

7th edition, September 2007

Original

I

Level crossings - Road signs and signals

*Passages à niveau - Signalisation routière
Bahnübergänge - Straßenverkehrszeichen*



UNION INTERNATIONALE DES CHEMINS DE FER
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VII - Way and works

Application:

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Record of updates

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| 1st edition, March 1930 | First issue under code number 46 entitled "Unguarded level crossings - Road signs" re-coded by the first leaflet revision committee in May 1952 under code number 732 |
| 2nd edition, January 1955 | Re-coded under code number 760 and entitled: "Level crossings - Road signalling" |
| 7th edition, September 2007 | Overhaul of leaflet and change of status from "Mandatory" to "for Information only" |

The person responsible for this leaflet is named in the UIC Code

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Summary

The leaflet is "for information only", it provides rules for marking level crossing towards road user by specifying road signs and signals. The leaflet is fully conform with and based on valid road regulatory documents.

The leaflet consists of two parts:

- The first part provides definitions, classification of level crossings and reference to the Convention on road signs and signals including supplementary European Agreement.
- The second part prescribes rules to be applied for road signs and signals at individual types of level crossing. All European specific requirements are clearly marked. There is also an Appendix containing signs and symbols to be used at level crossings.

Preliminary Remarks

1. All regulations reported are for information only. Railway members which are not fully compliant with the regulations reported in point 1.3 [1] and [2] are recommended to initiate a process at national level to enlarge them in order to be compliant in the future.
2. Where a string "EUROPE" is introduced under any regulation, it indicates additional limitations or different requirements related to the regulation which apply to the European countries only (according to the Agreement [2]).

1 - General

1.1 - Definition

"Level crossing" means any level intersection between a road and a railway or tramway track with its own track formation.

"Road" means the entire surface of any way or other street open to public vehicular traffic.

"Carriageway" means the part of a road normally used by vehicular traffic; a road may comprise several carriageways clearly separated from one another by, for example, a dividing strip or a difference of level.

"Lane" means any one of the longitudinal strips into which the carriageway is divisible, whether or not defined by longitudinal road markings, which is wide enough for one moving line of motor vehicles other than motor cycles.

1.2 - Classification of level crossings

Level crossings are classified as follows:

- A - Level crossing with barriers.
- B - Level crossing with half-barriers.
- C - Level crossing with a signal system to give warning of the approach of train.
- D - Level crossing without barriers, half-barriers or train approach warning signal.

1.3 - Regulations

Road signs and signals at level crossings are governed by the provisions of the following international and European documents (see [Bibliography - page 1](#)):

- [1] Convention on road signs and signals, done at Vienna on 8 November 1968, as amended by the Amendment 1 to the Convention (incorporating all amendments to the Convention which entered into force on 30 November 1995),
- [2] European Agreement supplementing the Convention on road signs and signals, done at Geneva on 1 May 1971, as amended by the Amendment 1 to the Agreement (incorporating the amendments to the annex which entered into force on 27 November 1995).

The procedure for application of these provisions is given below.

1.4 - DANGER WARNING sign

As regards the choice between models Aa (see [Fig. 1 - page 7](#)) and Ab (see [Fig. 2 - page 7](#)) of the "A" DANGER WARNING sign, see [Article 5, paragraph 2, and Article 9, paragraph 1, of the Convention \[1\]](#) (see [Bibliography - page 1](#)).

2 - Road signs and signals at level crossings

2.1 - Generally

2.1.1 - All level crossings shall be provided with one of the danger warning signs¹ Aa (see Fig. 1 - page 7) or Ab (See Fig. 2 - page 7) bearing one of the symbols² A25 (see Fig. 3 - page 7), A26 (see Fig. 4 and 5 - page 7) or A27 (see Fig. 6 - page 7), described in Annex 1 to the Convention [1]. This sign may be dispensed with in the cases indicated under point 2.6.5 - page 6.

EUROPE:

- Each European State shall select Aa (see Fig. 1) as the model for danger warning sign.
- Warning shall be given by the danger warning sign Aa (see Fig. 1) bearing one of the symbols A25 (see Fig. 3), A26a (see Fig. 4) or symbol A27 (see Fig. 6) as appropriate.

