



Transmitted by the expert from the United States of America

October 3, 2005

Ms. Jacqueline Glassman, Esq.
Deputy Administrator
National Highway Traffic Safety Administration
400 Seventh Street SW
Washington, DC 20590

Dear Ms. Glassman:

Re.: Petition for Reconsideration of Technical Requirements; Federal Motor Vehicle Safety Standard No. 101, "Controls, Telltales and Indicators" Final Rule

Ref.: Docket No. NHTSA-2005-22113; 70 FR 48295, August 17, 2005

The Alliance of Automobile Manufacturers (Alliance), whose members include BMW Group, DaimlerChrysler, Ford Motor Company, General Motors, Mazda, Mitsubishi Motors, Porsche, Toyota and Volkswagen, has reviewed the final rule amending FMVSS 101, Controls and Displays that was published in the August 17, 2005 issue of the Federal Register. We commend and appreciate the National Highway Traffic Safety Administration (NHTSA) efforts to consolidate into FMVSS 101 the identification requirements contained in other safety standards.

We also support the continuing work on global technical regulations (GTRs), and it is our understanding that a new draft GTR on *Controls, Telltales, and Indicators* is expected to be issued very shortly. As NHTSA stated in the preamble to this Final Rule, further amendment of FMVSS 101 should wait until the new GTR document is issued in order to support and conclude the harmonization efforts. In finalizing the GTR an opportunity exists for NHTSA to complete the transition of all control and display identification requirements contained in other FMVSS. For example, FMVSS 105, 108, 135 and 208 still contain requirements that should more appropriately be contained in FMVSS 101.

While we applaud the NHTSA's forward thinking approach to make a start "to include only the items and identification specified in this standard or in another of our standards," the Alliance believes that this Final Rule is not a "no change" or "relaxation" of the current standards. For this reason, there are a few details in the Final Rule that we hereby petition for reconsideration. Specifically, we ask reconsideration of: (1) the timing for the effective date of this new rule due to required vehicle redesign that cannot

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be completed ahead of the effective date of this rule; (2) expanded language to support Identification [S5.2.1], Illumination [S5.3.2.2(b), and 5.3.4(d)], Color [S5.4.3], and Common Space for Displaying Multiple Messages [S5.5.2 and S5.5.5] items; (3) appropriate changes are needed to Table 1 and Table 2 along with their respective footnotes; and finally (4) a few grammatical edits are identified.

Following are the details and rationalization for our petition.

Effective Date

In the preamble to this final rule NHTSA states:

"We are making the standard effective 180 days after publication, but providing a later compliance date for heavy vehicles.

For light vehicles, the amendments will not require design changes but will instead relieve restrictions. An important purpose of this final rule is to update the standard so that it appropriately addresses advanced multi-function controls. Since NHTSA has ensured that the telltales, indicators and controls specified in Tables 1 and 2 are all presently specified in FMVSS No. 101 or are specified in other FMVSS, amendments to Tables 1 and 2 should have no substantive effects for manufacturers of vehicles under 4,536 kg GVWR. Moreover, the other changes made to the standard will not require changes to current light vehicles." (70 FR 48303)

From this preamble language it is clear that NHTSA did not expect this rule to require design changes to vehicles already covered by FMVSS 101 and thus set the effective date for this new rule as February 13, 2006. However there are a few details in the final rule that will require vehicle redesign that cannot be completed ahead of this effective date. We therefore hereby petition for reconsideration of those requirements that, contrary to NHTSA's stated objective, are in fact new requirements. These new requirements are included in: S5.2.1; S5.3.2.2 (b); S5.3.4 (d); S5.4.3 and S5.5.2. In addition, appropriate changes are needed to Table 1 and Table 2 along with their respective footnotes. Lastly, a few grammatical edits are identified.

In order to allow sufficient time for NHTSA to consider and respond to the technical corrections contained in this petition, the Alliance is also filing a separate petition requesting NHTSA immediately announce a delay in the effective date of this final rule until September 1, 2006. The additional seven months will allow NHTSA time to consider and take final action on the points raised above. If, as we understand, NHTSA did not intend to change the light vehicle requirements and our suggested changes to the rule's text are adopted, the September 1, 2006, effective date is reasonable.

