

Use of Variable Message Signs

Operational Instruction 2.36

July 2026



Government of South Australia
Department for Infrastructure
and Transport

**Build.
Move.
Connect.**

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Approvals record

Approver	Position	Date	Signature
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We acknowledge the Traditional Custodians of the Country throughout South Australia and recognise their continuing connection to land and waters.

We pay our respects to the diversity of cultures, significance of contributions and to Elders past, present and emerging.

Build. Move. Connect.

by Jaylene Ware

Wirangu, Kokatha and Antakirinja
Matu-Yankunytjatjara Artist



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1 Scope

The aim of this Operational Instruction is to provide a uniform and consistent approach to the use of permanent and portable variable message signs (VMS) on roads under the care, control and management of the Commissioner of Highways. Councils may refer to this document for guidance on the use of these signs on their roads.

It shall be read in conjunction with the following documents:

- Australian Standards *AS 4852.1 Variable message signs Part 1: Fixed signs*
- *AS 4852.2 Variable message signs Part 2: Portable signs*,
- *Austroads Guide to Traffic Management, Part 10 Transport Control – Types of Devices*, Section 7, and
- DIT Master Specification RD-ITS-S4 *Supply of Electronic Signs*.
<http://www.dit.sa.gov.au/?a=1423561>.

2 VMS definition and types

Variable Message Signs (VMS) are traffic control devices that can display any message or graphical symbol, but in practice are subject to the constraints detailed in this instruction. The VMS display is a full “dot” matrix display, where characters are formed by illuminating or exposing individual “dots” (which are called pixels). Current technology is mostly LED.

2.1 Permanent VMS (Type A2 / A / B / C / Single Line)

Permanent large VMS are generally mounted on the side of the road or on overhead gantries. They are used to warn road users of approaching traffic hazards, incidents, lane closures, road works, route guidance, emergency information, real time congestion levels, weather related traffic conditions and real time destination travel times.

Refer to *AS 4852.1 Variable message signs: Fixed signs* (2019) Section 5 for display and optical requirements.

2.1.1 Type A2

These signs are narrower than standard Type A and have a full colour matrix display. These will generally display real-time travel information for travel times but also can be used for other information such as incident management as part of the broader application of traffic information services on the road network. Real-time traveller information informs motorists about current or future traffic conditions on the roads and allows drivers to choose the most efficient route to their destination.

A combination of upper case and lower case lettering is used to provide the required legibility and to maximise the display length of messages within the sign width. The sign and font sizes recognise the

balance required between font size, sign size, installation cost, display impact relative to static signs and legibility for the 85th percentile approach speeds which are typically in the order up to 60 km/h.

Display Requirements:

- Minimum equivalent character height = 200mm, where each character pixel resolution (W x H) = 10 x 14
- Number of lines = 3
- Minimum pixel resolution (W x H) = 178 x 58 based on displaying 13 characters per line. Signs with increased pixel resolution which comply with other display dimensional requirements are considered acceptable.
- Minimum luminous intensity half-angle = 15 degrees
- Character proportions should comply with AS 4852.1 (2019) Section 5.1.2.1
- Sign face shall be able to be adjusted to aim at a minimum sight distance of 140m

2.1.2 Type Single Line

The purpose of these signs is to ensure that drivers have appropriate information and time to make good decisions and operate safely within tunnels as well as on the approaches to a tunnel. The location of the signs and their design must be in accordance with Austroads *Guide to Road Tunnels Part 2: Planning, Design and Commissioning*. These will generally display critical messages to motorists advising of emergencies, on-road incidents, lane closures or other relevant tunnel related information.

Display Requirements:

- Minimum equivalent character (Pixel W x H = 10 x 14) height varies based on 85th percentile approach speed, refer to AS 4852.1 (2019) for guidance. Smaller size may be accepted in the tunnel environment where size constraints prohibit the use of standard size
- Number of lines = 1
- Minimum pixel resolution (W x H) = 248 x 14 based on displaying 18 characters per line. Signs with increased pixel resolution which comply with other display dimensional requirements are considered acceptable.
- Minimum luminous intensity half-angle = 15 degrees
- Character proportions should comply with AS 4852.1 (2019) Section 5.1.2.1
- Sign face shall be able to be adjusted to aim at a minimum sight distance in accordance with AS 4852.1 (2019)

2.2 Portable VMS

A portable VMS is a VMS that can be moved into a location as required. Generally portable VMS are mounted on trailers or another vehicle and are used at locations where there is no existing permanent VMS.

Refer to *AS 4852.2 Variable message signs: Portable signs (2019)* Section 5 for display and optical requirements.

2.3 Vehicle mounted VMS

Vehicle mounted VMS can be mounted on the front, back or roof of most vehicles and can be used at road works sites, for mobile road works, survey vehicles and by police and emergency services vehicles. Refer to *AS 1742.3 Manual of Traffic Control Devices, Part 3: Traffic control for works on roads (2019)* Section 4.14. Vehicle Mounted VMSs shall only be used to supplement the requirements of *AS 1742.3*.

