

PROPOSAL FOR A NEW DRAFT GLOBAL TECHNICAL REGULATION CONCERNING
HAND CONTROLS, TELL-TALES AND INDICATORS PRESENT ON CATEGORY 1 AND 2
VEHICLES

(Revision 4)

Transmitted by the expert from Canada

Note: The text reproduced below was transmitted by the expert from Canada. It represents the proposed draft of the new global technical regulation. The text is based on the document TRANS/WP.29/GRSG/2000/8/Rev.3 and subsequent discussions and consultations.

Draft global technical regulation No. X

UNIFORM PROVISIONS FOR HAND CONTROLS, TELL-TALES AND INDICATORS
PRESENT ON CATEGORY 1 AND 2 VEHICLES.

1. SCOPE AND PURPOSE

This global technical regulation specifies requirements for the location, identification, colour, and illumination of ~~motor~~ power driven vehicle hand controls, tell-tales and indicators. The purpose of this ~~global technical~~ regulation is to ensure the accessibility, visibility, and recognition of vehicle controls, tell-tales, and indicators and to facilitate the proper selection of controls under daylight and night-time conditions. The regulation intention is also to reduce the safety hazards that would otherwise be caused by the diversion of the driver's attention from the driving task by mistakes in selecting controls.

Justification: Reference to “global technical” is superfluous; it was removed without revision marks from the text below. Reference to “power driven vehicle” is consistent with the definitions per gtr “0”, it was implemented without revision marks in the text below.

2. APPLICATION

This global technical regulation applies to power-driven vehicles of categories 1 and 2 intended for use on the road, with or without bodywork and a maximum design speed exceeding 25 km/h. Contracting Parties may apply this regulation to other categories of vehicles.

3. DEFINITIONS

For the purpose of this regulation

- 3.1. “Device” means an element or an assembly of elements used to perform one or more functions.
- 3.2. “Control” means the hand-operated part of a device that enables the driver to change the state or functioning of a vehicle or vehicle’s subsystem.
- 3.3. “Tell-tale” means an optical signal that, when illuminated, indicates the actuation of a device, a correct or improper functioning or condition, or a failure to function.
- 3.4. “Indicator” means a device that shows the magnitude of the physical characteristics that the device is designed to sense.
- 3.5. “Adjacent”, with respect to a symbol identifying a control, tell-tale or indicator, means that the symbol is in close proximity to the control, telltale or indicator and no other control, tell-tale, indicator, identification symbol or source of illumination appears between an identification symbol and the control, tell-tale, or indicator which that symbol identifies.
- 3.6. “Common space” means an area on which more than one tell-tale, indicator, identification symbol, or other message may be displayed but not simultaneously.
- 3.7. “Multi-task display” means an area on which more than one message may be displayed simultaneously.
- 3.8. “Multi-function control” means a control through which the driver may select, and affect the operation of, more than one vehicle function.

4. REQUIREMENTS

A vehicle, if fitted with a control, tell-tale or indicator identified in Table 1, shall meet the prescribed requirements of this regulation respecting the location, identification, illumination, and colour of that control, tell-tale or indicator.

Justification: This regulation would apply to all controls, telltales and indicators present in the vehicle listed in Table 1\

4.1. Location

- 4.1.1. The controls, listed in Table 1, shall be located so that they are operable by the driver under the conditions set out in paragraph 4.6.2.
- 4.1.2. The tell-tales and indicators listed in Table 1, and their identification symbols shall be located so that they are visible to a driver, during daylight and night time driving, under the conditions set out in paragraphs 4.6.1. and 4.6.2.. Tell-tales, indicators and their identification symbols need not be visible when not activated.

- 4.1.3. Except as provided in para. 4.1.4., the identification symbols for controls, tell-tales, and indicators shall be placed on or adjacent to the controls, tell-tales or indicators that they identify. Priority
- 4.1.4. Paragraph 4.1.3. does not apply to multi-function controls, if:
- 4.1.4.1. the control is ~~depicted on an~~ associated with a multi-task display, and
Justification: U.S. proposal
- 4.1.4.2. the associated multi-task display is visible to the driver under the conditions of paragraphs 4.6.1. and 4.6.2., and
Justification: U.S. proposal
- 4.1.4.3. identifies the control with which it is associated, either graphically or in words, and
- 4.1.4.4. all of the vehicle systems for which control is possible from the multi-function control are identified on a multi-task display. Sub-functions of those systems need not be shown on the top-most layer of the multi-task display.
- 4.1.5. Controls for hazard warning lamps, passing and driving beam headlamps, direction indicators, windscreen demisting/defrosting/washing and for engine off must be always accessible to the driver as primary function of the corresponding control.
Justification: this paragraph assures quick access to the controls critical for safe operation of a vehicle.
- 4.1.6. Despite paragraphs 4.1.1. to 4.1.4., the tell-tale for passenger air bag off must be located within the interior of the vehicle and forward of and above the design H-point of the driver's and the front passengers' seats in their forward most seating positions. The tell-tale must be located so as to be visible to the driver and front passengers under daylight and night time driving conditions and must not be located on or adjacent to a surface that may be used for temporary or permanent storage if use of the storage space could obscure the tell-tale from either the driver's or right front passengers' view.
- 4.2. Identification
- 4.2.1. ~~Where fitted,~~ Each control, tell-tale and indicator that is listed in column 1 of Table 1, shall be identified by the symbol specified for it in column 2 of Table 1. No identification symbol is required for any horn (an audible warning signal) control that is activated by a lanyard.
Justification: Not required see 4. Requirements.
- 4.2.2. If a symbol is used for identification of a control, tell-tale or indicator not listed in Table 1, it is recommended to use a symbol designated for the purpose in International Standard ISO 2575 *Road vehicles – Symbols for controls, indicators and tell-tales*.
Justification: Follows ECE proposal.

