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PROPOSAL FOR A GLOBAL TECHNICAL REGULATION (GTR) CONCERNING  
UNIFORM PROVISIONS FOR MOTOR VEHICLE CONTROLS, TELL-TALES AND INDICATORS

Transmitted by the Experts from Canada and  
the United States of America

Note: The text reproduced below was prepared by the experts from Canada and the United States of America. This document is based on the draft of a new Regulation to be annexed to the 1958 Agreement (TRANS/WP.29/GRSG/1999/19/Rev.1). It also includes comments from the GRSG experts, US and Canadian regulatory development personnel, and some members of ISO TC22/SC13. In sections of the documents the paragraphs do not follow the numerical order but parallel the numerotation of document TRANS/WP.29/GRSG/1999/19/Rev.1.

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Note: This document is distributed to the Experts on General Safety Provisions only.

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Global Technical Regulation

UNIFORM PROVISIONS FOR MOTOR VEHICLE CONTROLS, TELL-TALES AND INDICATORS

1. SCOPE

This regulation applies to all M and N 1/ categories of motor vehicles. It specifies requirements for the location, identification, colour, and illumination of motor vehicle controls, tell-tales and indicators. It is designed to ensure the accessibility, visibility and recognition of motor vehicle controls, tell-tales and indicators, and to facilitate their selection under daylight and night-time conditions, in order to reduce the safety hazards caused by the diversion of the driver's attention from the driving task, and by mistakes in selecting controls.

2. DEFINITIONS

For the purpose of this regulation

2.1.

2.2. "Control" means the part of a device that enables the driver to bring about a change in the state or functioning of a vehicle or vehicle's subsystem.

2.3.

2.4.

2.5. "Indicator" means the part of a device that shows the quantity of the physical characteristics that the instrument is designed to sense.

2.6. "Information display device" means a common space capable of displaying more than one message.

2.7.

2.8.

2.9. "Tell-tale" means an optical signal that, when alight, indicates the actuation of a device, a correct or defective functioning or condition, or a failure to function.

2.10.

3.

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1/ Categories M and N as defined in annex 7 to the Consolidated Resolution of the Construction of Vehicles (R.E.3) (document TRANS/WP.29/78/Rev.1/Amend.2)

5. SPECIFICATIONS

Each motor vehicle, if fitted with a control, a tell-tale or an indicator to be utilized by a driver during operation of that motor vehicle, shall meet the requirements of this regulation for the location, identification, colour, and illumination of such control, tell-tale or indicator.

5.1. LOCATION

5.1.1. The controls to be utilized by a driver while driving the vehicle shall be operable by this driver under the conditions of paragraph 5.6.2.

5.1.2. The tell-tales and indicators shall be visible and recognisable to a driver during night and day under the conditions of paragraphs 5.6.1 and 5.6.2. Tell-tales and indicators need not be visible nor recognisable when not activated.

5.2. IDENTIFICATION

5.2.1. The controls, tell-tales and indicators listed in column 1 of table 1, shall be identified by symbols designated for them in column 2. This requirement does not apply to the horn (an audible warning signal) control, when it is activated by a narrow ring-type control or by a lanyard.

5.2.2. To identify a control, a tell-tale or an indicator not included in table 1, a manufacturer shall use a symbol that is specified in the International Organisation for Standardisation (ISO) International Standard ISO 2575[:1998] "Road Vehicles - Symbols for controls, indicators and tell-tales".

5.2.3. To identify a control, a tell-tale or an indicator not included in table 1 nor in ISO 2575[:1998] standard, manufacturer may use an additional symbol, word or abbreviation of its own conception. Such identification shall comply with all requirements of this regulation.

5.2.4. For clarity supplementary symbols, words or abbreviations may be used in conjunction with any symbol specified in table 1 or in ISO 2575[:1998] standard.

5.2.5. Any additional or supplementary symbol, word or abbreviation created by the manufacturer must not cause confusion with any symbol, word or abbreviation specified in this regulation or in ISO 2575[:1998] standard.

5.2.6. The identifications shall be placed on or adjacent to the tell-tales, indicators and hand operated controls that they identify.

5.2.7. Where a control, an indicator or a tell-tale are combined, a common symbol may be used for any such combination.

5.2.8. Under the conditions of paragraphs 5.6.1. and 5.6.2., identifications of tell-tales, indicators and hand-operated controls destined to be

utilized by the driver while driving a motor vehicle shall be visible, recognisable and, except as provided in paragraph 5.2.10, appear to the driver perceptually upright.

