



Vehicle Standard (Australian Design Rule 18/02 – Instrumentation) 2006

I, JAMES ERIC LLOYD, Minister for Local Government, Territories and Roads, determine this vehicle standard under subsection 7 (1) of the *Motor Vehicle Standards Act 1989*.

Dated 10 August 2006

[SIGNED]

James Eric Lloyd

Minister for Local Government, Territories and Roads

CONTENTS

A.	LEGISLATIVE PROVISIONS	3
A.1.	NAME OF STANDARD.....	3
A.2.	COMMENCEMENT	3
A.3.	REPEAL	3
B.	FUNCTION AND SCOPE	3
C.	APPLICABILITY AND IMPLEMENTATION	3
C.1.	Applicability Summary.....	3
C.2.	Applicability Table	4
18.1.	DEFINITIONS.....	4
18.2.	VISUAL INDICATORS FOR MA AND LEP VEHICLES ONLY	4
18.3.	LOCATION OF VISUAL INDICATORS FOR MA AND LEP VEHICLES ONLY	5
18.4.	VISIBILITY OF VISUAL INDICATORS FOR MA AND LEP VEHICLES ONLY	6
18.5.	SPEEDOMETERS AND ODOMETERS (ALL VEHICLES).....	7

A. LEGISLATIVE PROVISIONS**A.1. NAME OF STANDARD**

- A.1.1. This Standard is the Vehicle Standard (Australian Design Rule 18/02 – Instrumentation) 2006.
- A.1.2. This Standard may also be cited as Australian Design Rule 18/02 —Instrumentation.

A.2. COMMENCEMENT

- A.2.1. This Standard commences on the day after it is registered.

A.3. REPEAL

- A.3.1. This Standard repeals each vehicle standard with the name Australian Design Rule 18/02 — Instrumentation that is:
- (a) made under section 7 of the Motor Vehicle Standards Act 1989; and
 - (b) in force at the commencement of this Standard.
- A.3.2. This Standard also repeals each instrument made under section 7 of the Motor Vehicle Standard Acts 1989 that creates a vehicle standard with the name Australian Design Rule 18/02 — Instrumentation, if there are no other vehicle standards created by that instrument, or amendments to vehicle standards made by that instrument, that are still in force at the commencement of this Standard.

B. FUNCTION AND SCOPE

- B.1. The function of this national standard is to specify requirements for the provision and location of certain '*Visual Indicators*'.
- B.2. It also specifies requirements for speedometers and odometers.

C. APPLICABILITY AND IMPLEMENTATION**C.1. Applicability Summary**

- C.1.1. This national standard applies to the design and construction of vehicles as set out in the table below.
- C.1.2. MA vehicle models first approved after 1 July 1995 must comply with this national standard.
- C.1.3. Existing MA vehicle models need not comply with this national standard until 1 January 1996.

C.2. APPLICABILITY TABLE

Vehicle Category	ADR Category Code	UNECE Category Code	Manufactured on or After	Acceptable Prior Rules
Moped 2 wheels	LA	L1	not applicable	
Moped 3 wheels	LB	L2	not applicable	
Motor cycle	LC	L3	1 July 1995	/00, /01
Motor cycle and sidecar	LD	L4	1 July 1995	/00, /01
Motor tricycle	LE	L5		
	LEM		1 July 1995	/00, /01
	LEP		1 July 1995	/01
	LEG		1 July 1995	/01
Passenger car	MA	M1	1 July 1995 (refer clauses C.1.2 & C.1.3)	nil
Forward-control passenger vehicle	MB	M1	1 January 1995	/00, /01
Off-road passenger vehicle	MC	M1	1 January 1995	/00, /01
Light omnibus	MD	M2		
up to 3.5 tonnes 'GVM' and up to 12 seats	MD1		1 July 1995	/00, /01
up to 3.5 tonnes 'GVM' and more than 12 seats	MD2		1 July 1995	/00, /01
over 3.5 tonnes and up to 4.5 tonnes 'GVM'	MD3		1 July 1995	/00, /01
over 4.5 tonnes and up to 5 tonnes 'GVM'	MD4		1 July 1995	/00, /01
Heavy omnibus	ME	M3	1 July 1995	/00, /01
Light goods vehicle	NA	N1	1 July 1995	/00, /01
Medium goods vehicle	NB	N2		
over 3.5 tonnes up to 4.5 tonnes 'GVM'	NB1		1 July 1995	/00, /01
over 4.5 tonnes up to 12 tonnes 'GVM'	NB2		1 July 1995	/00, /01
Heavy goods vehicle	NC	N3	1 July 1995	/00, /01
Very light trailer	TA	O1	not applicable	
Light trailer	TB	O2	not applicable	
Medium trailer	TC	O3	not applicable	
Heavy trailer	TD	O4	not applicable	

