



ADVOCATES
FOR HIGHWAY
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Docket No. NHTSA-98-3881, Notice 01
National Highway Traffic Safety Administration
U. S . Department of Transportation
Docket Management, Room PL-401
400 Seventh Street, SW
Washington, DC 20590

**Transmission Shift Lever Sequence, Notice with Request for
Comments, 63 FR 30449 et sea., June 4, 1998**

Advocates welcomes this opportunity to comment on the National Highway Traffic Safety Administration's (NHTSA) notice requesting comments on the safety effects of amending Federal Motor Vehicle Safety Standard No. 102 to permit different gear sequences for transmissions without conventional shifting levers. Advocates is very concerned about any consideration of removing the present serial shifting requirements of Standard No. 102 for transmissions and we share the agency's high level of caution about any prospective changes that would permit non-serial shifting.

We find it difficult to respond to the current notice because of the shortcomings of the BMW petition that helped to generate this notice. The petition does not ask for specific amendments which would guarantee a transmission shifting rule providing the same level of safety and of intuitive operation as the shift lever systems currently manufactured. The petition instead asks for considerable flexibility to be introduced into the current standard while failing to indicate how a specific transmission design would function to ensure safety.



While Advocates appreciates that certain features of the current standard might be regarded as design-restrictive,¹ these requirements are in fact guarantees of virtually fail-safe operating uniformity producing a very high safety baseline for all operators. We cannot support amendment of the current standard to provide open-ended opportunities for technological innovations resulting in significant increased potential for mis-shifting . Increased shifting errors could easily result in crashes, deaths, and injuries. Given the widespread familiarity with current transmission systems, the extensive rental car business, and the common practice of borrowing private passenger vehicles, increasing the heterogeneity of transmission shifting operation and sequencing is an inherently risky proposal. Good driving habits based on familiarity with existing safety-regulation based design and operation of controls should not easily be forfeited for technology that essentially is driven by marketing appeal and desires for competitive advantage. Any manufacturer asking for amendment of Standard No. 102 to install a different shifting regime than currently in place should demonstrate a compelling need and an equivalent, if not superior, safety outcome resulting from such changes. The BMW petition falls far short of such a demonstration.

Consequently, Advocates opposes non-serial shifting regimes, including those which fail to apply braking between shifts (except for shift movements between Drive and other lower forward gears). We believe that innovative shifting technologies can be pursued without

¹In fact, Advocates does not regard the current shift sequence of the standard to be design restrictive, but rather a performance control to ensure a very high level of fail-safe operation. Innovative design approaches to effect gear shifting are still amply supplied by the existing standard while still preserving the excellent safety record generated by its requirements.

abandoning the undoubted safety advantages of the current shifting sequence regime of Standard No. 202. Amending the standard in the manner recommended by BMW would not be a responsible exercise of agency stewardship over the potentially adverse safety impacts of non-standard shifting sequences and methods.² With regard to the other main features of the BMW petition, we have no information on safety-based maximum speeds permitting shifts between different gears and NHTSA provides no indication of any support, including specific safety arguments, from this manufacturer for its proposed prohibitions against shifting from drive to reverse/reverse to drive at any speed above 3.1 miles per hour and of shifting into park from any gear at any speed above at 1.9 mph.

Respectfully submitted,

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²Advocates has stated for the record in prior rulemaking actions its belief that vehicle controls and displays in general already have too much variety and non-standardization for safety purposes.