2.4 Device conspicuity

The main purpose of the conspicuity devices is to increase the conspicuity of the message of a mandatory, safety or warning nature.

There are 3 ways to display conspicuity:

1. External Flashing yellow LED display attached to the sides of the VMS.
2. Have four flashing yellow LEDs displayed in the corners on the VMS display (if there is room to do so).
3. To have flashing text/messages.

Flashing yellow LED display conspicuity devices are required for Type B or Type C VMS only.

2.5 Device luminance

Refer to *AS 4852.1 Variable message signs: Fixed Signs (2019)* clause 5.1.1.2

2.6 Text colour

When using a colour capable VMS sign the following colours shall only be used for:

- Critical messages shown in Red.
- Warning messages shown in Yellow
- All other messages shown in White

For road traffic condition message colours refer to section 3.1.2.1.

3 Messages and content on VMS

Permanent and portable VMS shall only be used to display messages that inform road users of potentially hazardous conditions ahead, upcoming events that may cause delays or create a hazard, real-time traffic information, or other information that aids the safety and operational efficiency of the road network in the vicinity of the sign.

Non-road related messages, such as communications that do not pertain to road conditions, environmental factors, or events affecting traffic flow, including those issued by other organisations such as emergency service providers (e.g. CFS) may also be displayed with permission. Refer to Section 3.1.7.

All messages must be concise, unambiguous, and designed to minimise confusion for all road users.

3.1 Message types used on VMS

Potentially there is a wide range of applications for VMS, including reporting of accidents/incidents, congestion, road works, environmental conditions, and special events.

Other than approved police messages, general road safety messages and commercial or community advertising messages are considered as “filler” messages and **shall not** be used on VMSs installed for traffic management purposes in South Australia (see Section 3.9 regarding message credibility).

3.1.1 Accident/Incident messages

Accident/incident messages are used to warn road users of an accident/incident which may have occurred on the roadway which may require the road user to take an alternate route or advise that delays are expected.

3.1.2 Congestion messages / Real-time information

Congestion messages are used to warn road users of unforeseen congestion problems.

They can also be used to inform road users of current congestion levels on major roads where traffic detection devices provide real-time information.

Travel time information has the most benefit when provided on major arterial roads with strategic intersecting routes. It is not practicable to provide travel time information for all destinations. The signing of strategic destinations focuses on:

- Significant destinations for high volumes movements which will benefit the larger volume of traffic.
- High capacity routes that facilitate choice for deviated traffic.
- Roads with good connectivity within the network.

Signing principles for destinations are as follows:

- Travel time destinations are consistent with focal point names that are displayed on other directional type signs to facilitate the understanding and navigation by the road user
- The first displayed destination is generally within 4-6 minutes of travel time for the VMS location
- VMS display one frame with a maximum of three destinations

3.1.2.1 Text colours and format for colour capable VMS signs

The default message should display travel time with a minimum of two downstream destinations and the traffic condition on the road. The information displayed is based on road speed data that is used to calculate the travel time and traffic flow conditions relative to nominal travel time.

The first line (header) is as follows:

- The Route Number (left aligned) on which the key destinations are located, as well as directional assistance, if applicable. The colour will be green, yellow or red according to the colour of the road condition or event information.
- The word 'Min' coloured white and right aligned above the travel time numerals. For some displays it may be necessary to abbreviate the route / traffic condition information to provide space for the 'Min' heading. For some displays abbreviating the route information and freeway traffic condition may not be feasible so it may be necessary to omit the 'Min' heading. This latter layout is generally undesirable as it may cause confusion for some motorists.

In general, modifying the header is to provide additional directional assistance if the key destinations are not on the continuing route or in different directions on an intersecting route.

The general principles are as follows:

- When the key destinations are on two different routes, directional assistance is included.
- Where the key destinations being signed are not on the freeway being entered, the Route Number on which the destinations are located is shown in the header, i.e., not the road being entered. In these cases, subject to space limitations, the word 'via' is included in the header to provide directional assistance.
- The road traffic condition message is either 'Light' (green), 'Medium' (yellow) or 'Heavy' (red) as appropriate. Colour coded travel time information is shown to the chosen destinations. The travel time value includes road travel time to the destinations.
- Congestion management traffic condition messages can be shown by displaying either 'Major Delays' (flashing red) or 'Seek Alt Route' (flashing red) as appropriate.

3.1.3 Roadworks messages

Roadworks messages are messages for use at roadwork sites.

3.1.4 Environmental conditions messages

Environmental condition messages are used to advise road users of hazardous conditions due to environmental factors. These types of messages include changed conditions due to fog, ice on the road, rock falls on the road and flooding.

3.1.5 Special events messages

Special events messages are messages relating to planned events that may impact on traffic movements through a specific area. These may include Christmas parades or sporting events that require some roads to be closed.

3.1.6 Specific road safety messages

Specific road safety messages are messages directly relating to a specific issue on a section of road or part of a specific road safety campaign in a localised area.

Road Safety Messages that are not specific and/or directive to road users shall not be used.

