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

Revision 1

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. The technical content of this document is parallel with the draft of a new Regulation, proposed to be annexed to the 1958 Agreement (TRANS/WP.29/GRSG/1999/19/Rev.2).

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GE.00-22855

Global Technical Regulation No. XXX

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

2.2. "Device" means an element or an assembly of elements used to perform one or more functions.

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

~~"Indicator" means a device that presents information on the functioning or situation of a system or a part of a system; for example fluid level.~~

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

2.5. "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.

2.6. [reserved]

2.7. [reserved]

2.8. [reserved]

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)

3. [reserved]

4. [reserved]

5. SPECIFICATIONS

Each motor vehicle if fitted with a control, a tell-tale or an indicator, ~~listed in table 1 or table 2, to be utilised by a driver during operation of that motor vehicle~~ shall meet the prescribed 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 utilised by a driver while driving the vehicle shall be located so that they are operable by this driver under the conditions of paragraph 5.6.2.

5.1.2. The tell-tales and indicators, listed in table 1, shall be located so that they are 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 or columns 1 or 3 of table 2, shall be identified by symbols designated for them in column 2 of table 1 or columns 2 or 4 of table 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".~~

5.2.2. To identify a control, a tell-tale or an indicator not included in table 1 or table 2 ~~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 applicable requirements of this regulation.

5.2.3. For clarity, supplementary symbols, words or abbreviations may be used in conjunction with any symbol specified in table 1 or table 2 ~~in ISO 2575[:1998] standard~~.

5.2.4. 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. [If letters or numbers are used in identification of tell-tales, indicators or controls their minimum height shall be no less than [3] mm.]~~
- 5.2.5. The identifications shall be placed on or adjacent to the tell-tales, indicators and hand operated controls that they identify.
- 5.2.6. Where a control, an indicator or a tell-tale are combined, a common symbol may be used for any such combination.
- 5.2.7. Under the conditions of paragraphs 5.6.1 and 5.6.2, identifications of tell-tales, indicators and hand operated controls ~~listed in table 1 destined to be utilised by the driver while driving a motor vehicle~~ shall be identified so that they are ~~visible and~~ recognisable ~~and, except as provided in paragraph 5.2.10, appear to the driver perceptually upright.~~
- 5.2.8. Except as provided in paragraph 5.2.9., all identifications of tell-tales, indicators and hand-operated controls listed in table 1 or table 2 must 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 wheel 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 5.2.9.4. 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 ~~function 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~~4-1998~~ standard. Proportional dimensional characteristics specified in ISO 2575~~4-1998~~ 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 and 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 listed in table 1 ~~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 the lower ~~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 conditions;
- 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 conditions.

- 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, that is located in front of a transverse vertical plane 110mm behind the H-point of the driver's seat while in its rearmost driving position and which is not used for the controls and indicators listed in table 1~~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 who has adapted to dark ambient roadway conditions~~under the conditions of paragraph 5.6.1.,~~
- 5.3.8.2. a single intensity that is barely discernible to the driver who has adapted to dark ambient roadway conditions~~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 table 1 ~~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 or table 2 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 same 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 where the vehicle is to be registered.
- 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 ~~and indicators~~ for engine oil pressure, seat-belt and parking brake do not apply to those tell-tales and indicators appearing in an information display device.] **(directive 78/316/EEC; paragraph 5.1.5.4.)**

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. [reserved]

7. [reserved]

8. [reserved]

9. [reserved]