2.2 - Level crossings with barriers

2.2.1 - The barrier shall be clearly marked in alternate stripes of red and white, red and yellow, black and white, or yellow and black³. They may, however, be coloured white or yellow only, provided that a large red disc is displayed at the centre.

EUROPE:

- The barriers shall not be marked in alternate stripes of black and white or black and yellow.

2.2.2 - To make them more visible, the barriers shall be provided with reflecting materials or devices and, if necessary, be illuminated at night.

2.2.3 - The use of barriers as low as possible in their closed position, is recommended, taking into account the conditions prevailing in each country; they should not offer great resistance in the case of collision by road vehicles.

2.2.4 - Level crossing fitted with barriers shall be equipped with a system of a flashing red light or red lights flashing alternately signalling the imminent closing of the barriers, identical to that for signalling the approach of trains as described in point 2.4.3 - page 5.

The flashing red light(s) may be supplemented or replaced by light signals of the three-colour red-amber-green system (as described under Chapter III, Article 23, paragraph 2 of the Convention [1]), or by such a signal without the green lights.

-
1. The ECE Sub-Committee on Road Transport, in the text of the European Agreement supplementing the convention on road signs and signals [2] already referred to, excluded the danger warning sign Ab.
 2. The ECE Sub-Committee on Road Transport, in the text of the European Agreement supplementing the convention on road signs and signals [2] already referred to, excluded the symbol A26b.
 3. The Sub-Committee on Road Transport of ECE's Inland Transport Committee, in the text of the European Agreement supplementing the convention on road signs and signals [2] excluded black-white and yellow and yellow-black combinations.

Light signal may be supplemented by a sound signal.

On tracks / field paths (dirt roads) where traffic is very light, only a sound signal need be used.

2.2.5 - The light signals shall be installed on the edge of the carriageway appropriate to the direction of traffic; whenever conditions such as the visibility of the signals or the density of traffic so require, the lights shall be repeated on the other side of the road. However, if it is considered preferable because of local conditions, the lights may be repeated on an island in the middle of the carriageway, or placed above the carriageway.

2.3 - Level crossings with half-barriers

2.3.1 - All the provisions concerning level crossings with barriers shall apply to level crossing with half barriers, with the following amendment to the second paragraph of point **2.2.4 - page 3**:

The flashing red light(s) may be supplemented or replaced¹ by light signals of the three-colour red-amber-green system (as described under *Chapter III, Article 23, paragraph 2 of the Convention [1]*), or by such a signal without the green light, if other three-colour light signals are installed on the road near the level crossing.

EUROPE:

- At level crossings having half-barriers, the flashing red light(s) shall not be replaced in the manner specified in point **2.2.4**; they may however be supplemented in that manner on condition that other three-colour light signals are installed on the road near the level crossing.

2.3.2 - Wherever possible, near level crossing with half-barriers, a longitudinal marking shall be placed on the carriageway prohibiting vehicles which approach the level crossing from encroaching on lane(s) reserved for traffic in the opposite direction, or even directional islands separating the two opposed streams of traffic.

2.4 - Level crossings with signal system to give warning of the approach of trains

2.4.1 - In the immediate vicinity of the railway line and on the same support as the light signal giving warning of the approach of trains, there shall be placed one of the A28² signs (see Fig. 7 to 9 - **page 7**) as described in *Appendix 1 to the Convention [1]*.

This signal and the sign shall not be mandatory in the cases indicated under point **2.6.6 - page 6**.

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1. The ECE Sub-Committee on Road Transport, in the text of the European Agreement supplementing the convention on road signs and signals [2] already referred to, excluded any possibility of the replacement of the signal at level crossings having half-barriers.
 2. The ECE Sub-Committee on Road Transport, in the text of the European Agreement supplementing the convention on road signs and signals [2] already referred to, excluded the sign A28c.

The approach of trains shall be signalled by:

- One flashing red light, or
- Two red lights alternately flashing mounted on the same support, at the same height, and facing the same direction¹.

EUROPE:

- Model A28c (see Fig. 9 - page 7) of the A28 signs shall not be used.
- The signal shall preferably consist of two red lights flashing alternately.

2.4.2 - The flashing red light(s) may be supplemented or replaced by light signals of the three-colour red-amber-green system, described in *Chapter III, Article 23, paragraph 2 of the Convention [1]*, or by such a signal without the green lights, if other three-colour light signals are installed on the road near the level crossing.

