

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON TRANSPORTATION

Laura Friedman, Chair

SB 1079 (Portantino) – As Amended May 23, 2022

SENATE VOTE: 28-4

SUBJECT: Vehicles: sound-activated enforcement devices

SUMMARY: Authorizes six unspecified cities named by an unspecified entity to conduct a pilot program to evaluate the use of sound-activated enforcement devices to capture vehicle noise levels that exceed the legal sound limit. Specifically, **this bill:**

- 1) Authorizes the pilot to operate from January 1, 2023, to December 31, 2027.
- 2) Defines a “sound-activated enforcement system” to mean an electronic device that utilizes automated equipment that activates when the noise levels have exceeded the legal sound limit and is designed to obtain-clear video of a vehicle and its license plate.
- 3) Requires a sound-activated enforcement system to do all of the following:
 - a) Record audio, precision accuracy noise levels, and high definition video in two directions,
 - b) Utilize an automated system that triggers when excessive vehicle noise over the limit is detected and save the data for review by the participating city,
 - c) Automatically delete any evidence not related to a violation,
 - d) Permit a participating city to manually review evidence to ensure a violation has occurred prior to submitting a notice of violation,
 - e) Permit a participating city to delete data when no violation is found or the city is unable to identify the offending vehicle, and
 - f) Conform to the class 1 accuracy standards in the International Electrotechnical Commission’s (IEC) standard IEC 61672:2013.
- 4) Requires participating cities to prepare and submit an annual report to the Legislature evaluating the effectiveness of the pilot program, as specified.
- 5) Authorizes participating cities to issue criminal infractions for having an illegally modified muffler.
- 6) Provides that cities cannot impose a penalty for a driver’s first violation.
- 7) Provides a driver shall not be penalized more than once within a calendar month.
- 8) Requires cities to process and issue a notice of violation within 30 business days of the violation.
- 9) Requires cities to prominently include information regarding low-income and ability-to-pay programs in all notices of violation.

- 10) Requires cities to consider an alleged violator's ability to pay the penalty and allow payment of the penalty in installments or deferred payment if the person provides satisfactory evidence of an inability to pay the penalty in full.
- 11) Requires the pilot cities to meet several consumer protection and privacy conditions:
 - a) Prior to implementation, consult and work collaboratively with relevant local stakeholder organizations in developing the Sound-Activated Enforcement Device Use Policy.
 - b) Conduct a public information campaign at least 30 days prior to issuing citations.
 - c) Include a clear photograph, video recording, or other visual image of the license plate and rear of the vehicle only, a citation of the law violated, the camera location, and the date and time when the violation occurred. Notices of violation must exclude images of the rear window area of the vehicle.
 - d) Keep speed safety system data and records confidential. Requires video not capturing a violation to be automatically deleted, with other information deleted after final adjudication.
 - e) Give the registered owner of the vehicle or an individual identified by the registered owner as the driver of the vehicle at the time of the alleged violation the right to review the photographic, video, or visual evidence of the alleged violation.
 - f) Require information collected and maintained using a sound-activated enforcement system to be used only to administer the program and prohibits disclosure to any other person, including a state or federal agency, except as required by law, court order or subpoena.
 - g) Meet vendor contracting requirements, as specified, including a requirement that any system data collected is confidential and may not be shared, repurposed, or monetized for purposes other than enforcement.
 - h) Requires sound-activated enforcement devices to be distributed across a participating city and not be disproportionately placed in a single area or placed in areas of similar socioeconomic status.
 - i) Requires sound-activated enforcement programs to clearly identify the presence of the systems by placing signs that state "automated vehicle noise enforcement" within 500 feet of the system. Requires the signs to be visible to traffic traveling on the street from the direction of travel for which the system is utilized.
- 12) Requires revenue generated by the program to first be used by participating cities to recover the costs of the program, and may also use the revenue for traffic calming measures, including but not limited to, bicycle lanes, chicanes, chokers, curb extensions, median islands, raised crosswalks, road diets, roundabouts, speed humps or speed tables, and traffic circles.

- 13) Requires the devices to undergo an annual calibration check performed by an independent calibration laboratory, which shall issue a signed certificate of calibration.

