

CHP INFORMATION BULLETIN: AN EXHAUST NOISE STANDARD TO GUIDE ENFORCEMENT OFFICERS, AFTERMARKET MANUFACTURERS AND CONSUMERS

The California Highway Patrol (CHP), working with manufacturers and the Specialty Equipment Market Association (SEMA), has issued new guidelines to clarify state exhaust noise regulations. **CHP Information Bulletin No. 98-100** informs CHP and local officers, industry and consumers on applicable noise limits and allowable aftermarket exhaust modifications.

Where To Find It: The following indicates the paragraph # (e.g., Q2) in the CHP Bulletin containing key information to support aftermarket manufacturers and consumers on legal exhaust modifications.

The Bulletin acknowledges that exhaust modifications that increase noise may be legal under California regulations and that exhaust systems which meet a 95-decibel noise limit (13 CCR 1036(d)(1)), are deemed to comply with California's modified exhaust enforcement provisions (Vehicle Code Sections 27150 and 27151). [Q2 & Q10]. The document also advises that the California Vehicle Code does not automatically prohibit modifications that increase exhaust system noise levels over that of factory-installed systems. [Q2].

Industry representatives and the CHP have pledged to educate interested parties about California's applicable noise limits and proper enforcement standards. Because current regulations do not provide for practical roadside noise testing, enforcement stops will require an officer's informed, professional evaluation. [Q2]. The Bulletin notes that CHP lacks resources to independently verify manufacturer claims, but is aware there are aftermarket systems that meet the noise levels specified in 1036(d)(1), CCR 13. An officer may consider aftermarket manufacturer documentation in evaluating an exhaust system for excessive noise, both during an enforcement stop and when clearing a ticket pursuant to a "Notice to Correct" citation (Vehicle Code Section 40610(b)). [Q13].

The following summarizes the Bulletin's guidelines with regard to aftermarket exhaust systems and enforcement of California's noise regulations:

- **Exhaust Noise Limits:** California regulations contain a number of sections specifying permissible vehicle noise levels. The Bulletin advises that passenger car exhaust systems [Q9] that comply with the requirements of Section 1036(d)(1), 13 CCR are deemed to comply with Vehicle Code enforcement Sections 27150 and 27151, governing mufflers and exhaust system modifications. [Q10]. The exhaust noise provisions in 1036(d)(1) establish a limit of 95 dB(A) measured 20 inches from the exhaust pipe outlet with the engine operating in neutral, at a specified speed typically between 3000 and 5000 rpm (see regulations for details). [Q9]. Exhaust system modifications are permitted to increase noise above the level of original factory installed systems as long as the 95-decibel limit is not exceeded. [Q10].

- **Statewide Noise Standard:** The Bulletin advises that Section 21 of the Vehicle Code makes the Code applicable and uniform throughout the state, prohibiting local authorities from adopting additional noise limitations, unless expressly authorized. Citations issued under any such local ordinances are therefore invalid. [Q12].
- **Modified Exhaust Systems:** An aftermarket, replacement or modified tailpipe or muffler tip does not automatically constitute a violation of Vehicle Code Section 27151. In general, exhaust system piping, tubing, fittings, cosmetic tips or other passive devices placed behind the muffler have minimal impact on exhaust system sound levels. [Q4]. There are no regulations that require configurations or minimum dimensions for mufflers. A vehicle which does not visually appear to be equipped with a muffler, but does not emit excessive noise, should be deemed to comply with Sections 27150 and 27151. [Q4].
- **“Fix-it” Ticket:** Concerning enforcement action on excessive noise, the Bulletin recommends using CHP 281 “Notice to Correct” or checking the Dismissable Violation “Yes” box on CHP 215, “Notice to Appear (Arrest Citation)” unless disqualifying conditions listed in Section 40610(b) are present. [Q14]. This procedure will give vehicle owners an opportunity to present materials demonstrating that the vehicle complies with the 95dB(A) standard and seek to have the citation nullified.

