

Queensland Manual of Uniform Traffic Control Devices

Part 14: Traffic signals

November 2022

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Feedback

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About this document

This document specifies the type and layout of signals, aspects and displays to be used at locations controlled by traffic signals, including overhead lane control devices. Basic requirements for signs and pavement markings to be used in conjunction in accordance with AS1742.2-2014 *Traffic control devices for general use* and its 2019 and 2021 amendments are also given.

This document does not cover railway level crossing signals of the type described in AS1742.7-2016 *Railway crossings*, nor portable traffic signals which are covered in AS4191-1994 *Portable traffic signal systems*.

How to use this document

This document is designed to be read and applied together with AS1742.14-2014 *Manual of Uniform Traffic Control Devices Part 14* (AS1742.14-2014 / Amdt 1 2019 / Amdt 2 2021). You must have access to the Australian Standard to understand what applies in Queensland.

This document:

- sets out how AS1742.14-2014 / Amdt 1 2019 / Amdt 2 2021 applies in Queensland
- has precedence over AS1742.14-2014 / Amdt 1 2019 / Amdt 2 2021 when applied in Queensland
- has the same section and clause numbering and headings as AS1742.14-2014 / Amdt 1 2019 / Amdt 2 2021

The following table summarises the relationship between AS1742.14-2014 / Amdt 1 2019 / Amdt 2 2021 and this document:

Applicability	Meaning
Accepted	The Australian Standard section or clause is accepted.
Accepted, with amendments	Part or all of the section or clause has been accepted with additions, deletions or differences.
New	There is no equivalent section or clause in the Australian Standard.
Not accepted	The Australian Standard section or clause is not accepted.

References

The following references apply when reading AS1742.14-2014 / Amdt 1 2019 / Amdt 2 2021.

Reference to...	Means
AS 1742.14-2014 Amdt 1 2019 Amdt 2 2021	<p>AS 1742.14-2014 / Amdt 1 2019 / Amdt 2 2021, as amended by this document</p> <p>For example, a reference to AS 1742.14-2014 / Amdt 1 2019 / Amdt 2 2021 means you must refer to the Australian Standard Part 14 and its amendments, and Part 14 of the <i>Queensland Manual of Uniform Traffic Control Devices</i> (Queensland MUTCD).</p> <p>Throughout AS 1742.14-2014 / Amdt 1 2019 / Amdt 2 2021, references are made to other parts of the Australian Standards (for example, when reading Part 14 you may be referred to Part 3 for further information.) In this case, you must refer to the equivalent Part within the Queensland MUTCD first. Check the applicability of the equivalent Part in the Queensland MUTCD before referring to the referenced Australian Standard Part.</p>
AGTM	<i>Austrroads Guide to Traffic Management</i>
QGTM	<u><i>Queensland Guide to Traffic Management</i></u>
QGTTM	<u><i>Queensland Guide to Temporary Traffic Management</i></u>

Relationship table

Section	Clause	Description	Applicability
1	Scope and general		
	1.1	Scope	Accepted
	1.2	Referenced documents	Accepted with amendments
	1.3	Definitions	
	1.3.1	<i>Aspect</i>	Accepted
	1.3.2	<i>Controlled area</i>	Accepted
	1.3.3	<i>May</i>	Accepted with amendments
	1.3.4	<i>Multiple display aspect</i>	Accepted
	1.3.5	<i>Pelican crossing</i>	Not accepted
	1.3.6	<i>Roadway</i>	Accepted
	1.3.7	<i>Shall</i>	Accepted with amendments
	1.3.8	<i>Should</i>	Accepted with amendments
	1.3.9	<i>Signal display</i>	Accepted
	1.3.10	<i>Traffic signal</i>	Accepted
	1.3.11	<i>Overhead lane control devices</i>	Accepted
	1.3.12	<i>Smart pedestrian crossing</i>	New
	1.3.13	<i>Crosswalk</i>	New
1.3.14	<i>Public transport vehicle</i>	New	
1.3.15	<i>Registered Professional Engineer of Queensland (RPEQ)</i>	New	
1.3.16	<i>Innovative treatments</i>	New	
1.4	Variation to treatments and Registered Professional Engineer of Queensland certification	New	
2	Description of signal displays		
	2.1	General	Accepted
	2.2	Steady displays for vehicles	
	2.2.1	<i>Circle displays</i>	Accepted
	2.2.2	<i>Arrow displays at intersections</i>	Accepted with amendments
	2.2.3	<i>Overhead lane control displays (not at intersections)</i>	Accepted
	2.3	Flashing displays	
	2.3.1	<i>Flashing yellow circle</i>	Accepted
	2.3.2	<i>Flashing yellow arrow</i>	Accepted
	2.3.3	<i>Flash cycle</i>	Accepted
	2.4	Pedestrian displays	Accepted with amendments
	2.5	Bicycle displays	Accepted with amendments

