

Date of Hearing: June 17, 2024

ASSEMBLY COMMITTEE ON TRANSPORTATION

Lori D. Wilson, Chair

SB 961 (Wiener) – As Amended May 8, 2024

SENATE VOTE: 22-13

SUBJECT: Vehicles: safety equipment

SUMMARY: Requires that 50% of new passenger vehicles, motortrucks, and buses commencing with the model year (MY) 2029, and 100% starting MY 2032 onwards, that are manufactured or sold in the state be equipped with a passive intelligent speed assistance (ISA) system. Specifically, **this bill:**

- 1) Defines “passive intelligent speed assistance system” as an integrated vehicle system that uses, at minimum, the global positioning system (GPS) location of the vehicle compared with a database of posted speed limits, to determine the speed limit, and utilizes a brief, one-time visual and audio signal to alert the driver each time they exceed the speed limit by more than 10 miles per hour (mph).
- 2) Clarifies that if an ISA receives conflicting speed limits for the same area, the system shall utilize the higher speed limit.
- 3) Exempts authorized emergency vehicles from these provisions and requires that passive ISA systems are capable of being fully disabled by the manufacturer or franchisee but only in vehicles sold as authorized emergency vehicles.

EXISTING LAW:

- 1) Preempts a State or a political subdivision from prescribing a motor vehicle safety standard that is not identical to existing federal law, unless a federal motor vehicle safety standard is in effect, in which case, a State or a political subdivision may impose a higher performance requirement than that required by the otherwise applicable federal standard on a motor vehicle or equipment for the State’s own use. (National Traffic and Motor Vehicle Safety Act of 1966; 49 United States Code (U.S.C.) §301)
- 2) Defines a “motor vehicle” as a vehicle that is self-propelled, excluding wheelchairs, motorized tricycles, or motorized quadricycles, if operated by a person who, by reason of physical disability, is otherwise unable to move about as a pedestrian. (Vehicle Code (VEH 415 (a))
- 3) A “new vehicle” is defined as a vehicle constructed entirely from new parts that has never been the subject of a retail sale, or registered with the department, or registered with the appropriate agency or authority of any other state, District of Columbia, territory or possession of the United States, or foreign state, province, or country. (VEH 430)
- 4) Imposes safety requirements for motor vehicle equipment including specifications for headlights, brakes, windshields, mirrors, horns, and tires. (VEH 24000-28160)

FISCAL EFFECT: According to the Senate Appropriations Committee, pursuant to Senate Rule 28.8, negligible state costs.

COMMENTS: In 1965, Ralph Nader published “Unsafe at Any Speed”, which focused on alleged defects of the Chevrolet Corvair. His book, coupled with automobile accidents being the leading cause of death of Americans under the age of 44, at that time, led to a series of congressional oversight hearings on automobile safety.

Federal Regulation and Field Preemption. By the end of 1966, Congress had passed and President Lyndon B. Johnson had signed the National Traffic and Motor Vehicle Safety Act (NTMVSA). That law established the National Highway Safety Bureau (later to be succeeded by the National Highway Traffic Safety Administration (NHTSA)), which was granted the authority to mandate uniform safety standards on vehicles. NHTSA promulgates Federal Motor Vehicle Safety Standards (FMVSSs), regulating automotive design, construction and performance. Over several decades, and under the dicta of FMVSSs, auto manufacturers have implemented many safety features (*e.g.*, shoulder-lap belts, collapsible steering columns, shatter proof windshields, and back-up cameras) that are considered standard equipment in today’s vehicles.

The NTMVSA expressly prohibits states from imposing vehicle safety requirements that are not identical to existing federal law. The law permits a state to prescribe a higher performance standard than federal law dictates, but only if the motor vehicle or vehicle equipment is obtained for the state’s own use. Specifically, the Act states:

“*When a motor vehicle safety standard is in effect under this chapter, a State or a political subdivision of a State may prescribe or continue in effect a standard applicable to the same aspect of performance of a motor vehicle or motor vehicle equipment only if the standard is identical to the standard prescribed under this chapter.* However, the United States Government, a State, or a political subdivision of a State may prescribe a standard for a motor vehicle or motor vehicle equipment obtained for its own use that imposes a higher performance requirement than that required by the otherwise applicable standard under this chapter.” (49 U.S.C. §301(b)(1), emphasis added)

In the absence of an explicit federal law or regulation that would override or conflict with a state law, state laws may still be impliedly preempted by federal law due to the federal government’s “occupation of the field” (also known as field preemption)—that is, if a pervasive scheme of federal regulation implicitly precludes supplementary state regulation, or where states attempt to regulate a field where there is clearly a dominant federal interest.

