

JAN - 4 2016

Mr. Samuel Campbell, III
BMW of North America, LLC
200 Chestnut Ridge Road
Bldg. 150
Woodcliff Lake, NJ 07677-7739

Dear Mr. Campbell:

This responds to your October 5, 2015 letter asking whether BMW's Park Assistant Plus system complies with the brake transmission shift interlock requirement in Federal Motor Vehicle Safety Standard (FMVSS) No. 114.¹

Your letter describes your Park Assistant Plus system as a "remote-controlled parking system" that the driver operates from a location outside, but within six feet of, the vehicle. You emphasize that BMW's Park Assistant Plus system is used for only low-speed, short-distance parking maneuvers. Your letter also indicates the procedure the driver must follow to activate and use the system.

The procedure to activate the Park Assistant Plus system requires the driver to place the vehicle in park, turn the vehicle off, exit the vehicle, and press the on/off button on the left side of the key fob² while also depressing a safety button on the right side of the key fob, which must remain depressed throughout the remote controlled parking. After activating the feature with the button on the left and continuing to depress the button on the right, the driver will use his or her other hand to touch the key fob's display screen to start the engine and the remote controlled parking movement.³

The driver must continue to depress the button on the right side throughout the parking maneuver and has the opportunity to stop the maneuver at any time by releasing the button. Additionally, ultrasonic sensors and cameras automatically stop the vehicle if humans or objects are detected in the vehicle's path, which is designed to reduce the risk of injury from a rollaway vehicle.

¹ 49 CFR § 571.114.

² BMW calls its key fob a "Display Key." In this letter, we use the more inclusive term "key fob" since "key" is defined in FMVSS No. 114 as "a physical device or an electronic code which, when inserted into the starting system (by physical or electronic means), enables the vehicle operator to activate the engine or motor." BMW's key fob contains an electronic code, but is not itself an electronic code.

³ An illustration of this feature can be found on BMW's official YouTube page:
<https://www.youtube.com/watch?v=6Viyt2aIOG8>.

Your letter goes into detail about how the Park Assistant Plus system works and how BMW has integrated safety features into the system, but the goal of your letter is to learn whether the remote parking feature is prohibited by the brake transmission shift interlock requirement found in Section 5.3 of FMVSS No. 114. Based on your description and the information on your website, we have written this interpretation predicated on the assumption that your vehicles include a service brake foot control and that the Park Assistant Plus system will be installed in a new motor vehicle.

General Authority

By way of background, the National Highway Traffic Safety Administration (NHTSA) is authorized by the National Traffic and Motor Vehicle Safety Act (“Safety Act,” 49 U.S.C. Chapter 301) to issue FMVSSs that set performance requirements for new motor vehicles and new items of motor vehicle equipment. NHTSA does not provide approvals of motor vehicles or motor vehicle equipment and does not make determinations as to whether a product conforms to the FMVSSs outside of an agency compliance test. Instead, the Safety Act requires manufacturers to self-certify that their products conform to all applicable FMVSSs that are in effect on the date of manufacture. Manufacturers are also responsible for ensuring that their products are free of safety-related defects.

NHTSA enforces compliance with the FMVSSs by purchasing and testing vehicles and regulated equipment. It also investigates FMVSS noncompliances and safety-related defects.

Your letter states that you believe the Park Assistant Plus system complies with Section 5.3 of FMVSS No. 114, and you ask for NHTSA’s concurrence in your interpretation. We note again that NHTSA does not make determinations as to whether a product complies with the FMVSSs outside the context of an agency compliance test. We do, however, agree that the design of the Park Assistant Plus system is not prohibited by FMVSS No. 114. To begin our discussion, keep in mind that when a feature or device, such as BMW’s Park Assistant Plus, is installed as original equipment on a new vehicle, the vehicle manufacturer is required to certify that the vehicle satisfies the requirements of all applicable FMVSSs. Discussed below is FMVSS No. 114.

FMVSS No. 114

FMVSS No. 114, Theft protection and rollaway prevention, specifies requirements for theft protection to reduce the incidence of crashes resulting from unauthorized operation of a motor vehicle.⁴ It also specifies requirements to reduce the incidence of crashes resulting from the rollaway of parked cars with automatic transmissions. In particular, Section 5.3, Brake transmission shift interlock, requires a brake transmission shift interlock (BTSI) that prevents the shift mechanism from being moved out of the “park” position unless the service brake is depressed. Section 5.3 applies to motor vehicles with an automatic transmission that includes a “park” position manufactured on or after September 1, 2010 with a gross vehicle weight rating (GVWR) of 10,000 pounds (4,536 kg) or less (excluding trailers or motorcycles).

