



Ver-Mac's arrowboards combine innovative technology with energy-efficient design and high-quality construction to make the most reliable and cost-effective arrowboards on the market.

# ···· INNOVATIVE TECHNOLOGY

Ver-Mac's in-house R&D department has over 30 hardware and software engineers/technicians focused on continuous product improvement and new product innovation. Our innovative designs and features make Ver-Mac's arrowboards easier to use, more efficient and more cost-effective to operate.

#### **WIRELESS V-TOUCH AB CONTROLLER**

Ver-Mac's arrowboards are controlled with the wireless V-Touch AB controller. It's the industry's most functional and easy-to-use controller!

- The wireless V-Touch AB controller features a 3.75-inch (95 mm) pressure-sensitive black and white display screen.
- Eliminates wire harness reducing installation, maintenance and repair costs.
- The intuitive point-n-go icons allow you to quickly select arrow patterns/mode.
- The backlit screen is perfect for nighttime
- The wireless V-Touch AB controller provides additional functionalities such as lamp diagnostics, settings, battery voltage level, and much more. You will love working with it!



FLASHING	SEQUENTIAL MODES									
MODES	FIRST PULSE	SECOND PULSE	THIRD PULSE							
LEFT AND RIGHT ARROW	SEQUENTIAL ARROW LEF	T AND RIGHT 1								
	• • • • • • • • • • • • • • • • • • •	• • • • • • • •								
DOUBLE ARROW	SEQUENTIAL ARROW LEF	T AND RIGHT 2*								
CAUTION BAR	SEQUENTIAL CHEVRON A	RROW LEFT AND RIGHT*								
FOUR CORNERS	ALTERNATIVE DIAMONDS	*								

- \* Available only on 25-light models Provinces of Canada and international markets may have different configurations Various configurations available to meet your needs

## **SMART ARROWBOARD**

Make your arrowboard part of a Smart Work Zone by adding a modem/sensor package from Ver-Mac. Arrowboards are usually located at the beginning of a lane closure and are positioned to gather vehicle speed data. The modem allows you to connect to our JamLogic software remotely so that you can get traffic data at your fingertips and create an automated smart work zone!

#### STEALTH TECHNOLOGY

Ver-Mac's innovative Stealth Technology design will significantly help reduce your battery maintenance and repair costs. This technology combines two great innovations:

## **SINGLE-MAST DESIGN**

The Ver-Mac single-mast arrowboard trailer design is safer to use and more efficient to store and transport. When in travel position, the arrowboard is protected and wind drag is reduced, therefore significantly reducing maintenance cost. Our innovative arrowboard trailer design allows the users to set the trailer in tight work zones and angle the arrowboard independently towards oncoming traffic.



Cleverly hidden battery compartment—deter thieves from stealing batteries



Long-lasting sealed batteries—no



# ····· ENERGY-EFFICIENT DESIGN

The Opti Power lens, combined with the solar panels, makes Ver-Mac's trailer- and skid-mounted arrowboards the most energy-efficient and cost-effective arrowboards in the industry. They will function continuously in all weather conditions, without the need for manual recharging.

## **OPTI POWER LENS**

Ver-Mac's 15- and 25-light arrowboards feature our exclusive Opti Power lens. Our molded lamps are made of 32 LEDs encapsulated in our Opti Power lens. They are designed to maximize each LED's output and utilize less energy.

#### **SOLAR PANELS**

The solar panels provide maximum solar recharging all year round. They utilize high-performance silicon cells with anti-reflective coating for improved efficiency.





# ···· HIGH-QUALITY CONSTRUCTION

Ver-Mac's completely integrated, in-house manufacturing process ensures that the highest quality materials are used and the most rigorous quality control measures are taken to produce all of our arrowboards. These in-house processes allow Ver-Mac to control and ensure consistent and trouble-free products.

## **IN-HOUSE ELECTRONICS DEPARTMENT**

All Ver-Mac controllers and electronic components are designed and manufactured in house. Having our own electronics department with a state-of-the-art automated soldering system gives Ver-Mac the control and flexibility over the quality and availability of our products.