The installation of a slowly flashing opaque white signal indicating that no train is approaching is authorised.

Lights may be supplemented by a sound signal.

On tracks / field paths (dirt roads) where traffic is very light, only a sound signal need be used.

2.4.3 - The light signals shall be installed on the edge of the carriageway appropriate to the direction of traffic; wherever conditions such as the visibility of the signals or the density of traffic so require, the lights shall be repeated on the other side of the road. However, if it is considered preferable because of local conditions, the lights may be repeated on an island in the centre of the carriageway, or placed above the carriageway.

2.5 - Level crossings without barriers, half-barriers or train approach warning signals

2.5.1 - Level crossings without barriers, half-barrier or light signals shall be provided with one of the A28 signs (see Fig. 7 to 9 - page 7).

The sign A28 (see Fig. 7 to 9) is not mandatory in the cases indicated under point 2.6.6 - page 6.

2.5.2 - One of the B2 "STOP" signs², described in *Annex 1 to the Convention [2]*, may be provided at a level crossing in this category. In such a case, one of the A28 signs (see Fig. 7 to 9) shall be placed on the same support as the B2 signs (see Fig. 14 and 15 - page 8).

EUROPE:

- Model B2b (see Fig. 15 - page 8) of the B2 "STOP" sign shall not be used.

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1. The ECE Sub-Committee on Road Transport, in the text of the European Agreement supplementing the convention on road signs and signals [2] referred to, made the following recommendation: "At level crossing without barriers or half-barriers, the signal shall preferably consist of two red lights flashing alternately".
 2. The ECE Sub-Committee on Road Transport, in the text of the European Agreement supplementing the convention on road signs and signals [2] already referred to, excluded the sign B2b.

2.6 - Miscellaneous regulations

2.6.1 - All road signs and signals so far mentioned may be used at footpath level crossings. However, no signals, not even any danger warning sign bearing any of the A25, A26 or A27 (see Fig. 3 to 6 - page 7) symbols or any of the A28 signs (see Fig. 7 to 9 - page 7), are mandatory in the terms of *the Convention* [1].

2.6.2 - In general, when the category of a level crossing is changed, steps shall be taken to ensure that there is no confusion in the mind of the road user on the methods of protection in force.

However, it might be necessary either to modify the road signs or to indicate that the barriers, half-barriers or colour-light signals are no longer in operation.

These steps may even include the provision of a crossing keeper.

2.6.3 - On roads where vehicular traffic is particularly heavy at night, the danger warning signs placed in front of the level crossing shall be provided with reflecting materials or devices and, if necessary, illuminated during darkness.

2.6.4 - The danger warning signs bearing A25 (see Fig. 3) or A26 (see Fig. 4 and 5 - page 7) danger warning symbols may be integrated by means of supplementary signs A29a, b, c (see Fig. 10 to 12 - page 8) described in *Annex 1 to the Convention* [1].

2.6.5 - A danger warning sign may be dispensed with:

- In special cases which may arise in built-up areas;
- On tracks / field paths (dirt roads) over which motor vehicle traffic is exceptional.

2.6.6 - Placing of the A28 signs (see Fig. 7 to 9) is not mandatory at:

- Level crossing where rail traffic proceeds very slowly and road traffic is regulated by a railwayman making the necessary hand signals;
- Rail/field paths (dirt roads) level crossing where traffic is very light.

2.6.7 - If it is considered necessary to indicate level crossing where rail traffic proceeds very slowly and road traffic regulated by a railwayman making the necessary hand signals, the danger warning signs should bear the symbol A32 (see Fig. 13 - page 8), described in *Annex 1 to the Convention* [1], in place of the danger warning symbol A25 (see Fig. 3), A26 (see Fig. 4 and 5) or A27 (see Fig. 6).