- 4.2.3. Supplementary symbols (for example words) may be used in conjunction with any symbol.
- 4.2.4. Each additional or supplementary symbol used by the manufacturer must not cause confusion with any symbol specified in this regulation.
- 4.2.5. If the control, indicator or tell-tale for the same function are combined, one symbol may be used to identify that combination.
- 4.2.6. Except as provided in paragraph 4.2.7., all identification symbols for the tell-tales, indicators and controls must be positioned so as to appear to the driver to be perceptually upright. For rotating controls that have an “off” position, this requirement applies to the control in the “off” position.
Justification: To require that all symbols used for identification controls, telltales and indicators appear upright to the driver.
- 4.2.7. The identification symbols for the following need not be positioned so as to appear to the driver to be perceptually upright:
- 4.2.7.1. a horn control,
- 4.2.7.2. any control, tell-tale or indicator located on the steering wheel, when the steering wheel is positioned for the power driven vehicle to travel in other than a straight forward direction, and
- 4.2.7.3. any rotating control that does not have an “off” position.
- 4.2.8. Identification symbols shall be provided for the control of each function of the automatic vehicle speed system (cruise control) and the heating and air conditioning systems.
- 4.2.9. When fitted, each control that regulates a system function over a continuous range shall have identification provided for the limits of the adjustment range.
- 4.2.10. If color coding is used to identify the limits of the adjustment range of a temperature function, the hot limit must be identified by the color red and the cold limit by the color blue. If the status or limit of a function is shown by a display not adjacent to the control for that function, both the control and the indicator must be independently identified as to the function of the control, in compliance with 4.2.1., on or adjacent to the control and on or adjacent to the display.
Justification: Requirement in North America.
- 4.3. Illumination
- 4.3.1. Timing of illumination
- 4.3.1.1. Except as provided in paragraph 4.3.1.3., wherever the word "Yes" is indicated in column 4 of Table 1, the corresponding identification symbol for a control listed in

column 1 in Table 1 shall be capable of being illuminated whenever the headlamps are activated. This does not apply to controls located on the floor, floor console, steering wheel, steering column, in the area of the windscreen header, or to those controls for a heating or air-conditioning system that does not direct air directly upon the windscreen.

4.3.1.2. Except as provided in paragraph 4.3.1.3., wherever the word "Yes" is indicated in column 4 of Table 1, the corresponding indicator and its identification symbol shall be illuminated whenever the vehicle's propulsion system and the headlamps are activated.

4.3.1.3. The indicators, their identifications and the identifications of controls need not be illuminated when the headlamps are being flashed or operated as daytime running lamps.

4.3.1.4. Any control, indicator and their respective identification symbols may be capable of being illuminated at any time.

4.3.1.5. A tell-tale shall emit light when the malfunction or vehicle condition it is designed to indicate occurs. It shall not emit light at any other time, except during a bulb check.

4.3.2. **Brightness of illumination regarding controls and indicators**

4.3.2.1. Means shall be provided for illuminating the indicators and identification symbols for indicators and controls listed in Table 1, for which the word "Yes" is indicated in column 4 of Table 1, to make them visible to the driver under daylight and night time driving conditions.

Justification: Added text excludes need for illumination of indicators, controls and their identification when such illumination is not required in Table 1.

4.3.2.2. The means of illumination required by paragraph 4.3.2.1.:

4.3.2.2.1. shall be adjustable to provide at least two levels of brightness, at the lower of which the indicators and identification symbols for controls and indicators are barely discernible to the driver who has adapted to dark ambient roadway condition; and

4.3.2.2.2. may be operable manually or automatically.

4.3.3. **Brightness of illumination regarding tell-tales**

Means shall be provided for illuminating tell-tales and their identification symbols to make them visible to the driver under daylight and night time driving conditions.

4.4. **Colour**

4.4.1. Subject to subsection 4.5.1.6, the light of each tell-tale shall be of the colour specified in column 5 of Table 1.

