

## Proposal for the 11 series of amendments to UN Regulation No. 107 (M2 and M3 vehicles)

This proposal is based on the work of the Task Force on Accessibility of Buses and Coaches and aims to modify the requirements of UN Regulation No. 107 to improve accessibility of vehicles of classes M2 and M3. The work of the TF was started after an initiative of the International Public Transport Operators association UITP. The modifications to the current text of UN Regulation No. 107 are marked in bold for new and in strikethrough for deleted characters.

### I. Proposal

*Paragraph 2.21., amend to read:*

“2.21. “Passenger with reduced mobility” means all passengers who have a difficulty when using public transport, **whether or not they are users of assistive products**, such as disabled people **with physical, sensory or cognitive impairments (permanent or temporary)**, **elderly people (including people with sensory and intellectual impairments, and wheelchair users, people with limb impairments, people of small stature, pregnant women, people with children (including children seated in pushchairs)**, people with heavy luggage, **and elderly people, pregnant women, people with shopping trolleys, and people with children (including children seated in pushchairs).**”

*Paragraph 5.2., amend to read:*

“5.2. Vehicles of Class I shall be accessible for people with reduced mobility, including at least one wheelchair user and one unfolded pram or pushchair according to the technical provisions laid down in Annex 8. In rigid vehicles of Class I the area for the accommodation of a wheelchair may be combined with the area for the accommodation of an unfolded pushchair or pram. In such a case, the area shall have signs fixed on or adjacent to the area with the following text, **in letters not less than 8 mm high equivalent text or pictogram:**

“Please give up this space for a wheelchair user”,

**or equivalent text or pictogram”**

*Insert new paragraphs 10.35. to 10.39., to read:*

**10.35. As from the official date of entry into force of the 11 series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type-approvals under this Regulation as amended by the 11 series of amendments.**

**10.36. As from 1 September [20XX], Contracting Parties applying this Regulation shall not be obliged to accept type-approvals to the preceding series of amendments, first issued after 1 September [20XX].**

**10.37. Until 1 September [20XX + 3], Contracting Parties applying this Regulation shall accept type-approvals to the preceding series of amendments, first issued before 1 September [20XX].**

**10.38. As from 1 September [20XX + 3], Contracting Parties applying this Regulation shall not be obliged to accept type-approvals issued to the preceding series of amendments to this Regulation.**

**10.39. Notwithstanding paragraphs 10.36. and 10.37., Contracting Parties applying this Regulation shall continue to accept type approvals granted to the 06, 07, 08, 09 and 10 series of amendments to vehicles which are not affected by the 11 series of amendments.**

*Annex 3, delete paragraph 7.6.12.2.5.:*

“7.6.12.2. Service-door lighting, if fitted, shall:

7.6.12.2.1. Be of white colour;

7.6.12.2.2. Illuminate a flat, horizontal portion of the ground having a width of 2 m measured from a plane parallel to the median longitudinal vertical plane of the vehicle which passes through the outermost point of the closed service door and over a length extending from a transverse plane which passes through the foremost edge of the closed service door to a transverse plane passing through the centre line of the foremost wheels situated to the rear of the service door, or, in the case where there are no such wheels, to a transverse plane passing through the rear of the vehicle;

7.6.12.2.3. Have limited dazzle outside a zone on the ground having a maximum width of 5 m measured from the side of the vehicle and a maximum length limited by a transverse plane passing through the front of the vehicle and a transverse plane passing through the rear of the vehicle;

7.6.12.2.4. If the lower edge of the lighting device is less than 2 m from the ground, not project more than 50 mm beyond the overall width of the vehicle measured without this device and have radii of curvature of not less than 2,5 mm;

~~7.6.12.2.5. Be activated and deactivated manually by a separate switch; and~~

7.6.12.2.6. Be installed so that the device can only be switched on when a service door is operated and the vehicle speed does not exceed 5 km/h and is switched off automatically before the vehicle reaches a speed exceeding 5 km/h.”

*Annex 3, renumber former paragraph 7.6.12.2.6. into paragraph 7.6.12.2.5.*

“7.6.12.2.65. Be installed so that the device can only be switched on when a service door is operated and the vehicle speed does not exceed 5 km/h and is

switched off automatically before the vehicle reaches a speed exceeding 5 km/h.”