Speeding kills. Between 2000 and 2018, over 660,000 people were killed in vehicle collisions. According to the National Safety Council, vehicle miles traveled dropped 13% in 2020, but the mileage death rate went up 24%, the highest estimated year-over-year jump in 96 years. Over 42,000 Americans lost their lives to traffic collisions in 2020, and an estimated 4.8 million road users were seriously injured in 2022. According to the Governors Highway Safety Association, the number of pedestrian fatalities in the United States has grown sharply. Between 2009 and 2018, pedestrian fatalities increased 53%. This is during a time when all other traffic-related deaths increased by 2%. In 2018, 17% of all traffic fatalities were pedestrians, compared to 12% in 2009.

According to the National Transportation Safety Board (NTSB), from 2005-14, crashes in which a law enforcement officer indicated a vehicle's speed was a factor resulted in 112,580 fatalities, representing 31% of all traffic fatalities. NTSB is an independent federal agency charged by Congress with investigating accidents, crashes, and other events in the aviation, highway, marine, pipeline, and railroad transportation modes, and providing recommendations to improve transportation safety in the nation. According to NTSB, 4,407 people in California died in a traffic collision in 2022. Speeding was a factor in 35% of these traffic fatalities.

Intelligent speed assistance (ISA). ISA technologies use sensors such as GPS or cameras to monitor a vehicle's speed and provide real-time feedback or intervention to ensure adherence to speed limits. “Active” ISA technologies include accelerator resistance to make speeding more difficult or engine management systems that automatically preventing speeding above the limit. “Passive” ISA methods include providing drivers with basic information about the posted speed limit or providing a visual, audible, and/or haptic feedback warning when the limit is exceeded.

ISA technology has been explored in various forms for over two decades. Research generally shows that ISA systems offer clear safety benefits such as reducing overall driving speed, speed variability, and the proportion of time the speed limit was exceeded.

In 1999, the Swedish National Road Administration conducted a three year trial of ISA technologies in urban areas. Thousands of vehicles were equipped with different ISA systems, some active and some passive. Participants used these devices for over a year and researchers observed reductions in speeding violations for all participants and no change in travel times in urban areas. The researchers estimated that if all drivers had ISA systems road injuries in urban areas could be reduced by as much as 20%. They also found that there was very little difference in the benefits between the types of system used.

In a 2010 study, the Dutch Ministry of Infrastructure equipped the vehicles of 50 serious speed offenders with either an active or passive ISA system for four months. For these participants, the distance driven above the speed limit reduced from 28% to 9% with the alert-only passive ISA system and from 26% to 5% with the speed-prevention active ISA system. Unfortunately, once ISA systems were removed, participants were observed to resume their original driving habits.

Limitations of ISA technologies. No ISA technology is without its flaws. For example, GPS-based ISA systems may not include local roads or detect accurate speeds. Alternatively, camera-based systems, which detect the limit by reading posted signage, have the advantage of being able to better adapt to local conditions, *e.g.*, road work zones, but the disadvantage of being limited by visibility and presence of signage. This can particularly be an issue when exiting a side road onto a main road, as the vehicle may not pass a speed sign to update the higher speed for a significant distance. According to the Alliance for Automotive Innovation, camera-based ISA systems may also fail because of the wider variety and fewer number of speed limit signs in the U.S. relative to Europe, and the absence of a standardized database for posted speed limits.