If new requirements were in fact intended to apply to these vehicles as written in the current rule, most manufacturers will be required to make changes to existing products. The changes may include:

- Changing proportions of the symbols on existing telltales, indicators and control identifications.
- Relocating and revising the identification of controls and indicators to assure a background of a contrasting color.
- Revising the illuminations of lights, control identification, telltales and indicators throughout vehicle interiors.
- Relocating some telltales from a common location to a dedicated telltale
- Revising the automatic transmission shift mechanisms and/or display.

These are significant changes that cannot be accomplished in six months. We recommend that the requirements be effective on the sixth September 1st after the date of publication of the Final Rule to minimize the economic impact of implementing the new requirements. A five year delay will allow manufacturers to implement the necessary changes on most products during the planned product changes in normal product development cycles.

Technical differences between the final rule and existing requirements

Following are what we believe are unintended changes in this final rule that will require substantial design modifications to vehicles compliant with the 101 requirements in effect prior to this final rule.

S5.2.1

The revised text of S5.2.1 specifies that "If a symbol is used, each symbol provided pursuant to this paragraph must have the proportional dimensional characteristics of the symbol as it appears in Table 1 or Table 2."

This is more restrictive than the comparable text of S5.2.1(a) which previously specified "*shall be identified by either the symbol designated in column 3 (or symbol substantially similar (emphasis added) in form to that shown in column 3)*". We ask that the language prior to this final rule that includes the term "substantially similar" be reinstated.

S5.3.2.2(b)

The amended text of S5.3.2.2(b)

"At the lower level of brightness, the identification of controls and indicators must be barely discernible to the driver who has adapted to dark ambient roadway condition;"

implies that the lowest level must be barely discernible whereas the previous text of S5.3.3(b)(1):

"Shall be adjustable, to provide at least two levels of brightness, one of which is barely discernible to a driver who has adapted to dark ambient roadway conditions."

stated that one level of brightness must be barely discernible; not necessarily the lowest level.

Also S5.3.2.2 (b) appears to conflict with S5.3.2.2 (d) which permits levels of brightness such that controls and displays and their identification are not visible which is a level of brightness less than barely discernible.

We ask that the language prior to this final rule that includes the term "at least two levels of brightness, one of which is barely discernible" be reinstated.

S5.3.4

The revised text of S5.3.4 specifies:

"Any source of illumination that is:

- (a) Within the passenger compartment of a motor vehicle;
- (b) Located in front of a transverse vertical plane 110 mm behind the H-point of the driver's seat while in its rearmost driving position;
- (c) Capable of being activated while the motor vehicle is in motion; and
- (d) Neither a telltale nor a source of illumination used for the controls and indicators listed in Table 1 or Table 2, must have a means for the driver to turn off that source under the conditions of S5.6.2."

This is much more restrictive than the previous text of S5.3.5 which specified:

"Any source of illumination within the passenger compartment which is forward of a transverse vertical plane 110 mm rearward of the manikin "H" point with the driver's seat in its rearmost driving position, which is not used for the controls and displays regulated by this standard, which is not a tell-tale, and which is capable of being illuminated while the vehicle is in motion, shall have either (1) light intensity which is manually or automatically adjustable to provide at least two levels of brightness (2) a single intensity that is barely discernible to a driver who has adapted to dark ambient roadway conditions, or (3) a means of being turned off. This requirement does not apply to buses that are normally operated with the passenger compartment illuminated."

The revised text requires an electronic display which today is usually designed to provide at least two levels of brightness automatically (i.e. day and night) and cannot be turned off to be redesigned by February 13, 2006.

We ask that the language of S5.3.5 prior to this final rule as noted above be reinstated.

S5.4.3

The wording of this section is more restrictive than necessary and inadvertently covers only symbols so that identification using words would not be covered.

In the previous version of FMVSS 101, S5.3.2 required each telltale to be in a color that contrasts with the background. S5.4.3 now extends this requirement to controls and indicators. Many current products do not meet this requirement. For example, the horn symbol on many products is molded into the air bag cover. The symbol is the same color as the background, but it can still be recognized because the embossment stands out against the background.