Enclosed is a full copy of CHP Information Bulletin No. 98-100. Feel free to make copies of the bulletin or any portion of the enclosed documents for your customers. For more information, contact Frank Bohanan, Director, Technical Affairs, Specialty Equipment Market Association, 909/396-0289.

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INFORMATION BULLETIN

BULLETIN NO. 98-100

*for Allied
Agencies*

EXCESSIVE NOISE ENFORCEMENT PASSENGER VEHICLES, LIGHT TRUCKS AND MOTORCYCLES

The California Highway Patrol (CHP), Commercial Vehicle Section (CVS), has received many inquiries about excessive noise emitted by passenger vehicles, light trucks and motorcycles. Enforcement personnel and the public have inquired regarding enforcement of the Vehicle Code (VC) sections pertaining to excessive noise emitted by these vehicles.

Excessive noise is primarily a nuisance issue rather than a safety concern, and determination of excessive noise is subjective. For this reason, enforcement personnel are to exercise sound professional judgment in making a determination of violation. The following guidelines and attached question and answer sheet (Attachment A) provide guidance to enforcement personnel regarding appropriate enforcement procedures.

Enforcement Guidelines

The only drivers who should be cited are those whose vehicles:

- 1) are **not** equipped with a muffler;
- 2) **clearly** emit an offensive, harsh, excessive noise, or;
- 3) have a **clearly** defective exhaust system (holes, leaks, etc.).

Clearing Citations

When clearing excessive noise citations issued by the CHP or allied agencies, personnel are to consider exhaust systems in compliance if they incorporate a reasonably effective muffler, do not emit an offensive, harsh, excessive noise, and appear to be in good repair.

ATTACHMENT A

Q1 Doesn't the VC require a muffler on every vehicle?

Yes. Section 27150 VC requires that every motor vehicle subject to registration be equipped with an adequate muffler. There are no exceptions -- all vehicles must be equipped with a muffler, as defined in Section 425 VC. A turbocharger is not considered a muffler.

Q2 Aren't all exhaust system modifications prohibited?

No. Section 27151 VC prohibits the modification of the exhaust system to amplify or increase the noise emitted by the vehicle, making the vehicle not in compliance with Section 27150 VC or exceeding the noise limits established in Sections 27201-27206 VC. Section 27151 VC does not prohibit all modifications to an exhaust system. It also does not prohibit all modifications that increase the noise level of the exhaust system over that of the original, factory-installed exhaust system (as it did until 1980). It only prohibits modifications that result in a noise level higher than those specified in Sections 27201-27206 VC. Accurately determining compliance with Sections 27201-27206 VC for enforcement purposes is generally impractical. Enforcement personnel must make an informed professional evaluation to determine if excessive noise statutes are being violated.

Q3 Do I have to actually listen to a vehicle to cite it for a violation of either Section 27150 or 27151?

Yes. Drivers of vehicles should not be cited for violation of either Section 27150 or 27151 VC unless the officer has personally listened to the vehicle in operation. This can be either under actual driving conditions or with the vehicle stationary and the engine running. Even if the officer has inspected the exhaust system and does not see a muffler present, the officer should listen to the vehicle. The purpose of this is to be sure that the exhaust system does not incorporate internally baffled pipes or other components that meet the definition of a muffler. There are no specifications which state required configurations or minimum dimensions for mufflers. A vehicle that does not visually appear to be equipped with a muffler, but does not emit excessive noise, should be deemed to comply with Sections 27150 and 27151 VC.

Q8 What are the noise levels specified in Sections 23130 and 23130.5 VC and how can they be enforced?