- 5.2.9. The identification of the following need not appear to the driver perceptually upright:
- 5.2.9.1. a master lighting switch, a headlamp or position lamp control that adjusts illumination of controls, tell-tales and indicators, by means of rotation,
- 5.2.9.2. a horn control,
- 5.2.9.3. any control, tell-tale or indicator located on the steering wheel, when the steering wheels is positioned for the motor vehicle to travel in other than a straight forward direction, and
- 5.2.9.4. any rotating control that does not have an off position.
- 5.2.10. Identification of rotating control other than one described in paragraph 5.2.10.4 shall appear to the driver perceptually upright when the control is in the off position.
- 5.2.11. Any automatic vehicle speed system control and any heating and air conditioning system control shall have identification provided for each function of any such system.
- 5.2.12. Any control that regulates a system function over a continuous range shall have identification provided in word, number, symbol or colour for the limits of the adjustment range of any such function. If colour coding is used to identify the limits of the adjustment range of a temperature control, the hot limit shall be identified by the colour red and the cold limit by the colour blue.
- 5.2.13. The symbols included in this regulation are substantially identical to symbols described in the ISO 2575[:1998] standard. Proportional dimensional characteristics specified in ISO 2575[:1998] standard shall be maintained.
- 5.3. ILLUMINATION
- 5.3.1. The identifications of controls for which the word "Yes" is indicated in column 4 of 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, or steering column, or in the area of windscreen header, nor to control for a heating and air-conditioning system if the system does not direct air directly upon the windscreen.
- 5.3.2. The indicators and their identifications for which the word "Yes" is indicated in column 4 of Table 1 shall be illuminated whenever the ignition switch, the headlamps, or both are activated.

- 5.3.3. 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.
- 5.3.4. At the manufacturer's discretion any control, indicator or their identifications may be capable of being illuminated at any time.
- 5.3.5. A tell-tale shall not emit light except when identifying the malfunction or vehicle condition for whose indication it is designed or during a bulb check upon vehicle starting.
- 5.3.6. BRIGHTNESS OF ILLUMINATION OF CONTROLS AND INDICATORS
  - 5.3.6.1. Means shall be provided for making the indicators, identifications of indicators and identifications of hand operated controls, that are destined to be utilized by the driver while driving a motor vehicle, visible and recognisable to this driver under all driving conditions.
  - 5.3.6.2. The means for providing the required visibility at night
    - 5.3.6.2.1. shall be adjustable to provide at least two levels of brightness, at least one of which the identification of controls, indicators and the identification of indicators are barely discernible to the driver who has adapted to dark ambient roadway condition
    - 5.3.6.2.2. may be operable manually or automatically; and
    - 5.3.6.2.3. may have levels of brightness at which the identification of controls, indicators and the identification of indicators are not visible nor recognisable to the driver who has adapted to dark ambient roadway condition.
  - 5.3.6.3. If the level of brightness is adjusted by automatic means to a point where the controls, indicators, and the identification of those items are not visible nor recognisable to the driver, under the conditions of paragraph 5.6.1., means shall be provided to enable that driver, under the conditions of paragraph 5.6.2., to restore the visibility and recognition.
- 5.3.7. BRIGHTNESS OF TELL-TALES
  - 5.3.7.1. Means shall be provided for making tell-tales and their identification visible and recognisable to the driver under all driving conditions.
  - 5.3.7.2. The means for providing the required visibility may be adjustable manually or automatically, except that the tell-tales and their identifications for brake system malfunction, driving beams, direction indicators and seat belts may not be adjustable under any driving conditions to a level that they become invisible or not recognisable to the driver under the conditions of paragraphs 5.6.1. and 5.6.2.
  - 5.3.7.3. Notwithstanding paragraph 5.3.5., if the headlamp driving beam tell-tale is used as tell-tale for the driving beam headlamps that are

operated at reduced voltage as daytime running lamps, the headlamp driving beam tell-tale shall emit light of an intensity that is discernibly lower than the intensity of the light emitted when the driving beam headlamps are operated at regular voltage, except that the headlamp driving beam tell-tale may flash at full intensity in the event of a malfunction of the daytime running lamps.

5.3.8. BRIGHTNESS OF INTERIOR ILLUMINATION OF THE DRIVER'S COMPARTMENT

Any source of illumination within the passenger compartment of a motor vehicle, other than a bus that is normally operated with the passenger compartment illuminated, which is not used for the controls and indicators regulated by this regulation, which is not a tell-tale, and which is capable of being activated while the motor vehicle is in motion, shall have either:

- 5.3.8.1. light intensity which is manually or automatically adjustable to provide at least two levels of brightness, one of which is barely discernible to the driver under the conditions of paragraph 5.6.1.,
- 5.3.8.2. a single intensity that is barely discernible to the driver under the conditions of paragraph 5.6.1., or
- 5.3.8.3. a means of being turned off by the driver under the condition of paragraph 5.6.2.