3.1.7 Non-road related messages

Non-road related messages are communications issued by organisations for the purpose of conveying information that does not pertain to road conditions, environmental factors, or events that affect traffic flow. Such messages may originate from entities including other government departments, such as the Department of Primary Industries and Regions (PIRSA), or emergency service providers, such as the Country Fire Service (CFS).

DIT encourages the use of static signs in the first instance. However, if VMS signs are to be used, then the following shall be applied regarding their use:

- Message content and format should comply with Section 3.2 of this document
- The VMS display must be suitable for the speed of the road they are adjacent to, e.g.
 - Font size
 - Font type
 Refer to Section 2 above.
- The VMS must be located in a location approved by DIT, refer to Section 4 of this document for more information.
- VMS must only be operated at times approved by DIT
- Records of the date and times the VMS is operating must be maintained and made available upon request to DIT
- A 24 hour contact number be made available to the DIT's Traffic Management Centre, should any issues arise.

The proponent is liable at all times for the safe operation of the VMS. Neither the Minister for Transport nor the Department for Infrastructure and Transport will accept any responsibility for personal injury, loss or damage to participants or other third parties or their property arising from use of the sign(s). The proponent must also comply with any reasonable direction of a police officer or emergency worker.

Proponents should contact DIT via the email below to seek endorsement/approval of messaging and to inform the department of the VMS location.

Email: DIT.Roadworks@sa.gov.au

3.2 Message content and format

All messages shall include a problem statement and should include an action statement. Messages may also include location, effect and attention statements as described below.

3.2.1 Problem statement

Problem statements define the type of incident that will affect traffic conditions. Such incidents could include accidents, road works, traffic congestion, environmental conditions and hazards on the road.

A list of approved problem statements is provided in Appendix A.

3.2.2 Location statement

A location statement describes the location of the incident requiring the VMS message; this may be described in terms of distance to incident, place names, road/street names, route numbers, exit numbers/names, road infrastructure and landmarks.

Sometimes it will be necessary to refine the location description by the use of location modifiers. Recommended location modifiers include AFTER, NEAR, AHEAD, AT, NEXT, LEFT, RIGHT and CENTRE. In many cases the word AHEAD is a statement of the obvious and may be omitted where it would add to the number of screens required for the message.

A list of approved location statements is provided in Appendix A.

3.2.3 Effect statement

An effect statement describes the state of the road or the effect the incident (described in the problem statement) will have on traffic operations.

A delay statement is one specific type of effect statement. This can be displayed as “MAJOR DELAYS”, “MINOR DELAYS”, “[number] mins DELAY” or “[number] hrs DELAY”. The quantified option should only be used where reliable information is available and can be regularly updated. Delays of up to about 10 minutes are considered minor in urban environments and 15 minutes for rural environments.

A list of approved effect statements is provided in Appendix A.

3.2.4 Attention statement

An attention statement is designed to gain the attention of a particular group of motorists rather than the normal case of a message targeting all motorists. The attention statement identifies the target audience to whom the action statement is directed, e.g. BUSES, TRUCKS etc.

A list of approved attention statements is provided in Appendix A.

3.2.5 Action statement

The action statement is what the motorist must be able to do if the VMS message is to be effective. It is therefore an essential element if some action by motorists is required.

A list of approved action statements is provided in Appendix A.

It should be noted that some action statements are not explicit but require drivers to make decisions. Examples of these are “CONSIDER ALTERNATE ROUTE” and “FIND ALTERNATE ROUTE”. “ALTERNATE” is used instead of “ALTERNATIVE” as it is shorter and is able to fit on smaller displays.

3.2.6 Time and date information

Time and date information may be required for VMS messages providing advance notice of special events or road works affecting future traffic operations. One week is considered to be an appropriate advance notice period.

It may also provide information on when an event or incident is expected to end. This element will contain time duration, days of the week, day periods, time of day, time periods, dates and/or date periods. Time duration should be shown in five or ten minute time increments.

Dates and date periods are significantly less well absorbed by drivers than days of the week. They should therefore only be used for major occurrences and when the dates involved are at least a week in the future.

Time information should be displayed using a 12-hour clock format using the “AM” and “PM” designation.

A list of approved time and date information statements is provided in Appendix A.

3.3 Pictorial messages and symbols

Pictorial messages for VMS may be considered in two groups: pictograms of standard static signs and graphical representation of road network conditions.

To achieve adequate definition of pictorial messages it is recommended that there be a pixel matrix of 35 pixels square. As many of the existing VMS have only 28 pixels vertically or less, pictograms and network diagrams should not be used.

Symbols may be used but should be limited to arrows and lane status symbols to support the VMS messages. If there becomes a need for a symbol to be used then assistance should be sought from the Traffic Management Centre and the Traffic Engineering Standards team to ensure that the symbol used

is consistent with static sign symbols and those in *AS 1742 Manual of Uniform Traffic Control Devices* Parts 1-15, the [Australian Road Rules](#) and the [Manual of Legal Responsibilities and Technical Requirements for Traffic Control Devices, Part 2 - Code of Technical Requirements](#). A sample of symbols is provided in Appendix C.