All ISAs share the same flaw of being limited in their ability to react to local conditions. Road features such as curves, weather conditions that limit visibility, or unusual behavior by others on the road may all warrant lower speed limits than the posted limit. In order to address these limitations active ISA systems generally come equipped with some kind of override option, though the exact features vary between systems. These overrides also are designed to address

concerns about rare moments when increased speed may be necessary for safety, such as when passing a vehicle or avoiding a sudden hazard.

ISA implementation in other jurisdictions. Various governments have begun requiring the use of ISA technology. The European Parliament has established the broadest requirement, mandating all new models/motor vehicle types introduced to the market in the EU to be equipped with ISA systems beginning in July of 2022 and all new vehicles sold in the EU after 2024. These regulations provide for a more flexible definition of ISA than provided for in this bill. Under the EU regulations these systems must:

- Automatically turn on each time the vehicle is started.
- Alert drivers through accelerator control or through dedicated and appropriate feedback that the applicable speed limit is exceeded.
- Be able to be switched off by the driver for as long as necessary and to be easily switched back on by the driver.
- May continue to provide information about the speed limit even when switched off.

The EU regulations authorize two active and two passive ISA systems: (1) haptic feedback through the acceleration pedal; (2) automatic speed control through engine management; (3) an optical signal, followed by an acoustic warning; or (4) an optical signal, followed by vibration of the pedal. In the two passive ISA systems, the combined warnings will ultimately time-out. Unlike the EU regulations, which permit either active or passive ISA systems and further allow a driver to deactivate the ISA system, this bill proposes a single type of passive ISA that cannot be deactivated.

In the United States, the federal government does not currently have any requirements for vehicles to be equipped with ISA systems. The National Traffic Safety Board (NTSB) has called on NHSTA to require ISA systems that, at a minimum, warn a driver when a vehicle is speeding and to incentivize adoption of ISA through the New Car Assessment Program (NCAP). In 2016, NHSTA issued a joint notice of proposed rulemaking with the Federal Motor Carrier Safety Administration (FMCSA) regarding requiring (non-intelligent) speed limiters to be placed on commercial motor vehicles. On January 28th of this year FMCSA stated that it intends to prepare a supplemental notice of proposed rulemaking to be released in May. On April 3rd NHSTA sent a letter to the NTSB responding to their request to require passive intelligent speed assistance systems on all new vehicles. In that letter, NHSTA stated they are currently working on two ISA research projects this year. The studies will assess the capabilities and limitations of technologies and assess consumer acceptance and effectiveness of the technology.

Absent action from federal regulators, states and local governments have also begun experimenting with their own policies. New York City's Department of Citywide Administrative Services began a pilot program in August of 2022, equipping city fleet vehicles with ISA technology. Since the launch of that program the 50 fleet vehicles utilizing ISA have driven over 133,400 miles and traveled within speed limit parameters 99% of the time. They also observed a 36% reduction in hard braking events, an indicator of unsafe driving.

In January 2024, Washington, D.C.'s city council instituted an ISA program that would allow its DMV to install ISA systems in the cars of drivers whose license was suspended or revoked for excessive speeding. The bill must still undergo congressional review before being enacted.

Manufacturer adoption, consumer acceptance, and cost. On the whole, increasing numbers of vehicles are equipped with passive ISA systems and the drivers are more accepting of them in their vehicles. Several automobile manufacturers have responded to the NTSB's recommendation to require ISA systems in new vehicles, broadly indicating current and/or planned voluntary inclusion of ISA systems. A recent June 2024 survey conducted by the Insurance Institute for Highway and Safety found that more than 60% of drivers would find it acceptable if their vehicle provided an audible and visual warning when they exceeded the speed limit; the percentage of drivers who agreed that a passive ISA increased to 80% if it only intervened at 10 mph over the posted limit.