EXISTING LAW:

- 1) Allows an officer to issue a written notice containing a violator's promise to correct an alleged violation involving a registration, license, all-terrain vehicle safety certificate, or mechanical requirement in lieu of a ticket unless the officer finds any of the following:
 - a) There is evidence of fraud or persistent neglect,
 - b) The violation presents an immediate safety hazard,
 - c) The violator does not agree to, or cannot, promptly correct the violation; or,
 - d) The violation cited is of subdivision (a) of Section 27151 for a motorcycle.
- 2) Allows a court to dismiss the charges for a corrective ticket if the violator presents, by mail or in person, proof of correction on or before the date on which the violator has promised to appear.
- 3) Allows a violator to prove they corrected a violation with a proof of correction certificate from the following sources:
 - a) The DMV for a violation involving a driver license and registration.
 - b) A licensed station or licensed adjuster that is licensed by the Bureau of Automotive Repair or a violation involving a brake, lamp, smog device, or muffler; and,
 - c) A police department, the California Highway Patrol (CHP), sheriff, marshal or other law enforcement agency regularly engaged in enforcement of the vehicle code.
- 4) Authorizes stations providing referee functions to provide for the testing of vehicle exhaust systems and issue certificate of compliance for vehicles issued violations for modified or inadequate mufflers.
- 5) Authorizes the certificate of compliance to be issued if the vehicle, other than a motorcycle, has a gross vehicle weight rating of less than 6,000 pounds and emits no more than 95 weighted decibels (dbA) when tested in accordance with Society of Automotive Engineers Standards.

FISCAL EFFECT: This bill has been marked non-fiscal by Legislative Counsel.

COMMENTS:

Loud cars are a common source of noise pollution. California law requires most vehicles to be equipped with mufflers to ensure a sound level of 80 decibels (db) or less to protect hearing. When someone gets a ticket for having a bad muffler or a modified muffler, they are given the option to fix the muffler in lieu of paying the entire fine (motorcycles are not eligible to receive a fix-it ticket for loud mufflers). They can prove the muffler is fixed by their car to a Bureau of

Automotive Repair's approved referee to test a vehicle's db. When a vehicle is tested for the purposes of a fix-it ticket, the vehicle is tested to see if it is at 95 db in order to pass the test. The higher db for the fix-it test reflects the test conditions for the vehicle (indoors vs. outdoor setting).

Loud cars have become a large part of the racing culture. According to Dag Balkmar, a Senior Lecturer in Gender Studies at the University of Orebro, Sweden, and author of a thesis on masculinity and car modification "The noise itself is also part of the appeal. If you've ever heard one of these cars go past, you'll know it makes an impression. Is this about a particularly masculine way of inhabiting space? Having a loud car can really make an emotional and affective impression on drivers, or the people outside of the car." It's about making an impression, saying, 'I'm here. You have to take notice of me.' It's definitely a way of expanding and taking over space, which is a typically masculine way of being."

According to the Center for Disease Control (CDC), about 40 million US adults between 20-69 years of age have noise-induced hearing loss. "Over time, listening to loud sounds at high db levels can cause hearing loss—or other hearing problems like a ringing sound in your ear that won't go away. The louder a sound is, and the longer you are exposed to it, the more likely it will damage your hearing."

CDC outlines that continual exposure to noise can cause stress, anxiety, depression, high blood pressure, heart disease, and many other health problems. CDC estimates that the costs of the first year of hearing loss treatment in older adults is projected to increase more than 500% from \$8 billion in 2002 to an estimated \$51 billion in 2030.

CDC outlines that 85 db is the approximate point at which extended exposure can cause hearing damage.

In recent years, the Legislature has taken several steps to address the issue of loud mufflers. AB 1824 (Committee on Budget), Chapter 38, Statutes of 2018 removed the fix-it ticket authority for having a modified or inadequate muffler. After concerns were raised about the impacts of this provision from legal services groups, the Legislature modified this restriction with the passage of SB 112 (Committee on Budget), Chapter 364, Statutes of 2019 to only restrict fix-it tickets for modified mufflers for motorcycles.

According to the author, "Illegally loud exhaust harms our bodies, can be deafening if you are walking or cycling on a street, and wakes people up from their sleep. While vehicle exhaust noise is limited to 95 decibels, there is no universal means to monitor and enforce this law. Vehicle owners can easily buy and install new exhaust systems or make other modifications to their vehicle that will change the level of sound. SB 1079 will permit six cities or counties, to be determined later, to address illegal noise violations in their community by using decibel-measuring tools and noise activated cameras."