3.4 Non-static messages

Non-static messages, including scrolling and flashing messages shall not be used. Such displays can be distracting and are generally less understood and more prone to confusion. They can also hold the drivers' attention away from the driving task.

3.5 Abbreviations

Abbreviations may be used on VMS messages but where possible should be avoided. In some cases, the abbreviated word is preferred (e.g. "km" instead of "KILOMETRE").

There are a number of abbreviations that have been found to have a high recognition rate (at least 85%), independently of their content. There is also a number of abbreviations that are adequately understood when used with "prompt" words (e.g. PREP for prepare if it precedes TO STOP).

A list of approved abbreviations is provided in Appendix D. Abbreviations other than those in Appendix D shall not be used, unless approved by Manager, Traffic Management Centre.

3.6 Message length

Message lengths shall align with the requirements set out in Table 3.1 below, with each message component determined in accordance with the specified criteria and conditions.

Speed Zone (km/h)	No. of pages	No. of lines	Characters per line	Longest single word length
≤ 80	Max. 2	3	18	15
> 80	1	3	18	15
	2	2	18	15

Table 3.1: Display dimensional requirements

In terms of units of information there should be no more than 2 units of information per page. A unit of information may contain one to four words and is in the form of a problem, action, location, effect and attention statements.

Examples of a unit of information are DETOUR AHEAD, PREPARE TO STOP and LEFT LANE CLOSED.

3.6.1 Multiple page messages

Each page of a multiple page message should make sense to the road user on its own and a unit of information may not begin on one page and finish on the next page.

Each page should be able to be read as if it is the first page of the message.

Care must be taken to prevent ambiguity if only one page is read or pages are interpreted in incorrect sequences.

3.7 Message exposure times

Message times should be displayed for a minimum of whichever of the following is greatest:

- 0.6 ± 0.1 seconds per word
- 1.5 seconds per unit of information

A blank display of 0.25 seconds duration is the maximum allowable time between each page, but a shorter blank display time is preferred.

3.8 Compatibility of VMS with existing road infrastructure

VMS messages must be fully compatible with static signs and use the same terminology and abbreviations. This is particularly relevant to direction signs. VMS should complement the existing static signage rather than simply duplicating it.

Care must be taken to check and rectify any potential conflict between any VMS and static signs in the road network.

VMS should, wherever possible, be supported by closed circuit television (CCTV) cameras and/or other incident detection systems.

3.9 Message credibility

Signs are the primary channel of communication to road users so accurate, timely and relevant messages are vital to achieve high levels of driver compliance with VMS messages. CCTV and/or other incident detection systems should be used to identify and monitor incidents and to keep VMS messages up to date and relevant.

The quality and credibility of the VMS message influences how road users will perceive future VMS messages. Low credibility messages will affect the credibility of all VMS messages therefore by displaying only messages that are directly applicable to driving conditions and behaviour will increase the overall credibility of VMS messages.

Confusing word choices, long or ambiguous messages, or incorrect placement can render the VMS useless or cause road users to doubt the displayed information. It is better to display nothing on a VMS than to display a message that road users will discover to be incorrect or inaccurate. Road users will tend to ignore VMS if they have regularly encountered incorrect or inaccurate messages.

3.10 Messages on portable VMS

Messages on portable VMS should only be used to provide drivers with advance warning of changed traffic conditions, which may be in terms of time or distance. The messages should be effective in warning and diverting traffic in advance of roadwork sites or emergency situations where traffic conditions are affected.

The message length per page shall be no more than four words or numbers and shall not be over two pages long.

Portable VMS shall not be used as a substitute for conventional signs and pavement markings.

Portable VMS in the road network shall not be used for displaying “filler” messages, advertising (including tourist information), public service announcements or messages by private organisations. However, safety messages directly relating to a specific location or campaign may be used in certain circumstances (e.g. approved police messages). **Only non-road related messaging described in Section 3.1.7 may be used, with DIT approval.**

If a special event is likely to impact traffic operations, a portable VMS may be used to inform drivers about exit and parking information. The message shall avoid direct mention of specific events, sponsors, and private establishments.

3.11 Messages in tunnels

Messages placed in tunnels shall meet the requirements as set out in DIT Master Specification RD-ITS-S4 *Supply of Electronic Signs*. <http://www.dit.sa.gov.au/?a=1423561>

4 Placement / location of VMS

VMS can either be placed in the verge of roads or overhead, but the use of overhead VMS is preferred. VMS should be placed where they provide sufficient vertical and lateral clearances from the running lanes and will not create a hazard to road users. VMS shall not be permitted within an interchange area where merging, frequent braking or weaving movements are common. VMS shall be placed in locations that allow adequate reading time for all road users and adequate time and travel distance for the road user to act on the message and where this will not adversely affect the driving task. For specific supply requirements on VMS refer to DIT Master Specification RD-ITS-S4 *Supply of Electronic Signs* <http://www.dit.sa.gov.au/?a=1423561>.

4.1 Placement of portable VMS

Portable VMS should not be placed in a position where it will distract drivers or become a hazard to pedestrians. No part of the VMS shall overhang the kerb of the road or in a position where it can create a hazard to road users.