5.4. COLOUR

- 5.4.1. Each tell-tale light shall be of the colour shown in column 5 of table 1.
- 5.4.2. Except hazard warning signal control, identification of which must be red, indicators and identifications of indicators, controls and tell-tales may be of any colour chosen by the manufacturer, however, such colour must not interfere with or mask the light of any tell-tale specified in this regulation.
- 5.4.3. Each symbol used for identification of tell-tale, control or indicator shall stand out clearly against the background.
- 5.4.4. The dark part of any symbol in table 1 may be replaced by its outline.

5.5. COMMON SPACE FOR DISPLAYING MULTIPLE MESSAGES

- 5.5.1. An information display device may be used to show messages from any source, subject to the following requirements:
  - 5.5.1.1. The tell-tales for the brake system malfunction, headlamp driving beam, and direction indicator shall not be shown by the information display device.
  - 5.5.1.2. The tell-tales and indicators in the information display device shall provide relevant information at the initiation of any underlying condition.
  - 5.5.1.3. The seat belt tell-tale must be displayed, visible and recognisable during the time and in the manner specified by seat belt regulation in the country granting the approval.
  - 5.5.1.4. When the underlying condition exists for actuation of two or more messages, the messages shall be either



- repeated automatically in sequence, or

- indicated by visible means and capable of being selected for viewing by the driver under the conditions of paragraph 5.6.2.

5.5.1.5. Messages may be cancellable automatically or by the driver.

[5.5.1.6. The colour requirements regarding tell-tales for engine oil pressure and parking brake do not apply to those tell-tales and indicators appearing in an information display device.]

5.6. CONDITIONS

5.6.1. The driver has adapted to the ambient light roadway conditions.

5.6.2. The driver is restrained by the crash protection equipment installed in accordance with the regulatory requirements and adjusted in accordance with the manufacturer's instructions.









6.





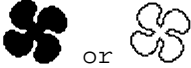







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




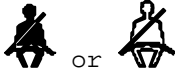



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


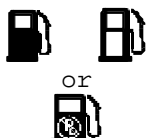

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









TABLE 1. SYMBOLS AND OTHER REQUIREMENTS

Column 1	Column 2	Column 3	Column 4	Column 5
ITEM	SYMBOL	FUNCTION	ILLUMINATION	COLOUR
Master lighting switch Tell-tale may not act as the tell-tale for the position (side) lamps.	 5/	Control	No	-
		Tell-tale	Yes	Green
Headlamp driving beams	 5/	Control	No	-
		Tell-tale	Yes	Blue 6/
Headlamp passing beams and position lamps	 2/5/	Control		
		Tell-tale	Yes	Green
Headlamp levelling	 5/4/.	Control	Yes	-
Daytime running lamps	see paragraph 5.3.7.3	Tell-tale	Yes	Yellow
Position, side marker, and/or end-outline marker lamps	 2/5/	Control	Yes	-
		Tell-tale	Yes	Green
Parking lamp  (if separate)		Control	Yes	
		Tell-tale	Yes	Green
Direction indicators	 3/5/	Control		
		Tell-tale	Yes	Green
Hazard warning signal	 5/	Control	Yes	Red 6/
		Tell-tale 7/	Yes	Red 6/
Front fog lamps		Control	Yes	
		Tell-tale	Yes	Green

	 5/			
Rear fog lamp	 5/	Control	Yes	
		Tell-tale	Yes	Yellow
Headlamp cleaner		Control	Yes	
Horn <u>***</u> /		Control	No	
Heating and/or air conditioning fan	 or	Control	Yes	
Heating System		Control	Yes	
Air Conditioning System	 or <b>A/C</b>	Control	Yes	
Windscreen wiping system	 (continuous) and (intermittent)	Control	Yes	
Rear window wiping system	 (continuous) and (intermittent)	Control	Yes	
Windscreen washing system <u>***</u> /		Control	Yes	
Rear window washing system		Control	Yes	
Windscreen washing and wiping system		Control	Yes	
Rear window washing and wiping system <u>***</u> /		Control	Yes	