## **ADVANCED POWDER COATING SYSTEM**

Ver-Mac's powder coating system provides a superior finish and utilizes UV stabilized paint to help prevent fading and protect the finish from impacts, humidity, salt spray and rust. Highway safety orange is the standard color used, but other colors are available to comply with specifications.





# \*\*\* TYPES OF ARROWBOARDS

#### **TRAILER MOUNTED**

Ver-Mac's 15- and 25-light trailer-mounted arrowboards are powered by a combination of solar panels and batteries to provide portable, long-lasting work zone equipment. Our exclusive Stealth Technology design will significantly help reduce your battery maintenance and repair costs. Consult our arrowboard comparative chart to find the Ver-Mac trailer-mounted arrowboard that meets your needs.



#### SKID MOUNTED

Ver-Mac's 15- and 25-light solar powered skid-mounted arrowboards are ideal to be installed in either work zone or attenuator truck beds. Consult our arrowboard comparative chart to find the Ver-Mac skid-mounted arrowboard that meets your needs.





#### **VEHICLE MOUNTED**

Ver-Mac's 14-, 15- and 25-light vehicle-mounted arrowboards are powered by the truck's battery. Our arrowboards can be mounted on a variety of vehicles as we offer a wide range of mounting brackets for the perfect installation. Our wireless V-Touch AB controller that plugs into the vehicle cigarette lighter makes installation quick and easy. Consult our arrowboard comparative chart to find the Ver-Mac vehicle-mounted arrowboard that meets your needs.





	COMPARAT	IVE C	HART															
TYPE OF MOUNT	MODEL NO.	NUMBER OF LIGHTS			PANEL DIMENSIONS	STEALTH TECHNOLOGY STANDARD STEALTH TECHNOLOGY												
		14	15	25	(H × W)	Wireless V-Touch AB	Solar and batteries	Truck's battery	Single-mast	Cage	Theft-deterrent system / maintenance-free batteries	Highway const.	DOT	City and county	Utility	Attenuator truck/trailer	Striping truck	Smart Work Zone
ER	ST-4815		•		48" x 96" 1219 mm x 2438 mm	•	•		•	•	•	•	•	•	•			•
TRAILER	ST-4825			•	48" x 96" 1219 mm x 2438 mm	•	•		•	•	•	•	•	•	•			•
SKID	SM-4815		•		48" x 96" 1219 mm x 2438 mm	•	•			•		•	•	•	•	•		
SK	SM-4825			•	48" x 96" 1219 mm x 2438 mm	•	•			•		•	•	•	•	•		
	VM-14/42L	•			25 1/2" x 58" 648 mm x 1473 mm	•		•				•	•	•	•			
	VM-4815		•		48" x 96" 1219 mm x 2438 mm	•		•				•	•	•	•	•	•	
	VM-4825			•	48" x 96" 1219 mm x 2438 mm	•		•				•	•	•	•	•	•	
VEHICLE	VM-367215		•		36" x 72" 914 mm x 1829 mm	•		•				•	•	•	•		•	
^	VM-367225			•	36" x 72" 914 mm x 1829 mm	•		•				•	•	•	•		•	
	VM-306015		•		30" x 60" 762 mm x 1524 mm	•		•				•	•	•	•			
	VM-306025			•	30" x 60" 762 mm x 1524 mm	•		•				•	•	•	•			



# ••••• CONTACT INFORMATION

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•••• MESSAGE SIGN SERIES

Ver-Mac's message signs combine innovative technology with energyefficient design and high-quality construction to make the most reliable and cost-effective message signs on the market.

# ···· INNOVATIVE TECHNOLOGY

Ver-Mac's in-house R&D department has over 30 hardware and software engineers/technicians focused on continuous product improvement and new product innovation. Our innovative designs and features make Ver-Mac's message signs easier to use, more efficient and more cost-effective to operate.

