

Regulatory VATCS

POSTED SIGN SERIES

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



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 for display based traffic calming applications in North America

All Dorman regulatory VATCS units 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 R2-1 speed limit diagrams that are already recognized in the MUTCD.

Targeted drivers are not informed what speed they are travelling, rather they are advised of the regulatory posted speed limit with the request to "SLOW DOWN" further enhanced by dynamic flashing pairs of horizontal beacons. The VATCS series are used in tandem with existing static school zone signage being deployed downstream as a targeted reminder and not to be used as a replacement for the static signage.



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.

- Independently proven to be long term effective
- 4mph reduction on average speed maintained after 3 years - TRL 548 report
- 1/3rd drop in accident rate after 3 years- TRL 548 report
- Dynamic flashing beacons
- MUTCD compliant
- Clear speed management strategy in line with MUTCD
- Dual speed diagram models available for school zones

Regulatory VATCS - Posted Speed Series Specifications

| | |
|---|---|
| Model Reference | Regulatory VATCS – Posted Speed Series VATCSR2-I,X,Y/SD/L/DL/PT (Single or Dual Speed Diagram) |
| Display Technology | ITE color tested high intensity LED display. Optical performance in compliance with FHWA MUTCD and TR2136C, Auto Luminosity control to suit ambient light conditions. |
| Display Format | Color inverted MUTCD speed limit diagram, R2-1 (24") and (18") size options, dual speed limits combined together in one sign or single limit displays, complete with matching Slow Down message and amber flashing beacon pairs. |
| | Slow Down text height 3" and 4" to suit both 18" and 24" model sizes respectively. Beacon size 4" and 5" diameter respectively. |
| Vehicle Detection | FCC compliant K band radar microwave vehicle detector integrated into the sign, factory preset range of 600 feet / 190Metres. Speed range of 5 to 150mph (8 to 240kmh). 12 degree beam accuracy +/- 1 unit of measure. Simple set up. |
| Model Dimensions | 24" Size 60" (1510mm) high x 35" (875mm) wide x 6" (160mm) deep 18" Size 46" (1150mm) high x 24" (610mm) wide x 6" (160mm) deep |
| Model Weights | 24" Size 90lbs (plus batteries in case of solar) 18" Size 60lbs (plus batteries in case of solar) |
| Power Supply | Display is dual Solar DC and AC 110V compatible as standard. In the case of Solar power installs SP8054 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. |
| Data logging and Analysis Software | Dorman's unique data logging software interfaces to the sign via Bluetooth™ connection with netbook or 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. |
| Scheduling | Dorman's unique VAMP scheduling software allows operation of the sign to be automated to specific school zone schedule requirements to target operation of sign. Operator can schedule 10 different switching intervals per day and 40 exception periods per year plus weekends. |
| Enclosure | Purpose fabricated lightweight vandal resistant NEMA Type 3S ingress rated enclosure. |
| Finish | Mat Black front face Aircraft Grey rear powder coat finish or color to suit, 60 micron min thickness. |
| Window | ¼" (5mm) anti reflective Polycarbonate. |
| Operating Temp Range | -30 C to 165 F, 95% non condensing. |
| Mechanical Interface | <u>Two mounting options are available:</u> (1) Sign will be supplied equipped with sign fix U channel supports on rear and SX0220 channel banding interface brackets to allow ¾" band mounting to a variety of support posts. (2) Sign will be equipped with horizontal Z bracket mountings on rear which are then drilled to suit post by installer and sign is then clamp mounted by stainless steel U bolts (Not supplied). Solar Panel equipment is supplied with side pole mount to allow ½" banding. |
| Electrical Interface | 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 ¾" knock out for conduit cable entry. Dust Caps are supplied to protect any unused sockets. Internal power connections are screw terminal. |

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.

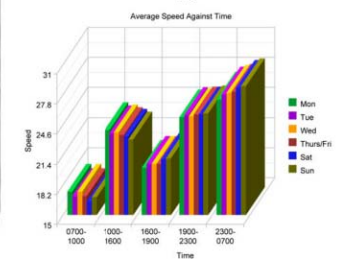
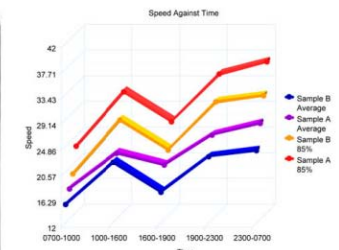
Once collected this base data can be compared against historic data and then importantly used to evaluate performance of the sign in ACTIVE mode.

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. It is normal practice for curve warning sign applications to set this to 10% + 2mph (e.g. In a posted 30mph zone, the sign would be set to trigger at 35mph).

Optional VAMP© desktop scheduling software allows the operator to automate sign operation to school calendar in dual diagram VATCS models. Schedules are uploaded to the signs via netbook or PDA using Bluetooth to reflect regulatory conditions.

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.




















Posted Speed Limit VATCS

Uniplan Product Coding

Vehicle Activated Traffic Calming Signs



| SINGLE POSTED SPEED | | DUAL POSTED SPEED | |
|---|---|---|--|
|  | <p>Model: VATCSR2-1,20/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1C-SLDPCBP (24" x 30" Size) RVR2-1C-SLDPCAP (18" x 24" Size)</p> |   | <p>Model: VATCSR2-1,20,25/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1CDSLDPCCBP (24" x 30" Size) RVR2-1CDSLDPCCAP (18" x 24" Size)</p> |
|  | <p>Model: VATCSR2-1,25/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1D-SLDPCBP (24" x 30" Size) RVR2-1D-SLDPCAP (18" x 24" Size)</p> |   | <p>Model: VATCSR2-1,20,30/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1CESLDPCBP (24" x 30" Size) RVR2-1CESLDPCAP (18" x 24" Size)</p> |
| SCHOOL ZONE | | | |
|  | <p>Model: VATCSR2-1,30/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1E-SLDPCBP (24" x 30" Size) RVR2-1E-SLDPCAP (18" x 24" Size)</p> |   | <p>Model: VATCSR2-1,20,35/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1CFSLDPCCBP (24" x 30" Size) RVR2-1CFSLDPCCAP (18" x 24" Size)</p> |
|  | <p>Model: VATCSR2-1,35/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1F-SLDPCBP (24" x 30" Size) RVR2-1F-SLDPCAP (18" x 24" Size)</p> |   | <p>Model: VATCSR2-1,30,35/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1EFSLDPCBP (24" x 30" Size) RVR2-1EFSLDPCAP (18" x 24" Size)</p> |
|  | <p>Model: VATCSR2-1,40/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1G-SLDPCBP (24" x 30" Size) RVR2-1G-SLDPCAP (18" x 24" Size)</p> |   | <p>Model: VATCSR2-1,20,35/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1CGSLDPCCBP (24" x 30" Size) RVR2-1CGSLDPCCAP (18" x 24" Size)</p> |
| | |   | <p>Model: VATCSR2-1,30,40/SD/L/DL/PT</p> <p>Uniplan Part Number: RVR2-1EGSLDPCCBP (24" x 30" Size) RVR2-1EGSLDPCCAP (18" x 24" Size)</p> |