

# TRAFFIC TALLY® UNICORN LIMITED VEHICLE TRAFFIC CLASSIFIER

The **UNICORN LIMITED** is a compact two lane 2 or 4 road tube counter/classifier. It comes standard with a 16 key alpha-numeric keyboard, 4 Line-80 character LCD display. The **UNICORN LIMITED** uses standard computer DB-9 comports allowing programming of classifier, and data transfer from classifier to computer using null modem cable to standard computer communication port.

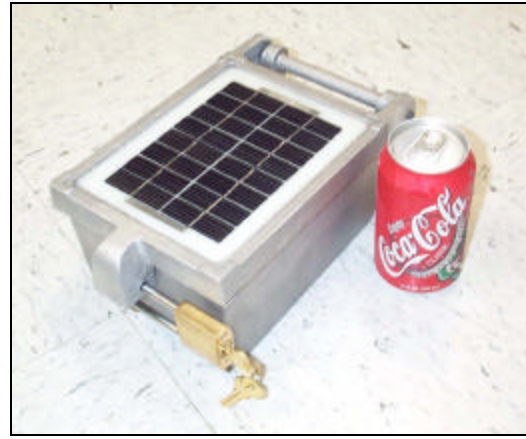
Data can also be retrieved from counters in the field using our **Data Hog Memory Module**. The **Data Hog Memory Module** serves as a stand-alone data transfer device between field counter and PC office computer. No interface device to computer is required. \* **see other side for detailed explanation of operations . .**

## UNICORN LIMITED SPECIFICATIONS

- \* Compact 10 1/4" x 5 7/8" x 3 3/4" Tall
- \* Machine cast aluminum case with interlocking corner studs for stack ability
- \* 16 key Keyboard
- \* 4 Line, 20 Character per line LCD display
- \* Over 30 days of operation on single charge or unlimited with solar panel
- \* Time interval vehicle count. FHWA Scheme F Binning
- \* Per vehicle (RAW) speed and axle data
- \* Classify by speed, axle, headway and gap
- \* 2 or 4 road tube, 30 counts/second, allows two lanes of classification
- \* Imperial (U.S.) or metric
- \* Selectable date format MM/DD/YY, DD/MM/YY, YY/MM/DD
- \* Up to 999 site files with older file roll over option
- \* Time intervals. 1, 5, 10, 15, 20, 30, 1 hour, 6 hour, 12 hour, 24 hour
- \* Optional solar panel on lid

## TECHNICAL SPECIFICATIONS

- \* Standard DB9 RS-232 Serial Port
- \* Sealed lead acid rechargeable battery
- \* 512K battery backed S-Ram data memory upgradeable to 2.5 meg or 4.5 meg
- \* Climates operating range from -40F (-40C) to 165F (72C) 0-95% non-condensation humidity
- \* Low weight at only 8 lbs.
- \* Sensor input buffer
- \* FHWA Scheme F default or user defined up to 30 each of speed, axle, gap, headway, bins



UNICORN LIMITED

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Unicorn Limited's 80 character display allows verification of program setup and operation in the field. This eliminates potential 30% unclassified problems and questionable data common with Blinking Light classifiers.

The following information about each vehicle can be displayed on the 80 character LCD display:

	Time	# of Axles
Lane #	1 : 08 : 54 : 46.76	3 axle
	47 mph,	13.5' 4.7'
	Miles Per Hour	Spacing between axles

The **Data Hog Memory Module** operates on a 9 volt battery. It serially connects to a traffic counter and PC computer. When plugged into the traffic counter, simply turn the power switch "on" and it will automatically retrieve all files in the counter. Available with 512K, 4 Meg or 8 Meg memory. Size is only 2 5/8" x 4 3/8" x 1 1/8" and will fit into a shirt pocket.



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TRAFFIC TALLY®  
**UNICORN LIMITED**  
 VEHICLE TRAFFIC CLASSIFIER

At **Diamond Traffic Products**, our engineers have been spent over 1000 hours developing a board design and firmware for the perfect traffic classifier. One that will know and display the time of passage of a vehicle to 1/100<sup>ths</sup> of a second, its speed to +/- 1/10<sup>th</sup> mph, number of axles and axle spacing to +/- one inch.

LANE	TIME	SPEED	AXLE SPACING
1	15:10:30.1	48.6 MPH	2 axle 10.2
1	15:10.32.4	57.3 MPH	3 axle 8.7 13.1
1	15:11:14.7	55.7 MPH	5 axle 14.5 4.3 29.7 4.3

Seeing this data on the field unit display enables field personnel to correctly verify proper operation and proper classification, something that is not possible with simple **blinking light** traffic counters.

For our engineers to finally develop the perfect traffic counter, it only required the availability of low cost megabytes of memory. Our new **UNICORN LIMITED** takes advantage of this massive memory by incorporating a minimum of 512K of memory that can also be expandable to 2.5 meg or 4.5 meg. Massive memory allows gathering of individual vehicle data enabling any type of traffic studies to be generated by a PC computer. Individual vehicle data provides as close to a photo of each and every vehicle as can be obtained without a camera. This means that studies such as **speed by type of vehicle** or **type of vehicle by time of day**, can be generated by the PC in addition to the standard speed and FHWA Scheme "F" axle bin studies.

The perfect traffic counter is a unit with its own keyboard and display that will tell you if it is working properly. It is a unit with massive memory that remembers all the useful information about each and every vehicle that passes by. It is a unit with a solar panel on its lid eliminating the need for recharging the battery. And finally, it's a unit with a direct PC comport connection so data can be transferred directly to the PC and the waiting hands of the traffic data manager for analysis.

The new **UNICORN LIMITED** does everything discussed above, but it can also collect traffic data in the more traditional method using binning classification. It has the standard FHWA Scheme "F" axle bin as default, but also allows the user to define 30 speed bins, 30 axle bins, 30 gap and 30 headway bins of user choosing.