

TIME INTERVAL RECORDING CLASSIFIERS & COUNTERS

Sensors: ROAD TUBE • INDUCTIVE LOOP • RESISTIVE • PIEZO ELECTRIC • REMOTE INPUTS • TAPE SWITCHES



TRAFFIC TALLY® **PEGASUS** VEHICLE TRAFFIC COUNTER

The Pegasus is a lightweight, compact time interval 1-4 lane traffic counter. It will count two lanes of traffic using road tube by the lane subtraction method, directional method or normal inputs.

The counter can be programmed using the keyboard/display, a lap-top or PC computer. If economy is of concern, the counter can be purchased without a keyboard/display, in which case programming is done entirely with lap-top or PC computer via a serial cable or TAM credit card memory.

It can be fitted with two road tube sensors, four remote inputs, four presence inductive loop sensors, or four piezo sensors and resistive sensor inputs.

Features

- ◆ Record count for one to four lanes
- ◆ Record interval lengths of one minute to 24 hours in one minute increments.

Counter can be programmed to change the length of record interval five times during the day. This allows for closer inspection of rush hour traffic patterns. As an example, you could run one hour record intervals from midnight to 6 am, then change to 15 minute record intervals until 8 pm, then change to 30 minute intervals until midnight. The programmed pattern will repeat daily.

◆ Two modes of count

Time interval count mode—the traditional method of time interval counting using the field unit to collect and sort count data by user-selectable time interval traffic counts. Count methods using two road tubes include direction, lane subtraction and normal.

Sensor mode—a new method of collecting traffic count data where the field unit stores in its memory sensor accuations with a time stamp accurate to 1/10695 of a second. This recorded sensor data is later fed into your office PC computer that uses it to produce the reports you select.

◆ Memory

The Pegasus comes standard with 68K of internal memory for data storage which will last:

- 855 days of 1 lane hourly counts;
- 533 days of 2 lane hourly counts;
- 130 days of 2 lane 15 minute counts.

Optional TAM credit card memory receptical can be installed to allow use of TAM credit card memory for data collection and programming of counter.

◆ 16-key watertight keyboard

Complete alphabet and numbers read on a two-line, 16-character, liquid crystal display. An economical version of counter is available without keyboard or display.



Available in two case types:
• lightweight welded and anodized aluminum case (shown here)
• baked enamel cast aluminum case (shown on Unicorn page)

TIME INTERVAL RECORDING COUNTER

Sensors available:

- ◆ Two road tube air switches (32 counts per second).
- ◆ Two or four multiplexing presence loop detectors (30 to 500 microhenrys, auto tuning, auto sensitivity adjustment).
- ◆ Two or four remote contact closures or open collector to ground external inputs.
- ◆ Four piezo electric sensor input (interfaces to standard piezo).
- ◆ Four resistive sensor inputs (interfaces to standard resistive).

Optional Solar Panel

The Pegasus and Unicorn Counters have a rechargeable 6 volt, 12 amp hour battery. The battery can be charged from AC wall charger or a solar panel. Remote solar panels can be mounted on poles for permanent site counters. For portable counts, an optional solar panel is available as an integral part of the counter lid. Lid solar panel will maintain counter indefinitely except when operating loop detectors.

Photo on following page



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Sensors: ROAD TUBE • INDUCTIVE LOOP • RESISTIVE • PIEZO ELECTRIC • REMOTE INPUTS • TAPE SWITCHES

Want simplicity and speed in field programming and data retrieval? Consider TAM!

The optional TAM (Take Away Memory) credit card memory can be used to initialize the Pegasus and Unicorn in the field with full setup including site I.D., configuration, and start and stop times. Or it can initialize the counter to prompt the operator for answers to specific questions.

The versatile TAM will also gather the data from several counters or act as primary memory if left in the counter. It is available with 256K, 512K, 1, 2, 4, or 16 meg of memory.



TRAFFIC TALLY® **UNICORN** VEHICLE TRAFFIC CLASSIFIER

In addition to the Pegasus features, the Unicorn offers speed and axle classification, speed by axle type, gap and headway studies capabilities.

Features

◆ Count one to four lanes

Count methods include direction, lane subtraction and normal.

◆ Classify one or two lanes.

◆ Record interval lengths of one minute to 24 hours in one minute increments.

Counter can be programmed to change the length of record interval five times during the day. This allows for closer inspection of rush hour traffic patterns.

◆ Three modes of classification (1 to 4 lane)

Binning—User can define 30 speed, 30 axle, 30 headway and 30 gap bins of own choosing, Default FHWA 13 bin scheme F, European scheme or your custom scheme on special order. Matrix classification: speed by axle, speed by length.

Sensor Mode—Records in memory to 1/10695 of a second each sensor activation. Can be used with TrafMan software to generate any standard traffic reports.