*Annex 3, paragraph 7.7.9.1., amend to read:*

- “7.7.9.1. On vehicles of Classes I, II and A, a means shall be provided to enable passengers to signal that the driver should stop the vehicle. The controls for all such communication devices shall be capable of being operated with the palm of the hand. There shall be appropriate communication devices distributed adequately and evenly throughout the vehicle and no more than 1 500 mm from the floor; this does not exclude the possibility of installing higher additional communication devices. Controls shall contrast visually with their immediate surroundings. Activation of the control shall also be indicated to the passengers by means of one or more illuminated signs. The sign shall display the words ‘bus stopping’ or equivalent, **in letters of not less than [50 mm] high**, and/or a suitable pictogram, and shall remain illuminated until the service door(s) open. Articulated vehicles shall have such signs in each rigid section of the vehicle. Double-deck vehicles shall have them on each deck. The provisions of paragraph 7.6.11.8 of this annex apply to any textual markings used.”

*Annex 8, paragraph 3.2.2., amend to read:*

- “3.2.2. There shall be adequate space [**dimension?**] for ~~a guide~~ **an assistance** dog under, or adjacent to, at least one of the priority seats. This space shall **be free of sharp edges and** not form a part of the gangway.”

*Annex 8, paragraph 3.2.3., amend to read:*

- “3.2.3. Armrests shall be fitted on seats between the seating position and the gangway and shall be capable of being moved easily out of the way to permit clear access to the seat.

**When deployed, these armrests shall protrude no further than the front edge of the seat. The top surface of the armrests shall be at a height between [150 mm and 200 mm] measured from the highest point of the uncompressed seat cushion, have a flat surface with a minimum width of [30 mm] and a minimum length of [250 mm] and be slip resistant. The details of the armrests shall be as shown in annex 4, figure [31].**

In the case of seats facing each other one of the gangway seats may alternatively be fitted with a vertical stanchion. This stanchion shall be positioned so that the seat occupant is kept securely on the seat and easy access to the seat is possible.”

*Annex 8, paragraph 3.2.6., amend to read:*

- “3.2.6. The foot space at priority seating positions shall extend forward of the seat from a vertical plane through the forward edge of the seat cushion. The foot space shall not have a slope in any direction of more than 8 per cent. For vehicles of Classes I and A, **this foot space shall be at the level of the vertical distance between the floor of the seating area**

and the adjacent gangway shall be not more than 250 mm. “

*Annex 8, paragraph 3.2.8., amend to read:*

“3.2.8. Vehicles fitted with a priority seat shall have pictogram(s) in accordance with Annex 4, Figure 23B visible from the outside, both on the front nearside of the vehicle and adjacent to the relevant service door(s). A pictogram, **complying the Figure 23B**, shall be placed internally adjacent to the priority seat.”

*Annex 8, insert new paragraph 3.2.9., to read:*

“**3.2.9. The priority seats shall be visually distinguishable from standard seats in the vehicle (e.g. by their colour).**”

*Annex 8, paragraph 3.3.1., amend to read:*

3.3.1. Communication devices shall be placed adjacent to any priority seat, ~~and~~ within any wheelchair area **and any pram or pushchair area**, and shall be at a height between 700 mm and 1 200 mm above the floor.

*Annex 8, paragraph 3.3.3.1., amend to read:*

“3.3.3.1. Provide either a visual contrast of  $C \geq [0.4 \ 0.7]$  and a diffuse reflectance  $\rho_d$  of at least 0.5 according to Annex 5 or be ~~white or yellow~~ **black on yellow or yellow on black or black on white or white on black.**”

*Annex 8., insert new paragraphs 3.3.3.4. and 3.3.3.5, to read:*

“**3.3.3.4. Have specific unique driver indicators different from other communication devices in the vehicle to warn the driver that a person with reduced mobility wishes to alight from the vehicle.**

**3.3.3.5. Be fitted with the pictograms described in Figure 23 of Annex 4. The dimensions of the pictogram may be reduced as needed.**”

*Annex 8, paragraph 3.3.4., amend to read:*

“3.3.4. If a vehicle is fitted with a ramp or lift, a means of communication with the driver shall be fitted outside, **on or** adjacent to the door, **accessible even when the door is open**, and at a height between 850 mm and 1,300 mm from the ground. This requirement shall not apply to a door situated in the direct field of vision of the driver.”

*Annex 8, paragraph 3.6.6., amend to read:*

“3.6.6. Vehicles fitted with a wheelchair space shall have pictogram(s) in accordance with Annex 4, Figure 23A visible from the outside, both on the front nearside of the vehicle and adjacent to the relevant service door(s).

