

# Warning VATCS

DYNAMIC CURVE SERIES - CANADA

*Independently-proven\* vehicle  
activated LED traffic calming sign  
solution for managing excessive  
speed and reducing traffic fatalities in  
both rural and urban roadway  
applications*

*\* refer to TRL548 report*



VATCS are the only traffic calming display technology that has been federally field tested\* on a large scale to prove long term effectiveness, with driver respect of the technology being maintained over a 5 year period.



VATCS displays have been selected to be nationally tested by FHWA across 8 states and have become the new industry standard in our home province of Ontario, with growing numbers in Alberta and British Columbia.

All Dorman Varitext dynamic curve warning VATCS signs employ microwave doppler radar to detect vehicle approach speeds and in line with the core MUTCD philosophy of a consistent road speed management strategy, utilize horizontal curve warning diagrams that are already recognized in the MUTCD. The dynamic curve warning VATCS are installed in advance of the curve and downstream and in tandem with existing static warning signage so that targeted drivers are not informed what speed they are travelling, rather they are advised of the approaching hazard with request to SLOW DOWN further enhanced by dynamic flashing pairs of horizontal beacons. The VATCS are not a replacement for static signage or to be used as a repeater



Unique technology

Independently proven as long term effective

11 kph average speed reduction maintained over 5 year period

1/3rd accident rate reduction attained over 5 year period

MUTCD Compliant

Based on core MUTCD philosophy of consistent driver information

High intensity ITE color tested LED display, auto dimming

FCC compliant technology

Flexibility to adjust trigger speed to specific applications

Optional upgrade to remote internet access via Dorman Gateway

Flashing beacons provide dynamic element to sign face

Plug and play install (all cables, brackets provided)

Wireless Speed Data logging

Solar and AC 110V dual power source as standard

Robust Vandal resistant NEMA Type 3S rated housing

60cm and 75cm sign sizes for WA-1, WA-2, WA-3, WA-4, WA-5 and WA-6 models

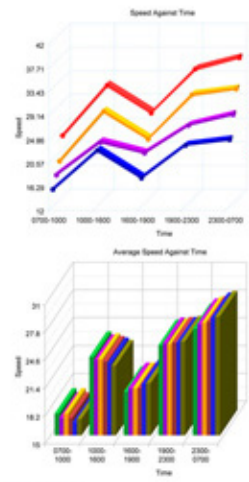
Optional dual directional curve models available



All VATCS come as standard with NEMA Type 6P modular plug and play install kit allowing simple and secure band mounted mechanical install and electrical connection. No special tools required for set up.

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## OPERATION

The VATCS sign is designed to operate in both ACTIVE and STEALTH Mode.

**STEALTH MODE** is used to allow client to attain a baseline of road speed from the VATCS without the VATCS displaying any visual warning to the approaching traffic.

Once collected this base data can be compared against existing historic data and then importantly used to evaluate performance of the sign in ACTIVE MODE.

Once in ACTIVE MODE the sign upon detecting an approach speed above the pre-configured trigger speed will cause the warning display to be illuminated for 3.5 seconds giving driver sufficient time to adjust behaviour appropriately. When vehicles are travelling below the trigger speed the sign will remain entirely blank, importantly the warning message is only targeted at offending vehicles. Trigger speeds are selected from a preprogrammed table and it is normal practice for curve warning sign applications to set this to 10% + 2 above the posted speed limit or at the 50th percentile approach speed to the curve if known.

All VATCS are supplied with full operator manual which contains a guide to installation and set up best practices which it is recommended are followed to ensure optimal performance and results.