Vehicle by vehicle (Raw)—in this mode, classifier stores in memory for each vehicle until memory is full, time of passage to 1/100 second, speed to 1/100 mph or kph, number of axles, and spacing

**VEHICLE CLASSIFIER:
COUNT, SPEED, AXLE, GAP,
HEADWAY, SPEED BY AXLE,
SPEED BY LENGTH**



Available in two case types:

- ◆ lightweight welded and anodized aluminum case (shown below)
- ◆ baked enamel cast aluminum case (shown above)

between axles. The Unicorn will store about 5000 vehicle in memory in vehicle-by-vehicle mode with 68K of memory. Sample printout:

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

◆ Memory

The Unicorn comes standard with 68K of counter memory. Memory can be expanded internally in 128K increments up to 960K. 960K of extra memory will enable the Unicorn to store vehicle-by-vehicle (raw data) files for about 105,000 vehicles. Memory can be expanded beyond 960K internal memory by plugging in a TAM memory card with from 256K to 16 megs of memory.

◆ 16-key watertight keyboard

Complete alphabet and numbers read on a two-line, 16-character, liquid crystal display. The optional units with no keyboard/display are programmed and monitored from an IBM compatible laptop, PC computer or TAM.

Sensors available:

- ◆ Two or four* road tube air switches (32 counts per second).
- ◆ Two or four multiplexing presence loop detectors (30 to 500 microhenrys, auto tuning, auto sensitivity adjustment).
- ◆ Four remote contact closures or open collector to ground external inputs.
- ◆ Four piezo electric or resistive sensor inputs.

Possible sensor arrangements per lane for speed and axle classifying are:





- ◆ Two axle sensors.
- ◆ Two presence sensors.
- ◆ Two axle sensors and one presence sensor.
- ◆ Two presence sensors and one axle sensor.

* Four road tube available only in cast aluminum case.

continued

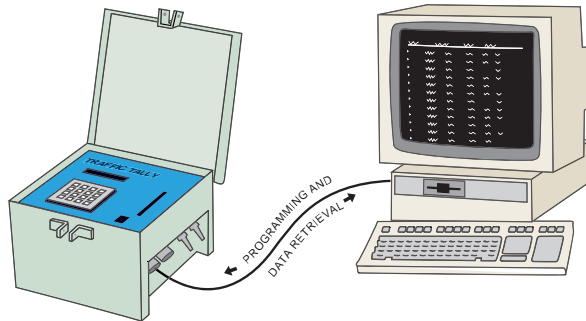


Data Recovery

-  **Serial Interface to PC Computer or Laptop**
-  **TAM Credit Card Memory**
-  **Rover Portable 3 1/2" Floppy Drive**
-  **Modem Telemetry**

Serial Interface to PC Computer or Laptop

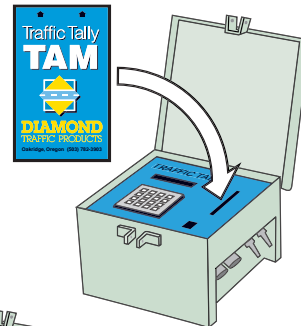
RS232 serial cable connects the counter to a lap-top, IBM PC or 100% compatible computer. The Pegasus, Unicorn and Phoenix traffic data files are retrieved using TrafMan software installed on your computer through the computer's RS232 serial port.



TAM Credit Card Memory

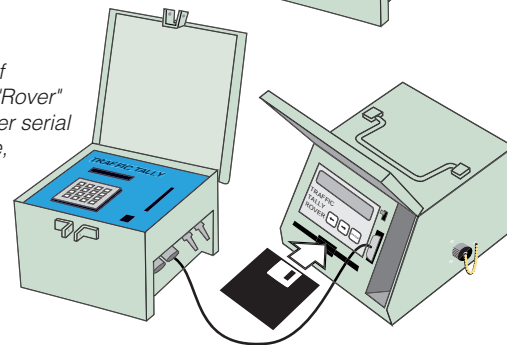
We offer a 256K to 16 meg flash credit card Take Away Memory as an option for the Pegasus, Unicorn and Phoenix traffic counters and classifiers. A TAM card is inserted in the counter face plate receptacle to recover data or program counter. The TAM can be used for data retrieval for several counters, until card is full. The TAM can be left in the counter as primary memory.

As a programmer, TAM makes set up in the field extremely simple and quick. It can completely program the counter including site I.D. and start time, or program the counter to prompt the operator for answers to specific questions.



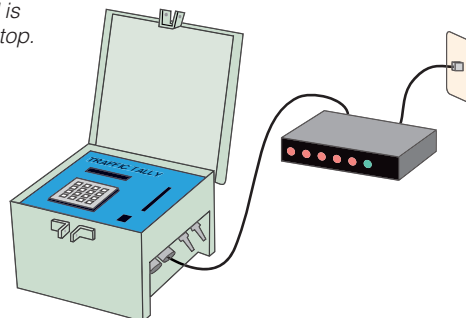
Rover Portable 3 1/2" Floppy Drive

Simplicity makes the Rover an attractive method of retrieving data on floppy disks. Our field portable "Rover" can retrieve all the data with the flip of a switch after serial cable connection is made. The Rover is a portable, battery-operated disk drive in weather-tight aluminum case. This unit uses inexpensive 3 1/2" floppy disks to transport data back to your office computer. See catalog page describing the Rover.