One of these pictograms shall be placed internally adjacent to each wheelchair space indicating whether the wheelchair is to be positioned facing the front or the rear of the vehicle. **In the case of vehicles of**

**Class I the floor of the wheelchair space shall include a pictogram in accordance with Annex 4, Figure 23A, with a minimum diameter of 500 mm, indicating whether the wheelchair is to be positioned facing the front or the rear of the vehicle.”**

*Annex 8, paragraph 3.7.3., amend to read:*

“3.7.3. For vehicles of Classes I, II and A, where the foot space of any seat, or part of a folding seat when in use, intrudes into a wheelchair space, those seats shall have signs fixed on or adjacent to them, with the following text; **in letters not less than 8 mm high equivalent text or pictogram:**

“Please give up this space for a wheelchair user”,

**or equivalent text or pictogram”**

The provisions of paragraph 7.6.11.8. of Annex 3 apply to any textual markings used.”

*Annex 8, paragraph 3.8.4.1.4., amend to read:*

“3.8.4.1.4. A handrail or handhold shall be fitted to the side or wall of the vehicle or a partition in such a way to allow the wheelchair user to grasp it easily. This handrail shall not extend over the vertical projection of the wheelchair space, except by not more than 90 mm and ~~only~~ at a height ~~not less than~~ **between 850 mm [800 and 900 mm]** above the floor of the wheelchair space **and shall have a minimum length of [xxx mm].”**

*Annex 8, paragraph 3.8.4.1.6., amend to read:*

“3.8.4.1.6. A sign shall be fixed adjacent to the wheelchair ~~area~~ **space in letters not less than 8 mm high**, with the following text **or any equivalent text:**

"This space is reserved for a wheelchair. The wheelchair shall be placed facing rearwards resting against the support or backrest with the brakes on".

The provisions of paragraph 7.6.11.8. of Annex 3 apply to any textual markings used.”

*Annex 8, delete paragraphs 3.10.6. and 3.10.7*

~~“3.10.6. The area shall be provided with a specific control, e.g. a push button, to enable the passenger with an unfolded pram or pushchair to request that the vehicle be stopped at the next bus stop. The general requirements of paragraph 7.7.9.1. of Annex 3 shall apply.~~

~~3.10.7. The control shall be fitted with the pictogram described in Figure 23C of Annex 4. The dimensions of the pictogram may be reduced as needed.~~

*Annex 8, renumber paragraph 3.10.8. accordingly*

*Annex 8, paragraph 3.10.9., amend to read:*

- 3.10.97. Additional wheelchair areas may be combined with the area for the accommodation of an unfolded pram or pushchair provided the relevant requirements are met. In such a case, the area shall have signs fixed on or adjacent to it with the following text; **in letters not less than 8 mm high equivalent text or pictogram:**
- “Please give up this space for a wheelchair user”,
- or equivalent text or pictogram”**

*Annex 8, paragraph 3.11.4.1.6., amend to read:*

- “3.11.4.1.6. The outer edge of ramp surfaces available for use by a wheelchair shall be clearly marked with a band of colour 45 mm to 55 mm in width with a visual contrast with the remainder of the ramp surface of  $C \geq [0.4 / 0.7]$  **and a diffuse reflectance  $p_d$  of at least 0.5 according to Annex 5 or be white or yellow black on yellow or yellow on black or black on white or white on black** ~~of which contrasts visually~~. The band of colour shall extend along the outermost edge and along both edges parallel to the direction of travel of the wheelchair.”

*Annex 8, paragraph 3.9.1.2., amend to read:*

- “3.9.1.2. In the case of interior controls in vehicles of Classes I, II and III, be on or adjacent to that door at a height of between 850 mm and ~~1,300~~ **1,200** mm from the upper surface of the floor nearest the control and be not more than 900 mm in any direction from the door aperture.”

*Annex 8, delete paragraph 3.10.6.:*

- ~~“3.10.6. The area shall be provided with a specific control, e.g. a push button, to enable the passenger with an unfolded pram or pushchair to request that the vehicle be stopped at the next bus stop. The general requirements of paragraph 7.7.9.1. of Annex 3 shall apply.~~

*Annex 8, paragraph 3.11.4.1.5., amend to read:*

- “3.11.4.1.5. Any ramp shall be capable of operating safely with a load of ~~300~~ **[350]** kg.”

*Annex 8, add new paragraph 3.11.4.1.8.*

- 3.11.4.1.8. For Class I vehicles fitted with a power-operated ramp, the gap between the innermost parts of the access passage and the deployed ramp shall not exceed 75 mm on each side. This shall be measured using 2 vertical planes having a height of 1,090 mm from the floor, perpendicular to the longitudinal plane through the centre of the vehicle tangential to the innermost parts fitted 300 mm to the inside and 100 mm to the outside of the vehicle measured from the outer edge of the first step. When the ramp is deployed, the service-doors may be re-positioned to achieve this requirement.**

## II. Justification

### *Paragraph 2.21.:*

Definition of "*Passenger with reduced mobility*" rewritten, reference to the use of assistive products added.

