

# UIC Code

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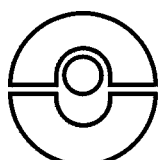
4th edition, February 2001

*Translation*

## **Conditions to be fulfilled by automatic vigilance devices used in international traffic**

*Conditions pour les dispositifs de veille automatique utilisés en trafic international*

*Bedingungen für Sicherheitsfahrerschaltungen im internationalen Verkehr*



*Union Internationale des Chemins de fer  
Internationaler Eisenbahnverband  
International Union of Railways*

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# *UIC*



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## **Leaflet to be classified in Section :**

VI - Traction

## **Application :**

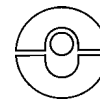
With effect from 1st January 1981 for new and existing tractive units  
All members of the International Union of Railways

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



## Warning

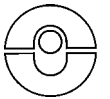
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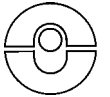
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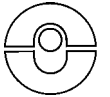
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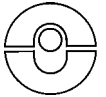
## Summary

The devices covered by this leaflet apply to locomotives, railcars, power cars, motor-train sets, and trailers with driver's cabs used in international traffic and incorporating automatic-vigilance devices.



## 1 - Purpose of device

The automatic vigilance device monitors the driver from inside the tractive unit to ensure his/her fitness and control of his/her vehicle. It acts independently of the fixed controls. Should the driver fail to carry out the procedures laid down in the regulations, the device switches off the tractive effort of the motive-power unit and sets off an emergency braking process.

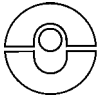


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## 2 - Driver's cab equipment

The driver's cab equipment shall consist of:

1. controls such as handles, pedals or knee controls;
2. an audible signal such as a buzzer, horn or bell. The signal must be audible in all service conditions;
3. additional optical devices may also be included.



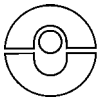
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## 3 - Setting the device

**3.1.** - The automatic vigilance device shall be switched on at latest when a speed of 20 km/h is reached and must remain on throughout the time the speed of the vehicle exceeds this level.

**3.2.** - By mutual agreement, however, Railways may use an automatic vigilance device which is set by the vehicle driver before the train starts.





## 4 - Activation

4.1. - When the device is in the normal "set" position and:

1. none of the controls are in operation, or
2. the controls are operated without interruption for a period exceeding  $t = 30 \text{ s}^1$ :
  - a. an audible signal shall sound after a maximum interval of 2,5 seconds;
  - b. after a further maximum interval of 2,5 seconds, tractive power shall be cut off and the automatic emergency braking system shall become effective.

The time intervals indicated may be subject to a tolerance of 15%<sup>2</sup>.

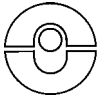
4.2. - Instead of the time intervals indicated in point 4.1 - page 5, automatic vigilance devices may be regulated on a distance basis so that for a speed of around 100 km/h the time intervals are equal to those indicated in point 4.1.

4.3. - Instead of the device overriding the controls, another type of control device may be set off if the automatic vigilance device is so programmed and if the end result is the same.

4.4. - If the supply current of the automatic vigilance device is cut off, tractive power shall automatically cut-off and the automatic emergency braking system shall come into operation.

4.5. - When the automatic emergency braking system has been set off by the automatic vigilance device, the main brake pipe must be emptied within a period no longer than that required in the case of emergency braking controlled by the driver's brake valve. The quantity of air escaping, per unit of time, during emptying operations, must be appreciably greater than the quantity of air entering the system through the braking device when the driver's valve is in the filling position, in order to guarantee that the train brakes function in complete safety.

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1. By mutual agreement, Railways may, however, use an automatic vigilance device with longer activation intervals.
  2. For 2,5 second intervals on old types of automatic vigilance devices, tolerances may be as high as 20%.

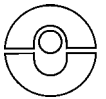


## 5 - Re-setting

**5.1.** - The automatic vigilance device may be reset before automatic emergency braking occurs:

- by activating one of the controls as indicated in point 2, paragraph 1 - page 3;
- by overriding the action of the controls for a short space of time.

**5.2.** - After tractive power has been cut off and automatic emergency braking has occurred, the automatic vigilance device can only cease to function if the driver of the tractive unit carries out a further positive operation, in addition to those mentioned in point 5.1 - page 6, such as for example releasing the brakes or switching the tractive power back on.



## 6 - Instructions for correct functioning

The instructions to ensure correct functioning are outlined below:

### 6.1. - Cab equipment:

Controls	
type	number
alarm mechanisms	
additional mechanisms	

### 6.2. - Normal "on" position:

when speed exceeds ..... km/h

at least one control alternatively

1. must not operate for more than ..... s ..... and
2. must not be off for more than ..... 5 s or
3. operate for ..... s

### 6.3. - Activation: if the control operations are not carried out or exceed the time-frame laid down in point 6.2 - page 7:

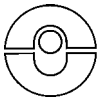
1. an audible signal shall be triggered off after ..... s, after a distance of ..... m,
2. the tractive power shall cease and automatic emergency braking come into operation after a further ..... s after a further ..... m.

Remarks:

### 6.4. - Re-setting:

1. before automatic emergency braking is set off by the procedure, as indicated in point 6.2,
2. after the start of automatic braking by the procedure, as indicated in point 6.2.

### 6.5. - Extra equipment and special instructions as to its operation.



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