In addition, S5.4.3 only applies to symbols, but some controls, indicators and telltales require words. At present there is nothing in FVMVSS 101 (amended August 17, 2005) that requires words to contrast with the background. The Alliance suggests the following rewording:

S5.4.3 The identification required by Table 1 or Table 2 for a telltale, control or indicator shall contrast with the background.

S5.5.2

Section S5.5.2 together with S5.5.5 incorporate the requirements currently in FMVSS 101 S 5.4 (a) but the list of telltales presents some confusion with regard to some of the items. The term "brake system malfunction" can include the FMVSS 105/135 ABS and brake system malfunction telltales as well as voluntary telltales that may be provided. The separate listing of the side air bag malfunction telltale (which is not required by any FMVSS) and the air bag malfunction telltale (which refers to the readiness indicator telltale required in S4.5.2 of FMVSS 208) contradicts the conclusions stated in an NHTSA interpretation dated July 30, 1996, to Porsche Cars North America, Inc.

With regard to the brake system malfunction telltale, the Alliance recommends that NHTSA add a parenthetical so that it would read:

"...any brake malfunction telltale (required in Table 1 to be red)..."

This addition will clarify that the restriction on telltale combinations in a common space applies only to those provided pursuant to FMVSS requirements.

Regarding the air bag malfunction telltales, in the July 30, 1996, letter to Porsche NHTSA interpreted S4.5.2 of FMVSS 208 "not to require an indicator for air bags other than those required to comply with that standard". NHTSA also stated that the standard permits manufacturers to provide a "single indicator, without distinguishing messages, for all air bags and pretensioners".

Incorporation of the readiness indicator telltale (air bag malfunction) into Table 2 should, consistent with the interpretation to Porsche, identify the telltale to apply for air bags required to comply with FMVSS 208. Also, to be consistent with the interpretation that side air bags may, but would not necessarily, indicate a malfunction using the same air bag telltale, the Alliance petitions that NHTSA remove any reference to “side air bag” from S5.5.2 and S5.5.5. We would support the inclusion of the “side air bag” telltale if/when the 214 rulemaking requires a side air bag telltale.

Footnote 12

The Alliance understands that FMVSS 101 regulates the identification of the control positions (“P”, “R”, “N”, and “D”) whereas FMVSS 102 regulates the sequence of gear position and the position in relation to each other. If “P”, “R”, “N”, and “D” could be considered as single symbols identifying the Park-, Reverse-, Neutral- and Drive-position of the automatic transmission control (usually a shift lever, sometimes a button and more rarely a rotary control) the footnote could be deleted. If this can’t be done we request you consider the following.

(i) Explanation of the words “or both”

This footnote is new and the term “indicators” is used. The text of the footnote implies that the order of the automatic transmission control position (PRND) and orientation is limited to just the horizontal and vertical directions. The Alliance requests whether the term “or both” at the end of the sentence permits a mix of the horizontal and vertical orientations. Since the NHTSA included the order of the automatic transmission control position (PRND) under FMVSS 101, several vehicle manufacturers have issues with limiting the orientation of the control position (PRND). With the introduction of shift-by-wire technology, some vehicle manufacturers have already introduced this technology and identified a separate lever on the steering column dedicated to the automatic transmission control position (PRND) with the following orientations:

R		R		P - R
P - N	or	N - P	or	N
D		D		D

As the NHTSA is well aware, the automatic transmission control position (PRND) was previously only referenced under FMVSS 102, which only refers to the identification of shift lever positions (see S3.1.4). However, by adding the automatic transmission control position (PRND) requirement under FMVSS 101, it seems vehicle manufacturers will now be limited or severely design restricted on how the control positions (PRND) are to be displayed in the vehicle. The Alliance can find no explanation in the Final Rule’s preamble that NHTSA’s intentions were to limit any control position (PRND) orientations.

