

cdphe.colorado.gov/environment/air-pollution/aftermarket-catalytic-converters



COLORADO'S Catalytic Converters Requirements

Colorado Catalytic Converter Facts

Effective January 1, 2021,
the laws governing the sale and installation of aftermarket catalytic converters in Colorado change.

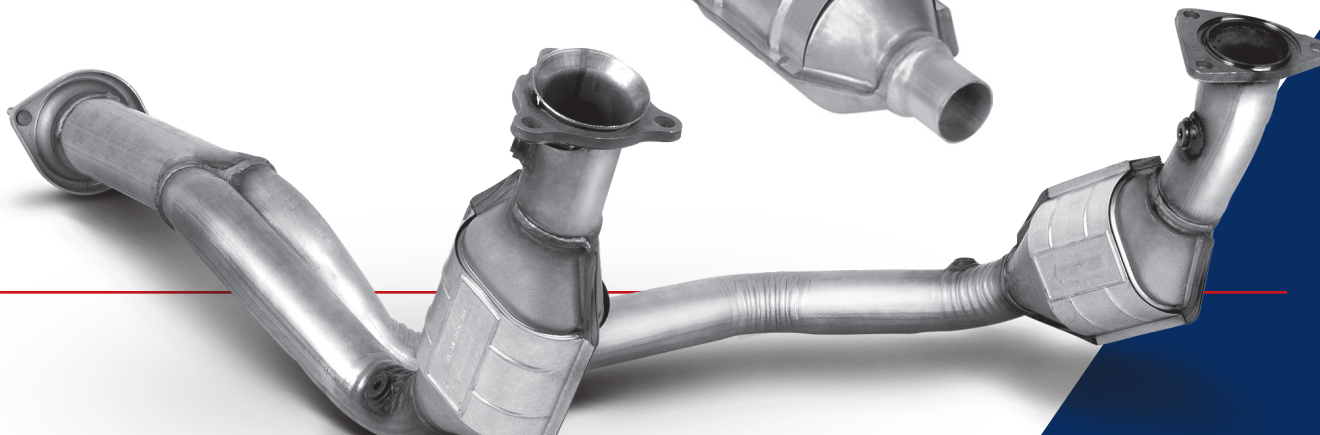
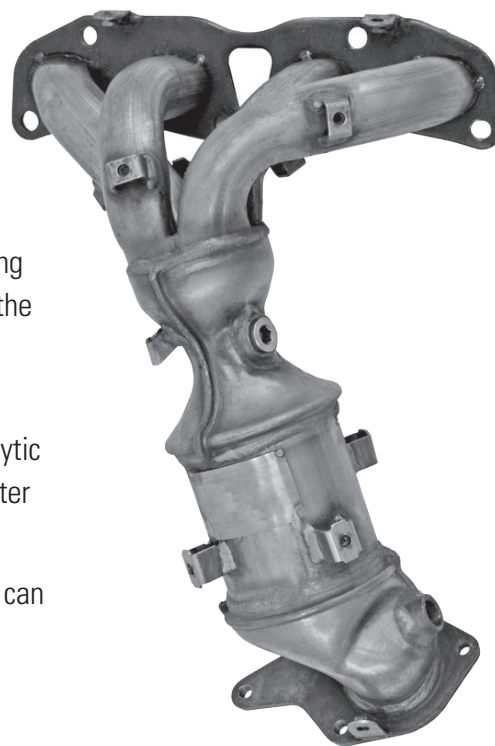
As of that date, it became illegal in the state of Colorado for any person to sell, offer for sale, advertise, or install any new aftermarket catalytic converter for use on any CARB or EPA 50 state certified vehicles, unless that new aftermarket catalytic converter has been exempted by CARB.

Federally certified new aftermarket catalytic converters may not be

installed on any vehicles, including Federally certified vehicles from the model years covered by the new rules.

Used, salvaged, or recycled catalytic converters cannot be installed after January 1, 2021 on any vehicle.

Failure to follow the regulations can result in a fine up to \$15,000.