#### **V-TOUCH CONTROLLER**

Ver-Mac's message signs are controlled with the V-Touch graphic touch-screen controller\*. The V-Touch controller is NTCIP compliant and features an easy-to-read 7-inch (178 mm) color LCD display screen. It's the industry's most functional and easy-to-use controller.



# HOME PAGE

Displays real-time message, battery and solar voltage and one-touch arrow display icons.



#### MESSAGE CREATOR/EDITOR

Large touch keypad and intuitive icons make creating/editing and displaying a message quick and easy.



## MESSAGE LIBRARY

View all created messages and display with double touch of selected message.



#### **OPTIONS AND PARAMETERS**

Quickly navigate to manage and maintain: schedule, brightness, security, graphics, and more.

## **JAMLOGIC® FLEET MANAGEMENT SOFTWARE**

Equip any Ver-Mac message sign with our high-speed modem with GPS and maximize your productivity, efficiency and profitability! Monitor, maintain and manage your signs from any PC, laptop, tablet or smartphone!

#### JAMLOGIC FEATURES

- View a list and a GPS map of your equipment
- Change a message on one or more signs simultaneously with a simple click
- View your messages and battery voltages
- Monitor any issues instantly with our color-coded system
- Group your signs in folders by customer, location or project
- Create your own message library
- Schedule your messages daily, weekly or monthly
- View your PCMS messages, sensor data and camera images on a single screen
- Generate/export customized traffic statistics and graphs
- Generate/export maintenance events done on your equipment
- Automated messaging for Smart Work Zones—optional



#### JAMLOGIC ALERTS AND UPDATES (OPTIONAL)

Manage your fleet more effectively in real time with JamLogic alerts and updates.

## Receive e-mail alerts or text messages

- Low battery voltage or cellular failure warning
- Tracking of any change to the GPS coordinates of your equipment

# Update your JamLogic screen automatically

- Battery voltage
- Messages being displayed
- GPS location... and much more

#### JAMLOGIC MOBILE

Manage your fleet from your tablet or smartphone.



# STEALTH TECHNOLOGY

Ver-Mac's innovative Stealth Technology design will significantly help reduce your battery maintenance and repair costs. This technology combines two great innovations:



Cleverly hidden battery compartment—deter thieves from stealing batteries



Long-lasting sealed batteries—no maintenance required



standard design



design with stealth technology

# ···· ENERGY-EFFICIENT DESIGN

The Opti Power lens, combined with the Tilt-and-Rotate solar panels, make Ver-Mac message signs the most energy-efficient and cost-effective message signs in the industry. With the proper combination of solar panels and batteries, Ver-Mac message signs will function continuously in all weather conditions, without the need for manual recharging.

#### **OPTI POWER LENS**

Ver-Mac message signs feature the exclusive Opti Power lens, which is designed to maximize each LED's output and utilize less energy. The encapsulated lens creates a bolder and brighter character and improves sign legibility during daylight or nighttime conditions.



#### **TILT-AND-ROTATE SOLAR PANELS**

The Tilt-and-Rotate solar panels provide maximum solar recharging all year round. Tilt the panels to a 45-degree angle and rotate them to the south to maximize the solar recharging. Ver-Mac solar panels utilize high-performance silicon cells with anti-reflective coating for improved efficiency.



# ···· HIGH-QUALITY CONSTRUCTION

Ver-Mac's completely integrated, in-house manufacturing process ensures that the highest quality materials are used and the most rigorous quality control measures are taken to produce all of our message signs. These in-house processes allow Ver-Mac to control and ensure consistent and trouble-free products.

## **IN-HOUSE ELECTRONICS DEPARTMENT**

All Ver-Mac controllers and electronic components are designed and manufactured in house. Having our own electronics department with a state-of-the-art automated soldering system gives Ver-Mac the control and flexibility over the quality and availability of our products.



#### **ADVANCED POWDER COATING SYSTEM**

Ver-Mac's powder coating system provides a superior finish and utilizes UV-stabilized paint to help prevent fading and protect the finish from impacts, humidity, salt spray and rust. Highway safety orange is the standard color used, but other colors are available to comply with specifications.