When not in use, portable VMS should be removed as soon as possible.

Portable VMS should comply with the longitudinal placement of signs set out in AS 1742.2 (2022).

If the VMS is placed on the footpath and creates a hazard or blocks the path of pedestrians and other footpath users, then an appropriate alternative safe path should be clearly defined. If the VMS is placed in a traffic lane, then an appropriate traffic path shall be clearly delineated.

If the VMS is to be used adjacent to a road under the care and control of DIT, you must inform the Department and where the message is deemed to constitute traffic control, approval will need to be sought from Manager, Traffic Management Centre, via the email below.

Email: DIT.Roadworks@sa.gov.au

Non-roadworks related VMS approval will need to be sought from Manager Traffic Services, via the email below.

Email: DIT.TASSAdminSupport@sa.gov.au

4.2 Placement of portable speed feedback signs

If trailer mounted temporary speed feedback signs (also known as Electronic Speed Awareness Signs) are to be deployed on to a DIT maintained road, then approval must be sort from the DIT's Manager, Traffic Management Centre, via the below email:

Email: DIT.Roadworks@sa.gov.au

5 Authorisation

Note that standard messages / words contained in the Appendices A to D do not require pre-approval for use. For approval of any non-standard messages / words (not contained in the Appendices A to D) refer to the following:

5.1 Accident / incidents messages

Accident/incident messages must be approved by the road authority or Superintendent Traffic Support Branch, SA Police. Where DIT is the road authority, the message must be approved by the DIT's Manager, Traffic Management Centre.

5.2 Congestion messages

Congestion related messages must be approved by the DIT's Manager, Traffic Management Centre.

5.3 Roadworks messages

Roadworks messages must be approved by either Council or the DIT's Manager, Traffic Management Centre.

5.4 Environmental conditions messages

Environmental condition messages must be approved by the road authority, either Council or the DIT's Manager, Traffic Management Centre. In emergency situations SA Police may approve an environmental message.

5.5 Special events messages

Special events messages must be approved by the road authority, either Council or the DIT's Manager, Traffic Management Centre.

5.6 Specific road safety messages

Specific road safety messages must be approved by the DIT's Manager, Traffic Management Centre. The Superintendent of the Traffic Support Branch, SA Police, may also approve a specific road safety message.

5.7 Speed feedback signs

For operation of speed feedback signs including standard messages, refer to DIT's *Operational Instruction 5.1: Road Safety Signs* - Section 4.5. <http://www.dit.sa.gov.au/?a=158380>.

5.8 Non-road related messages

Non-road related messages must be approved by DIT's Manager Traffic Services.

Email: dit.tassadminsupport@sa.gov.au

Appendix A - VMS message statements

Reference: Austroads (2020) *Guide to Traffic Management Part 10: Transport Control – Types of Devices*
Appendix D

Approved VMS problem statements

ANIMALS ON ROAD

BREAKDOWN

BRIDGEWORK

CHEMICAL SPILL

CONGESTION

COLLISION

CRASH

DEBRIS ON ROAD

DELAYS

DANGER DO NOT ENTER

DANGER TUNNEL CLOSED

EXIT <number> CLOSED

<name> EXIT CLOSED

FIRE

FOG HAZARD

HAZARD

ICY ROAD

INCIDENT

LANE(S) CLOSED

LOW LIGHT

NIGHT WORKS

OIL ON ROAD

POOR VISIBILITY

ROAD CLOSED

ROAD FLOODED

ROAD NARROWS

ROADWORK

SLIPPERY ROAD

TRAFFIC HAZARD

TRAFFIC SIGNALS

<name> BRIDGE CLOSED*

<name> EXIT CLOSED*

TUNNEL CLOSED

TWO WAY TRAFFIC

* Name is optional, only use when there could be confusion as to which bridge or exit is closed.

Approved VMS location statements

Location Definers:

BUS LANE

BUSWAY

CENTRE LANE

EXIT *<number>*

INTRSCT

<landmark>

LEFT LANE

LEFT LANES

LEFT SHOULDER

<location> EXIT

<name> BRIDGE

<name> DR (DRIVE)

<name> HWY (HIGHWAY)

<name> RD (ROAD)

<name> ST (STREET)

<number> km

<number> m

<number> km AHEAD

<number> m AHEAD

OVERPASS

RIGHT LANE

RIGHT LANES

RIGHT SHOULDER

ROAD

SERVICE ROAD

TUNNEL

UNDERPASS

Position Definers:

AHEAD

AT

BEYOND

IN

NEAR

NEXT

Recommended VMS effect statements

<location> CLOSED
 EXPECT DELAYS
 MAJOR DELAYS
 MINOR DELAYS
 POLICE CONTROL
 <number> min DELAY
 <number> hrs DELAY
 TRAFFIC CONTROL

Approved VMS attention statements

ALL TRAFFIC
 BUSES
 BICYCLES
 CARS
 EMERGENCY VEHICLES
 HIGH VEHICLE (S)
 LOCAL TRAFFIC
 THROUGH TRAFFIC
 <destination> TRAFFIC
 TRUCKS
 WIDE LOADS

