

Warning VATCS – Advance Traffic Control Series

Targeting excessive speed on approach to road hazards with Advance Warning VATCS where deemed necessary to improve safety for all road users



Hazard specific

Independently proven to be long term effective

Dynamic flashing beacons attract drivers attention

Targeted, drivers wont tune out and respond well to reasoned message

Clear speed management strategy in line with MUTCD



Improve Intersection Safety

Advance traffic control VATCS signs employ microwave doppler radar to detect vehicle approach speeds and in line with the core MUTCD philosophy of consistent road speed management strategy, utilize advance traffic control warning diagrams that are already recognized in the MUTCD.

The VATCS may be installed in advance of a primary traffic control device (eg traffic circle), to give additional emphasis to the targeted driver, even when visibility distances to the device are satisfactory.

Targeted drivers are not informed what speed they are travelling, rather they are advised of the approaching traffic control requirement.

The warning can be supplemented with SLOW DOWN, STOP or YIELD AHEAD text and 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.

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.

First introduced in 2008 after being piloted by FHWA, VATCS are now in operation across 15 states and are steadily becoming the benchmark for consistent community display based traffic calming.



Technical Data

Model Reference	Stop Ahead VATCS –VATCS/W3-1/SA/L/DL/PT (stop ahead warning text)
	Stop Ahead VATCS –VATCS/W3-1/SD/L/DL/PT (slow down warning text)
	Yield Ahead VATCS –VATCS/W3-2/YA/L/DL/PT (yield ahead warning text)
	Yield Ahead VATCS –VATCS/W3-2/SD/L/DL/PT (slow down warning text)
Display Technology	ITE color tested high intensity LED display. Optical performance in compliance with FHWA MUTCD, Auto Luminosity control to suit ambient light conditions.
Display Format	Color inverted MUTCD advance traffic control diagram, (30 x 30") and (24 x 24") diagram size options, complete with matching YIELD AHEAD , STOP AHEAD or SLOW DOWN message and flashing beacon pairs. Warning text text height 4" and 6" to suit (24 x 24") and (30 x 30") model sizes. Beacons 5" in diameter.
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 x 24") Size 66" high x 38" wide x 6" deep (30 x 30") Size 74" high x 46" wide x 6" deep
Model Weights	(24 x 24") Size 90lbs (plus batteries in case of solar) (30 x 30") Size 135lbs (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 SP80S4 solar kits should be ordered for each sign comprising 80W panel, side of pole mount and 4 x 12V 20amphr 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	Datalogger windows based software is available to download date and time stamped traffic speed data from sign over Bluetooth™ for evaluation analysis in Excel.
Sign Configuration	Custom windows based software over Bluetooth™ wireless connection from client supplied Laptop or Netbook.
Enclosure	Purpose fabricated lightweight vandal resistant NEMA Type 3S ingress rated enclosure.
Finish	Matt Black front face Aircraft Grey rear powder coat finish or color to suit, 60 micron min thickness.
Window	¼" anti reflective Polycarbonate.
Operating Temp Range	-30°F to + 165°F, 95% non condensing.
Mechanical Interface	Two mounting options are available. 1. Sign will be supplied with Signfix 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 1/2" 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 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 digest and 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 advance traffic control warning sign applications to set trigger speed to 10% + 2mph above the posted speed limit or at the 50th percentile approach speed to the device if known.

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

About Unipart

The Unipart Group is a leading UK manufacturer, full service logistics provider and consultant in operational excellence. Operating across a range of market sectors, including automotive, manufacturing, mobile telecoms, rail, retail and technology, Unipart offers a breadth of services to a wide range of blue chip clients internationally.

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