

Section 13: Buses

13.2. Check School Bus Warning System

Buses used to carry school children outside designated urban areas in Tasmania are required to be fitted with flashing warning lights and signs. Where a bus is fitted with lights and signs indicating that it is a school bus the following applies.

Reasons for rejection

a) Signs

- 1 There is not displayed on the front of the bus either:
 - a. An image of the 40 km/h speed limit sign as depicted in AS 1743 Road Signs – Specifications (image R4-1 (40)); **OR**
 - b. The words 'SCHOOL' or 'SCHOOL BUS' in capital letters at least 100 mm high; **OR**
 - c. If an electronic sign that also displays the location the bus is travelling, the words 'SCHOOL' or 'SCHOOL BUS' in capital letters at least 100 mm high are not displayed while the school bus warning lights are flashing.
- 2 There is not displayed on the rear of the bus an image of the 40 km/h speed limit sign as depicted in AS 1743 Road Signs – Specifications (image R4-1 (40)).
- 3 The 40 km/h speed limit sign does not have a red circle having a diameter of at least:
 - 200 mm if fitted at the front of the bus, **OR**
 - 440 mm when fitted at the rear of the bus.

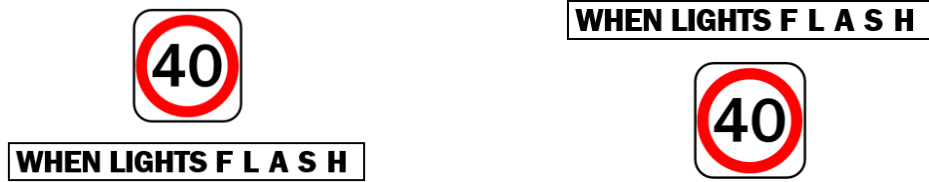


- 4 Any 40 km/h signs are not coated with retro-reflective material of class 1 or 2 that meets AS 1906 Retro-reflective Materials and Devices for Road Traffic Control Purposes.
Note: 40 Km/h signs can be rectangular subject to 40 Km/h annular being central to sign.
- 5 There is not fitted at the rear of the bus;
 - a. A single warning sign with the words 'WHEN LIGHTS FLASH' being 900mm long and 70mm high with the words "WHEN LIGHTS" using the maximum even space possible between the letters of each word over a distance of 450mm and the word "FLASH" using the maximum even space possible over a distance of 450mm; **OR**
 - b. Two separate signs. One of which contains the words 'WHEN LIGHTS' being 450mm long and 70mm high using the maximum even space possible between the letters of each word over a 450mm distance with a minimum of 60mm separation between the words. The other containing the word 'FLASH' using the maximum even space possible between the letters over a distance of 450 mm; **OR**
 - c. A single sign that displays each word 'WHEN' 'LIGHTS' 'FLASH' on a single line with each word being centred horizontally on the line. With the sign a minimum of 300mm wide and between 210mm and 440mm high; **OR**
 - d. Subject to the GVM of the bus not exceeding 6000kg, three separate signs with each word 'WHEN' 'LIGHTS' 'FLASH' on a single line that is aligned horizontally and are vertically stacked (without a space between each sign) to read 'WHEN LIGHTS FLASH'. With each sign 300mm long and 70mm high.

b) Position of types of signs

1 There is not displayed at the rear of a bus a warning sign as identified in (a)(5) in a location as described:

a. The single warning sign 'WHEN LIGHTS FLASH' being 900mm long and 70mm high is not displayed either above or below the 40 km/h sign; **OR**



b. A warning sign comprising 2 signs 'WHEN LIGHT' and 'FLASH' is not displayed one on either side, aligned as close as possible with the top or bottom perimeter of the 40km/h sign; **OR**



c. A single warning sign that displays each word on a single line as per (a)(5)(c) is not fitted to one side of the 40km/h sign; **OR**

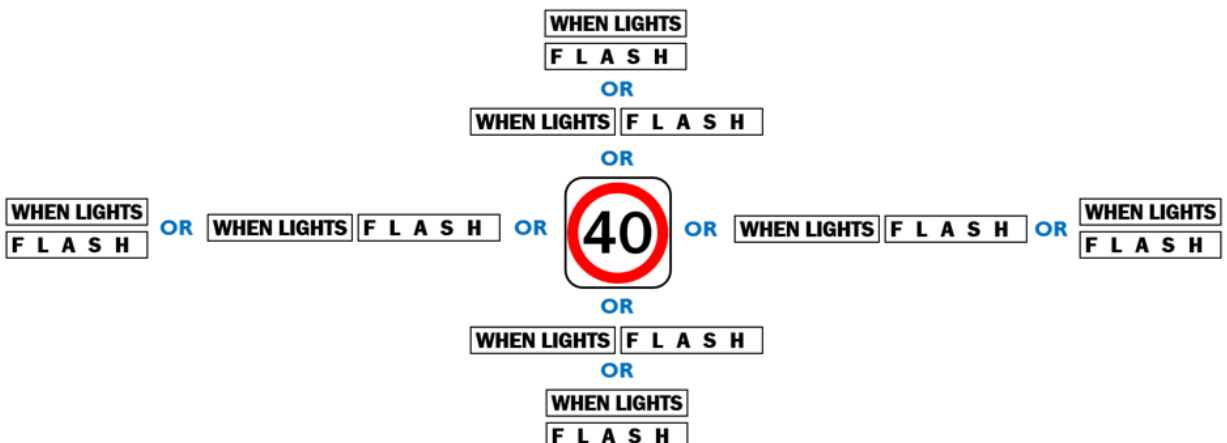


For Buses not exceeding 6000kg

d. Three separate warning signs as identified in (a)(5)(d) fitted to one side of the 40 km/h speed sign at the rear of the bus.



e. If other warning sign location requirements are not met and the GVM of the bus does not exceed 6000 kg a warning sign comprising 2 signs, both pieces of the sign with the words 'WHEN LIGHTS' and 'FLASH', are not displayed above, below or to one side of the 40 km/h sign.