Section	Clause	Description	Applicability
	2.6	Public transport and emergency vehicle displays	
	2.6.1	<i>Symbol types</i>	Accepted
	2.6.2	<i>Purpose of displays</i>	Accepted
3	Arrangement of signal aspects		
	3.1	General principles	Not accepted
	3.2	Signal face layouts at intersections	Not accepted
	3.3	Signal face layouts for public transport and emergency vehicle control	Not accepted
	3.4	Signal face layouts for overhead lane control devices	Not accepted
	3.5	Sign alternatives for non-changing aspects	Not accepted
	3.6	Signal face layouts for pedestrian and bicycle control	Not accepted
	3.7	Two-aspect signal faces	Not accepted
	3.8	Sequence of signal displays	
	3.8.1	<i>Vehicle signal faces</i>	Not accepted
	3.8.2	<i>Two aspect pedestrian and bicycle signal faces</i>	Not accepted
4	Location of signal faces		
	4.1	General	
	4.1.1	<i>Application</i>	Not accepted
	4.1.2	<i>Designation and function</i>	Not accepted
	4.1.3	<i>Positioning of secondary and tertiary signal faces</i>	Not accepted
	4.1.4	<i>Overhead signal faces</i>	Not accepted
	4.2	Signal face locations at intersections	
	4.2.1	<i>General</i>	Not accepted
	4.2.2	<i>Circle aspects</i>	Not accepted
	4.2.3	<i>Turn arrow aspects</i>	Not accepted
	4.2.4	<i>Pedestrian aspects</i>	Not accepted
	4.2.5	<i>Bicycle aspects</i>	Not accepted
	4.3	Signal face locations at mid-block pedestrian crossings	Not accepted
5	Design and installation of signal equipment		
	5.1	Design and size of aspect	Accepted
	5.2	Lantern mounting height	Accepted
	5.3	Target boards	Accepted
	5.4	Aiming and shielding of lanterns	Accepted
	5.5	Visors and louvres	

Section	Clause	Description	Applicability
	5.5.1	<i>Visors</i>	Accepted
	5.5.2	<i>Louvres</i>	Accepted
	5.6	Pedestrian push buttons	Accepted
	5.7	Cyclist push buttons	Accepted
6	Signs, pavement markings and geometric requirements		
	6.1	Signs	
	6.1.1	<i>General</i>	Accepted with amendments
	6.1.2	<i>Application</i>	Accepted with amendments
	6.1.3	<i>Illuminated signs</i>	Accepted
	6.2	Pavement markings	
	6.2.1	<i>Stop lines</i>	Accepted
	6.2.2	<i>Pedestrian crosswalks</i>	Accepted
	6.2.3	<i>Intersection arrows</i>	Accepted
	6.2.4	<i>Turn lines</i>	Accepted
	6.3	Sight distance to signals	Accepted
7	Special situations		
	7.1	Signals for emergency service facilities	Accepted with amendments
	7.2	Advance warning traffic signal sign assemblies	
	7.2.1	<i>General</i>	Accepted with amendments
	7.2.2	<i>Design and operation</i>	Accepted
	7.2.3	<i>Location and installation</i>	Accepted
	7.3	Ramp metering signals	Accepted
	7.4	Roundabout metering signals	Accepted with amendments
	7.5	Left turn on red after stopping	
	7.5.1	<i>General description</i>	Not accepted
	7.5.2	<i>Guides for the provision of LTOR</i>	Not accepted
	7.5.3	<i>Other factors</i>	Not accepted
Appendices			
A	Longitudinal location and timing of advance warning traffic signal sign assemblies (informative)		Accepted

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1 Scope and general

1.2 Referenced documents

Addition

Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings

1.3 Definitions

1.3.3 May

Addition

Indicates the existence of an option. Where the word 'may' is used, it indicates that use of the device is conditional, or optional. Usually, no specific requirement for design or application is intended.

1.3.5 Pelican crossing

Not accepted

Pelican crossings are **not approved** for use in Queensland.

1.3.7 Shall

Addition

Indicates that a statement is mandatory. Where certain requirements in the design or application of the device are described with the 'shall' stipulation, it is mandatory that, when an installation is made, these requirements be met.

1.3.8 Should

Addition

Indicates a recommendation. Where the word 'should' is used, it is considered to be recommended usage, but not mandatory. Any recommendation that is not applied must be based on sound traffic engineering judgement and documented.

1.3.12 Smart pedestrian crossing

New

A signalised pedestrian crossing that incorporates pedestrian detectors to control and vary walk and clearance times.

1.3.13 Crosswalk

New

A portion of a road between two parallel broken lines marked on the road surface, indicating the path to be used by pedestrians at midblock pedestrian signals or intersection signals to cross the road.