Although most vehicles in the near future will likely incorporate some form of GPS capability or camera equipment, there are concerns this equipment adding to the cost of base models of vehicles and the impact on lower-income households. However, a 2017 report completed for the European Commission on cost-effectiveness of vehicle safety measures estimated a cost per vehicle of “€47–62 (Camera-based system that shares technology between four systems: [autonomous emergency braking (AEB), lane keeping assist, ISA, AEB for pedestrians and cyclists]). The total cost for components (camera, ECU, brackets, trim, wiring) and original equipment manufacturer (OEM) design and development, tooling costs, etc. was estimated at €186–249, based on individual costs extracted from (NHTSA, 2012).” (Current exchange rate, €1.00 = \$1.08, as of June 9, 2024) In fact, most vehicles will be required under recent federal regulation to include some form of AEB sensing equipment (camera or radar, but more commonly both) by September 2029. Camera-and-radar AEB systems may account for different scenarios better, but one study by PSA Groupe showed that the cost-benefit was better for a camera system only, and camera systems could be used for many other safety features, thereby defraying costs.

According to the author, “Traffic fatalities have risen alarmingly in California and across the nation, with speeding being a significant contributor to this public health crisis. Technologies exist that can help reduce speeding in vehicles, including passive intelligent speed assistance systems that warn drivers when they are exceeding a specified speed threshold above the posted speed limit. These technologies are recommended by the National Transportation Safety Board, supported by the American Automobile Association, and are already being widely implemented by many American auto manufacturers. California should do everything it can to improve traffic safety and prevent fatalities on our roads - that includes improving vehicle safety standards in the face of federal inaction. By requiring a phased-in implementation of passive intelligent speed assistance technology on all passenger vehicles manufactured or sold in California, SB 961 works to tackle the traffic safety crisis.”

Writing in support, a coalition of proponents, including co-sponsors California Bicycle Coalition, Streets for All, and Walk SF, state: “The National Association of City Transportation Officials (NACTO) notes that “A person hit by a car traveling at 35 [mph] is five times more likely to die than a person hit by a car traveling at 20 [mph].” Despite the clearly established relationship between speed and collision severity and the implementation of speed-limiting technology in less deadly scooters and bicycles, cars are still easily able to exceed even the highest speed limits in the state and speed-related passenger fatalities continue to rise. ... For these reasons, we strongly support SB 961.”

In opposition, a coalition comprising the Specialty Equipment Market Association, California Manufacturers and Technology Association, California Trucking Association, California

Motorcycle Dealers Association, ABATE of California, California Fuels and Convenience Alliance, Truck & Engine Manufacturers Association, and Associated General Contractors (California Chapters), writes that: “Through the National Highway Traffic Safety Administration (NHTSA) and the National Traffic and Motor Vehicle Safety Act, federal law establishes comprehensive safety standards for all vehicles sold in the United States. ... SB 961 risks setting a dangerous precedent for state-level intervention, potentially creating a patchwork of conflicting regulations across the country. This could ultimately harm both consumer choice and industry stability.”

Committee comments: This bill requires certain new vehicles manufactured or sold in the state to include a passive ISA system.

The federal government has not explicitly enacted regulations regarding the inclusion of ISA systems, active or passive. However, federal rules determine what safety features new cars manufactured and sold in the U.S. must have, and state law is preempted by federal law. This generally prevents states from requiring vehicle manufacturers to comply with safety criteria that otherwise might differ from state to state.

The supporters of this bill argue that, as there are currently NHTSA rules regarding ISA technology, states are free to act as they wish in requiring those technologies. Moreover, proponents argue that waiting for NHTSA to act may take upwards of decades, and may result in ineffectual standards as in the case of NHTSA’s development of rear impact guard (underride) standards. However, NHTSA currently is researching intelligent speed technology in order to evaluate potential rulemaking in response to requests from NTSB. While the bill has provoked nationwide conversation on ISAs, it is not assured that the bill, in its current, narrowed scope, will pressure NHTSA to promulgate “more stringent” regulations than they otherwise might have, absent SB 961.

Furthermore, the FMCSA is planning on publishing a draft rule for an electronic, though not intelligent, speed limiter for commercial vehicles in 2024. If these rules become finalized, they may preempt major provisions of this bill. It remains unclear how this bill would interact with the FMCSA’s draft rule, and whether a commercial vehicle would have to comply with both federal requirement for an electronic active speed limiter and this bill’s proposed requirement in to be equipped with a passive ISA system.

Federal preemption concerns and the status of FMCSA and NHTSA’s tentative rulemaking aside, the question remains whether the requirement to equip new vehicles with a passive ISA, as proposed by this bill, will deter speeding in a significant and meaningful way to save lives.

