

Proposal for Supplement 2 to the 02 series of amendments to Regulation No. 100

I. Proposal

Paragraph 5. to 5.1.1.3., amend to read:

- "5. Part I: Requirements of a vehicle with regard to its electrical safety
- 5.1. Protection against electrical shock
- These electrical safety requirements apply to high voltage buses under conditions where they are not connected to external high voltage power supplies.
- 5.1.1. Protection against direct contact
- Protection against direct contact with live parts is also required for vehicles equipped with any REESS type approved under Part II of this Regulation.
- The protection against direct contact with the live parts, shall comply with paragraphs 5.1.1.1. and 5.1.1.2. These protections (solid insulator, barrier, enclosure, etc.) shall not be able to be opened, disassembled or removed without the use of tools.
- Additionally, connectors shall comply with paragraph 5.1.1.3.**
- 5.1.1.1. For protection of live parts inside the passenger compartment or luggage compartment, the protection degree IPXXD shall be provided.
- 5.1.1.2. For protection of live parts in areas other than the passenger compartment or luggage compartment, the protection degree IPXXB shall be satisfied.
- 5.1.1.3. Connectors
- Connectors (including vehicle inlet) are deemed to meet this requirement if **they comply with 5.1.1.1. and 5.1.1.2. when connected, and if:**
- (a) They comply with 5.1.1.1. and 5.1.1.2. when separated without the use of tools, or
 - (b) They are located underneath the floor and are provided with a locking mechanism, or
 - (c) They are provided with a locking mechanism and other components shall be removed with the use of tools in order to separate the connector, or
 - (d) The voltage of the live parts becomes equal or below DC 60V or equal or below AC 30V (rms) within one second after the connector is separated, **or**
 - (e) **They cannot be separated without the use of tools."**

II. Justification

Aim of this proposal is to clarify the wording of current Regulation.

Paragraph 5.1.1 describes the general requirements for the protection of all high voltage parts including the obligation that the protection against live parts shall not be opened without the use of tools.

If connectors can be opened without use of tools or if they are not fulfilling the protection degrees IPXXD/IPXXB, the provisions of 5.1.1.3 have to be fulfilled.