## SPECIFICATIONS

<b>Model Reference</b>	Warning VATCS - Dynamic Curve Series VATCS/WA-XLR/SD/L/DL/PT
<b>Display Technology</b>	ITE color tested high intensity LED display. Optical performance in compliance with MUTCD and TR2136C, Auto Luminosity control to suit ambient light conditions.
<b>Display Format</b>	Color inverted MUTCD horizontal curve warning diagram, (600 x 600mm) and (750 x 750mm) diagram size options, complete with matching amber Slow Down Message and flashing beacon pairs.  Slow Down text height 100mm and 150mm to suit (600 x 600mm) and (750 x 750mm) model sizes. Beacon size 125mm diameter.
<b>Vehicle Detection</b>	FCC compliant K band radar microwave vehicle detector integrated into the sign, factory preset range of 600 feet /190 metres, Speed range of 5 to 150mph (8 to 240kph). 12 degree beam accuracy +/- 1 unit of measure. Simple set up.
<b>Model Dimensions</b>	(600 x 600mm) Size 1681mm high x 956mm wide x 150mm deep. (750 x 750mm) Size 1881mm high x 1156mm wide x 150mm deep.
<b>Model Weights</b>	(600 x 600mm) Size 45 kg [plus batteries in case of solar] (750 x 750mm) Size 60 kg [plus batteries in case of solar]
<b>Power Supply</b>	Display is dual Solar DC and AC 110V compatible as standard. In the case of Solar power installs SP80S4 solar kits should be ordered for each sign comprising 80W panel, side of pole mount and 4 x 12V 20amp/hr battery reservoir which are mounted internal to sign. Important for 24/7/365 solar operation, solar panel must be facing due south and have clear unobstructed view of sky with no shadowing. Power Consumption Max 100W.
<b>Data logging and Analysis Software</b>	DVNA's unique data logging software interfaces to the sign via Bluetooth™ connection with hand held PDA. Software records date, time, and speed of oncoming vehicles. Information can be remotely downloaded into Excel for analysis. Standard memory provides for 11 Million vehicle data entries.
<b>Enclosure</b>	Purpose fabricated lightweight vandal resistant NEMA Type 3S ingress rated enclosure
<b>Finish</b>	Matt Black front face Aircraft Grey rear powder coat finish or color to suit, 60 micron min thickness.
<b>Window</b>	5mm anti reflective Polycarbonate
<b>Operating Temp Range</b>	-35 to + 74°C , 95% non condensing
<b>Mechanical Interface</b>	Sign will be supplied equipped with 4 No SX0220 channel banding interface brackets as standard to allow 3/4" band mounting to a variety of support posts. Solar Panel equipment is supplied with side pole mount to allow 3/4" banding. The Sign fix channel runs full width of sign to allow offset mounting if required.
<b>Electrical Interface</b>	Cable kits are supplied to facilitate plug and play connection to solar panel and sign. Sign also equipped on rear with naked AC plug and socket Type 6P connection and separate 20mm knock out for conduit cable entry. Dust Caps are supplied to protect any unused sockets. Internal power connections are screw terminal.



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# Canada Dynamic Curve Warning VATCS