### *Paragraph 5.2.:*

Minimum height of letters of written text added in alignment with other paragraphs of UN Regulation 107.

### *Paragraphs 10.24. -10.30*

New transitional for the 11<sup>th</sup> series of amendments added

### *Annex 3, paragraph 7.6.12.2.5.:*

Service door lighting should be operable by manual or automatic activation. By deleting 7.6.12.2.5. both options become possible.

### *Annex 3, paragraph 7.7.9.1.:*

Minimum height of letters shown on the sign that displays "Bus stopping" added.

### *Annex 8, paragraph 3.2.2.:*

Modified wording "assistance dog" instead of "guide dog" added. Dimensions and design of the space for a assistance dog defined.

### *Annex 8, paragraph 3.2.3.:*

Detailed definition of the geometry of the armrest between priority seat and gangway added. Defined values are based on ISO XXXX from the building sector. New figure 31 added to Annex 4.

### *Annex 8, paragraph 3.2.6.:*

Text modified to ensure that in class I and A vehicles the footspace of the priority seats is at the level of the adjacent gangway to allow an easy access to the priority seats.

### *Annex 8, paragraph 3.2.8.:*

Reference to figure 23B added. Alignment within the Regulation.

### *Annex 8, new paragraph 3.2.9.:*

New requirement added to ensure the better distinguishability of priority seats from other passenger seats (e.g. by their colour).

*Annex 8, paragraph 3.3.1.:*

Requirement added that any pram or pushchair area shall be fitted with communication devices.

*Annex 8, paragraph 3.3.3.1.:*

Requirement for visual contrast improved from  $C \geq 0,4$  to  $C \geq 0,7$  based on ISO XXXX from the building sector. Combinations of back/yellow/white added to avoid unnecessary burden with testing and approval.

*Annex 8., new paragraphs 3.3.3.4. and 3.3.3.5.:*

New paragraphs added to require specific driver indicators that ensure a clear information to the driver that a person with reduced mobility wants to alight from the vehicle.

*Annex 8, paragraph 3.3.4.:*

Paragraph modified to ensure that the communication device at a door fitted with a ramp or lift is not permitted to be covered by a e.g. door (e.g. door sliding to the exterior of the vehicle)

*Annex 8, paragraph 3.6.6.:*

New requirement added for a pictogram to be fitted to the floor area of the wheelchair space. Dimensions and positioning defined to ensure a good visibility in the vehicle and to guide the wheelchair user to position the wheelchair properly.

*Annex 8, paragraph 3.7.3.:*

Minimum height of letters of written text added in alignment with other paragraphs of UN Regulation 107.

*Annex 8, paragraph 3.8.4.1.4.:*

Position and length of handrails or handholds at the wheelchair space redefined on basis of ISO XXXX from the building sector.

*Annex 8, paragraph 3.8.4.1.6.:*

Minimum height of letters of written text added in alignment with other paragraphs of UN Regulation 107.

*Annex 8, paragraphs 3.10.6. and 3.10.7 deleted:*

Paragraphs deleted and new detailed prescriptions for specific unique driver-indicators added with new paragraphs 3.3.3.4. and 3.3.3.5.



*Annex 8, paragraph 3.10.9.:*

Minimum height of letters of written text added in alignment with other paragraphs of UN Regulation 107. Paragraph renumbered.

*Annex 8, paragraph 3.11.4.1.6.:*

Requirement for visual contrast improved from  $C \geq 0,4$  to  $C \geq 0,7$  based on ISO XXXX from the building sector. Combinations of back/yellow/white added to avoid unnecessary burden with testing and approval.

*Annex 8, paragraph 3.9.1.2.:*

Position of interior controls redefined on basis of ISO XXXX from the building sector.

*Annex 8, paragraph 3.10.6.:*

Paragraph deleted and new detailed prescriptions for specific unique driver-indicators added with new paragraphs 3.3.3.4. and 3.3.3.5.

*Annex 8, paragraph 3.11.4.1.5.:*

Minimum required load increased from 300 kg to 350 kg because ...

*Annex 8, paragraph 3.11.4.1.8.:*

New paragraph 3.11.4.1.8 added to avoid the risk for a wheelchair user to get into a possible gap between a deployed ramp and the service-door opening.

---