# ····· TYPES OF MESSAGE SIGNS

#### TRAILER MOUNTED

Ver-Mac trailer-mounted message signs are powered by a combination of solar panels and batteries to provide portable and long-lasting equipment. Ver-Mac manufactures four types of Portable Changeable Message Signs (PCMS):

- Three-line message signs¹ Provide three lines of text with eight characters per line.
- Full-matrix message signs<sup>2</sup> Provide a minimum of three lines of text with eight characters per line plus displays graphics and symbols.
- Full-matrix message signs with Rainbow technology<sup>3</sup> It's the industry's first RGB PCMS with over 16,000 colors to design or create your special color message on the sign.
- Full-matrix message signs with high-definition display<sup>4</sup> Provide a sharper more detailed text and graphic display, and can display up to 5 lines and 17 characters per line.

Consult our message sign comparative chart to find the Ver-Mac trailer-mounted message sign that meets your needs.



## TRUCK MOUNTED<sup>5</sup>

Ver-Mac truck-mounted message signs are attached via a manual or electric bracket to the truck bed or roof and powered by a connection to the truck's battery. Ver-Mac offers the truck-mounted message signs in full-matrix display to easily accommodate arrow sequences. A wireless controller that plugs into the vehicle cigarette lighter is an option that makes installation quick and easy. Consult our message sign comparative chart to find the Ver-Mac truck-mounted message sign that meets your needs.



## **POST MOUNTED (SEMI-PERMANENT SIGNS)**6

Using the same robust sign and controller as our portables, Ver-Mac semi-permanent message signs are a cost-effective alternative to large walk-in enclosures. The signs come with clamping devices for pole mounting or Z-bars for cantilever mounting. They are typically powered by a 220V connection but can be solar and battery powered. Consult our message sign comparative chart to find the Ver-Mac semi-permanent message sign that meets your needs.





# **MESSAGE SIGN COMPARATIVE CHART**

			DISPLAY									APPLICATIONS							
TYPE OF MOUNT	MODEL#	SIZE	3-LINE	FULL-MATRIX	FULL-MATRIX WITH RAINBOW TECHNOLOGY	FULL-MATRIX WITH HIGH-DEFINITION CARDS	OPTI POWER LENS	PIXELS (H X W)	PANEL DIMENSIONS* (H X W)	CONTROLLER	NTCIP COMPLIANT	HIGHWAY CONST.	DOT	CITY & COUNTY (URBAN ZONES)	SCHOOL ZONES	LAW ENFORCEMENT	SMART WORK ZONE	SPECIAL EVENTS	
	PCMS-1210QS	Large	•				•	N/A	71" x 133" 1800 mm x 3383 mm	Quick step		•	•				•	•	
	PCMS-1210	Large	•				•	N/A	71" x 133" 1800 mm x 3383 mm	V-Touch	•	•	•				•	•	
	PCMS-1500C	Extended	•	•			•	30 x 56	83" x 145" 2100 mm x 3694 mm	V-Touch	•	•	•				•	•	
TRAILER MOUNTED	PCMS-1500LP	Large	•	•			•	28 x 48	76" x 131" 1922 mm x 3326 mm	V-Touch	•	•	•				•	•	
TRAILER	PCMS-320	Mid	•	•			•	30 x 48	63" x 98" 1605 mm x 2497 mm	V-Touch	•	•	•	•	•	•	•	•	
	PCMS-320RT	Mid	•		•			30 x 48	66" x 104" 1680 mm x 2648 mm	V-Touch	•		•	•	•		•	•	
	PCMS-548	Mini	•	•				30 x 56	45" x 80" 1146 mm x 2027 mm	V-Touch	•			•	•	•		•	
	PCMS-4880	Mini HD	•			•		48 x 80	36" x 56" 926 mm x 1422 mm	V-Touch	•			•	•	•		•	
NTED	TM-4064	Mid	•	•				40 x 64	60" x 91" 1530 mm x 2300 mm	V-Touch	•	•	•	•					
TRUCK MOUNTED	TM-548	Mini	•	•				30 x 56	42" x 74" 1060 mm x 1867 mm	V-Touch	•	•	•	•					
TRUC	TM-2056	Mini	•	•				20 x 56	34" x 81" 865 mm x 2045 mm	V-Touch	•	•	•	•					
	B-1500C	Extended	•	•			•	30 x 56	83" x 145" 2100 mm x 3694 mm	V-Touch	•	•	•	•			•		
OUNTED	B-1500	Large	•	•			•	30 x 48	85" x 133" 2167 mm x 3383 mm	V-Touch	•	•	•	•			•		
POST MOUNTED	B-320	Mid	•	•			•	30 x 48	63" x 98" 1605 mm x 2497 mm	V-Touch	•	•	•	•			•		
	B-548	Mini	•	•				30 x 56	45" x 80" 1146 mm x 2027 mm	V-Touch	•			•					