18.1. DEFINITIONS

Refer to Vehicle Standard (Australian Design Rule Definitions and Vehicle Categories) 2005.

18.2. VISUAL INDICATORS FOR MA AND LEP VEHICLES ONLY

18.2.1. The display of information presented by the following 'Visual Indicators', if fitted, must be subject to control under this rule:

Group I

- (a) Speedometer
- (b) Direction indicator “tell-tale” lamp or lamps
- (c) High beam indicator

Group II

- (d) Tachometer
- (e) Odometer
- (f) Service brake failure indicator lamp
- (g) Parking brake indicator lamp
- (h) Stop lamp failure indicator
- (i) Oil temperature indicator
- (j) Pressure indicator
- (k) Water temperature indicator
- (l) Battery charge failure indicator
- (m) Fuel level indicator
- (n) Seatbelt warning lamp

18.2.2. In cases where more than one ‘*Visual Indicator*’ is provided for any one of the functions covered by (h) to (m) above, and are not located as specified in clause 18.3.2 a common indicator which could be either visual or an audible signal may be used to draw attention to the need to refer to a group of indicators located elsewhere.

18.2.2.1. In such cases the common indicator, if visual, must be totally located within the area specified in clause 18.3.2.

18.3. LOCATION OF VISUAL INDICATORS FOR MA AND LEP VEHICLES ONLY

18.3.1. All “*Visual Indicators*” specified as Group I in clause 18.2 must be located between 2 vertical planes inclined at 30° left and 20° right of the longitudinal axis of the vehicle and passing through the foremost points of the left and right ‘95th Percentile Eye Ellipses’ respectively. Such indicators must be totally located above a plane inclined downwards at 35° from the horizontal and including a horizontal transverse line through the foremost points of each of the ‘95th Percentile Eye Ellipses’ and below a plane tangential to the bottom of the ‘95th Percentile Eye Ellipses’ which includes a line at ground level transverse to the longitudinal axis of the vehicle 11 m forward of the rearmost eye ellipse point.

18.3.2. All ‘*Visual Indicators*’ specified as Group II in clause 18.2 must be totally located between 2 vertical planes inclined at 40° left and 25° right of the longitudinal axis of the vehicle and passing through the foremost points of the left and right ‘95th Percentile Eye Ellipses’ respectively. Such indicators must be totally located above a plane inclined downwards at 35° from the horizontal and including a horizontal transverse line through the foremost points of each of the ‘95th Percentile Eye Ellipses’ and below a plane tangential to the bottom of the ‘95th Percentile Eye Ellipses’ which includes a line at ground level transverse to the longitudinal axis of the vehicle 11 m forward of the rearmost eye ellipse point.