1.3.14 Public transport vehicle

New

A public passenger vehicle is prescribed in the *Transport Operations (Passenger Transport) Act 1994* (Qld) as a vehicle used to transport members of the public and includes a bus, taxi or limousine.

1.3.15 Registered Professional Engineer of Queensland (RPEQ)

New

A person who is registered as a Registered Professional Engineer of Queensland (RPEQ), under the *Professional Engineers Act 2002* (Qld) with the [Board of Professional Engineers of Queensland](#).

1.3.16 Innovative treatments

New

Innovative treatments that provide improved safety, efficiency, and/or value-for-money outcomes are encouraged. Such treatments may include:

- a) innovative use of current devices
- b) alternative device layouts using existing and/or improved devices, and/or
- c) new devices or practices.

New or improved devices, treatments, or practices require approval by the Department of Transport and Main Roads (see Clause 1.4 for guidance about variations to optimal treatments) prior to their use or adoption.

For trials of new or innovative traffic control devices, treatments, or practices, a submission in accordance with the requirements of the Queensland *Manual of Uniform Traffic Control Devices* (MUTCD) Part 1 Clause 1.13 shall be submitted to TrafficEngineering.Support@tmr.qld.gov.au.

1.4 Variation to treatments and Registered Professional Engineer of Queensland certification

New

This Part of the *Manual* contains mandatory requirements (*shall*), recommendations (*should*) and options (*may*). The application of these mandatory requirements and recommendations is intended to provide the optimal level of safety and traffic efficiency. It is acknowledged that, in some instances, variations to these requirements and recommendations may be necessary and, as such, variations to these requirements and recommendations may be undertaken as follows:

- a) Where recommendations (*should*) are not adopted, a risk assessment shall be undertaken and certified by a Registered Professional Engineer of Queensland (RPEQ).
- b) Where mandatory requirements (*shall*) are not adopted, a risk assessment shall be undertaken and certified by an RPEQ.

Notifications of variations to mandatory requirements (including all relevant information) shall be emailed to TrafficEngineering.Support@tmr.qld.gov.au for information purposes and for the benefit of identifying potential future practice changes – not for approval or endorsement. These variations may include learnings that may be attributed to the variation of a *shall* requirement, such as operational, cost or safety impacts.

- c) Where innovative treatments (see Clause 1.3.16) that are outside the scope of the Queensland MUTCD are proposed to be adopted, a risk assessment shall be undertaken and certified by an RPEQ.
- d) All proposed innovative treatments require approval by Transport and Main Roads prior to their use or adoption. Requests for approval of innovative treatments (including all relevant information) shall be emailed to TrafficEngineering.Support@tmr.qld.gov.au. As part of an approval to use or trial an innovative treatment, Transport and Main Roads may require that the applicant provides a detailed evaluation report on the performance and effectiveness of the treatment. Transport and Main Roads may use the results of the evaluation to identify potential future practice changes to this Part of the *Manual*.
- e) The use of options (*may*) is not a variation to the optimal treatment and does not require certification by an RPEQ.

2 Description of signal displays

2.2 Steady displays for vehicles

2.2.2 Arrow displays at intersections

Addition

Add to (a)(ii):

The horizontal arrow in (i) above) may be used in lieu where it is considered this would improve driver's perception of the intersection configuration. This would be the exception rather than the rule.

2.4 Pedestrian displays

Addition

Add to (c):

If already on the crossing, they should continue quickly to the opposite footpath or refuge.

Difference

Paragraph (d) replaced with the following:

Pedestrian countdown timer (PCT):

- shall operate during the pedestrian clearance period
- shall be a yellow numeric countdown timer display
- shall be contained within the same aspect as the red symbolic standing pedestrian
- shall indicate the number of seconds left (down to '1') before a steady red symbolic standing pedestrian is displayed.
- When PCTs are operating the flashing red symbolic standing pedestrian shall not be displayed.

2.5 *Bicycle displays*

Addition

Add to paragraph (b):

If already on the crossing, they may complete their crossing. The flash cycle shall be as specified in Clause 2.3.4.

3 **Arrangement of signal aspects**

Not accepted

This section is **not accepted** in Queensland. Please refer to AGTM Part 10 for details.

4 **Location of signal faces**

Not accepted

This section is **not accepted** in Queensland. Please refer to AGTM Part 10 for details.