TABLE 1. SYMBOLS AND OTHER REQUIREMENTS

Column 1	Column 2	Column 3	Column 4	Column 5
ITEM	SYMBOL	FUNCTION	ILLUMINATION	COLOR
Master lighting switch Telltale may not act as the telltale for the position (side) lamps.	 5/	Control	No	-
		Telltale	Yes	Green
Headlamp driving beams	 5/	Control	No	-
		Telltale	Yes	Blue 6/
Turn signals	 3/5/	Control		
		Telltale	Yes	Green
Hazard warning signal	 5/	Control	Yes	Red 6/
		Telltale 7/	Yes	Red 6/
Front fog lamps	 5/	Control	Yes	
		Telltale	Yes	Green
Rear fog lamp	 5/	Control	Yes	
		Telltale	Yes	Yellow
Fuel level	 or 	Telltale	Yes	Yellow
		Indicator	Yes	
Engine oil pressure	 10/	Telltale	Yes	Red 6/
		Indicator	Yes	
Engine coolant temperature	 10/	Telltale	Yes	Red 6/
		Indicator	Yes	
Electrical charging Condition		Telltale	Yes	Red 6/
		Indicator	Yes	
Windshield wiping system (continuous)		Control	Yes	
Power window lock		Control		
Windshield washing system		Control	Yes	
Windshield washing and wiping system		Control	Yes	
Windshield defrosting and defogging system		Control	Yes	
		Telltale	Yes	Yellow









































Seat belt	 or 	Telltale	Yes	Red <u>6</u> /
Airbag malfunction		Telltale	Yes	Yellow <u>Red</u>
Side airbag malfunction [not yet approved by ISO]		Telltale	Yes	Yellow <u>Red</u>
Air bag off	<u>PASSENGER</u> AIR BAG OFF	Indicator <u>Telltale</u>	Yes	<u>Yellow</u>
Brake system malfunction may include Stop Lamp failure	 BRAKE <u>12</u> /	Telltale	Yes	Red <u>6</u> /
Antilock brake system malfunction or Variable brake proportioning system malfunction	 <u>1</u> <u>2</u> /	Telltale	Yes	Yellow
Speedometer	Km/h and MPH (upper or lower case)	Indicator	Yes	
Daytime running lamps	see S5.3.7.3	Telltale	Yes	Yellow
Parking brake applied	 <u>8</u> / <u>12</u> / PARK	Telltale	Yes	Red <u>6</u> /
Horn		Control	No	
Engine on-board diagnostics	 <u>12</u> / Check Engine	Telltale	Yes	Yellow
Heating System		Control	Yes	
Air Conditioning System	 or A/C	Control	Yes	
Automatic (park) transmission (reverse) control (neutral) position (drive)	P R N D <u>13</u> /	Indicator	Yes	
Heating and/or air conditioning fan	 or 	Control	Yes	

TABLE 2. ADDITIONAL SYMBOLS

Column 1	Column 2	Column 3	Column 4
ITEM	SYMBOL	ITEM	SYMBOL
Headlamp cleaner		Automatic Vehicle Speed (cruise control) [not yet approved by ISO]	
Headlamp levelling	 5/4/.	Hand Throttle	
Headlamp passing beams and position lamps	 2/5/	Instrument panel illumination [not yet approved by ISO]	
Rear window defrosting and defogging system		Interior compartment illumination	
Parking lamp (if separate)		Power on/Off switch	
Manual Choke		Brake air/fluid pressure	 8/
Diesel pre-heat		Engine Start	 1/
Odometer	km or miles (upper or lower case)	Engine Stop	 1/
Low rear window washer fluid		Low brake fluid condition	 8/
Low windshield washer fluid		Brake lining wear-out condition	 8/
Windshield wiping system (intermittent)		Tachometer	RPM or r/min
Rear window wiping system (continuous)		Position, side marker, and/or end-outline marker lamps	 2/5/
Rear window wiping system (intermittent)		Front hood (bonnet) opener	 11/
Rear window washing and wiping system		Rear compartment (boot) opener	 11/
Rear window washing system			
		TO BE CONTINUED	

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- 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 telltales 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 turn signal telltales that otherwise operate independently flash simultaneously as hazard warning telltale.
 - 8/ If a single telltale is used to indicate more than one brake system condition, the brake system malfunction symbol must be used.
 - 9/ The number applies only to vehicles designed to pull trailers with ABS. The number must correspond to the trailer's position behind the pulling vehicle; 1 - first trailer, 2 - second trailer, etc. No number must appear by the ABS system malfunction telltale for the pulling vehicle only or if it is the only telltale 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 telltale is permitted.
 - 11/ It is not necessary for this control to be visible or recognizable to the driver under the conditions of paragraphs 5.6.1. and S5.6.2.
 - 12/ Words are required in the United States.
 - 13/ Letter "D" may be replaced by other alphanumeric character or symbol chosen by the manufacturer.
-