

Draft global technical regulation No. XXX

TRANS/WP.29/GRSG/2000/8/Rev.2	Draft TRANS/WP.29/2000/8/Rev.3	JUSTIFICATION
UNIFORM PROVISIONS FOR LOCATION AND IDENTIFICATION OF MOTOR VEHICLE HAND CONTROLS, TELL-TALES AND INDICATORS	UNIFORM PROVISIONS FOR LOCATION AND IDENTIFICATION OF MOTOR VEHICLE HAND CONTROLS, TELL-TALES AND INDICATORS PRESENT ON CATEGORY 1 AND 2 VEHICLES.	1) location and identification is only part of the requirements of this gtr. 2) Category 1 and 2 are already defined by draft gtr “0”.
1. SCOPE	1. SCOPE AND PURPOSE	
This global technical regulation specifies requirements for the location, identification, colour, and illumination of motor vehicle hand controls, tell-tales and indicators.	This global technical regulation specifies requirements for the location, identification, colour, and illumination of motor 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, in order to reduce the safety hazards that would otherwise be caused by the diversion of the driver's attention from the driving task and by mistakes in selecting controls.	According to the prescribed format for the gtr (TRANS/WP.29/883), the scope and purpose are under one heading.
2. PURPOSE	2. ————— PURPOSE [RESERVED]	Will revise paragraph numbering later.
The purpose of this global technical regulation is to	————— The purpose of this global	

<p>ensure the accessibility, visibility, and recognition of 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.</p>	<p>technical regulation is to ensure the accessibility, visibility, and recognition of 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.</p>	
<p>3. APPLICATION</p>	<p>3. APPLICATION</p>	
<p>This global technical regulation applies to power-driven vehicles intended for use on the road, with or without bodywork and a maximum design speed exceeding 25 km/h. It does not apply to motorcycles, mopeds, vehicles that run on rails and to agricultural and forestry tractors and machinery.</p>	<p>This global technical regulation applies to power-driven vehicles of category 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 global technical regulation to other categories of vehicles. It does not apply to motorcycles, mopeds, vehicles that run on rails and to agricultural and forestry tractors and machinery.</p>	<p>To allow contracting parties to apply this gtr to other categories of vehicles in their jurisdictions.</p>
<p>4. DEFINITIONS</p>	<p>4. DEFINITIONS</p>	
<p>For the purpose of this global technical regulation</p>	<p>For the purpose of this global technical regulation</p>	
<p>“Device” means an element or an assembly of elements used to perform one or more functions.</p>	<p>4.1. “Device” means an element or an assembly of elements used to perform one or more functions.</p>	
<p>4.1. “Control” means that hand-operated part of a device that enables the driver to bring about a change in the state or functioning of a</p>	<p>4.2. “Control” means that hand-operated part of a device that enables the driver to change the state or functioning of a vehicle or</p>	

vehicle or vehicle's subsystem.	vehicle's subsystem.	
4.5. "Tell-tale" means an optical signal that, when align illuminated, indicates the actuation of a device, a correct or defective functioning or condition, or a failure to function.	4.3. "Tell-tale" means an optical signal that, when illuminated, indicates the actuation of a device, a correct or defective functioning or condition, or a failure to function.	
4.3. "Indicator" means a device that shows the magnitude of the physical characteristics that the instrument is designed to sense.	4.4. "Indicator" means a device that shows the magnitude of the physical characteristics that the instrument is designed to sense.	
4.6. "Adjacent" means that no other control, tell-tale, indicator, identifying symbol or other potential source of distraction source of illumination appears between the an identifying symbol and the tell-tale, indicator, or control which that symbol identifies.	4.5. "Adjacent" means that no other control, tell-tale, indicator, identifying symbol or source of illumination appears between an identifying symbol and the control, tell-tale, or indicator which that symbol identifies.	
4.4. "Common space" means an area on which two or more than one information function (e.g. symbol) telltale, indicator, identifier, or other message may be displayed but not simultaneously.	4.6. "Common space" means an area on which more than one tell-tale, indicator, identification symbol, or other message may be displayed but not simultaneously.	
4.7. Multi-task display means an area on which more than one item of information may be displayed simultaneously.	4.7. "Multi-task display" means an area on which more than one item of information may be displayed simultaneously.	
	4.8. "Multi-function control" means a control through which the driver may select, and affect the operation of, more than one vehicle function.	Expression used in paras. 5.1.3. and 5.1.4.
5. REQUIREMENTS	5. REQUIREMENTS	