- 4.4.2. The colour of indicators, tell-tales and the identification symbols for indicators and controls not listed in Table 1 shall be selected by the manufacturer in accordance with paragraphs 4.4.3 and 4.4.4. The colour selected must not mask or interfere with the identification of any tell-tale, control or indicator specified in Table 1.
- 4.4.3. Colours must be selected in accordance with the following colour code:
- 4.4.3.1. red: danger to persons or very serious damage to equipment is immediate or imminent;
- 4.4.3.2. yellow or amber: caution, outside normal operating limits, vehicle system malfunction, damage to vehicle likely, or other condition which may produce hazard in the longer term;
- 4.4.3.3. green: safe, normal operating condition (except if blue or yellow is required by Table 1).
- 4.4.4. Each symbol used for the identification of a tell-tale, control or indicator shall be in a colour that stands out clearly against the background.
- 4.4.5. The filled-in part of any symbol may be replaced by its outline and the outline of any symbol may be filled in.
- 4.5. Common space for displaying multiple messages
- 4.5.1. Except as provided in 4.5.1.3., a common space may be used to show information from any source, subject to the following requirements:
- 4.5.1.1. The tell-tales and indicators displayed in the common space shall illuminate at the initiation of the condition they are designed to identify.
- 4.5.1.2. Except as provided in 4.5.1.4., when the condition exists for actuation of two or more tell-tales, the information shall be either
- (i) repeated automatically in sequence, or
- (ii) indicated by visible means and capable of being selected for viewing by the driver under the conditions of paragraph 4.6.2.
- 4.5.1.3. The tell-tales for any brake system malfunction, air bag malfunction, side air bag malfunction, passenger air bag off, headlamp driving beam, low tyre pressure, direction indicator and seat belt shall not be shown in the same common space.
- 4.5.1.4. If condition of activation exists for the following tell-tales: brake system malfunction, air bag malfunction, side air bag malfunction, passenger air bag off, low tyre pressure, headlamp driving beam, direction indicator or seat belt, and they are displayed on a common space with other tell-tale, they must have priority over anything else in the common space
- Justification:** Clarification

- 4.5.1.5. Information displayed in the common space may be cancellable automatically or by the driver, except for the tell-tales of headlamp driving beam, passenger air bag off, low tyre pressure, a direction indicator and those for which the colour red is required by Table 1 shall not be cancellable if the condition exists for their activation.
- 4.5.1.6. The colour requirements regarding telltales for and telltales for engine oil pressure and parking brake do not apply when those telltales appear in a common space.
- 4.6. Conditions
- 4.6.1. The driver has adapted to the ambient light roadway conditions.
- 4.6.2. The driver is restrained by the installed crash protection system, adjusted in accordance with the manufacturer's instructions.
- 4.7. Based on a determination by each contracting party or regional economic integration organization, the symbols for identifying controls, tell-tales and indicators shall be described as per Table 1.

Table 1. Symbols identifying controls, tell-tales and indicators are the following:

No.	Column 1	Column 2	Column 3	Column 4	Column 5
	ITEM	SYMBOL	FUNCTION	ILLUMINATION	COLOUR
This section is still under review and a final version of Table 1 is intended to be present at a later session of GRSG.					
Note: Table 1 would only identify symbol critical for safety as identified by OICA and GRSG.					

- 1/ Framed areas of the symbol may be solid.
- 2/ The number of parallel lines in the symbol may be 4 or 5.
- 3/ The pair of arrows is a single symbol. When the controls or tell-tales for left and right turn operate independently, however, the two arrows may be considered separate symbols and be spaced accordingly.
- 4/ Not required when arrows of turn signal tell-tales that otherwise operate independently flash simultaneously as hazard warning tell-tale.
- 5/ Combination of the engine oil pressure symbol and the engine coolant temperature symbol in a single tell-tale is permitted.
- 6/ Separate identification not required if function is combined with master lighting switch.
- 7/ If a single tell-tale is used to indicate more than one brake system condition, the brake system malfunction symbol must be used.

8/ Letter “D” may be replaced or supplemented by other alphanumeric character(s) or symbol(s) chosen by the manufacturer to indicate additional selection modes. The indicators shall be displayed top to bottom or left to right.

9/ Use when engine control is separate from the key locking system.

10/ Not required if instrument panel lights are lit automatically on activation of the master lighting switch.

11/ Digital speedometers that switch between kilometres per hour and miles per hour are allowed if the unit of measure is identified.

12/ The analogue speedometer scale intervals shall increase in a clockwise direction. Major graduations and numerals shall appear at 10 or 20 kilometre per hour intervals and corresponding minor graduations at 5 or 10 kilometre per hour intervals. In vehicles manufactured for countries where imperial units are used, the speedometer shall be marked in mph (miles per hour). Major graduations and numerals shall appear at 10 mile per hour intervals and corresponding minor graduations at 5 mile per hour intervals.

13/ If a single telltale is used to indicate an airbag malfunction, the airbag malfunction symbol must be used.

Justification: This would permit the use of one symbol only to indicate an airbag malfunction.

14/ The required text identification must be displayed in lowercase letters.

Justification: Per ECE proposal.

15/ The identifying words or abbreviation can be used in combination with the symbol describe in option b of the same item number.

Justification: Allowed in North America