Appendix A - Related signs and symbols

(Convention on signs and signals, Vienna 1968 / Appendix 1 - page 33)

1. The "A" DANGER WARNING signs shall be of model Aa (see Fig. 1) or model Ab (see Fig. 2) except signs A28 (see Fig. 7 to 9) and A29 (see Fig. 10 to 12 - page 8) (described in *paragraphs 28 and 29 of the Convention [1]*). Model Aa is an equilateral triangle having one side horizontal and the opposite vertex above it; the ground is white or yellow and the border red. Model Ab is a square with one diagonal vertical; the ground is yellow and the border, which is only a rim, is black. Unless the description specifies otherwise, the symbols displayed on these signs shall be black or dark blue.
2. The size of the normal sized sign of model Aa (see Fig. 1) shall measure approximately 0,90 m; that of the small sized sign of model Aa shall measure not less than 0,60 m. The size of the normal sized sign of model Ab (see Fig. 2) shall measure approximately 0,60 m; that of the small sign of model Ab shall measure not less than 0,40 m.

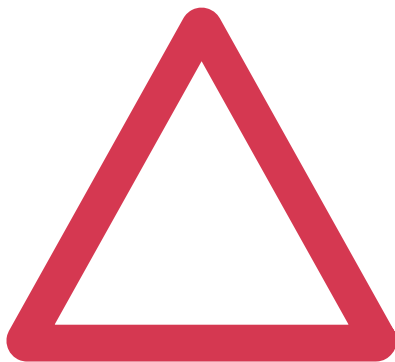


Fig. 1 - Aa

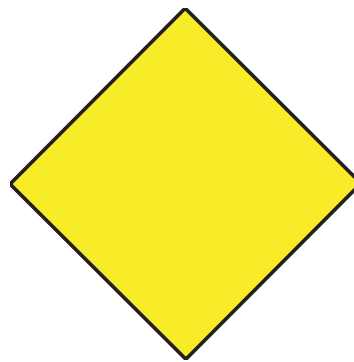


Fig. 2 - Ab



Fig. 3 - A25

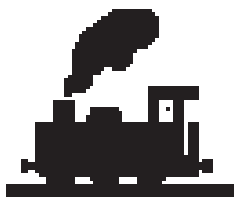


Fig. 4 - A26a

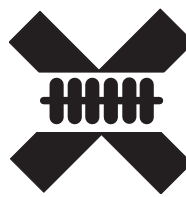


Fig. 5 - A26b



Fig. 6 - A27



Fig. 7 - A28a



Fig. 8 - A28b

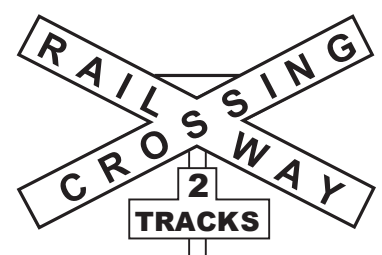


Fig. 9 - A28c

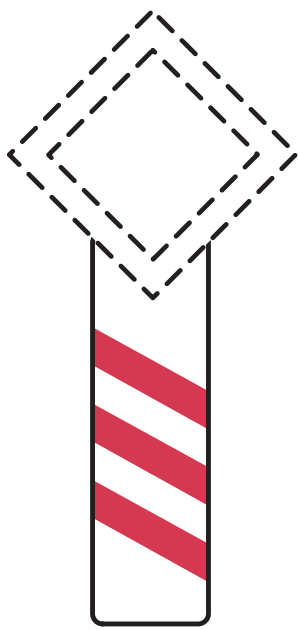


Fig. 10 - A29a

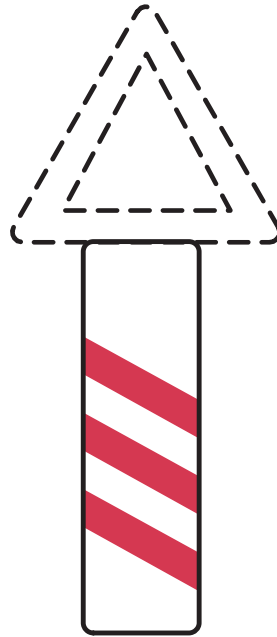


Fig. 11 - A29b



Fig. 12 - A29c



Fig. 13 - A32



Fig. 14 - B2a



Fig. 15 - B2b

Bibliography

1. European standards

United Nations Economic Commission for Europe (UNECE)

[1] Convention on road signs and signals, Incorporating the amendments to the Convention which entered into force on 30 November 1995, Vienne, 8 November 1968

[2] European agreement supplementing the convention on road signs and signals opened for signature at Vienna on 8 November 1968, Geneve, 1 May 1971

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