



## **HTL LANE & CARRIAGEWAY SIGNALS (LCS)**

**Model: MV LCSXXX** 

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## **About**

## Us

At Harding Traffic, we are more than just a company; we are pioneers in traffic control solutions with a rich history dating back to 1966 when Harding Signals was incorporated. This marked our venture into electronic traffic signals.

In 1997, our area of operations moved away from Traffic Signals and into Electronic Signage and Traffic Management Systems. To reflect this, we changed our name to Harding Electronic Signals Ltd. Harding Traffic's integration into the Traffitech Group in 2007 marked a new era of growth, joining a group of companies boasting a robust financial standing with \$45 million in revenue, assets exceeding \$20 million, and a dedicated team of 180 staff and 6 locations across New Zealand.



Our journey has been marked by a steadfast dedication to innovation and quality, leading the charge in traffic control technology. With 1000's of the country's traffic signs installed by Harding Traffic over 27years, our impact is undeniable. Yet our ambition extends beyond electronic traffic signs; we've become a comprehensive provider of traffic management/warning systems, car park solutions, integrated traffic management solutions, data capture and analytics along with so much more. We are committed to enhancing urban infrastructure with our cutting-edge solutions.

Today, Harding Traffic stands as a testament to over 50 years of expertise in the traffic industry. Our capabilities extend across the design, manufacture, and installation of high quality, specialised traffic systems. This includes everything from Motorway signs and School Zone signs to Rural Interchange Advance Warning Signs, Illuminated Road Stud technologies, car park systems, electronic waning systems and off-street signage. We take pride in serving a diverse clientele that includes NZTA, local Councils and authorities, commercial entities and contractors.

#### **Quality Guaranteed**

Harding Traffic holds AS/NZS 4801 Health and Safety Management certification, ISO 9001 manufacturing quality certification and ISO 14001 Environmental Management System certification. These certifications represent Harding's commitment to providing a consistently high level of service, delivery quality products based on sound management and process controls.



## Our Manufacturing Partnership

At Harding Traffic Ltd, we are proud to celebrate our strong and enduring nine-year partnership with Chainzone Technology, a global leader in LED intelligent traffic management, display, and lighting system solutions. Chainzone's innovative products have reached over 160 countries worldwide, reflecting their exceptional quality, reliability, and reputation in the industry.

Notably, Chainzone was the first Variable Message Sign (VMS) manufacturer in China to achieve the prestigious EN12966:2014 +A1:2018 certification. This milestone, accomplished in 2014, underscores their dedication to adhering to stringent international standards and providing products that deliver unparalleled performance and longevity.

Our collaboration with Chainzone allows us to bring world-class solutions to the New Zealand market. Together, we design, manufacture, and supply tailored products that meet the specific needs of New Zealand clients, including:

- Waka Kotahi NZ Transport Agency
- Local Authorities
- Temporary Traffic Management Companies
- Commercial Customers Across the Nation

Each product is carefully designed and manufactured to comply with New Zealand specifications and regulatory requirements, ensuring that our solutions not only perform reliably but also deliver value to local communities and businesses.

#### **Our Product Range**

We offer a comprehensive portfolio of high-performance traffic management and display solutions, including:

- Variable Message Signs (VMS)
- Lane Control Signs (LCS)
- Advanced Warning Systems (AWS)
- Advanced Warning Variable Message Signs (AWVMS)
- Driver Feedback Signs
- School Zone Signs

At Harding Traffic, we provide full end-to-end services to ensure seamless integration and operation of our solutions. Our dedicated team offers:

- Design Consultation & Requirements Scoping
- Technical Support & Local Assembly
- Product Configuration
- Installation, Commissioning & After-Sales Support

All mains-powered signs are designed and built to comply with New Zealand Electrical Regulations, with full substantiation provided through S-Docs (Supplier Declarations of Conformity). This ensures peace of mind and confidence in the quality and safety of every product.



### Benefits or our VMS Range

#### **Cabinet Construction**

The cabinet of each Variable Message Sign is constructed from high-quality, powder-coated aluminium, delivering strength, durability, and corrosion resistance. The cabinet finish features:

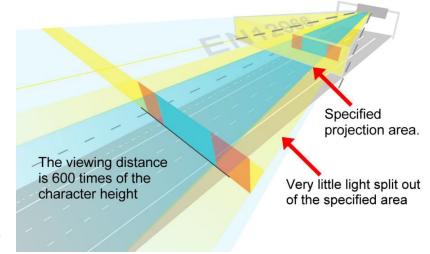
- A matte black front for optimal visual performance and reduced glare.
- An aircraft grey rear for a professional, sleek appearance.