The Alliance requests NHTSA to explain the term “or both.” Also, the Alliance requests the NHTSA to clarify whether the above orientations will now be allowed since the control position (PRND) requirement is now included under FMVSS 101. If NHTSA determines that one of the above orientations will not be allowed according to the new FMVSS 101, then the Alliance requests that separate rulemaking be conducted for this issue, since these orientations using shift-by-wire technology are already being sold in the U.S. market, and several vehicle manufacturers will need time to make any changes to their vehicles in order to be in compliance.

(ii) Identification of “Park” position

Furthermore, it is unclear as to how automatic transmissions without a “Park” position (see FMVSS 102, S3.1.4.3) would need to be identified in order to comply with amended FMVSS 101.

The Alliance requests that FMVSS 101 be changed to only require that, when provided; Park, Reverse, and Neutral must be identified by P, R, and N, respectively, but that Drive must be identified by an alphanumeric character or symbol chosen by the individual vehicle manufacturer.

Technical Corrections

S5.2.1 contains two references to “column 4” which should be designated as “column 2.”

The Alliance recommends the following corrections to Table 1:

- Item 1 and 2, add a new footnote (15) to indicate there are additional requirements in FMVSS 108.
- Item 4 refers to Position lamps and end outline lamps which was consistent with the Controls and Displays GTR; however, FMVSS 108 still refers to these lamps as side marker and clearance lamps. The Alliance recommends the table reference the language in FMVSS 108 until such a time that FMVSS 108 is amended to incorporate the Lighting Installation GTR.
- Item 5 indicates “(continuous)” which was consistent with the Controls and Displays GTR. The Alliance recommends the table revert to the previous language in FMVSS 101 Table 1 until such a time when the Controls and Displays GTR is adopted by the US.
- Item 10 indicates “may include stop lamp failure.” The Alliance believes this note is actually referring to FMVSS 105 requirement for systems that do not incorporate a split brake system to provide the following warning, “STOP – BRAKE FAILURE.” We recommend eliminating “may include stop lamp failure” and instead add “STOP – BRAKE FAILURE” to column 3 with a new footnote (14) that these words are for vehicles without split brake systems.

- Item 11 and Item 14 appear to be redundant. By adding a reference to FMVSS 121 in Item 11, Item 14 can be eliminated. Parentheses have also been added for consistency with the rest of the table.
- Item 15, Parentheses have also been added for consistency.
- Item 19 references FMVSS 105; however, brake lining requirements are only found in FMVSS 135. The Alliance recommends eliminating the reference to FMVSS 105. In addition, The Alliance recommends footnote 3 be applied to this telltale
- Item 25 indicates “(cruise control)” which was consistent with the Controls and Displays GTR. The Alliance recommends the table revert to the previous language in FMVSS 101 Table 1 until such a time that the Controls and Displays GTR is adopted by the US.
- Item 30 and Item 31 indicates “(including malfunction).” The Alliance recommends eliminating “(including malfunction)” and instead refer to it in a footnote (see recommended changes to footnote 13).
- Item 32 refers to footnote 14. We believe the reference to “(see FMVSS 138)” and combined footnote 13 and 14 are sufficient. (see changes to footnote 13.)
- Footnote 11 states, “MPH and km/h”. It should read, “MPH” and “km/h”.
- Footnote 12, The Alliance recommends footnote 12 be modified to indicate that “P”, “R”, “N” and “D” are markings for the respective gears. In addition, “D” may be replaced by other alphanumeric character or symbol chosen by the manufacturer. FMVSS 102 should also be referenced for additional requirements.
- Footnote 13, The Alliance believes footnote 13 and 14 can be combined. We recommend the following language be substituted: “Required only for FMVSS 138 compliant vehicles. Alternatively, either low tire pressure telltale may be used to indicate a TPMS malfunction.”