How to Select The Correct Converter Replacement in Colorado:

Locate the Emission Control Information label, and ask these 2 simple questions:

If the vehicle requires a CARB-certified catalytic converter, there are several ways to determine the correct catalytic converter to install on a vehicle. The first point of reference should be the catalog provided by the aftermarket catalytic converter manufacturer. Aftermarket catalytic converter manufacturers have hardcopy and electronic versions of their product application guides for both California and Colorado approved converters. These application guides include the part number, make, model, model year, engine family (See next page for locating the Engine Family Number), and engine displacement/test group.

A listing of approved aftermarket catalytic converters is also available at California's Air Resources Board website: <https://ssl.arb.ca.gov/AftermarketParts/catalysts>

It is important to note that the California aftermarket parts website only provides results for vehicles that have a California-only certification, or vehicles that were dual certified for both California and Federal use. Therefore, some vehicles with a Federal-only certification will not be found in California aftermarket parts database.

The CARB aftermarket catalytic converter database provides options to search by vehicle make, model year, model, and engine size; or the installer may enter an executive order (EO) number to determine all applicable vehicles allowed for that EO. Air Resources Board exemptions are issued through Executive Orders. Executive Orders for pre-OBD II and OBD II converters can be sorted by Executive Order number, or by converter manufacturer. Aftermarket catalytic converters sold after January 1, 2009, will also have the CARB Executive Order number permanently labeled on the converter shell.

Before installation, installers should consult the manufacturer's catalytic converter application catalog to verify that the converter model is designed to fit the specific vehicle application and that it is specifically approved for use in Colorado. Statements such as "approved for use on OBD II vehicles" does not necessarily mean that the approval is valid for Colorado. If you still have questions, you may contact the NY DEC at 518-402-8292 or by email at air.regs@dec.ny.gov.

If a CARB approved aftermarket catalytic converter cannot be identified on the CARB aftermarket catalytic converter website, or in the manufacturer's catalog; please call 888-861-2646 for additional guidance.

Identifying AP Catalytic Converters



Identifying an AP Converter can be done by observing four markings that are stamped on to the converter.



California Executive Order Number

AP Part Number

Arrow is Exhaust Flow Indicator

Manufacture Date

History of CARB Regulations

The California Air Resource Board was established in 1967 and was created to maintain a healthy air quality for the state.

In 2007, the state of California placed regulations on the type of new aftermarket catalytic converters that could be sold and installed within the state. New York adopted a similar aftermarket converter policy in 2022.

Now, to operate within the law, you must know how CARB regulations are interpreted for New York.

What is The Engine Family Number?

If the Emissions Control Information Label indicates that the vehicle is a California / CARB / ARB vehicle, the "Engine Family Number" must also be determined.

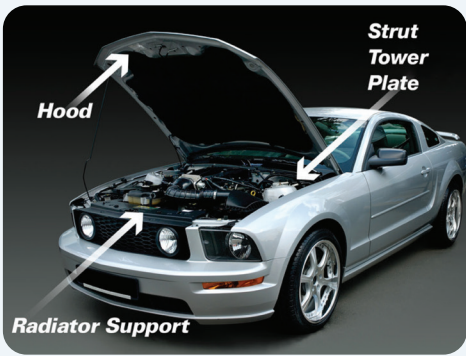
This is sometimes called the "Engine Family Code," "Test Group," or "Group Number."

The number can be also found on the Emissions Control Information Label. It is vital to know the Family Number when picking a replacement converter. If the label is missing, be sure to contact the OE dealer for the engine Family Number. The number must match the manufacturer's catalog information for the part number available for that vehicle.

Locating The Vehicles Emission Control Information Label:

All US vehicles are required to have an Emission Control Information Label.

It can be located on the underside of the vehicle's hood, the radiator support, or on the strut tower.