The cabinet is rated to IP65, ensuring reliable operation in harsh weather conditions by providing full protection against dust and water ingress. Additional features include secure door locks and stays for ease of access and maintenance.

#### **Lens Construction**

The advanced optical lens system is engineered to deliver exceptional clarity and visibility under all conditions. Each lens is constructed from anti-UV polycarbonate (PC) material, which prevents cracking and discoloration, even in environments with strong UV exposure.

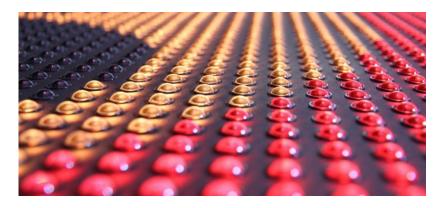
The lenses are fully compliant with EN12966 optical standards, meeting the following performance criteria:



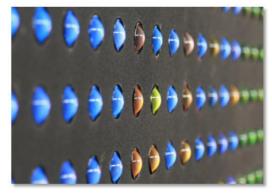
- Brightness (L Rating): Ensures optimal luminance for clear visibility.
- Viewing Angle (B Rating): Provides a wide beam for enhanced coverage.
- Colour Accuracy (C Rating): Maintains vivid, true-to-life colours.
- Contrast Ratio (R Rating): Achieves sharp and clear display output.

Key benefits of the lens design include:

- High Reflective Contrast Performance: The lenses feature very low surface reflectivity combined with a high contrast ratio, delivering extraordinary clarity, even under challenging light conditions.
- **Smooth Lens Surface:** With no grooves or bumps, the lenses prevent snow, dust, or debris from accumulating, ensuring uninterrupted performance.
- **Louver-Free Design:** Thanks to the superior optical performance, there is no need for louver structures to reduce glare. Even under intense direct sunlight or extreme low-angle light (such as in Nordic regions), the display remains sharp and highly visible.











Traditional VMS

#### **EN12966 Certification**

Chainzone's Variable Message Signs are EN12966 certified for multiple pixel sizes, including: P10, 12, 16, 20, 25, and 31.25mm VMS

This certification, issued by the ISTITUTO GIORDANO in Italy, confirms compliance with the following critical performance standards:

Luminance Intensity: Red: >3100 cd/m² | Green: >3720 cd/m² | Yellow: >7400 cd/m² | White: >12400 cd/m²

Contrast Ratio: R2

Beam Width: B6 (Horizontal: 30°, Vertical: -10°)

These standards ensure superior visual performance, reliability, and durability in demanding environments.

#### **Peripheral Components**

Each sign is equipped with advanced sensors and features to ensure reliable and efficient operation, including:

- Dual Light Sensors: Automatically adjust the sign's brightness in response to changing ambient light conditions.
- **Temperature Sensors:** Monitor and regulate the internal temperature of the LED cabinet to prevent overheating.
- Door Sensors: Fitted to each cabinet door to provide security and monitoring.
- Optional Enhancements: Additional features such as surge protection, EMI filters, and ambient temperature sensors can be included to suit specific applications and operating environments.

#### **Low Maintenance**

Chainzone's VMS range is designed with low maintenance and high reliability as key priorities. Features include:

- Minimal Moving Parts: Ensures fewer points of failure and longer service life.
- CE-Rated Power Supplies: Reliable, widely available power supplies from Meanwell ensure easy local sourcing.
- OEM Components: All original parts are readily available through Harding Traffic, ensuring rapid replacements and minimal disruption.



# Sign Specifications

# LANE & CARRIAGEWAY SIGNALS (LCS)

| Display<br>Specifications      | MV LCS600<br>Local urban<br>roads | MV LCS750<br>Rural roads | MV LCS900<br>Tunnels and<br>gated<br>carriageways | MV LCS1200  Motorway and expressway overhead lane signs |
|--------------------------------|-----------------------------------|--------------------------|---|---|
| Pixel Pitch (mm)               | 16                                | 16                       | 16  | 16  |
| Display Area (mm)              | 640 x 640                         | 768 x 768                | 896 x 896   | 1280 x 1280   |
| Screen Resolution (HxW Pixels) | 40 x 40                           | 48 x 48                  | 56 x 56   | 80 x 80   |
| Overall Dimension (HxWxD mm)   | 800 x 800 x 180                   | 800 x 800 x 190          | 1035 x 1035 x<br>190                              | 1400 x 1400 x<br>190                                    |
| Display Colour                 | Full Colour                       |                          |   |   |
| Weight (KG)                    | Approx. 30kg                      | Approx. 30kg             | Approx. 45kg                                      | Approx. 100KG   |
| Working Voltage                | 88V~264V AC                       | 88V~264V AC              | 88V~264V AC                                       | 88V~264V AC   |