According to Streets for All, "Noise pollution is an excessive sound that causes adverse reactions for humans and other living creatures. Exposure to loud sounds can result in hypertension, hearing loss, difficulty sleeping, increased stress levels, cardiovascular disease and impedes child development. Under California Vehicle Code, vehicle exhaust noise is limited to 95 decibels (dbA) and motorcycles are limited to 80 dbA.

As of now, there is no universal means to monitor and enforce this law. This lack of enforcement leads to more individuals modifying their vehicle for the purpose of having a loud exhaust. Vehicle owners can install new exhaust systems or make other modifications to their vehicle that will change the level of sound their vehicle produces. These modifications are widely accessible and easily installed at any in-home garage. SB 1079 creates a pilot program in six cities to install decibel-measuring tools and noise activated cameras in an effort to enforce sound limitations.”

Do noise activated cameras work? Sound-activated cameras are novel and have been tested or used in several countries. Edmonton, Canada has been piloting these cameras in a pilot program referred to as TENSOR (Traffic Enforcement Noise/ Speed Offense Reduction) since 2019.

In 2021, a committee report from the Edmonton City Council on TENSOR noted several challenges, including: “The mobile noise monitoring unit was limited in its use and application given the wide-ranging geographical nature of excessive noise complaints. The model of using the mobile unit and deploying staff in close proximity was resource-intensive and had limited success in identifying any significant number of offending vehicles. Downtime of equipment due to vandalism and moving of equipment increased pilot costs. The need to exclude certain sounds or noise levels, such as sirens from emergency vehicles, was done manually and was labor intensive. Ultimately, the automated technology was not able to discern between sources of noise and could not identify individual offending vehicles to a degree that would meet the evidentiary test required for court purposes.”

The city of Knoxville, Tennessee and Paris, France began testing sound-activated cameras this year. Neither are issuing violations.

The United Kingdom has been testing the cameras since 2020 and this year began issuing fines of 100 pounds. The United Kingdom Department of Transport has told the British press that “The trial has shown that the technology has the potential to identify excessively noisy vehicles, but that there are still challenges in accurately measuring noise from individual vehicles in busier traffic conditions. The Department intends to conduct further research into the use of acoustic cameras with the aim of addressing these challenges and enabling the wider use of the technology for the enforcement of vehicle noise requirements.”

New York City began testing the cameras used in the United Kingdom in July of 2021. It is issuing summons for cars to report for inspection to check if their muffler has been modified. New York City reported to this Committee that they initially had issues with the cameras on picking up any violations, as the location they chose was in a location with other loud noises that were drowning out the sound of the mufflers. New York City issued a total of 21 fix-it notifications. Only six drivers appeared to have their cars inspected. Of the six, five had compliant mufflers, though New York City noted that it had appeared they may have been installed prior to the mandatory visit. New York City issued \$800 penalties for the rest of the drivers that failed to appear. New York City made the determination not to issue violations if multiple cars were in the frame because of the inability to discern which car may have triggered the noise activated camera.

The ACLU, writing in opposition to this bill, argues “Applying this technology to loud vehicles raises even greater concerns about the risk of accuracy and effectiveness. If it is unable to

accurately determine whether a gun was fired in a particular area, how can this technology accurately determine whether a vehicle exceeded the legal limit for noise levels, let alone which vehicle in a crowded roadway with multiple lanes is triggering the sound-activated enforcement device?

This is not an idle question. The pilot of this technology in Edmonton, Canada, for example, found that ‘the technology couldn’t tell the difference between sources of noise or identify offending vehicles to the precision required by court.’ That three-month pilot program cost the city \$192,000 plus personnel costs, yet yielded only one enforcement of noise pollution laws.”

Committee Concerns: Sound-activated cameras have potential as a means of enforcement; however, they are novel, with various cities testing the efficacy of these devices in accurately identifying which vehicle has an excessively loud muffler. Many of these cities are not currently issuing violations, with several reporting that the cameras inability to determine where the sound is coming from leaves them concerned about whether or not the violations would hold up in court.

One manufacturer that Committee staff met with showed various videos of potential violations caught using a sound-activated camera. The manufacturer repeatedly said that determining which vehicle was the one that triggered the device is “subjective.”

In order to effectively address the issue of loud mufflers, it would be prudent to ensure that the device used to identify potential violators is effective.

The California Highway Patrol (CHP) would be well-equipped to make this evaluation. CHP has an emergency vehicle operations course, a 1.9 mile high-speed track, skid pan, and 2.9 mile defensive driving network that could be used to test the devices available in various scenarios involving multiple cars and sounds coming from different directions.