SPECIFICATIONS		
<p>A vehicle, if fitted with a control, a tell-tale or an indicator, listed in table 1 or ISO 2575:2000 standard, shall meet the prescribed requirements of this global technical regulation for the location, identification, colour, and illumination of such control, tell-tale or indicator.</p>	<p>A vehicle, if fitted with a control, a tell-tale or an indicator, listed in Table 1. [or in ISO Standard 2575:2000], shall meet the prescribed requirements of this global technical regulation respecting the location, identification, illumination, and colour of such control, tell-tale or indicator.</p>	<p>In case the content of Table 1. will include all ISO 2575 symbols related to tell-tales, indicators and controls related to operating the vehicle there will be no need to refer to ISO 2575 in this paragraph.</p>
<p>5.1. <u>Location</u></p>	<p>5.1. <u>Location</u></p>	
<p>5.1.1. The controls to be used 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.</p>	<p>5.1.1. The controls to be used by a driver while driving the vehicle shall be located so that they are operable by the driver under the conditions set out in paragraph 5.6.2.</p>	
<p>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 or recognisable when not activated.</p>	<p>5.1.2. The tell-tales and indicators listed in Table 1, and their identifications shall be located so that they are visible to a driver during daylight and night time driving and under the conditions set out in paragraphs 5.6.1. and 5.6.2. Tell-tales, and indicators and their identifications need not be visible when not activated.</p>	<p>Seeing identification of indicator or a tell-tale is very important. However, there seem to be no point of seeing an indicator (number or scale with a pointer) or a tell-tale (brightly lit spot on the instrument panel) without knowing what it represents.</p>
<p>5.1.3. The identifications of tell-tales, indicators and controls shall be placed on or adjacent to the tell-tales, indicators and controls that they identify. In the case of multifunction control, the identifications need not be immediately adjacent; nonetheless, they shall be as close as practicable to such multifunction control.</p>	<p>5.1.3. The identifications of controls, tell-tales, and indicators shall be placed on or adjacent to the tell-tales, indicators and controls that they identify. In the case of multi-function controls, the identifications need not be immediately adjacent; nonetheless, they shall be as close as practicable to the multifunction control.</p>	

<p>5.1.4. Paragraph 5.1.3. does not apply to controls shown on a multi-task display and selected by manipulating controls depicted on the multi-task display.</p>	<p>5.1.4. Paragraph 5.1.3. does not apply to multi-function controls, provided: shown on a multi-task display and selected by manipulating controls</p>	<p>The technology of the “multi-function controls” and “multi-task display” is new and still evolving. Present proposal is based on available information from the industry</p>
	<p>5.1.4.1. the control is depicted on the multi-task display,-</p>	
	<p>5.1.4.2. the associated multi-task display is visible to the driver under the conditions of paras. 5.6.1. and 5.6.2., and</p>	
	<p>5.1.4.3. all of the vehicle systems for which control is possible from the multi-function control are identified in the associated multi-task display. Sub-functions of the available systems need not be shown on the top-most layer of the multi-task display.</p>	
<p>5.1.45. Notwithstanding paragraphs 5.1.1., 5.1.2. and 5.1.3 to 5.1.4. the tell-tale for “passenger air bag off”, if fitted, must be located within the interior of the vehicle and forward of and above the design H-point of both the driver's and the front passenger(s)’ seat in their forwardmost seating positions. The That tell-tale which alerts front seat occupants that the passenger side air bag is switched off must be visible to the driver and front passenger(s) under all daylight and nighttime driving conditions and must not be located on or adjacent to a surface that can be used for temporary or permanent storage where use of the storage</p>	<p>5.1.5. Despite paragraphs 5.1.1. to 5.1.4. the tell-tale for “passenger air bag off”, if fitted, 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 passenger(s)’ seats in their forward most seating positions. The tell-tale must be visible to the driver and front passenger(s) 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 where use of the storage space could obscure the tell-tale from either the driver’s or right front passengers’ view.</p>	