The passive ISA system proposed by the bill utilizes a brief, one-time visual and audio signal to alert the driver each time they exceed the speed limit by more than 10 mph. While this may be a more reasonable, albeit still unlawful, threshold for an interstate highway, such a threshold is could be life-threatening for a pedestrian or cyclist in a residential or school zone. Further, the brief, onetime alert is unlikely to deter egregious speed violators from repeat offenses or from excessive speeds.

Lastly and importantly, the bill also overlooks other viable feedback modalities for passive ISA or control technologies for active ISA, such as those permitted in the EU. Moreover, it appears that many automobile manufacturers are currently moving towards inclusion of passive ISA systems. This bill may hamper auto manufacturers that are already working on implementing

ISA systems that are excluded by this bill, and impede the natural market adoption of ISA technology that is already occurring.

Proposed Committee Amendments. Consumers and manufacturers appear to be moving towards adoption of passive ISA systems in the absence of state or federal mandates. Phased introduction of passive ISA systems may be overly convoluted and unnecessary, when most new vehicles can be expected to have at least some form of front-facing camera capabilities with automatic emergency braking requirements by 2030.

In order to address concerns related to the phased introduction of passive ISA systems, cost burdens to consumers, and the interaction with FMCSA's draft rule, the committee proposes to amend the bill as follows:

- Remove the phased deadlines for implementation, and require all new vehicles to be equipped with passive ISA systems by 2030; and
- Exempt passenger vehicles that do not include either GPS or a front-facing camera from the requirement to be equipped with passive ISA.
- Specify that the provisions of the bill shall not apply a motortruck with gross vehicle weight rating of 8,501 lbs or more for which a FMVSS exists requiring either passive or active speed control.

Specifically, the proposed amendments are to:

- 1) (a) At VEH 28171, subparagraph (a), strike out "2029 model year, 50 percent of passenger vehicles, motortrucks and buses" and insert "2030 model year, every passenger vehicle, motor truck, or bus"

(b) At VEH 21717, subparagraph (b), strike out "Commencing with the 2032 model year, every passenger vehicle, motortruck, and bus manufactured or sold in the state shall be equipped with a passive intelligent speed assistance system".
- 2) At VEH 21717, subparagraph (b), insert "A passive intelligent speed assistance system shall not be required if the passenger vehicle is not equipped with either a Global Positioning System (GPS) or a front-facing camera."
- 3) After VEH 28171, subparagraph (a), insert "(1) Subparagraph (a) shall not apply to those motortrucks with a gross vehicle weight rating of 8,501 pounds or more for which a federal motor vehicle safety standard of any kind or character exists requiring either the passive or active control of speed."

Double Referral: This bill is double-referred to the Assembly Committee on Privacy and Consumer Protection, and will be heard as it relates to issues under its jurisdiction.

REGISTERED SUPPORT / OPPOSITION:

Support

Alameda-Contra Costa Transit District (support if amended)
American Academy of Pediatrics, CA
Bike East Bay
Calbike
Car-Lite Long Beach
Center Community Action & Environmental Justice
City of Goleta
Cleaneearth4kids.org
Conor Lynch Foundation
East Bay for Everyone
Everybody's Long Beach
Long Beach Bike Co-Op
Los Angeles Walks
Marin County Bicycle Coalition
Pedal Movement
Physicians for Social Responsibility
Safe Routes Partnership
San Francisco Bay Area Families for Safe Streets
San Francisco Bicycle Coalition
So-Cal Families for Safe Streets
Streets are For Everyone
Streets for All
Transbay Coalition
Transform
Walk San Francisco
Youth Climate Strike Los Angles

Opposition

Abate of California
Alliance for Automotive Innovation
California Chamber of Commerce
California Fuels and Convenience Alliance
California Manufacturers & Technology Association
California Motorcycle Dealers Association
California Trucking Association (unless amended)
Motorcycle Industry Council (unless amended)
National Coalition of Motorcyclists
Specialty Equipment Market Association
Truck and Engine Manufacturers Association

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