Approved VMS action statements

DETOUR AHEAD
 DO NOT OVERTAKE
 FORM X LANE/S
 MERGE LEFT (with arrows)
 MERGE RIGHT (with arrows)
 MUST STOP
 NO ENTRY
 NO EXIT
 PREPARE TO STOP
 PROCEED WITH CAUTION
 REDUCE SPEED
 UNLESS OVERTAKING
 USE ALTERNATE ROUTE
 USE EXIT <number>
 USE <name> EXIT
 USE <road> ROAD
 USE <road> STREET
 <attention statement> / KEEP RIGHT

<attention statement> / KEEP LEFT

<attention statement> / MERGE TO RIGHT LANE

<attention statement> / MERGE TO LEFT LANE

Recommended VMS time and date statements

Time duration	<number> min	
	<number> hrs	
	<number> DAYS	
	<number> WEEKS	
Time of day*	<number> AM	
	<number> PM	
Time period*	<number> AM – <number> PM	
Days of the week	SUN	THU
	MON	FRI
	TUE	SAT
	WED	
Day period	MON – FRI	
	SAT – SUN	
	WEEKEND	
Months of year	JAN	JUL
	FEB	AUG
	MAR	SEP
	APR	OCT
	MAY	NOV
	JUN	DEC
Date	<number> JAN	
Date period	<number> JAN – <number> FEB	
Miscellaneous	EXPECTED	
	POSSIBLE	
	SOON	

**the use of a 24 hour clock should avoided*

Appendix B - Generic message set

Reference: Austroads (2020) *Guide to Traffic Management Part 10: Transport Control – Types of Devices* Appendix E

No.	Screen 1			Screen 2		
	Line 1	Line 2	Line 3	Line 1	Line 2	Line 3
1	ACCIDENT	EXPECT DELAYS				
2	ACCIDENT			PROCEED	WITH CAUTION	
3	ACCIDENT	DETOUR AHEAD				
4	ACCIDENT	PREPARE TO STOP		FIND	ALTERNATE ROUTE	
5	ACCIDENT	MAJOR DELAYS				
6	ACCIDENT	MAJOR DELAYS		PROCEED	WITH CAUTION	
7	ACCIDENT	MINOR DELAYS		PROCEED	WITH CAUTION	
8	ANIMALS ON ROAD			PROCEED	WITH CAUTION	
9	ANIMALS ON ROAD	PREPARE TO STOP				
10	BREAKDOWN			PROCEED	WITH CAUTION	
11	BREAKDOWN	AHEAD		MERGE LEFT		
12	BREAKDOWN	AHEAD		MERGE RIGHT		
13	CHANGED TRAFFIC	CONDITIONS		PROCEED	WITH CAUTION	
14	CHEMICAL SPILL			PROCEED	WITH CAUTION	
15	CHEMICAL SPILL			FIND	ALTERNATE ROUTE	
16	CHEMICAL SPILL	DETOUR AHEAD				
17	CONGESTION	AHEAD		EXPECT DELAYS		
18	CONGESTION	AHEAD	MAJOR DELAYS	FIND	ALTERNATE ROUTE	
19	CONGESTION	AHEAD	MAJOR DELAYS	PROCEED	WITH CAUTION	
20	CONGESTION	AHEAD	MINOR DELAYS	PROCEED	WITH CAUTION	
21	COLLISION AHEAD	MERGE LEFT /RIGHT				
22	DANGER	PROCEED	WITH CAUTION			
23	DEBRIS ON ROAD	MERGE LEFT /RIGHT				
24	FLAGMAN	AHEAD		REDUCE SPEED	PREPARE TO STOP	
25	FOG	BEYOND TUNNEL				
26	FOG HAZARD			PROCEED	WITH CAUTION	
27	HAZARD	AHEAD		EXPECT DELAYS		
28	HAZARD			PROCEED	WITH CAUTION	
29	HAZARD	AHEAD		DETOUR AHEAD		