Modem Telemetry via Phone Line

Optional Traffic Tally Link program software for modem control and automatic telemetry data retrieval is available for use on your IBM or compatible PC or laptop.



TrafMan

TrafMan is our PC programming, communications and data recovery software. TrafMan will run on IBM PC or compatible computers and is available for the Pegasus, Unicorn, Phoenix, TT-2001, TT-501 and TT-74. TrafMan includes XMODEM downloading, on-line help, disk file directory DOS shell, plus much more. TrafMan software allows the user to edit, merge, factor, analyze, etc. (See TrafMan brochure for more complete description or call for our free video presentation.)

continued

Pegasus Specifications

Sensor Inputs:

- two air switches (road tube) 32 counts/second, 5-100+ mph
- two or four, 30-500 microhenry presence loop detectors
- up to four piezo electric sensors
- up to four resistive sensors
- Up to four remote switch closures or open collector to ground

Lane Sensor Configuration:

- One or two axle sensors for directional, subtractive or normal counts
- One or two loops for normal or directional counts

Memory:

- 68K internally expandable to 964K
- Externally expandable with TAM to 16 meg

Programming:

- From counter keyboard and display
- From IBM-compatible computer
- Remotely with a telephone modem
- With TAM

Recording Time Intervals:

- Can have from 1-5 different intervals selectable from 1-1440 minutes in any 24 hour period

Count Mode Selection:

- Normal
- Subtractive
- Directional

Sensor Mode:

- Stores each sensor activation in memory to 1/10695 of a second
- PC or compatible computer generates standard reports from data

Study Start Selections:

- Immediately
- At midnight
- At a specified date and time

Study Stop Selections:

- Never
- 24 hours after start
- At a specified date and time

Lane Test and Monitoring:

- All lanes can be monitored and sensors activation tested without interference with data collections. This can be accomplished either from the display or a computer, serially or by telemetry.

Data Collection:

- Through a telephone modem
- With an IBM-compatible computer
- With our Rover field unit
- With a TAM

Files:

- Up to 99 individual site files can be stored in memory. At your option the files can be rolled over or the counter can stop when memory is full.

File Delete Options:

- Files can be rolled over and first-in will be deleted manually or automatic deletion at retrieval or deleted by groups or ranges.

Measurements:

- Imperial (U.S.) or metric speed and distance measurements.

Date format:

- Selectable to give MM/DD/YY, DD-MM-YY or YY-MM-DD

Keyboard:

- Compete alpha/numeric with punctuations from standard 16 key keyboard
- A no-keyboard version is available which is controlled by your computer

Display:

- 2-line, 32 character, alpha/numeric LCD display

Power:

- 6 volt, 12-amp hour rechargable lead acid gel type battery. Optional portable (mounted on lid) or permanent (pole mounted) solar panels can be ordered. Single unit and gang type battery chargers are available.

Power Off Verification:

- Selectable option that requires the operator to verify turn off of the equipment. Prevents false shutdown caused by lightning and static electricity. Prevents accidental turnoff due to inadvertent power switch off activation.

Telemetry:

- Telemetry ready with the addition of an external modem.

Construction:

- Case: 1/8" (3mm) welded anodized aluminum case or baked enamel cast aluminum case. Electronics: modular plug-in CMOS circuit boards

Climatic Operating Range:

- -40°F (-40°C) to 165°F (72°C)
- 0-95% non-condensing relative humidity

FIFO Sensor Inputs:

- A FIFO (first in, first out) buffer is on all sensor inputs. This helps eliminate sensor misses due to simultaneous activation.

Weight:

- 11 pounds (4.9 kg)

Dimensions:

- Formed aluminum case: 8 3/4" wide (21.8 cm) X 9 1/2" deep (23.7 cm) X 5 3/4" high (14.4 cm).
- Cast aluminum case: 11" wide (27.5 cm) X 12" deep (30 cm) X 6 1/4" high (15.6 cm).

Unicorn Specifications

Same as the Pegasus with the following additions:

Sensor Inputs

- Same as Pegasus except the Unicorn can have four road tube air switches if the cast aluminum case is used.

Classification Binning Mode:

- FHWA Scheme "F" default, or the user may define up to 30 each of speed, axle, length, gap and headway bins. Default to European binning scheme available.

Vehicle by Vehicle (Raw) Data Mode:

- Stores in memory a record of each vehicle to 1/100th of a second
- The record contains lane number, time of day, speed, number of axles, axle spacing and type of vehicle

Sensor Mode:

- Stores in memory each sensor activation by internal crystal clock to 1/10695 of a second

Sensor Miss Errors:

- Sensor miss errors in binned or raw modes can be:
 - Monitored and stored in file
 - Monitored but not stored
 - Not displayed or stored

Weight:

- 11 pounds (4.9 kg)

Dimensions:

- Formed aluminum case: 8 3/4" wide (21.8 cm) X 9 1/2" deep (23.7 cm) X 5 3/4" high (14.4 cm).
- Cast aluminum case: 11" wide (27.5 cm) X 12" deep (30 cm) X 6 1/4" high (15.6 cm).