Following is an amended Table 1 consistent with these recommendations:

Table 1
Controls, Telltales and Indicators
With Illumination and Color Requirements¹




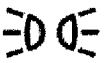





	Column 1 ITEM	Column 2 SYMBOL	Column 3 WORDS OR ABBRE- VIATIONS	Column 4 FUNCTION	Column 5 ILLUMIN- ATION	Column 6 COLOR
1	Highbeam	 2, 4, 15	—	Telltale	—	Blue or Green ₃
2	Turn signals	 2, 5, 15	—	Control	—	—
				Telltale	—	Green
3	Hazard warning signal	 2	Hazard	Control	Yes	—
			—	Telltale ₆	—	—
4	Identification, side marker and/or clearance lamps	 2 7	Marker Lamps or MK Lps ₇	Control	Yes	—
5	Windshield wiping system		Wiper or Wipe	Control	Yes	—
6	Windshield washing system		Washer or Wash	Control	Yes	—
7	Windshield washing and wiping system combined		Washer-Wiper or Wash-Wipe	Control	Yes	—
8	Windshield defrosting and defogging system		Defrost, Defog Or Def.	Control	Yes	—
9	Rear window defrosting and defogging system		Rear Defrost, Rear Defog, Rear Def., or R-Def.	Control	Yes	—

Table 1
Controls, Telltales and Indicators
With Illumination and Color Requirements¹

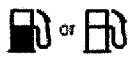



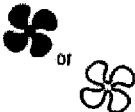


	Column 1 ITEM	Column 2 SYMBOL	Column 3 WORDS OR ABBRE- VIATIONS	Column 4 FUNCTION	Column 5 ILLUMIN- ATION	Column 6 COLOR
10	Brake system malfunction	—	Brake or STOP – BRAKE FAILURE ¹⁴	Telltale	—	Red ₃
11	Antilock brake system malfunction (for vehicle subject to FMVSS 105, 121 or 135)	—	Antilock, Anti-lock or ABS ⁸	Telltale	—	Yellow
12	Malfunction in variable Brake Proportioning System	—	Brake Proportioning ⁸	Telltale	—	Yellow
13	Regenerative brake system malfunction	—	RBS or ABS/RBS ⁸	Telltale	—	Yellow
14	Malfunction in antilock system for vehicles other than trailers subject to FMVSS 121	—	Antilock, Anti-lock or ABS ⁸	Telltale	—	Yellow
15	Antilock brake system trailer fault (for vehicles subject to FMVSS 121)	—	Trailer ABS or Trailer Antilock	Telltale	—	Yellow
16	Brake Pressure (for vehicles subject to FMVSS 105 or 135)	—	Brake Pressure ⁸	Telltale	—	Yellow
17	Low brake fluid condition (for vehicle subject to FMVSS 105 or 135)	—	Brake Fluid ⁸	Telltale	—	Red ₃
18	Parking brake applied (for vehicles subject to FMVSS 105 or 135)	—	Park or Parking Brake ⁸	Telltale	—	Red ₃
19	Brake lining wear-out condition (for vehicles subject to FMVSS 135)	—	Brake Wear ⁸	Telltale	—	Red ₃
20	Fuel Level		Fuel	Telltale	—	—
				Indicator	Yes	—

Table 1
Controls, Telltales and Indicators
With Illumination and Color Requirements¹

	Column 1 ITEM	Column 2 SYMBOL	Column 3 WORDS OR ABBRE- VIATIONS	Column 4 FUNCTION	Column 5 ILLUMIN- ATION	Column 6 COLOR
21	Engine oil pressure		Oil	Telltale	—	—
				Indicator	Yes	—
22	Engine coolant temperature		Temp	Telltale	—	—
				Indicator	Yes	—
23	Electrical charge		Volts or Charge or Amp	Telltale	—	—
				Indicator	Yes	—
24	Engine stop	—	Engine Stop ¹⁰	Control	Yes	—
25	Automatic vehicle speed	—	—	Control	Yes	—
26	Speedometer	—	MPH, or MPH and km/h ¹¹	Indicator	Yes	—
27	Heating and Air conditioning system	—	—	Control	Yes	—
28	Automatic Transmission Control position <i>(park)</i> <i>(reverse)</i> <i>(neutral)</i> <i>(drive)</i>	—	P R N D ¹²	Indicator	Yes	—
29	Heating and/or air conditioning fan		Fan	Control	Yes	—
30	Low Tire Pressure (see FMVSS 138)		Low Tire ¹³	Telltale	—	Yellow
31	Low Tire Pressure that identifies involved tire (see FMVSS 138)		Low Tire ¹³	Telltale	—	Yellow
32	Tire Pressure Monitoring System Malfunction (see FMVSS 138)	—	TPMS ¹³	Telltale	—	Yellow

Notes:

1. An identifier is shown in this table if it is required for a control for which an illumination requirement exists or if it is used for a telltale for which a color requirement exists. If a line appears in column 2 and column 3, the control, telltale or indicator is required to be identified, however the form of the identification is the manufacturer's option.

