§ 571.102 Standard No. 102; Transmission shift position sequence, starter interlock, and transmission braking effect.

S1. Purpose and scope. This standard specifies the requirements for the transmission shift position sequence, a starter interlock, and for a braking effect of automatic transmissions, to reduce the likelihood of shifting errors, to prevent starter engagement by the driver when the transmission is in any drive position, and to provide supplemental braking at speeds below 40 kilometers per hour (25 miles per hour).

S2. Application. This standard applies to passenger cars, multi-purpose passenger vehicles, trucks, and buses.

S3. Requirements.

S3.1 Automatic transmissions.

S3.1.1 Location of transmission shift positions on passenger cars. A neutral position shall be located between forward drive and reverse drive positions.

S3.1.1.1 Transmission shift levers. If a steering-column-mounted transmission shift lever is used, movement from neutral position to forward drive position shall be clockwise. If the transmission shift lever sequence includes a park position, it shall be located at the end, adjacent to the reverse drive position.

S3.1.2 Transmission braking effect. In vehicles having more than one forward transmission gear ratio, one forward drive position shall provide a greater degree of engine braking than the highest speed transmission ratio at vehicle speeds below 40 kilometers per hour (25 miles per hour).

S3.1.3 Starter interlock. Except as provided in S3.1.3.1 through S3.1.3.3, the engine starter shall be inoperative whenever the transmission shift position is in Park, automatically stopping or restarting the engine shall not take the transmission out of Park.

S3.1.4 Identification of shift positions and of shift position sequence.

S3.1.4.1 Except as specified in S3.1.4.3, if the transmission shift position sequence includes a park position, identification of shift positions, including the positions in relation to each other and the position selected, shall be displayed in view of the driver whenever any of the following conditions exist:

(a) The ignition is in a position where the transmission can be shifted; or

(b) The transmission is not in Park.

S3.1.4.2 Except as specified in S3.1.4.3, if the transmission shift position sequence does not include a park
§ 571.103 Standard No. 103; Windshield defrosting and defogging systems.

S1. Scope. This standard specifies requirements for windshield defrosting and defogging systems.

S2. Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses.

S3. Definitions. Road load means the power output required to move a given motor vehicle at curb weight plus 180 kilograms on level, clean, dry, smooth portland cement concrete pavement (or other surface with equivalent coefficient of surface friction) at a specified speed through still air at 20 degrees Celsius, and standard barometric pressure (101.3 kilopascals) and includes driveline friction, rolling friction, and air resistance.

S4. Requirements. (a) Except as provided in paragraph (b) of this section, each passenger car shall meet the requirements specified in §4.1, §4.2, and §4.3, and each multipurpose passenger vehicle, truck, and bus shall meet the requirements specified in §4.1.

(b) Each passenger car, multipurpose passenger vehicle, truck, and bus manufactured for sale in the noncontiguous United States may, at the option of the manufacturer, have a windshield defogging system which operates either by applying heat to the windshield or by dehumidifying the air inside the passenger compartment of the vehicle, in lieu of meeting the requirements specified by paragraph (a) of this section.

S4.1 Each vehicle shall have a windshield defrosting and defogging system.

S4.2 Each passenger car windshield defrosting and defogging system shall meet the requirements of section 3 of SAE Recommended Practice J902, “Passenger Car Windshield Defrosting Systems,” August 1964, when tested in accordance with §571.104, except that “the critical area” specified in paragraph 3.1 of SAE Recommended Practice J902 shall be that established as Area C in accordance with Motor Vehicle Safety Standard No. 104, “Windshield Wiping and Washing Systems,” and “the entire windshield” specified in paragraph 3.3 of SAE Recommended Practice J902 shall be that established as Area A in accordance with §571.104.

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(b) Each passenger car, multipurpose passenger vehicle, truck, and bus manufactured for sale in the noncontiguous United States may, at the option of the manufacturer, have a windshield defogging system which operates either by applying heat to the windshield or by dehumidifying the air inside the passenger compartment of the vehicle, in lieu of meeting the requirements specified by paragraph (a) of this section.

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S4.3 Demonstration procedure. The passenger car windshield defrosting and defogging system shall be tested in accordance with the portions of paragraphs 4.1 through 4.4.7 of SAE Recommended Practice J902, August 1964, or SAE Recommended Practice J902a, March 1967, applicable to that system, except that—

(a) During the first 5 minutes of the test:

(1) For a passenger car equipped with a heating system other than a heat exchanger type that uses the engine’s coolant as a means to supply the heat to the heat exchanger, the warm-up procedure is that specified by the vehicle’s manufacturer for cold weather starting, except that connection to a power or heat source external to the vehicle is not permitted.

(2) For all other passenger cars, the warm-up procedure may be that recommended by the vehicle’s manufacturer for cold weather starting.

(b) During the last 35 minutes of the test period (or the entire test period if the 5-minute warm-up procedure specified in paragraph (a) of this section is not used),