Sections 23130 and 23130.5 VC specify noise standards for vehicles operating on the highway (in-use vehicles), and are intended for use in actual traffic conditions. The limits of Section 23130 apply under all conditions of grade, load, acceleration and deceleration. The lower limits of Section 23130.5 apply only to relatively level roadways and under conditions of relatively constant speed. They specifically do not apply to areas of congested traffic that require noticeable acceleration or deceleration, or within 200 feet of an official traffic control device or change in grade. Although these sections were intended for use in actual traffic conditions, the complexities of noise testing require the testing be conducted in a relatively large open area free of other vehicles and large sound-reflecting objects. This makes in-use vehicle noise testing in most developed areas impractical, where noise complaints are most likely to occur. The CHP does not currently provide either the instrumentation or training necessary to conduct vehicle noise testing. Enforcement using Section 27150 or 27151 VC is usually more appropriate and effective.

Q9 What is the exhaust noise test specified in 13 CCR? Can this be used for enforcement?

Sections 1030-1036, 13 CCR, were intended to be used by Licensed Muffler Certification Stations as a means of determining if an exhaust system met the requirements of the Muffler Certification Program (when those programs were operational). They specify testing procedures for motor vehicle exhaust noise alone (as opposed to total vehicle noise). This procedure specifies a limit of 95 dB(A) measured 20 inches from the exhaust pipe outlet with the engine operating in neutral, typically at a speed of 3000-5000 rpm. (For comparison, a modern rotary lawn mower with a 5-horsepower Briggs & Stratton engine typically emits approximately 93 dB(A) at the same distance at full speed under no load.) It applies only to passenger vehicles. It does not apply to motorcycles or to vehicles over 6000 pounds gross weight.

Q10 Can this test be used in enforcement?

Not readily. Although much simpler than the test methods specified in Sections 23130 and 23130.5 VC, this test method still requires some technical expertise and a means to determine both the speed (rpm) of the engine under test (tachometer) and the rpm at which maximum horsepower of the engine is

developed (information which may not always be readily available), as well as a sound level meter. It is not intended for roadside noise testing. The CHP does not currently provide either the instrumentation or training necessary to conduct exhaust noise testing.

This test is useful, however, for determining if an aftermarket or performance exhaust system complies with VC requirements. It should be noted that the 95 dB(A) level, because it is intended as a simple "go-no-go" type of test, may permit exhaust noise somewhat higher than those permitted under Sections 27201-27206 VC. An exhaust system that complies with the requirements of Section 1036(d)(1), 13 CCR, is deemed to comply with Sections 27150 and 27151 VC.

Q11 What happened to the Muffler Certification and the Licensed Muffler Certification Station Programs?

Funding for both programs was terminated in 1979. There are currently no Official Muffler Certification Stations, no listing of certified mufflers and no formal mechanism in place to conduct objective vehicle or exhaust noise testing.

Q12 Can local authorities enact or enforce more strict ordinances regarding vehicle noise?

No. Section 21 VC makes the VC applicable and uniform throughout the state, and prohibits local authorities from enacting or enforcing any ordinance on the matters covered by the VC unless expressly authorized to do so. In-use vehicle noise is addressed in Sections 23130 and 23130.5 VC. There is no provision in the VC that permits local authorities to adopt additional noise limitations. Consequently, citations issued under such ordinances are invalid.

Q13 Some aftermarket exhaust systems include documentation that the system has been tested and found to meet the requirements of Section 1036(d)(1), 13 CCR. Are those legal?

The CHP does not have the resources to independently verify manufacturer's claims, but is aware that some aftermarket exhaust systems do meet the noise levels specified in Section 1036(d)(1), 13 CCR. An officer may consider such documentation in evaluating an exhaust system for excessive noise, both during the issuance of a citation and when clearing a citation pursuant to Section 40610(b) VC.

Q14 What type of enforcement action should be taken against vehicles emitting excessive noise?

Providing none of the disqualifying conditions listed in Section 40610(b) are present, the use of the CHP 281, "Notice to Correct," or checking the Dismissable Violation "Yes" box on the CHP 215, "Notice to Appear (Arrest Citation)," would be appropriate for these violations.