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\*Panel dimensions are taken from outside to outside and may vary if options are added



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Ver-Mac's traffic signals combine innovative technology, energy-efficient design and high-quality construction to make them the most reliable and cost-effective traffic signals on the market. Ver-Mac's traffic signals are available in two different technologies for phasing the signals (TLD, TLG), and each technology is available on different trailer/trolley models.

# ···· TLD MODELS

The TLD models are our most technologically advanced and secure systems. They use radio communication between signals to phase the systems and monitor for conflicts or failures. Constant radio communication between the primary and secondary signals ensures that drivers are always receiving accurate information. Our TLD models feature:

**SECURITY** – The instant conflicts or failures are detected—the entire system will revert to flashing red.

**SCALABILITY** – From one unit to multiple units.

**FLEXIBILITY** – 5 traffic patterns to choose from (Single Light, Shuttle, Two-Way, T-Junction and Crossroads).

**RELIABILITY** – Our TLD trailers are designed with Tilt-and-Rotate solar panels to maximize sun exposure and battery life. No generator is required.

INNOVATIVE TECHNOLOGY – The V-Touch TLD graphic controller features an advanced 7 in. (178 mm) color LCD pressure-sensitive display screen.

#### **V-TOUCH TLD CONTROLLER**

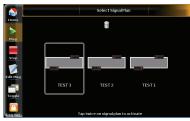
- Intuitive point-n-go icons / no training required
- Easy pattern selection and configuration
- Create, modify and save traffic pattern plans
- Schedule plans daily, weekly, monthly
- Quick-step programming and sequencing
- Ability to control multiple units
- Compatible with all Ver-Mac's TLD units



REAL-TIME SIGNAL DISPLAY



**CHOOSE FROM 5 DIFFERENT PATTERNS** 



CREATE MULTIPLE SIGNAL PLANS



MULTIPLE OPTIONS AVAILABLE

# ···· TLG MODELS

The TLG models utilize a Global Positioning System (GPS) to synchronize each TLG unit to ensure that the two signals operate in unison. Our TLG family of signals are ideal for quick installation and are extremely cost effective. Our TLG models feature:

SIMPLICITY – Perfect to manage traffic in single-lane application types such as city streets and secondary roads.

**ECONOMY** – Best value for money on the market!

**INNOVATIVE TECHNOLOGY** – Our V-Touch TLG graphic controller features a compact 3.75 in. (95 mm) black and white pressure-sensitive display screen.

#### **V-TOUCH TLG CONTROLLER**

- Intuitive point-n-go icons / no training required
- Continuously displays actual mode, status and battery voltage level
- 4 different options for quick and easy programming:
  - By distance
  - By time
  - Preprogrammed
  - Advanced





INCREASE THE SAFETY OF OUR ROADS AND SAVE LABOR COSTS WITH VER-MAC'S TECHNOLOGICALLY ADVANCED TRAFFIC SIGNALS

# \*\*\*\* MULTIPLE OPTIONS TO ENHANCE YOUR EXPERIENCE

## TRAFFIC DETECTION

Automatically detects vehicles and adjusts the timing based on the traffic volume. Greatly helps enhance traffic flow.