<p>space could obscure the telltale from either the driver's or right front passengers' view.</p>		
<p>5.2. <u>Identification</u></p>	<p>5.2. <u>Identification</u></p>	
<p>5.2.1. Where fitted, the each controls, tell-tales and indicators, listed in column 1 of table 1, shall be identified by symbols designated for them it in column 2 of table 1. 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. Control, tell-tale or indicator not listed in table 1 shall be identified by symbol designated for the purpose in standard ISO 2575:2000 where one exists and where that symbol is suitable for the application concerned.</p>	<p>5.2.1. Where fitted, each control, tell-tale and indicator, listed in column 1 of Table 1, shall be identified by symbol designated for it in column 2 of Table 1. This requirement does not apply to the horn (an audible warning signal) control, when it is activated by a lanyard. Control, tell-tale or indicator not listed in Table 1 shall be identified by symbol designated for the purpose in standard ISO 2575:2000 where one exists and where that symbol is suitable for the application concerned.</p>	
<p>5.2.2. To identify a control, a tell-tale or an indicator not included in table 1 or ISO 2575:2000, the manufacturer may use a symbol of its own conception. Such symbol may include internationally recognized alphabetic or numeric indications. All symbols used shall follow the design principles laid down in paragraph 4. of ISO 2575:2000.</p>	<p>5.2.2. To identify a control, a tell-tale or an indicator not included in Table 1 or ISO 2575:2000, the manufacturer may use a symbol of its own conception. Such symbol may include internationally recognised alphabetic or numeric indications. All symbols used shall follow the design principles laid down in paragraph 4. of ISO 2575:2000.</p>	
<p>5.2.3. If necessary for clarity, Supplementary symbols (for example words) may be used in conjunction with any symbol specified in table 1 or ISO 2575:2000.</p>	<p>5.2.3. Supplementary symbols (for example words) may be used in conjunction with any symbol specified in Table 1 or ISO 2575:2000.</p>	
<p>5.2.4. Each additional or supplementary symbol used by the manufacturer must not cause</p>	<p>5.2.4. Each additional or supplementary symbol used by the manufacturer must not cause</p>	

confusion with any symbol specified in this global technical regulation.	confusion with any symbol specified in this global technical regulation.	
5.2.5. Where a control, an indicator or a tell-tale for the same function are combined, one symbol may be used to identify such combination.	5.2.5. Where a control, an indicator or a tell-tale for the same function are combined, one symbol may be used to identify such combination.	
5.2.6. Except as provided in paragraph 5.2.9., all identifications of tell-tales, indicators and controls listed in table 1 or ISO 2575:2000 must appear to the driver perceptually upright. In case of rotating control, this paragraph applies to it when such control is in its "off" position.	5.2.6. Except as provided in paragraph 5.2.97., all identifications of tell-tales, indicators and controls listed in Table 1 or ISO 2575:2000 must appear to the driver perceptually upright. In case of rotating control, this paragraph applies to it when such control is in its "off" position. For rotating controls that have an "off" position, this requirement applies to the control in the "off" position.	Editorial change. No new requirement.
5.2.7. The identification of the following need not appear to the driver perceptually upright:	5.2.7. The identification of the following need not appear to the driver perceptually upright:	
5.2.7.1. a horn control,	5.2.7.1. a horn control,	
5.2.7.2. 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	5.2.7.2. 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	
5.2.7.3. any rotating control that does not have an off position.	5.2.7.3. any rotating control that does not have an off position.	
5.2.8. Each control for the automatic	5.2.8. Each control for the automatic	

<p>vehicle speed system (cruise control) and each control for heating and air conditioning system(s) shall have identification provided for each function of each such system.</p>	<p>vehicle speed system (cruise control) and each control for heating and air conditioning system(s) shall have identification provided for each function of each such system.</p>	
<p>5.2.9. When fitted each control that regulates a system function over a continuous range shall have identification provided for the limits of the adjustment range of any such function. If colour coding is used to identify the limits of the adjustment range of a temperature function, the hot limit shall be identified by the colour red and the cold limit by the colour blue. If the status or limit of a function is shown by an indicator separated from and not adjacent to the control for that function, both the control and the indicator must be independently identified in compliance with paragraph 5.1.3.</p>	<p>5.2.9. When fitted each control that regulates a system function over a continuous range shall have identification provided for the limits of the adjustment range of any such function. If colour coding is used to identify the limits of the adjustment range of a temperature function, the hot limit shall be identified by the colour red and the cold limit by the colour blue. If the status or limit of a function is shown by an indicator separated from and not adjacent to the control for that function, both the control and the indicator must be independently identified in compliance with paragraph 5.1.35.2.1., on or adjacent to the control and on or adjacent to the indicator.</p>	<p>Correction of an error and a clarification.</p>
<p>5.3. <u>Illumination</u></p>	<p>5.3. <u>Illumination</u></p>	
	<p>5.3.1. <u>Timing of illumination</u></p>	<p>Editorial change for clarity of the text.</p>
<p>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, or to controls for a</p>	<p>5.3.1.1. <u>Except as provided in para. 5.3.3.</u> ¶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</p>	<p>Editorial change for clarity of the text.</p>