⁴ Letter to Norman Katz, Esq. of Saretsky, Katz, Dranoff & Glass, L.L.P. (June 6, 2006), *available at* <http://isearch.nhtsa.gov/files/Katz.1.htm>.

It is also important to note, as you did in your letter, that Section 5.3 was incorporated into FMVSS No. 114 in 2010 after it was required by the Cameron Gulbransen Kids Transportation Safety Act of 2007 (K.T. Safety Act). Section 2(d)(1) of the K.T. Safety Act specifies, in relevant part:

Each motor vehicle with an automatic transmission that includes a “park” position manufactured for sale after September 1, 2010, shall be equipped with a system that requires the service brake to be depressed before the transmission can be shifted out of “park.” This system shall function in any starting system key position in which the transmission can be shifted out of “park.”

(Emphasis added.) The goal of designing the BTSI system in this way is to prevent an unattended child from shifting the transmission out of the “park” position when the child is left unattended in a vehicle with the vehicle’s keys.⁵ This is also aimed at preventing a rollaway vehicle from injuring bystanders that are in the vehicle’s path.

Your product, the Park Assistant Plus system, involves a multi-step activation process in order to use the remote-controlled parking function. As discussed earlier, the procedure to activate the system requires the driver to place the vehicle in park, turn the vehicle off, exit the vehicle, and press the on/off button on the left side of the key fob while also depressing a safety button on the right side of the key fob, which must remain depressed throughout the remote controlled parking. After activating the feature with the button on the left and continuing to depress the button on the right with one hand, the driver will need to use his or her other hand to touch the key fob’s display screen to start the remote controlled parking movement. This process activates the system and initiates the pre-check function during which the electronic stability control (ESC) pump applies pressure to the service brakes, and the brake system and energy levels are also checked. Next, the ESC pump applies the service brakes before the vehicle can begin to move out of the “park” position.

The essence of the issue presented by your letter is the phrase “service brake to be depressed” in Section 5.3. This is unusual phrasing. Given that the service brake pads themselves are not being “depressed” when they are moved into place and apply pressure against the disc (in the case of disc brakes) or the drum (in the case of drum brakes), it would have been more clear if the section had read either “service brake to be applied” or “brake pedal to be depressed.” The language used in the K.T. Safety Act and in S5.3 falls in between these two phrasings, borrowing a little from each. Thus, the phrase “service brake to be depressed” is ambiguous and leaves room for interpretation.

“Depressed” is not defined in FMVSS No. 114, 49 CFR §571.3, Definitions, or the K.T. Safety Act, but Merriam Webster defines the verb “depress” as “to press (something) down.”⁶ “Depressed” is the past tense of “depress,” and means “pressed something down” in the

⁵ Letter to Michael X. Cammissa of the Association of International Automobile Manufacturers, Inc. (July 20, 2010), *available at* <http://isearch.nhtsa.gov/files/AIAM%20003788%20114.htm>.

⁶ Depress Definition, Merriam-Webster Online Dictionary, *available at* <http://www.merriam-webster.com/dictionary/depress> (last visited Nov. 11, 2015).

context of FMVSS No. 114. The “something” that is pressed down is the service brake, which is defined in §571.3 as “the primary mechanism designed to stop a motor vehicle.” In the present context, we understand the term “depressed,” as used in the K.T. Safety Act and in S5.3, to mean simply “pressed” or “applied.”

Section 5.3 requires the “service brake to be depressed before the transmission can be shifted out of ‘park.’”⁷ It does not, however, specify that the service brake must be pressed or applied by any particular object or function, such as a driver’s foot. In your design, the service brake is pressed or applied with an ESC pump actuated by the vehicle’s operator before the vehicle can be shifted out of the “park” position. This achieves the goal of Section 5.3 by preventing an occupant, particularly a child, from inadvertently shifting the transmission out of the “park” position. It also fulfills the BTSI requirement in the K.T. Safety Act.

I hope this information is helpful. If you have further questions, please contact Ms. Sara Bennett of my staff at (202) 366-2992.

Sincerely,

Original Signed By

Paul A. Hemmersbaugh
Chief Counsel

⁷ 49 CFR § 571.114.