Therefore, the committee recommends striking all of the language of the bill, except as provided below, and replacing it with the following:

(a) The California Highway Patrol shall evaluate the efficacy of sound-activated enforcement systems.

(b) The California Highway Patrol shall evaluate sound-activated devices from at least three different companies.

(c) The California Highway Patrol shall prepare and submit a report to the Legislature that evaluates and determines the effectiveness of the sound-activated enforcement systems. The report shall include the following information:

- (A) How effective the devices are at determining a vehicle was not equipped with an adequate muffler in constant operation and properly maintained so as to meet the requirements of article 2.5 (commencing with Section 27200).
- (B) How often the device identified a potential violation that was not related to a violation of section 27150 and what types of sounds other than a loud muffler triggered the device.
- (C) What percentage of time an officer was unable to determine the source of the sound that activated the device.

- (D) How often the device was required to be serviced.
- (E) What, if any technology does the sound-activated enforcement system use to determine the direction or source of the device that violated the sound limits provided for in article 2.5 (commencing with section 27200).
- (F) Where the devices were located, and whether the location had any consequences to the effectiveness of the device.
- (G) The number of devices the California Highway Patrol tested and what company's devices they tested.

(d) The report should also include recommendations on the following:

- (A) Which, if any, device or devices would the California Highway Patrol recommend be used for the purposes of enforcing sections 27150 or 27151 and the reasoning why the California Highway Patrol made that determination. If the California Highway Patrol determines none of the systems, the report shall include what standards and parameters should be met by future technology.
- (B) What, if any, restrictions should be placed on the use of such a device in enforcing sections 27150 or 27151, including but not limited to the decibel level that should be set for triggering a potential violation for the purposes of enforcement.
- (C) Where the devices should be optimally located in order to reduce the chances of a false violation.
- (D) Descriptions and explanation of any necessary and associated training that an individual reviewing these violations would need to through to operate the sound activated enforcement system, including recommendations for what is necessary for a robust human review process.
- (E) Any other recommendations the California Highway Patrol believes would be necessary for authorizing the use of sound-activated devices.
- (F) The report shall include video demonstrating the device. The video shall be edited to remove any personally identifying information, including the blurring of persons recorded in the video, street addresses, and license plates.

(e) This report shall be due back to the Legislature by January 1, 2025.

(f) The Highway Patrol shall delete all videos recorded on a highway by the device within five days of the video being recorded. However, the Patrol shall keep 15 videos from each company evaluated for the purposes of preparing this report and issues related to each device that helped them make their recommendations. The California Highway Patrol shall not keep any recording that picked up audio of a person speaking if recorded on a highway.

(f) Notwithstanding Section 6253 of the Government Code, or any other law, information collected and maintained by The California Highway Patrol ~~a participating city~~ using a sound-activated enforcement device shall be confidential and only be used to administer the program, and shall not be disclosed to any other persons, including, but not limited to, any other state or federal government agency or official for any other purpose, except as required by the reporting requirements in this section, state or federal law, court order, or in response to a subpoena in an individual case or proceeding.

~~(2)~~ (g) A “sound-activated enforcement system” means an electronic device that utilizes automated equipment that activates when the noise levels have exceeded the legal sound limit *established in Section 27151* and is designed to obtain ~~a clear photograph~~ *clear video* of a vehicle and its license plate. *A sound-activated enforcement system shall do all of the following:*

(A) Record audio, precision accuracy noise levels, and high definition video in two directions.

(B) Utilize an automated system that triggers when excessive vehicle noise over the limit is detected and save the data for review ~~by the participating city.~~

(C) Automatically delete any evidence not related to a violation.

(D) Permits the California Highway Patrol ~~a participating city~~ to manually review evidence to ensure a violation has occurred ~~prior to submitting a notice of violation.~~

(E) Conform to the class 1 accuracy standards in the International Electrotechnical Commission’s (IEC) standard IEC 61672:2013 or any other accuracy standard determined to be appropriate by the California Highway Patrol.

REGISTERED SUPPORT / OPPOSITION:

Support

Activesgv
Calbike
California Contract Cities Association
California Police Chiefs Association
City of Santa Monica
Hayward; City of
Laguna Beach; City of
San Diego; City of
Streets for All

Oppose

ACLU California Action
Electronic Frontier Foundation
Oakland Privacy
Safer Streets LA

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