OFFICIAL

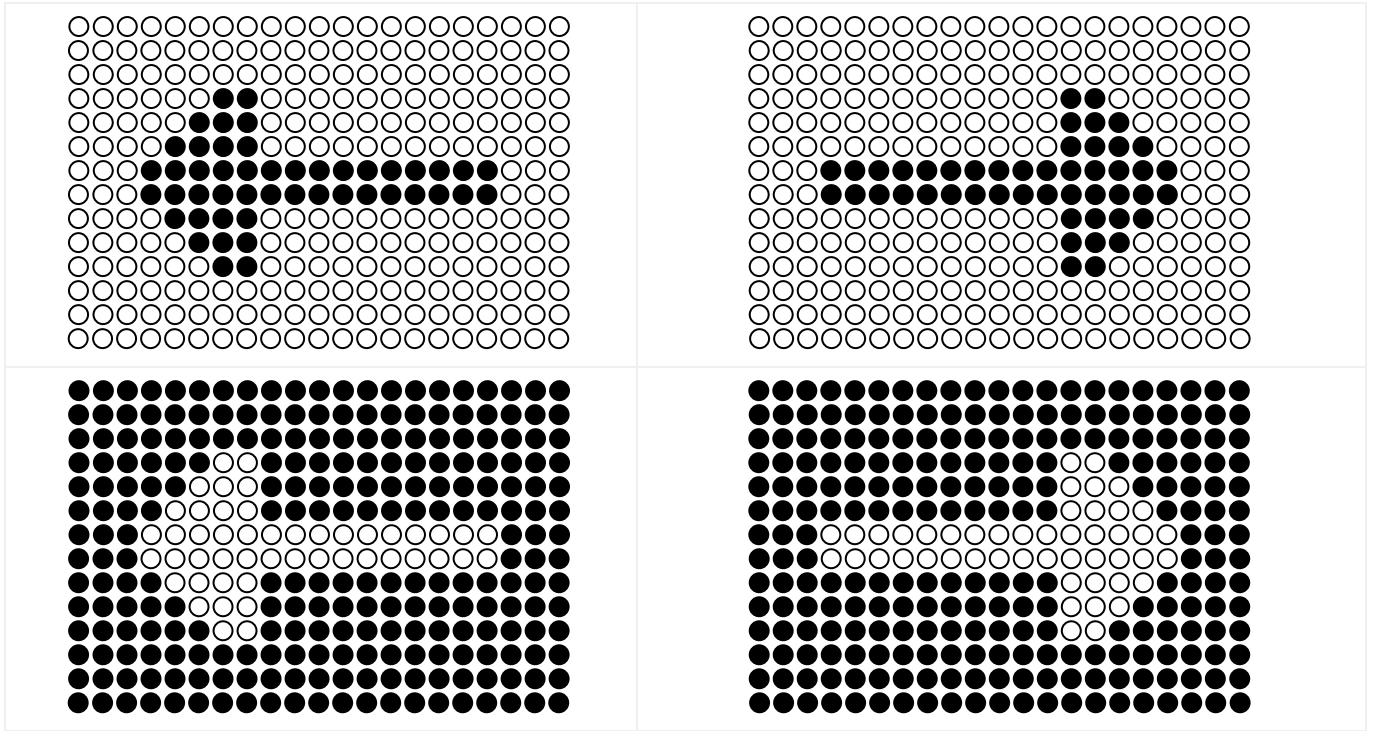
No.	Screen 1			Screen 2		
	Line 1	Line 2	Line 3	Line 1	Line 2	Line 3
30	HAZARD	MAJOR DELAYS		FIND	ALTERNATE ROUTE	
31	HAZARD	MAJOR DELAYS		PROCEED	WITH CAUTION	
32	HAZARD	MINOR DELAYS		PROCEED	WITH CAUTION	
33	HIGH VEHICLE (S)	MUST STOP				
34	LANE CLOSED	AHEAD		MERGE RIGHT		
35	LANE CLOSED	AHEAD		MERGE LEFT		
36	LANE (S) CLOSED	IN TUNNEL				
37	LOW LIGHT	IN TUNNEL				
38	NO ENTRY	TUNNEL CLOSED				
39	OIL ON ROAD			PROCEED	WITH CAUTION	
40	POLICE CONTROL	AHEAD				
41	POOR VISIBILITY	AHEAD		PROCEED	WITH CAUTION	
42	ROAD CLOSED	AHEAD		PREPARE TO STOP		
43	ROAD CLOSED	AHEAD		FIND	ALTERNATE ROUTE	
44	ROAD CLOSED	DETOUR AHEAD				
45	ROAD FLOODED	AHEAD		FIND	ALTERNATE ROUTE	
46	ROAD FLOODED	AHEAD		PROCEED	WITH CAUTION	
47	ROAD FLOODED	DETOUR AHEAD				
48	ROAD FLOODED	AHEAD		PREPARE TO STOP		
49	ROADWORK	AHEAD		REDUCE SPEED		
50	ROADWORK	AHEAD		EXPECT DELAYS		
51	ROADWORK	DETOUR AHEAD				
52	ROADWORK	AHEAD		PREPARE TO STOP		
53	ROADWORK	AHEAD		MERGE LEFT		
54	ROADWORK	AHEAD		MERGE RIGHT		
55	SMOKE HAZARD	AHEAD		PROCEED	WITH CAUTION	
56	TRAFFIC HAZARD	AHEAD				
57	TRAFFIC HAZARD	IN TUNNEL				
58	TRAFFIC SIGNALS	AHEAD		PREPARE TO STOP		
59	TUNNEL CLOSED	MERGE RIGHT				
60	TWO WAY	TRAFFIC				

OFFICIAL

Action Statement	Circumstances for Use
EXPECT DELAYS	Use if no information is available on extent of delays. When such information is available, replace by the problem statements MAJOR DELAYS (over 15 minutes delay {urban} or 30 minutes delay {rural}) or MINOR DELAYS (below 15 minutes delay {urban} or 30 minutes delay {rural}) and add appropriate action message from list below.
PROCEED WITH CAUTION	Use where there is potential danger to drivers (e.g. where there is poor visibility prior to an incident or a danger such as animals on the road, a chemical spill, fog or a smoke hazard).
DETOUR AHEAD	Only use where a signed detour is provided.
PREPARE TO STOP	Use if vehicles may need to come to a full stop.
FIND ALTERNATE ROUTE	Use if vehicles are unable to use the most logical road because of the incident but no detour is signed. May also be used remotely from the incident where capacity past an incident is well below demand.
MERGE LEFT	Use where right hand lane is blocked.
MERGE RIGHT	Use where left hand lane is blocked.
REDUCE SPEED	Use where drivers or others (e.g. road workers, emergency services) are at risk if normal speed is maintained.