<p>heating and air-conditioning system if the system does not direct air directly upon the windscreen.</p>	<p>of windscreen header, or to controls for a heating and air-conditioning system if the system does not direct air directly upon the windscreen.</p>	
<p>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 device which starts and/or stops the engine is in a position which makes it possible for the engine to operatevehicle's propulsion system and the headlamps are activated.</p>	<p>5.3.1.2. Except as provided in para. 5.3.3. thethe indicators and their identifications for which the word "Yes" is indicated in column 4 of Table 1 shall be illuminated whenever the vehicle's propulsion system and the headlamps are activated.</p>	<p>Editorial change for clarity of the text.</p>
<p>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.</p>	<p>5.3.1.3. 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.</p>	
<p>5.3.4. At the manufacturer's discretion any control, indicator or their identifications may be capable of being illuminated at any time.</p>	<p>5.3.1.4. At the manufacturer's discretion any control, indicator or their identifications may be capable of being illuminated at any time.</p>	
<p>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 propulsion system activation.</p>	<p>5.3.1.5. A tell-tale shall not emit light except when identifying the malfunction or vehicle condition for whose indication it is designedit is designed to indicate or during a bulb check upon propulsion system activation.</p>	<p>Editorial change for clarity of the text.</p>
<p><u>5.3.6. Brightness of illumination of controls and indicators</u></p>	<p>5.3.62. Brightness of illumination of controls and indicators</p>	
<p><u>5.3.6.1. Means shall be provided for illuminating the indicators, identifications of indicators and identifications of controls, listed in</u></p>	<p>5.3.62.1. Means shall be provided for illuminating the indicators, identifications of indicators and identifications of controls, listed in</p>	

<u>table 1, to make them visible to the driver under daylight and nighttime driving conditions.</u>	Table 1, to make them visible to the driver under daylight and nighttime driving conditions.	
5.3.6.2. The means for providing the required visibility	5.3.6.2. The means for providing the required visibility	
5.3.6.2.1. shall be adjustable to provide at least two levels of brightness, at the lower 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; and	5.3.6.2.1. shall be adjustable to provide at least two levels of brightness, at the lower 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; and	
5.3.6.2.2. may be operable manually or automatically.	5.3.6.2.2. may be operable manually or automatically.	
5.3.7. Brightness of tell-tale illumination	5.3.7. Brightness of tell-tale illumination	
Means shall be provided for making illuminating tell-tales and their identification to make them visible and recognisable to the driver under all driving conditions daylight and nighttime driving conditions.	Means shall be provided for illuminating tell-tales and their identification to make them visible to the driver under daylight and nighttime driving conditions.	
5.4. Colour	5.4. Colour	
5.4.1. Light of each tell-tale listed in table 1 shall be of the colour shown in column 5 of this table.	5.4.1. Light of each tell-tale listed in Table 1 shall be of the colour shown specified for that tell-tale in column 5 of this table.	Editorial change for clarity of the text.
5.4.2. Indicators and tell-tales and identifications of indicators and controls not listed in table 1 may be of any colour chosen by the	5.4.2. Indicators and tell-tales and identifications of indicators and controls not listed in Table 1 may be of any colour chosen by	

manufacturer, however, such colour must not interfere with or mask the identification of any tell-tale, control, or indicator specified in table 1. The colour to be selected shall follow the guidelines specified in paragraph 5 of ISO standard 2575:2000.	the manufacturer, however, such colour must not interfere with or mask the identification of any tell-tale, control, or indicator specified in Table 1. The colour to be selected shall follow the guidelines specified in paragraph 5 of ISO standard 2575:2000.	
5.4.3. Each symbol used for identification of tell-tale, control or indicator shall stand out clearly against the background.	5.4.3. Each symbol used for identification of tell-tale, control or indicator shall be in a colour that stands out clearly against the background.	Editorial change for clarity of the text.
5.4.4. The dark part of any symbol may be replaced by its outline and the outline of any symbol may be filled in.	5.4.4. The dark-filled-in part of any symbol may be replaced by its outline and the outline of any symbol may be filled in.	Editorial change for clarity of the text.
5.5. <u>Common space for displaying multiple information</u>	5.5. <u>Common space for displaying multiple information</u>	
5.5.1. A common space may be used to show information from any source, subject to the following requirements:	5.5.1. Except as provided in 5.5.1.3. aA common space may be used to show information from any source, subject to the following requirements:	Editorial change for clarity of the text.
5.5.1.1. The tell-tales and indicators in the common space shall provide relevant information at the initiation of any underlying condition.	5.5.1.1. The tell-tales and indicators in the common space shall provide relevant information illuminate at the initiation of any underlying condition.	Provision of relevant information does not necessary mean that the driver will see it. Illumination involves light stimuli which will be observed if the location/orientation/etc of the tell-tale or indicator conforms to this grt..
5.5.1.2. When the underlying condition exists for actuation of two or more tell-tales, the	5.5.1.2. Except as provided in 5.5.1.4., W when the underlying condition exists for	Editorial change for clarity of the text.