Telltale are not considered to have an illumination requirement, because by definition the telltale must light when the condition for its activation exists.




2. Framed area of the symbol may be solid; solid areas may be framed.
3. Blue may be blue-green. Red may be red-orange
4. Symbols employing four lines instead of five may also be used.
5. The pair of arrow is a single symbol. When the controls or telltales for left or right turn operate independently, however, the two arrows may be considered separate symbols and be space accordingly.
6. Not required when arrow of turn signal telltales that otherwise operate independently flash simultaneously as hazard warning telltale.
7. Separate identification not required if function is combined with master lighting switch.
8. Refer to FMVSS 105, FMVSS 121 or FMVSS 135, as appropriate, for additional specific requirements for brake telltale labeling and color. If a single telltale is used to indicate more than one brake system condition, the brake system malfunction identifier must be used.
9. Combination of engine oil pressure symbol and the engine coolant temperature symbol in a single telltale is permitted.
10. Use when engine control is separate from the key locking system.
11. If the speedometer is graduated in miles per hour and in kilometers per hour, the identification must be "MPH" and "km/h" in any combination of upper and lowercase letters.
12. The letters "P", "R", "N" and "D" are separate markings to indicate Automatic Transmission gear positions. Letter "D" may be replaced by other alphanumeric character or symbol chosen by the manufacturer. See FMVSS 102 for additional requirements.
13. Required only for FMVSS 138 compliant vehicles. Alternatively, either low tire pressure telltale may be used to indicate a TPMS malfunction.
14. "STOP – BRAKE FAILURE" to be used only when the system is not a split brake system. See FMVSS 105.
15. Refer to FMVSS 108 for additional specific telltale requirements.

The Alliance recommends the following corrections to Table 2:

- Item 4, add a footnote (5) that the letters may be any combination of upper and lower case.
- Item 7, if the footnotes are moved to Column 1, then Footnote 3 can be simplified; the first sentence is not necessary.

Following is an amended Table 2 consistent with these recommendations:

Table 2
Identifiers for
Controls, Telltales and Indicators with
No Color or Illumination Requirements

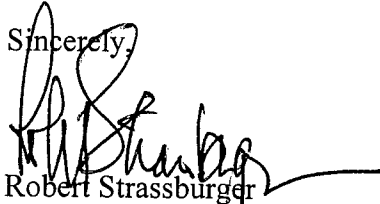
	Column 1 ITEM	Column 2 SYMBOL	Column 3 WORDS OR ABBRE- VIATIONS
1	Hand Throttle Control	—	Throttle
2	Engine Start Control	—	Engine Start ₁
3	Manual Choke	—	Choke
4	Odometer	—	“Kilometers” or “km” if kilometers are shown. Otherwise, no identifier is required. ₅
5	Horn		Horn
6	Master Lighting Switch		Lights
7	Headlamps and Taillamps Control _{3,4}	—	— _{3,4}
8	Low Brake Air Pressure Telltale (for vehicles subject to FMVSS 121)	—	Brake Air
9	Seat Belt Unfastened Telltale		Fasten Belts or Fasten Seat Belts

Notes:

1. Use when engine control is separate from the key locking system.
2. Framed areas may be filled.
3. The form of the identification is the manufacturer's option.
4. Separate identification not required if function is combined with Master Lighting Switch.
5. Letters may be any combination of upper and lower case.

We welcome the opportunity to further discuss the issues raised in this petition with you or your staff at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Strassburger", with a long horizontal flourish extending to the right.

Robert Strassburger
Vice President
Vehicle Safety and Harmonization
Alliance of Automobile Manufacturers

cc: Mr. Stephen R. Kratzke, Esq.
Ms. Gayle Dalrymple
Ms. Dorothy Nakama, Esq.