## Uniplan Product Coding

Vehicle Activated Traffic Calming Signs



MUTCD code ref.	LEFT TURN	DUAL DIRECTION DISPLAY	RIGHT TURN	MUTCD code ref.
<b>Wa-1L</b>  <b>Turn</b>	Single Direction Left Curve Model: VATCS/Wa-1L/SD/L/DL/PT  Uniplan Part Number: WWWa-1L-SLDPCAP (600 x 600 Size) WWWa-1L-SLDPCBP (750 x 750 Size)	Dual Direction Curve Model: VATCS/Wa-1LR/SD/L/DL/PT  Uniplan Part Number: WWWa-1LRSLDPCAP (600 x 600 Size) WWWa-1LRSLDPCBP (750 x 750 Size)	Single Direction Right Curve Model: VATCS/Wa-1R/SD/L/DL/PT  Uniplan Part Number: WWWa-1RSLDPCAP (600 x 600 Size) WWWa-1RSLDPCBP (750 x 750 Size)	<b>Wa-1R</b>  <b>Turn</b>
<b>Wa-2L</b>  <b>Sharp Curve</b>	Single Direction Left Curve Model: VATCS/Wa-2L/SD/L/DL/PT  Uniplan Part Number: WWWa-2L-SLDPCAP (600 x 600 Size) WWWa-2L-SLDPCBP (750 x 750 Size)	Dual Direction Curve Model: VATCS/Wa-2LR/SD/L/DL/PT  Uniplan Part Number: WWWa-2LRSLDPCAP (600 x 600 Size) WWWa-2LRSLDPCBP (750 x 750 Size)	Single Direction Right Curve Model: VATCS/Wa-2R/SD/L/DL/PT  Uniplan Part Number: WWWa-2RSLDPCAP (600 x 600 Size) WWWa-2RSLDPCBP (750 x 750 Size)	<b>Wa-2R</b>  <b>Sharp Curve</b>
<b>Wa-3L</b>  <b>Curve</b>	Single Direction Left Curve Model: VATCS/Wa-3L/SD/L/DL/PT  Uniplan Part Number: WWWa-3L-SLDPCAP (600 x 600 Size) WWWa-3L-SLDPCBP (750 x 750 Size)	Dual Direction Curve Model: VATCS/Wa-3LR/SD/L/DL/PT  Uniplan Part Number: WWWa-3LRSLDPCAP (600 x 600 Size) WWWa-3LRSLDPCBP (750 x 750 Size)	Single Direction Right Curve Model: VATCS/Wa-3R/SD/L/DL/PT  Uniplan Part Number: WWWa-3RSLDPCAP (600 x 600 Size) WWWa-3RSLDPCBP (750 x 750 Size)	<b>Wa-3R</b>  <b>Curve</b>
<b>Wa-4L</b>  <b>Sharp Reverse Curve</b>	Single Direction Left Curve Model: VATCS/Wa-4L/SD/L/DL/PT  Uniplan Part Number: WWWa-4L-SLDPCAP (600 x 600 Size) WWWa-4L-SLDPCBP (750 x 750 Size)	Dual Direction Curve Model: VATCS/Wa-4LR/SD/L/DL/PT  Uniplan Part Number: WWWa-4LRSLDPCAP (600 x 600 Size) WWWa-4LRSLDPCBP (750 x 750 Size)	Single Direction Right Curve Model: VATCS/Wa-4R/SD/L/DL/PT  Uniplan Part Number: WWWa-4RSLDPCAP (600 x 600 Size) WWWa-4RSLDPCBP (750 x 750 Size)	<b>Wa-4R</b>  <b>Sharp Reverse Curve</b>
<b>Wa-5L</b>  <b>Reverse Curve</b>	Single Direction Left Curve Model: VATCS/Wa-5L/SD/L/DL/PT  Uniplan Part Number: WWWa-5L-SLDPCAP (600 x 600 Size) WWWa-5L-SLDPCBP (750 x 750 Size)	Dual Direction Curve Model: VATCS/Wa-5LR/SD/L/DL/PT  Uniplan Part Number: WWWa-5LRSLDPCAP (600 x 600 Size) WWWa-5LRSLDPCBP (750 x 750 Size)	Single Direction Right Curve Model: VATCS/Wa-5R/SD/L/DL/PT  Uniplan Part Number: WWWa-5RSLDPCAP (600 x 600 Size) WWWa-5RSLDPCBP (750 x 750 Size)	<b>Wa-5R</b>  <b>Reverse Curve</b>
<b>Wa-6L</b>  <b>Winding Road</b>	Single Direction Left Curve Model: VATCS/Wa-6L/SD/L/DL/PT  Uniplan Part Number: WWWa-6L-SLDPCAP (600 x 600 Size) WWWa-6L-SLDPCBP (750 x 750 Size)	Dual Direction Curve Model: VATCS/Wa-6LR/SD/L/DL/PT  Uniplan Part Number: WWWa-6LRSLDPCAP (600 x 600 Size) WWWa-6LRSLDPCBP (750 x 750 Size)	Single Direction Right Curve Model: VATCS/Wa-6R/SD/L/DL/PT  Uniplan Part Number: WWWa-6RSLDPCAP (600 x 600 Size) WWWa-6RSLDPCBP (750 x 750 Size)	<b>Wa-6R</b>  <b>Winding Road</b>

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