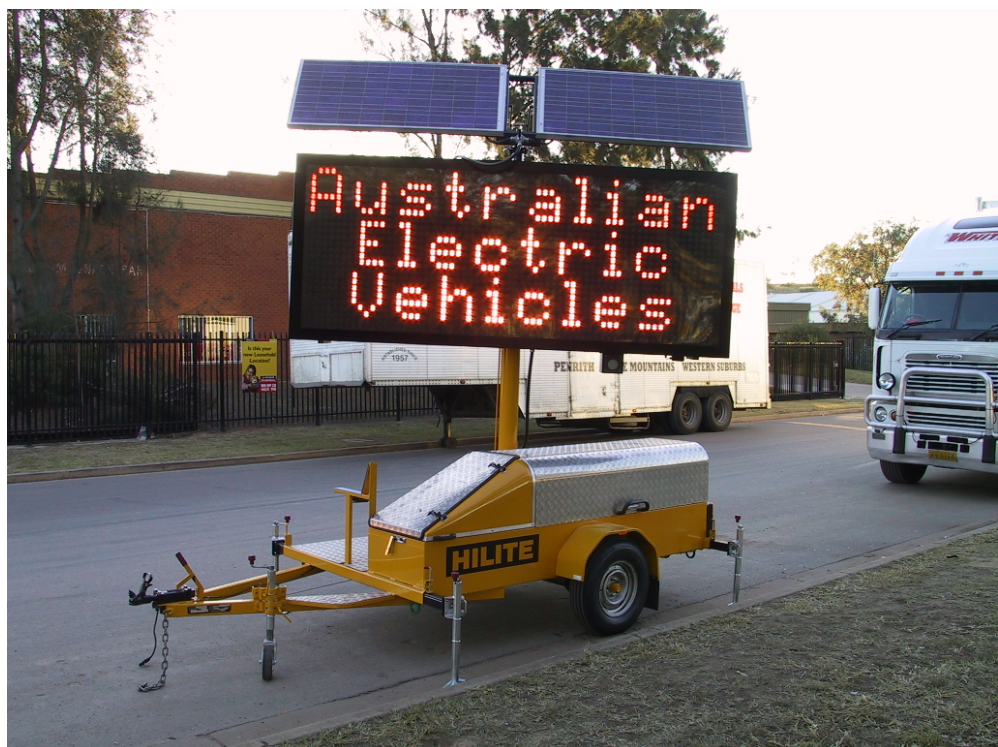


Mobile Variable Message Boards (VMS)

SAY IT IN LIGHTS



Our new generation mobile VMS takes advantage of leading edge technologies to provide full graphics capability utilizing modern LED technology and GSM/CDMA modem control.

The board's full graphics capability allows for the display of symbols, figures, and animation as well as standard text simultaneously.

The system is solar powered with smart diesel back-up giving you a leading edge mobile messaging system that requires very low maintenance and provides long operating life in the most extreme of weather conditions.

The board's wide viewing angle, plus automatically adjusted LED intensity provides the best possible readability under most climatic conditions.

Proudly Australian owned and manufactured.

THE VARIABLE MESSAGE BOARD (VMS)

Our new generation VMS takes advantage of leading edge technologies to provide the very best in variable message board systems. Improvements to both the message sign and trailer sub-systems provide an overall package that is easier to use, easier to transport, and more significantly lower maintenance costs.

Some of the message features include; message scrolling, multiple messages alternating/switching resulting in animation/scrolling of your message. Also, different messages can be pre-programmed based on the time-of-day.

The VMS system comprises of two primary sub-systems, the messaging board itself and the supporting trailer and power systems. Including the hydraulic system.

MESSAGE BOARD SUB-SYSTEM

The message board is manufactured in high grade aluminium which means the message board has long life and will **never rust**.

The message board is available in three standard sizes:

- ✘ **Small** – 1830 x 1040 mm (56 pixel wide and 30 pixels high, 1 LED per pixel), and supports full matrix with 3 lines of text of 12 characters per line.
- ✘ **Standard** – 2400 x 1550 mm (48 pixel wide and 30 pixels high, 4 LEDs per pixel), and supports full matrix with 3 lines of text of 8 characters per line (320mm character height).



- ✘ **Large** – 3320 x 1980 mm (48 pixel wide and 30 pixels high, 4 LEDs per pixel), and supports full matrix with 3 lines of text of 8 characters per line (450mm character height).

- ✘ **Custom** – sizes are also available;

All boards support full graphics mode for display of pictures as well as text together.

The board's face is made of high impact resistant Lexan which is able to withstand almost any act of vandalism.

Each pixel is powered by 1 or 4 amber LEDs with automatic brightness control for optimal power usage and extended battery life.

SECURITY

Security has also been a major focus of the new generation VMS with many new security aware features added over the previous model. These features include:



- ✘ Tamper-proof locks on all access panels as standard;
- ✘ Very rugged construction to reduce the likelihood of theft and vandalism;
- ✘ Complete coverage of the under-carriage to restrict access to the internals of the VMS;
- ✘ All out-rigger stands are chain welded to stop removal

HOW IT WORKS

The overall operation of the VMS has been simplified with an easy push-button operation for raising and lowering the message board via a low maintenance hydraulic ram. The message board has full 360 degree rotation independent of the orientation of the solar array and can be locked into any position. The message board can be operated at any height up to an impressive maximum of **3.4 metres**.

“Streamlined and safer trailer towing and operation”

SAFETY

Safety has been a major focus of this new generation VMS with many new safety features added over the previous model. These features include:

- ✘ Lower working platform to reduce the risk of injury;



- ✘ The board cannot be lowered if the board's orientation brake has not been released;
- ✘ Integrated steps to aid access to the working platform with anti-skid surface for added safety.