information shall be either	actuation of two or more tell-tales, the information shall be either	
(i) repeated automatically in sequence, or	(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 5.6.2.	(ii) indicated by visible means and capable of being selected for viewing by the driver under the conditions of paragraph 5.6.2.	
5.5.1.3. The tell-tales for the brake system malfunction, headlamp driving beam, direction indicator and seat belt shall not be shown in the same common space.	5.5.1.3. The tell-tales for the any brake system malfunction, the air bag malfunction, the side air bag malfunction, passenger air bag off, headlamp driving beam, direction indicator and seat belt shall not be shown in the same common space.	It is important to warn the vehicle operator of any brake system problem. The air bag is in essence an explosive device. Malfunction of an airbag (unintended inflation) may cause grave consequences.
5.5.1.4. If tell-tale for the brake system malfunction, headlamp driving beam, direction indicator or seat belt is displayed in a common space it must displace any other symbol, message or other information in such common space if the underlying condition exists for its activation.	5.5.1.4. If tell-tale for the brake system malfunction, headlamp driving beam, direction indicator or seat belt is displayed in a common space it must displace any other symbol, message or other information in such common space if the underlying condition exists for its activation. In the case of the telltale for a brake system malfunction, air bag malfunction, side air bag malfunction, passenger air bag off, high beam, turn signal, or seat belt that is designed to display in a common space, that telltale must displace any other symbol or message in that common space while the underlying condition for the telltale's activation exists.	Editorial change for clarity of the text. In addition the air bag malfunction provision was added since it is important to warn the vehicle operator of any air bag problem. The air bag is in essence an explosive device. Malfunction of an airbag (unintended inflation) may cause grave consequences.
5.5.1.5. With the exception of tell-tales for the	5.5.1.5. Information displayed in the	Editorial change for clarity of the text.

<p>brake system malfunction, headlamp driving beam, direction indicator or seat belt, the information may be cancellable automatically or by the driver.</p> <p><u>Information displayed in the common space may be cancellable automatically or by the driver. Tell-tales for headlamp driving beam, direction indicator and for which the colour red is required in table 1 shall not be cancellable if the underlying condition exists for their activation.</u></p>	<p>common space may be cancellable automatically or by the driver, except that. Tell-tales for headlamp driving beam, direction indicator and those for which the colour red is required in Table 1 shall not be cancellable if the underlying condition exists for their activation.</p>	
<p>5.5.1.6. Unless prescribed in a specific Regulation, the colour requirements regarding tell-tales do not apply when tell-tales appear in a common space.</p>	<p>5.5.1.6. Unless prescribed in a specific Regulation, the colour requirements regarding tell-tales do not apply when tell-tales appear in a common space. The colour requirements regarding telltales for engine oil pressure and parking brake do not apply when those telltales appear in a common space.</p>	<p>This change aligns the text of the gtr with EEC directive 93/91/EEC and makes the gtr independent of other regulations.</p>
<p>5.6. <u>Conditions</u></p>	<p>5.6. <u>Conditions</u></p>	
<p>5.6.1. The driver has adapted to the ambient light roadway conditions.</p>	<p>5.6.1. The driver has adapted to the ambient light roadway conditions.</p>	
<p>5.6.2. The driver is restrained by the installed crash protection system, adjusted in accordance with the manufacturer's instructions, and is free to move within constraints of that system.</p>	<p>5.6.2. The driver is restrained by the installed crash protection system, adjusted in accordance with the manufacturer's instructions, and is free to move within constraints of that system.</p>	