				
Windscreen defrosting and demisting system		Control	Yes	
		Tell-tale	Yes	Yellow
Rear window defrosting and demisting system		Control	Yes	
		Tell-tale	Yes	Yellow
Automatic Vehicle Speed (cruise control) <b>***</b> / [symbol not yet approved by ISO]		Control	Yes	
Engine Start		Control	No	
Engine Stop		Control	Yes	
Hand Throttle		Control		
Seat belt		Tell-tale	Yes	Red <u>6</u> /
Airbag malfunction		Tell-tale	Yes	Yellow
Side airbag malfunction [symbol not approved yet by ISO]		Tell-tale	Yes	Yellow
Air bag off	<b>AIR BAG OFF</b>	Indicator	Yes	
Brake system malfunction may include Stop Lamp failure	 BRAKE <u>12</u> /	Tell-tale	Yes	Red <u>6</u> /

Brake air/fluid pressure	 8/	Tell-tale	Yes	Red <u>6</u> /
Antilock brake system malfunction or Variable brake proportioning system malfunction	 1 8/9/	Tell-tale	Yes	Yellow
Parking brake applied	 8/12/ PARK	Tell-tale	Yes	Red <u>6</u> /
Engine on-board diagnostics	 12/ Check Engine	Tell-tale	Yes	Yellow
Automatic (park) transmission (reverse) control (neutral) position (drive)	P R N D 13/	Indicator	Yes	
Speedometer	Km/h and MPH (upper or lower case)	Indicator	Yes	
Manual Choke <u>***</u> /		Control		
		Tell-tale	Yes	Yellow
Diesel pre-heat <u>***</u> /		Tell-tale	Yes	Yellow
Front hood (bonnet) opener <u>***</u> /	 11/	Control	No	
Rear compartment (boot) opener <u>***</u> /	 11/	Control	No	
Fuel level <u>***</u> /	 or 	Tell-tale	Yes	Yellow
		Indicator	Yes	

Engine oil pressure <u>***</u> / <u>   </u>	 <u>10</u> /	Tell-tale	Yes	Red <u>6</u> /
		Indicator	Yes	
Engine coolant temperature <u>***</u> / <u>   </u>	 <u>10</u> /	Tell-tale	Yes	Red <u>6</u> /
		Indicator	Yes	
Electrical charging Condition <u>***</u> / <u>   </u>		Tell-tale	Yes	Red <u>6</u> /
		Indicator	Yes	
Odometer <u>***</u> / <u>   </u>	km or miles (upper or lower case)	Indicator	No	
Power on/Off switch <u>***</u> / <u>   </u>		Control	No	
Instrument panel illumination <u>***</u> / [not yet approved by ISO]		Control	Yes	
Interior compartment illumination <u>***</u> / <u>   </u>		Control	Yes	
Low rear window washer fluid <u>***</u> / <u>   </u>		Tell-tale	Yes	
Low windscreen washer fluid <u>***</u> / <u>   </u>		Tell-tale	Yes	
Low brake fluid condition <u>***</u> / <u>   </u>	 <u>8</u> /	tell-tale		Red <u>6</u> /
Brake lining wear-out condition <u>***</u> / <u>   </u>	 <u>8</u> /	tell-tale	Yes	Red <u>6</u> /
Tachometer <u>***</u> / <u>   </u>	RPM or r/min	Indicator	Yes	

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

- 2/ Separate identification not required if function is combined with master lighting switch.
- 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/ This symbol may be displayed with only one of the two arrows present.
- 5/ Framed areas of the symbol may be solid.
- 6/ Red may be red-orange. Blue may be blue-green.
- 7/ Not required when arrows of direction indicator tell-tales that otherwise operate independently flash simultaneously as hazard warning tell-tale.
- 8/ If a single tell-tale is used to indicate more than one brake system condition, the brake system malfunction symbol shall be used.
- 9/ The number applies only to vehicles designed to pull trailers with ABS. The number shall correspond to the trailer's position behind the pulling vehicle; 1 - first trailer, 2 - second trailer, etc. No number shall appear by the brake system malfunction tell-tale for the pulling vehicle only or if it is the only tell-tale for the pulling vehicle and trailer(s) ABS systems.
- 10/ Combination of the engine oil pressure symbol and the engine coolant temperature symbol in a single tell-tale is permitted.
- 11/ It is not necessary for this control to be visible or recognisable to the driver under the conditions of paragraphs 5.6.1 and 5.6.2.
- 12/ Words are required in the United States.
- 13/ Letter "D" may be replaced by other alphanumeric character or symbol chosen by the manufacturer.
- [\*\*\*/ Symbols of tell-tales, indicators and controls not directly related to safe operation of a vehicle. It may be not necessary to include them in this document. Reference to ISO 2575 standard will cover this and other omitted symbols.]
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