2 If any part of the warning lights at the back of the bus is fitted below the horizontal mid line of the bus the warning sign requirements of (5) is not displayed above the 40 km/h sign.

- 3 The nearest part of the warning sign is greater than 150 mm from the 40 Km/h sign
- 4 The font for all variants of the WHEN LIGHTS FLASH warning signs described in (e) of this section are not written in 60 mm black lettering using series D characters as specified in AS 1744-1975 Standard Alphabets for Road Signs on a white background.
- 5 The words of signs are not aligned to read WHEN LIGHTS FLASH
- 6 Any warning sign must be fitted as high as practicable on the bus

c) Warning lights

- 1 Any warning light has less than 60 square centimetres effective illuminated lens area.
- 2 Any warning light does not have the luminous intensity of at least the values stated in following table, as measured in accordance third edition ADR 6.0.

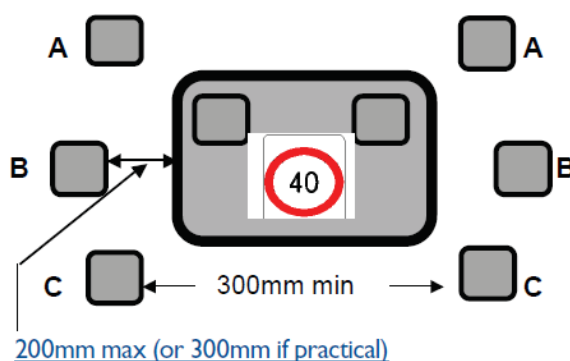
Vertical angle from centre of light	Horizontal angle from centre of light								
	-30°	-20°	-10°	-5°	0°	5°	10°	20°	30°
10°				50	80	50			
50°		180	320	350	450	350	320	180	
0°	75	450	1000	1250	1500	1250	1000	450	75
-5°	40	270	450	570	600	570	450	270	40
-10°				75	75	75			

Note: Special purpose bus warning lights manufactured by the firm 'Hazard' have been shown to meet the luminous intensity requirements above and are therefore approved for use. Lights from other manufactures can only be fitted if an acceptable certificate of compliance is presented prior to inspection.

- 3 There is not a warning light on each side of, and the same distance from the centreline of the 40 km/h speed limit sign; or
- 4 In the case of warning lights both fitted above or below the warning sign, the lights must be fitted so that the centre line of a line between the two lights is within 50 mm of the vertical centre line of the 40km/h sign.

Note: The 50mm tolerance allows for the minor deviation of the symmetrical fitment of the sign due to the design features of the bus.

- 5 Any warning sign or light is not fitted symmetrically, e.g.: AA, BB or CC. With the 50mm tolerance described in (l) applicable to AA and CC.



- 6 A warning light is fitted more than 100 millimetres from the nearest point on the lens of the warning lights, or if this is not practicable, the edge of the warning sign to be not over 300 millimetres from the nearest point on the lens, if not practical.
Note: If the lights on the front of the bus are mounted higher than 1.8 metres above ground level the above requirement (6) need not apply
- 7 The distance between the warning lights is less than 300 millimetres, at the nearest point.
- 8 The view of any part of a warning light is obstructed by construction of the bus within 30 degrees to the left and right of the centre of each light and 10 degrees above and below the

centre of each light.

- 9 Any warning light obstructs any words or images on a 40 km/h speed limit sign.
- 10 The warning lights at the same end of the bus are not at the same height.
- 11 The warning lights at the same end of the bus are not fitted as high as practicable.
- 12 Any 40 km/h speed limit sign or warning light is fitted to the left of centre of the bus and is less than 1800 millimetres above ground level.
Note: Warning lights and 40 km/h speed limit signs fitted and inspected prior to July 2002 may be placed in the centre or on the driver's side of the bus under 1.8 m and as high as practicable, but must not be on the passenger's side of the bus
- 13 Any warning light is fitted behind tinted glazing where the luminous transmittance is less than;
 - 75% for a vehicle built after 1971.
 - 70% for any other vehicle.
- 14 Any 40 km/h speed limit sign or warning light extends beneath the top 10% of a front windscreen.
- 15 Any 40 km/h speed limit sign or warning light extends into the swept path of the windscreen wipers.
Note: The above requirement (w) does not apply to some buses (e.g. Toyota Coasters) that may have lights and signs fitted at the top of the windscreen within the swept path of wipers if it is not practical for them to fully comply.
- 16 Any warning light does not flash alternately at a rate of at least 90, and not over 180, flashes a minute
- 17 Any warning light does not operate automatically when a door on the bus opens and for at least 10, and not more than 20, seconds after all the doors on the bus has closed.
- 18 The bus is not fitted with a switch that allows the driver to turn the warning lights off.
- 19 The bus is not fitted with a visible or audible signal that tells the driver when the warning lights are operating.
- 20 Electronic destination board at front of vehicle does not change to SCHOOL or SCHOOL BUS when warning lights are flashing.