

SEAT BELT REMINDER TECHNOLOGY

Thirty-Year-Old 8-Second Minder is Insufficient

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- 1968 Federal occupant protection standard requiring front outboard lap and shoulder belts takes effect, lap belts at other seating positions.
- 1972 Because of low seat belt use rates (12-15 percent) passenger vehicles are required to have reminder systems using a combined flashing warning light and audible buzzing sound of at least 60-seconds in duration to remind front seat occupants to buckle their seat belts.
- Aug. 1973 All new vehicles are required to be equipped with either passive restraints (air bags) or a seat belt-ignition interlock, to prevent engine from starting unless driver and passenger seat belts are buckled. The audible buzzer-visual light system would engage if the seat belt was unbuckled after the engine was started. Belt use in model year (MY) 1973 vehicles was reported at 28 percent.
- 1974 Other than 10,000 air bag equipped vehicles sold by General Motors, all new MY 1974 vehicles are equipped with seat belt-ignition interlocks.
- Oct. 1974 Despite fact that seat belt-ignition interlocks increase seat belt use rate to as high as 60 percent, Congress enacts legislation to prohibit use of seat belt-ignition interlock and to limit any audible reminder (buzzer) for seat belt use to not longer than 8 seconds in duration after engine ignition. *See* 49 USC § 30124.
- Oct. 1975 NHTSA issues rule rescinding seat belt-ignition interlock option and adopts a 4-8 second audible reminder.
- 1990s European vehicle manufacturers develop seat belt use reminder systems using chimes and other audible sounds, which become more insistent based on increasing vehicle speed or distance driven.
- 2000 Ford Motor Company begins voluntarily installing belt minder system in certain makes and models.
- 2001 Congress requests NHTSA to study seat belt reminder technologies in the conference report accompanying the DOT Appropriations Act for FY 2002.
- 2002 NHTSA Chief Counsel issues interpretive ruling that voluntary seat belt use reminder systems must be readily distinguishable in either sound or

timing from the required 4-8 second audible buzzer required by federal law.

2003

National Academy of Sciences conducts study of new seat belt reminder technologies for NHTSA, recommending, among other actions, that all new light-duty vehicles be equipped with an enhanced belt reminder system that includes an audible warning and a visual indicator for front seat occupants and that the current 4-8 second limitation on audible warnings be amended to increase the time limit. *See Buckling Up: Technologies to Increase Seat Belt Use*, Transportation Research Board Special Report No. 278 (prepublication copy available online at <http://trb.org/publications/sr/sr278.pdf>).

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Senate passes S.1072, the Highway Trust Fund Bill, that includes safety provisions concerning seat belt minders that would:

- Require NHTSA to pass a rule addressing alternate means to encourage increased belt usage in vehicles under 10,000 GVWR that considers alternative means to encourage increased usage including intermittent or continuous audible or visual reminders and features to prevent operation of convenience or entertainment features.