TRAILER SUB-SYSTEM

The new generation VMS has a new streamlined trailer design. The new torsion bar suspension designed for Australian conditions dramatically improves the towing capability of the unit. This also reduces vibration on electronic components in the unit, during transportation, thus reducing overall maintenance costs and failure rates.

The new streamlined trailer design results in a lower working platform with easy access provided by a set of integrated steps. These improvements reduce the likelihood of

accidents and provides an overall safer system to operate and work on.



The VMS is painted with high quality industrial 2-pack paint in any colour of your choosing.

However, standard safety colours such as white, yellow and orange are highly recommended. The 2-pack paint system will ensure maximum life of the unit and minimise through-life maintenance costs.

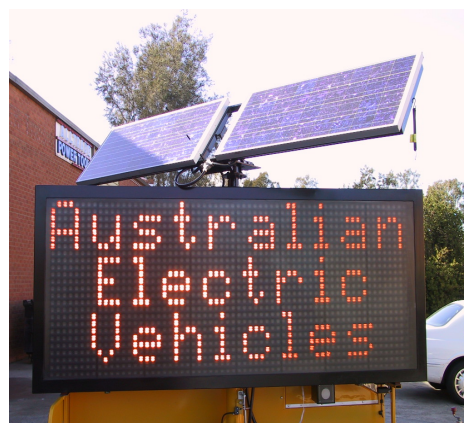
POWER SUB-SYSTEM

The VMS is powered by a set of heavy duty deep-cycle lead acid batteries charged via a pair of 125 watt solar panels.

The solar panels are mounted on a custom mounting rail that will allow full 360 degree rotation and angular adjustment independent of the message board's orientation. The combination of the angular adjustment and rotation allows for maximum efficiency of the solar panels to minimise outages and the use of the diesel back-up system.

The back-up system is a single cylinder diesel engine with a direct drive coupled generator (meaning no belts to reduce maintenance). This

system will automatically activate to recharge the batteries only when battery power is low due to extended periods of poor weather conditions that have reduced the ability for the unit to recharge.



Solar Panels can be rotated to maximize solar efficiency.

This combination of solar, battery, and diesel will ensure continuous operation of the VMS even during extended periods of extremely poor weather conditions, especially in cold climate regions.

The back-up diesel engine is managed by a sophisticated engine management system. This avoids over-charging of the batteries, extending battery life, and avoiding operation of the motor during back-out hours for operation in noise sensitive areas, such as residential areas..

A further sound reduction option is also available.

POWER CHARACTERISTICS

The message board with 3 lines of text each with 9 characters will draw approx 5 amps. The standard battery configuration will operate for up to 40 hours at 10 amps continuous. The two 125 watt solar panels provide, under standard sunny conditions, approx 13 amps.

Therefore, under standard sunny conditions the message board will operate with a surplus of 9 amps to recharge the batteries as a result of night time operation.

The diesel backup system will recharge the batteries to full capacity in less than 3 hours and can operate for over 40 hours of diesel operation (i.e. approx 13 full recharges without refuelling).

The combination of low power usage, high solar output and a diesel backup system means many months of unattended operation.



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FULLY CONFIGURABLE TO SUIT YOUR NEEDS

The new generation VMS can be optioned to suit your specific application. These options include:

- ✘ **Sound reduction option**, which include an enhanced quieter muffler, sound insulation inside the motor compartment, and a sound reduction fibreglass cowl over the motor's air intake manifold.
- ✘ **Swing out-rigger stands**, which allow for easy and fast application of the outrigger legs as well as speedy pack-up for simplified transporting of the unit.
- ✘ **Lift-open Front Panel**, which allows for simpler and easy maintenance and cleaning of the unit's lexan screen for optimal performance.
- ✘ **Integrated Speed Radar**, which allows you to display different messages based on the detected speed, or include the actual speed on the screen. This option also includes a passive logging function which will log vehicle speeds over a 24 hour period that can be downloaded for further analysis.
- ✘ **GSM modem**, which allows for connection via the controlling computer to update and download new messages to the unit via the remote GSM modem installed in the unit.
- ✘ **CDMA modem**, which allows for connection via the controlling computer to update and upload new messages to the unit via the remote CDMA modem installed in the unit when GSM coverage is not available.
- ✘ **Removable Towbar**, which stops unauthorised towing of the VMS unit, since the towbar is removed from the trailer.
- ✘ **GPS Satellite Tracking**, which provides real-time tracking of your VMS unit via satellite tracking. Alarms can be setup so you are alerted as soon as the unit has been moved. Alarms are also available when unauthorised opening of any door on the VMS unit. The GSM modem option is not required with this option since this option includes a GSM modem.
- ✘ **Handheld controller**, which allows via a simple to use handheld controller to change the board's messages to any of the 255 pre-programmed messages within the units memory without the need for a computer connection. This option provides a lower cost field unit to change the board's messages.
- ✘ **240 Volt Power option**, which allows the unit to be powered from a standard domestic 240 volt power outlet.
- ✘ **Battery /Solar Only** option includes a larger battery package and no diesel back-up motor for recharging. The batteries are supported by the two 125 watt solar panels. This option is designed where ultra-quiet operation is mandatory and no motor noise is permitted.
- ✘ **Radial tyres** for improved transportation when unit requires extended towing
- ✘ **Galvanised trailer**,
- ✘ **Leaf springs**.
- ✘ **Choice of colours**.

