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TECHNICAL STANDARDS DOCUMENT No. 114, Revision 1R

Theft Protection and Rollaway Prevention

The text of this document is based on Federal Motor Vehicle Safety Standard No. 114, *Theft Protection and Rollaway Prevention*, as published in the U.S. *Code of Federal Regulations*, Title 49, Part 571, revised as of October 1, 2009 as well as the Final Rule published in the *Federal Register* on Tuesday, March 30, 2010 (Vol. 75, No. 60, p. 15621).

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Introduction

As defined by section 12 of the *Motor Vehicle Safety Act*, a Technical Standards Document (TSD) is a document that reproduces an enactment of a foreign government (e.g. a Federal Motor Vehicle Safety Standard issued by the U.S. National Highway Traffic Safety Administration). According to the Act, the [*Motor Vehicle Safety Regulations*](#) may alter or override some provisions contained in a TSD or specify additional requirements; consequently, it is advisable to read a TSD in conjunction with the Act and its counterpart Regulation. As a guide, where the corresponding Regulation contains additional requirements, footnotes indicate the amending subsection number.

TSDs are revised from time to time in order to incorporate amendments made to the reference document, at which time a Notice of Revision is published in the *Canada Gazette*, Part I. All TSDs are assigned a revision number, with “Revision 0” designating the original version.

Identification of Changes

In order to facilitate the incorporation of a TSD, certain non-technical changes may be made to the foreign enactment. These may include the deletion of words, phrases, figures, or sections that do not apply under the Act or Regulations, the conversion of imperial to metric units, the deletion of superseded dates, and minor changes of an editorial nature. Additions are underlined, and provisions that do not apply are ~~stroked through~~. Where an entire section has been deleted, it is replaced by: “[CONTENT DELETED]”. Changes are also made where there is a reporting requirement or reference in the foreign enactment that does not apply in Canada. For example, the name and address of the United States Department of Transportation are replaced by those of the Department of Transport.

Effective Date and Mandatory Compliance Date

The effective date of a TSD is the date of publication of its incorporating regulation or of the notice of revision in the *Canada Gazette*, and the date as of which voluntary compliance is permitted. The mandatory compliance date is the date upon which compliance with the requirements of the TSD is obligatory. If the effective date and mandatory compliance date are different, manufacturers may follow the requirements that were in force before the effective date, or those of the TSD, until the mandatory compliance date.

In the case of an initial TSD, or when a TSD is revised and incorporated by reference by an amendment to the Regulations, the mandatory compliance date is as specified in the Regulations, and it may be the same as the effective date. When a TSD is revised with no corresponding changes to the incorporating Regulations, the mandatory compliance date is six months after the effective date.

Official Version of Technical Standards Documents

The PDF version is a replica of the TSD as published by the Department and is to be used for the purposes of legal interpretation and application.

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S1. Scope

This Technical Standards Document (TSD) standard specifies vehicle performance requirements intended to reduce the incidence of crashes resulting from theft and accidental rollaway of motor vehicles.

S2. Purpose

The purpose of this TSD standard is to decrease the likelihood that a vehicle is stolen, or accidentally set in motion.

S3. Application

[CONTENT DELETED] For applicability, see Schedule III and subsection 114(1) of Schedule IV to the [Motor Vehicle Safety Regulations](#).

S4. Definitions

Combination means a variation of the key that permits the starting system of a particular vehicle to be operated. (*Combinaison*)

Key means 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. (*Clé*)

~~**Open-body type vehicle** means a vehicle having no occupant compartment doors or a vehicle having readily detachable occupant compartment doors. (*Véhicule de type ouvert*)~~

Starting system means the vehicle system used in conjunction with the key to activate the engine or motor. (*Circuit de démarrage*)

Vehicle type, as used in S5.1.2, refers to a vehicle mentioned in subsection 114(1) of Schedule IV to the [Motor Vehicle Safety Regulations](#) passenger car, truck or multipurpose passenger vehicle, as those terms are defined in 49 CFR 571.3. (*Type de véhicule*)

S5. Requirements¹

Each vehicle subject to this TSD standard must meet the requirements of S5.1, S5.2 and S5.3. ~~Open-body type vehicles~~ Vehicles having no occupant compartment doors or having readily detachable occupant compartment doors are not required to comply with S5.1.3.

¹ Please see subsections 114(3) to (8) of the [MVSR](#) for additional requirements.

S5.1 Theft Protection

S5.1.1 Each vehicle must have a starting system which, whenever the key is removed from the starting system, prevents:

- (a) The normal activation of the vehicle's engine or motor; and
- (b) Either steering, or forward self-mobility, of the vehicle, or both.

S5.1.2 For each vehicle type manufactured by a manufacturer, the manufacturer must provide at least 1 000 unique key combinations, or a number equal to the total number of the vehicles of that type manufactured by the manufacturer, whichever is less. The same combinations may be used for more than one vehicle type.