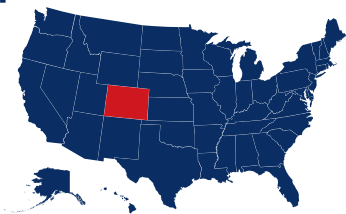
If the vehicle is California Emissions Certified, the label will reference "California," "CARB," or "ARB."

Federally certified vehicles' stickers will reference "Federal / EPA."



COLORADO Select The Right Replacement Part!

For informational tech tips and support
visit us online at: www.apemissions.com
email us at: tech.line@apemissions.com
call us at: 1.800.277.2787



Aftermarket Catalytic Converter Requirements

Vehicle Years	Vehicle Emissions Sticker	Replacement Converter
1975 - 1995* Pre-OBD II	Federal / EPA 50-States California/CARB	California / CARB CAL/CARB Pre-OBD II
1996 - NEWER OBD II	Federal / EPA	California / CARB
	50-States	California / CARB
	California / CARB	California / CARB

**No Used,
Salvaged, or
Recycled Converters
Can Be Used After
January 1, 2014**

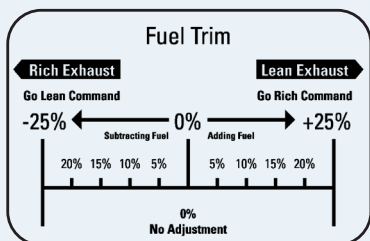
* Some 1994 & 1995
vehicles are equipped
with OBD II Emissions.

Preventing Contamination of a New Converter

URGENT: If a catalytic converter has failed, it is up to the technician to thoroughly diagnose the problem to find out what caused the failure. If this is not done, it will eventually lead to failure of the new converter.

To prevent contamination of a new converter, follow these service procedures:

- 1** Retrieve all PCM (power train control module) trouble codes and make the required repairs for all codes before replacing the converter.
- 2** Review repair history and test base engine condition to ensure old converter is not damaged by engine issues such as oil consumption, low compression, or coolant leakage. Testing should include: relative compression test, power balance test, volumetric efficiency test and cooling system pressure / leak down test.
- 3** Check for any manufacturer's technical bulletins, recalls or PCM re-programming updates that may be required for the vehicle. Example: vehicle PCM Reprogramming updates that eliminate false P0420 or P0430 codes.
- 4** Inspect for any exhaust system leaks or restrictions. Repair any exhaust system leaks. Ensure there are no exhaust restrictions downstream of the converter being replaced. Exhaust restriction will overheat and ruin the new converter.
- 5** Test all O2 sensors for proper operation and monitor fuel trims to be sure vehicle is in proper fuel control.
- 6** Ensure engine combustion chambers and fuel injectors are free of carbon deposits. Carbon deposits reduce combustion efficiency and overload the converter with excessive emissions that overheat and damage the converter.
- 7** When required, clean the deposits with a cleaning system before converter replacement.
- 8** Verify proper EGR and secondary air injection system operation if equipped.
- 8** Inspect the original converter internally for overheating or melt down, soot and carbon deposits, or signs of coolant contamination. Determine and repair the root cause of the problem that caused the original converter to fail before replacing the converter.



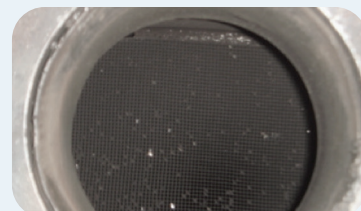
Normal long-term fuel trims are in the range of -10% to +10%. If outside of these parameters, further diagnosis is required.



Coolant from a head gasket leak on one cylinder has steam blasted carbon from the Right Inlet. Note the coolant contamination to the substrate.



Normal light gray coloration of converter inlet – indicates good mechanical operating condition.



Soot/carbon deposits at converter inlet indicating excessive oil consumption and excessive emissions entering converter.

Common Causes of Converter Failures



Improper Air/Fuel Ratio or Secondary Ignition System Misfires. Thermal Breakdown Due To Unburned Fuel.



Excessive Exhaust Temperatures.



Physical Impact Damage.



Carbon, Oil, Coolant Contamination.