# **PRE-EMPTION**

Automatically detects emergency vehicles to provide a green light in the travel direction.





## **MANUAL CONTROL**

Allows you to stop/start traffic simply by pushing the red button. Perfect when you need to let a truck cross the street.

## **REMOTE CONTROL**

Equip your traffic signals with a GPS high-speed modem and get access to our free JamLogic software.

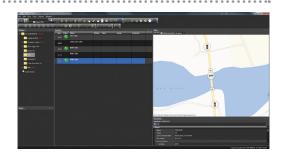






## **JAMLOGIC SOFTWARE**

- Remotely program your traffic signals in advance
- Receive e-mail or text alerts (signal head malfunction, low battery, etc.)
- Perform diagnostics, get current power level status and power history
- View your equipment in a list and GPS map view



# ····· TYPES OF TRAFFIC SIGNALS

#### TRAILER MOUNTED

#### TLD-3612

Ver-Mac's TLD-3612 comes in a set of two portable traffic signal trailers with two signal heads on each. The TLD-3612 is solar and battery powered. It comes standard with 12 in. (305 mm) LED lights and our innovative V-Touch TLD controller. Synchronization is maintained through radio communication and multiple units can be controlled. Consult our traffic signal comparative chart to find the product that meets your needs.

#### **TLD-2312**

Ver-Mac's TLD-2312 comes in a set of two portable traffic signal trailers with one signal head on each. The TLD-2312 is solar and battery powered. It comes standard with 12 in. (305 mm) LED lights and our innovative V-Touch TLD controller. Synchronization is maintained through radio communication and multiple units can be controlled. Consult our traffic signal comparative chart to find the product that meets your needs.

## TROLLEY MOUNTED

#### TLD-1308/TLD-1312

Ver-Mac's TLD-1308 and TLD-1312 come in a set of two portable traffic signal trolleys with one signal head on each. They are both powered by 12-volt deep-cycle batteries. The TLD-1308 comes with 8 in. (203 mm) LED lights and TLD-1312 with 12 in. (305 mm) LED lights. They are both equipped with our innovative V-Touch TLD controller and synchronization is maintained through radio communication. Multiple units can be controlled. Consult our traffic signal comparative chart to find the product that meets your needs.

#### TLG-1408/TLG-1412

Ver-Mac's TLG-1408 and TLG-1412 come in a set of two portable traffic signal trolleys with one signal head on each. They are both powered by 12-volt deep-cycle batteries. TLG-1408 comes with 8 in. (203 mm) and TLG-1412 with 12 in. (305 mm) LED lights. They are both equipped with our innovative compact V-Touch TLG controller and synchronization is maintained through GPS communication. Consult our traffic signal comparative chart to find the product that meets your needs.







	COMPAR	RATIV	E CHA	RT														
-		NUMBER OF HEADS			E OF IGHTS	IUNICATION	VTROL S		SEGMENTS									
TYPE OF MOUNT	MODEL#	1	ABILITY TO COMMUNICATION  ABILITY TO CONTROL  MULTIPLE UNITS  TYPE OF COMMUNICATION  ABILITY TO CONTROL		POWER SUPPLY	Highway const.	Bridge const.	Special event traffic control	Power outage	Secondary roads	Urban Work Zone							
TRAILER	TLD-3612		•		•	Radio communication	•	Solar and batteries	•	•	•	•						
TRAI	TLD-2312	•			•	Radio communication	•	Solar and batteries	•	•	•			•				
	TLD-1308	•		•		Radio communication	•	Batteries		•	•		•	•				
LEY	TLD-1312	•			•	Radio communication	•	Batteries		•	•		•	•				
TROLLEY	TLG-1408	•		•		GPS synchronization		Batteries			•		•	•				
	TLG-1412	•			•	GPS synchronization		Batteries			•		•	•				



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