

Proposals of Republic of Korea (on Emergency Door Opening)

EDO 2nd meeting
2025.09

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Background

- Republic of Korea presented door opening issues with electrically activated doors during 76th GRSP session (GRSP-76-13-rev1)

- On 9 Dec 2021, an EV collided with the wall of an underground parking lot, and a passenger could not escape the vehicle, even with the help of firefighters.



<https://www.youtube.com/watch?v=XSzluVajEvo>



<https://www.yna.co.kr/view/AKR20201210036851004>

- On 11 Oct 2024, an EV collided with a road divider and caught on fire. A male driver of the car moved to the second row to avoid flames but could not escape the burning car. It seems difficult to find the manual opening device at the bottom of the rear seat.



<https://news.vocofm.com/en/asia-news/113666/> <https://www.mk.co.kr/en/business/11138353>

- The rescue workers couldn't open the door of the vehicle from outside.

- Several GRSP experts expressed their support for the initiative during 77th GRSP session and the 1st meeting was virtually held on June 16th

Discussion items on Emergency Door Opening

- **Evacuation from the inside**
 - for electrically activated door system
 - for safety belt unbuckling
- **Rescue from the outside**
 - door opening safety in case of power issue
 - door opening safety after collision
 - door opening safety with specific handle/system
- **Others**
 - tailgate opening
 - submergence

* based on 2025 KNCAP protocol & GRSP comments, 1st meeting of interested GRSP experts

Proposals of Republic of Korea – Priority 1

- **Door opening requirements with electricity supply cut off**
 - **amendment regulations: GTR No.1, UN R11**
 - **test with a vehicle with its all related electricity supply cut off**
 - **doors shall be opened by main or emergency/secondary opening systems without any tools from inside and outside**
 - **the emergency/secondary opening systems shall be intuitive and those opening methods shall be described in the manual (incl. retractable case)**
 - **the intuitiveness requirements of the controller of those opening systems shall include at least the below**
 - **shall be clearly visible by the seated occupants (for interior)**
 - **shall not be hidden by any parts (e.g. covers, armrest, etc.)**
 - **further specific discussions needed (definitions, test conditions, etc.)**

Proposals of Republic of Korea – Priority 2

- Door opening requirements after crash tests
 - amendment regulations: all crash test regulations (GTR No.14, UN R34, UN R94, UN R95, UN R135, UN R137, UN R153, & corresponding regulations)
 - test with a vehicle after crash tests (all doors except struck side

JASIC:

For current R94,95 and 137, they require “to open at least one door per row of seats after crash tests”.

Also, the current R135 and R153 do not require any doors to be opened after crash tests. Japan thinks that the requirements for R94,95 and 137 do not need to be changed, and that for R135 and R153, it is sufficient to align their requirements with those of R94, 95 and 137 (“to open at least one door per row of seats after crash tests) at equivalent level. If Korea requests that all regulation above should require “the all door except for the struck side doors to be opened after crash tests”, Japan would like to ask Korea the justifications.

Proposals of Republic of Korea – Priority 3

- **Other requirements for extrication**
 - **seat belt unbuckling after crashes**
(60N for frontal crashes, 100N for side crashes)
 - **tailgate opening and vehicle submergence**
 - **agreed in principle**
 - **specific discussions needed from, especially, the**
testability perspective for self-certification compliance
testing

고맙습니다.
Thank you for your attention

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