18.4. VISIBILITY OF VISUAL INDICATORS FOR MA AND LEP VEHICLES ONLY

- 18.4.1. The requirements of clauses 18.4.1.1 and 18.4.1.2 must be met when:
- (a) the steering wheel is in the straight ahead position;
 - (b) the direction indicator lever is in the “Neutral” position;
 - (c) in the case of column change automatic transmission vehicles the gear selector is in the “Drive” position;
 - (d) in the case of column change manual transmission vehicles with 2 or 3 forward gear ratios, the gear selector is in “Top” gear position;
 - (e) in the case of column change manual transmission vehicles with more than 3 forward gear ratios, the gear selector is in “Top” gear position or the next lower gear position whichever is the more critical in terms of obscuration of ‘Visual Indicators’.
- 18.4.1.1. All ‘Visual Indicators’ other than indicator lamps must be ‘Totally Visible’ when viewed from each pair of eye positions located by the ‘95th Percentile Eye Ellipses’ except that:
- 18.4.1.1.1. in the case of Group I ‘Visual Indicators’, the portion of the steering wheel rim including its supporting arms that is below a plane tangential to the top of the ‘95th Percentile Eye Ellipses’ and the underside of the highest rim cross-section cut normal to the rim, must not constitute an obstruction;
 - 18.4.1.1.2. in the case of Group II ‘Visual Indicators’ the steering wheel rim and its supporting arms and attachments thereto must not constitute obstructions.
- 18.4.1.2. Any object which represents an obstruction to any single eye position within the terms of clause 18.4.1.1 must have no surfaces, in the line of sight to the ‘Visual Indicator’, which present a metal finish with a ‘Specular Gloss’ exceeding 40 units when measured by the 20 degree geometry method of ASTM Standard D523-62T-“Specular Gloss” June 1962 or ASTM Standard D523-85T-“Specular Gloss”, September 1985.
- 18.4.1.3. All indicator lamp ‘Visual Indicators’ must either be ‘Totally Visible’, or an area of not less than 18 square millimetres with dimensions such that a 2 mm diameter circle is totally enclosed within the area, must be ‘Totally Visible’ when viewed from each single eye position located by the ‘95th Percentile Eye Ellipses’. The obstruction exemptions provided for in clause 18.4.1.1 must also be applicable to this clause.
- 18.4.1.4. In the case of a motor vehicle provided with a steering wheel capable of axial and vertical adjustments, it must be demonstrated that for any eye position located by the ‘95th Percentile Eye Ellipses’, there is at least one steering wheel position where the requirements of clauses 18.4.1.1 to 18.4.1.3 are complied with.
- 18.4.2. The vehicle speed indicating element must be of such colour or contrast as to differentiate it from the viewed background.
- 18.4.3. Deleted.

18.5. SPEEDOMETERS AND ODOMETERS (ALL VEHICLES)**18.5.1. Speedometers**

- 18.5.1.1. Unless otherwise *'Approved'*, every vehicle must be fitted with a speedometer which must:
- 18.5.1.1.1. indicate vehicle speed only in kilometres per hour; and
 - 18.5.1.1.2. indicate the actual vehicle speed, for all speeds above 40 km/h, to an accuracy of ± 10 per cent.
- 18.5.1.2. The speedometer must be installed so that its indication is readily visible to the driver when seated in the normal driving position.

18.5.2. Odometers

- 18.5.2.1. Every vehicle other than LA, LB and LEM group vehicles must be fitted with an odometer which must:
- 18.5.2.1.1. indicate distance travelled in one kilometre units (or less) at least from 1 to 600,000 kilometres (for MA, MB and MC category vehicles) and from 1 to 999,999 kilometres for all other category vehicles; and
 - 18.5.2.1.2. indicate the actual distance travelled by the vehicle to an accuracy of ± 4 per cent.
- 18.5.2.2. Every vehicle of category LC, LD and LEM must be fitted with an odometer which must:
- 18.5.2.2.1. indicate distance travelled in one kilometre units from 1 to 99,999 kilometres; and
 - 18.5.2.2.2. indicate the actual distance travelled by the vehicle to an accuracy of ± 4 per cent.