S5.1.3 Except as specified below, an audible warning to the vehicle operator must be activated whenever the key is in the starting system and the door located closest to the driver's designated seating position is opened. An audible warning to the vehicle operator need not activate:

- (a) After the key has been inserted into the starting system, and before the driver takes further action; or
- (b) If the key is in the starting system in a manner or position that allows the engine or motor to be started or to continue operating; or
- (c) For mechanical keys and starting systems, after the key has been withdrawn to a position from which it may not be turned.

S5.1.4 If a vehicle is equipped with a transmission with a "park" position, the means for deactivating the vehicle's engine or motor must not activate any device installed pursuant to S5.1.1(b), unless the transmission is locked in the "park" position.

S5.2 Rollaway Prevention in Vehicles Equipped With Transmissions With a "Park" Position

S5.2.1 Except as specified in S5.2.3, the starting system required by S5.1 must prevent key removal when tested according to the procedures in S6, unless the transmission or gear selection control is locked in "park" or becomes locked in "park" as a direct result of key removal.

S5.2.2 Except as specified in S5.2.4, the vehicle must be designed such that the transmission or gear selection control cannot move from the "park" position, unless the key is in the starting system.

S5.2.3 Key Removal Override Option

At the option of the manufacturer, the key may be removed from the starting system without the transmission or gear selection control in the “park” position under one of the following conditions:

- (a) In the event of electrical failure, including battery discharge, the vehicle may permit key removal from the starting system without the transmission or gear selection control locked in the “park” position; or
- (b) Provided that steering or self-mobility is prevented, the vehicle may have a device by which the user can remove the key from the starting system without the transmission or gear selection control locked in “park”. This device must require:
 - (i) The use of a tool, and
 - (ii) Simultaneous activation of the device and removal of the key; or
- (c) Provided that steering or self-mobility is prevented, the vehicle may have a device by which the user can remove the key from the starting system without the transmission or gear selection control locked in “park”. This device must be covered by an opaque surface which, when installed:
 - (i) Prevents sight of and use of the device, and
 - (ii) Can be removed only by using a screwdriver or other tool.

S5.2.4 Gear Selection Control Override Option

The vehicle may have a device by which the user can move the gear selection control from “park” after the key has been removed from the starting system. This device must be operable by one of the three options below:

- (a) By use of the key; or
- (b) By a means other than the key, provided steering or forward self-mobility is prevented when the key is removed from the starting system. Such a means must require:
 - (i) The use of a tool, and
 - (ii) Simultaneous activation of this means and movement of the gear selection control from “park”; or
- (c) By a means other than the key, provided steering or forward self-mobility is prevented when the key is removed from the starting system. This device must be covered by an opaque surface which, when installed:
 - (i) Prevents sight of and use of the device, and
 - (ii) Can be removed only by using a screwdriver or other tool.

S5.2.5 When tested in accordance with S6.2.2, each vehicle must not move more than 150 mm on a 10-percent grade when the gear selection control is locked in “park”.

S5.3 Brake Transmissions Shift Interlock²

~~Each motor vehicle manufactured on or after September 1, 2010 with a GVWR of 4 536 kilograms (10 000 pounds) or less with an automatic transmission that includes a “park” position 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.” This section does not apply to trailers or motorcycles.~~

S6. Compliance Test Procedure for Vehicles With Transmissions With a “Park” Position

S6.1 Test Conditions

S6.1.1 The vehicle shall be tested at curb ~~mass~~ weight plus 91 kg (including the driver).

S6.1.2 Except where specified otherwise, the test surface shall be level.

S6.2 Test Procedure

S6.2.1

- (a) Activate the starting system using the key.
- (b) Move the gear selection control to any gear selection position or any other position where it will remain without assistance, including a position between any detent positions, except for the “park” position.
- (c) Attempt to remove the key in each gear selection position.

S6.2.2

- (a) Drive the vehicle forward up a 10-percent grade and stop it with the service brakes.
- (b) Apply the parking brake (if present).
- (c) Move the gear selection control to “park”.
- (d) Note the vehicle position.
- (e) Release the parking brake. Release the service brakes.
- (f) Remove the key.

² See section 102 of Schedule IV to the [Motor Vehicle Safety Regulations](#).

- (g) Verify that the gear selection control or transmission is locked in “park”.
- (h) Verify that the vehicle, at rest, has moved no more than 150 mm from the position noted prior to release of the brakes.

S6.2.3

- (a) Drive the vehicle forward down a 10-percent grade and stop it with the service brakes.
- (b) Apply the parking brake (if present).
- (c) Move the gear selection control to “park”.
- (d) Note the vehicle position.
- (e) Release the parking brake. Release the service brakes.
- (f) Remove the key.
- (g) Verify that the gear selection control or transmission is locked in “park”.
- (h) Verify that the vehicle, at rest, has moved no more than 150 mm from the position noted prior to release of the brakes.