Appendix C - VMS symbols

Light Source ON - ○	Light Source OFF - ●



Appendix D - Abbreviations for use on VMS

Reference: Austroads (2020) *Guide to Traffic Management Part 10: Transport Control – Types of Devices*
Appendix C

Approved abbreviations for use on VMS

The following is a list of acceptable abbreviations for frequently used words. At least 85% of the driving public would understand these abbreviations, independent of specific content, if they appeared on a VMS.

Abbreviations may be used on VMS messages but where possible should be avoided.

Word	Abbreviation
ALTERNATE	ALT
ACCIDENT	ACDNT
AVENUE	AVE
BOULEVARD	BVD
CAN NOT	CAN'T
CENTRE	CNTR
DO NOT	DON'T
EMERGENCY	EMER
ENTRANCE	ENT
ENTER	ENT
EXPRESSWAY	EXPWY
FREEWAY	FWY
INFORMATION	INFO
INTERSECTION	INTRSCT
IT IS	IT'S

Word	Abbreviation
JUNCTION	JCT
LEFT	LFT
MAINTENANCE	MAINT
NORMAL	NORM
PARKING	PKING
ROAD	RD
SERVICE	SERV
SHOULDER	SHLDR
SLIPPERY	SLIP
SPEED	SPD
STREET	ST
TRAFFIC	TRAF
TRAVELLERS	TRVLRS
WILL NOT	WON'T

Standard VMS abbreviations used in conjunction with other words

The following abbreviations are easily understood whenever they appear in conjunction with a word commonly associated with it (prompt word). The prompt word can appear before or after the abbreviated word depending on the meaning. For example, RT is alternatively recognised as either right or route based on the prompt word.

At least 85% of the driving population understands the abbreviations shown in normal type. At least 75% of the driving population understands the abbreviations shown in **bold type**.

**Indicates prompt word used before abbreviation.*

Word	Abbreviation	Prompt Word
ACCESS	ACCS	ROAD
AHEAD	AHD	FOG*
BLOCKED	BLKD	LANE*
BRIDGE	BRDG	(NAME)*
CENTRE	CNTR	LANE
CHEMICAL	CHEM	SPILL
CONDITION	COND	TRAFFIC*
CONGESTED	CONG	TRAFFIC
CONSTRUCTION	CONST	AHEAD
EASTBOUND	E-BND	TRAFFIC
ENTRANCE	ENT	FREEWAY*
EXIT	EX, EXT	NEXT*
EXPRESS	EXP	LANE
FRONTAGE	FRNTG	ROAD
HAZARDOUS	HAZ	DRIVING
KILOMETRE	KM	(NUMBER)*
LOCAL	LOC	TRAFFIC
MAJOR	MAJ	ACCIDENT
MINOR	MNR	ACCIDENT
MINUTE(S)	MIN	(NUMBER)*
NORTHBOUND	N-BND	TRAFFIC
OVERSIZED	OVRSZ	LOAD
PREPARE	PREP	TO STOP
PAVEMENT	PVMT	WET*
QUALITY	QLTY	AIR*
RIGHT	RT	KEEP*
ROADWORK	RDWK	AHEAD (DISTANCE)
ROUTE	Rte	BEST*
SOUTHBOUND	S-BND	TRAFFIC
TEMPORARY	TEMP	ROUTE
VEHICLE	VEH	STALLED*
UPPER, LOWER	UPR, LWR	LEVEL
WESTBOUND	W-BND	TRAFFIC

VMS abbreviations and contradictions to avoid

Certain abbreviations are confusing because another word is abbreviated or could be abbreviated in the same way.

Abbreviation	Intended Word	Misinterpretation
ACC	ACCIDENT	ACCESS (ROAD)
CLRS	CLEAR	COLOURS
DLY	DELAY	DAILY
FDR	FEEDER	FEDERAL
L	LEFT	LANE
LT	LIGHT (TRAFFIC)	LEFT
PARK	PARKING	PARK
POLL	POLLUTION	(INDEX) POLL
RED	REDUCE	RED
STAD	STADIUM	STANDARD
WRNG	WARNING	WRONG

Appendix E - Standard alphabet (5x7 Matrix)

A B C D E F G H I J K

L M N O P Q R S T U V

W X Y

h i k m n r s

0 1 2 3 4 5 6 7 8 9

W - () \ / : ;