6 **Signs, pavement markings and geometric requirements**

6.1 **Signs**

6.1.1 **General**

Difference

The following replaces Table 6.1:

Table 6.1.1 – Signs used at traffic signals

Sign	Sign number	Size mm
No entry	R2-4AA R2-4A R2-4B R2-4C R2-4D	300 x 300 450 x 450 600 x 600 750 x 750 900 x 900
No U turn	R2-5	Not to be used at signalised intersections in Queensland
Left / right lane must turn left / right	R2-9L/R(A) R2-9L/R(B)	450 x 750 600 x 1000
All traffic turn left / right	R2-14L/R(A) R2-14L/R(A)	600 x 800 900 x 1200
Left turn on red permitted after stopping	R2-20	Not used in Queensland
Hook turn only	R2-21	Not used in Queensland
No Left (Right) Turn (Note 1)	R2-6B (L or R) R2-6C (L or R) R2-6D (L or R)	600 x 600 750 x 750 900 x 900
No Turns	R2-7A R2-7B	450 x 600 600 x 800
GIVE WAY TO PEDESTRIANS	R2-10	600 x 600

Sign	Sign number	Size mm
U-TURN PERMITTED	R2-15A	450 x 600
	R2-15B	600 x 800
Pedestrians may cross diagonally (Scramble crossing)	R3-5A (L or R)	90 x 110
	R3-5B (L or R)	300 x 400
STOP HERE ON RED SIGNAL	R6-6A	450 x 750
	R6-6B	675 x 1125
STOP HERE ON RED ARROW	R6-14A	450 x 750
	R6-14B	675 x 1125
Times of operation supplementary plates (Note 2)	R9-1-1B	600 x 400
	R9-1-1C	900 x 600
	R9-1-1D	1200 x 800
	R9-1-2B	600 x 600
	R9-1-2C	900 x 900
	R9-1-2D	1200 x 1200
Signals Ahead	W3-3A	600 x 600
	W3-3B	750 x 750
	W3-3C	900 x 900
PREPARE TO STOP (Note 3)	W8-27B	750 x 375
	W8-27C	900 x 450
	W8-27D	1200 x 600
FREEWAY / MOTORWAY ENTRY RESTRICTED WHEN FLASHING	GE9-Q02	900 x 900
ONE VEHICLE ONLY ON GREEN SIGNAL	GE9-Q03	750 x 750
ONE VEHICLE ONLY ON GREEN SIGNAL	GE9-Q04	750 x 750
CROSS WITH CARE	G9-Q10	90 x 300
LANE UNDER 'X' CLOSED	G9-Q12	900 x 1500
SIGNALS AHEAD	WC-Q01A	600 x 600
	W3-Q01B	750 x 750

6.1.2 Application

Difference

Delete paragraph (d). Hook turns are not used in Queensland.

Addition

Add the following to paragraph (f):

The STOP HERE ON RED SIGNAL and STOP HERE ON RED ARROW signs may be used where vehicles are required to stop at traffic signals at a point at which drivers would normally not expect to have to stop, for example, within a wide median. These signs are not intended for routine use at signalised intersections. The STOP HERE ON RED SIGNAL sign shall be provided on the primary signal post(s) at midblock emergency service facilities and at roundabout metering signals (refer to Clause 7.4).

Addition

Add the following paragraph:

- (h) Cross with care (G9-Q10)

The CROSS WITH CARE (G9-Q10) adhesive label is positioned facing the standing pedestrian waiting to cross at the signals, 50 mm above the top level of the pedestrian push-button.

Addition

Add the following paragraph:

- (i) Lane under 'X' closed (G9-Q12)

The LANE UNDER 'X' CLOSED (G9-Q12) sign should be erected in conjunction with each set of overhead lane control signals.

Addition

Add the following paragraph:

- (j) Freeway / Motorway entry restricted when flashing (GE9-Q02). One vehicle only on green signal (GE9-Q03). One vehicle per lane on green signal (GE9-Q04).

The above signs for use in Queensland shall be used in accordance with the provisions of [QGTM Part 9 Design guidelines for the provision of managed motorway ramp signalling](#).

7 Special situations

7.1 Signals for emergency service facilities

Addition

Add the following paragraph:

- (a) Two aspect signals

In Queensland, the SIGNALS AHEAD (W3-Q01) sign should be used to warn of upcoming two aspect signals at emergency service facilities.

Difference

- (b) Flashing red signals

Flashing signals comprising a steady yellow signal surmounted by twin alternate flashing red signals as shown in Figure 7.1 in the Standard is not used in Queensland.

7.2 Advance warning traffic signal sign assemblies

7.2.1 General

Addition

Add the following figure to Figure 7.3 in the Standard. The vertical format assembly may be used in Queensland.

Figure 7.2.1 – Advance warning signal – Vertical layout



(a) Vertical format
(e.g. for single mounting)

7.4 Roundabout metering signals

Addition

A 'holding line' is a 'giveway line'.

7.5 Left turn on red after stopping

7.5.1 General description

Not accepted

Left turn on red after stopping is not permitted in Queensland.

7.5.2 Guides for the provision of LTOR

Not accepted

Left turn on red after stopping is not permitted in Queensland.

7.5.3 Other factors

Not accepted

Left turn on red after stopping is not permitted in Queensland.

