being controlled and/or modified.
  - c. Describe the conditions under which these parameter changes are active.
2. Submit calibration tables and/or lookup tables for all of the parameters being modified by your device (e.g. fuel, ignition timing, boost pressure, volumetric efficiency, air/fuel target ratios, etc.). You may attach these, formatted as electronic spreadsheets, diagrams, and/or photos.
3. Disclose if your device's ECU modification utilizes multiple calibration mapping (e.g. user selectable recalibrations). If more than one calibration map is being utilized, please elaborate on the major differences between each map. For each additional map, address all above items.

### Air Intake Modifications

1. For each unique design or modification:
  - a. Include color pictures of all components with size dimensions
  - b. Material specifications for all components
  - c. If the stock system contains any sensor(s), provide comparison pictures of the stock and modified part(s) which contain the impacted sensor(s)

2. The following questions regarding your modification(s) will help CARB staff evaluate your device as it relates to the evaporative systems. Please answer to the best of your knowledge and include specific details in each response.
- a. Does the stock system contain a hydrocarbon trap? If yes, proceed to question a(i), if no, proceed to question b.
    - i. How is the functionality of the hydrocarbon trap retained?
  - b. Are vehicle(s) or engine(s) included in the coverage list certified to a zero evaporative emission standard? If yes, proceed to question b(i); if no, proceed to the next section.
    - i. Identify whether or not the passageway/component design of the stock system is designed to retain evaporative emissions.
    - ii. If the stock system is designed to retain evaporative emissions without the use of a hydrocarbon trap, how is your kit or modification designed to maintain the intent of the original equipment design.

#### Intercooler Add-On or Stock Intercooler System Modifications

- a. Intercooler (make, model, size, volume, type (air or water))
- b. Tubing or pipes
- c. Sensors (signal modifications, location, and functionality)

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### **EMISSIONS EVALUATION CRITERIA \***

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\* Explanation of Evaluation Criteria can be found here ([Exemption Procedures](#)).

#### **Evaluation Criteria (Check One):**

- Emission Standards  
 Comparison to Baseline Emission Levels

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### **LABELING REQUIREMENTS \***

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\* Explanation of labeling requirements can be found here ([Exemption Procedures](#)).

(Submit facsimile of an exemption label)

(Submit material and lettering specifications for label)

## REQUEST FOR SAMPLE

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CARB may require one or more devices for evaluation. Device(s) will be returned only if return is requested at the time of device submission. Do you agree to provide the device(s) free of cost? Yes No If "No", please explain why.

## SIGNATURE

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I affirm the information provided is true, accurate, and complete, and that to the best of my knowledge installation of the device on a covered vehicle or engine will not cause regulated emissions to increase beyond the certification standards to which the vehicle or engine was certified, including any noxious or toxic matter, and will not cause emission control components and OBD to function differently than as designed by the vehicle or engine manufacturer.

I understand that I or the device manufacturer shall not: 1. Use the Executive Order as an endorsement or approval by CARB, 2. Market the device(s) using any identification other than that shown on the Executive Order, 3. Apply the Executive Order to parts sold prior to the date shown on the Executive Order, 4. Market the device(s) for an application other than those listed on the Executive Order, 5. Offer for sale, or advertise any component of an applicable kit as an individual device, 6. Advertise the product as capable of reducing emissions, or 7. Advertise, offer for sale, sell, or install the device on a motor vehicle, except on-road motorcycle, prior to or concurrent with transfer to an ultimate purchaser.

Signature (authorized device manufacturer contact):	Date of Signature:
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## INSTRUCTIONS FOR SUBMITTING THIS FORM

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Please submit to: ([AMPES@arb.ca.gov](mailto:AMPES@arb.ca.gov)).

For questions regarding this form, please contact ([AMPES@arb.ca.gov](mailto:AMPES@arb.ca.gov)).

A staff engineer assigned to your application submission will contact you after a preliminary review has been completed.

## PRIVACY STATEMENT

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Under the California Public Records Act (Gov. Code, § 6250 et seq.), your submissions, including associated contact information (e.g., your address, phone, email, etc.) become public records and may be released to the public upon request. Personal information will be protected from disclosure as required by law, including under the Information Practices Act (Cal. Civ. Code, § 1798, et seq.). Information that is claimed to be confidential should be submitted as provided in CARB's regulations for submitting confidential data, California Code of Regulations, title 17, section 91011.

***This application form provides an accessible example on how to comply with the "Procedures for Exemption of Add-on and Modified Part(s) For On-Road Vehicles/Engines", adopted: June 29, 2021, and does not alter, amend, or modify the applicable statutes or regulations in any way. It does not provide any options for alternative compliance. In the event of any conflicting interpretation, the statutes and regulations control.***