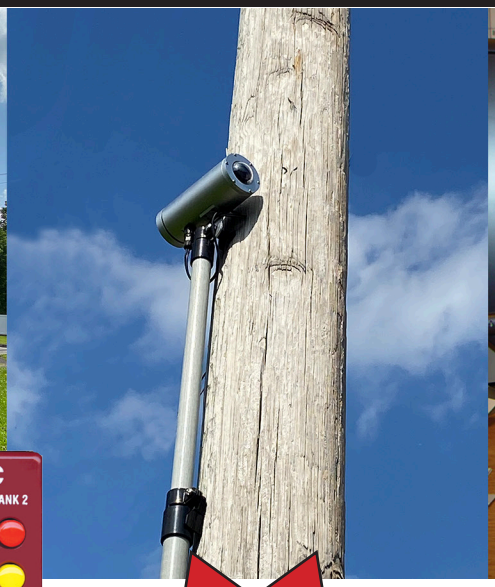
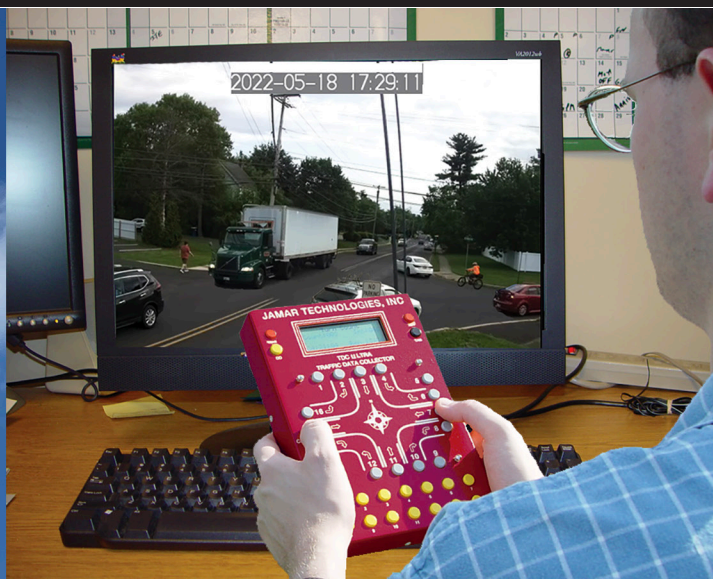
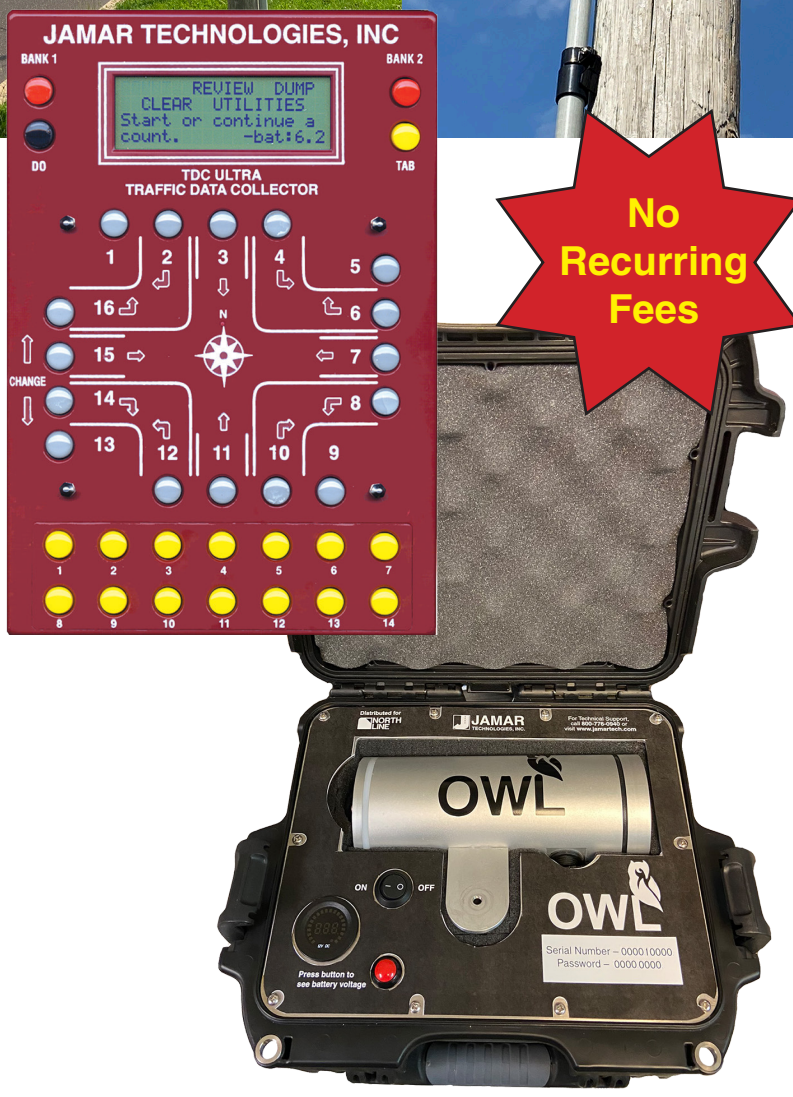
NEW

OWL Camera & TDC Ultra







No Recurring Fees

Traffic Data Collection using Video Recording

The Owl Camera and TDC Ultra with Video Mode enables you to collect, record and report several varieties of intersection traffic data. Standard Turning Movements, Roundabout Turning Movements, Bicycle Classification, Vehicle Classification and Gap are all studies that can be recorded in video mode.

- **Full View Intersection Video Detection**
- **Rugged Aluminum Camera Housing**
- **48 Hour Continuous Recording**
- **Programmable Study Times**
- **Easy Installation & Setup**
- **Record data from video with TDC Ultra**
- **Ten Different Study Types Available**
- **PETRAPro Software Data Analysis**

JAMAR
Technologies, Inc.

Making Data Collection Easier

OWL Camera & TDC Ultra

The Owl camera makes intersection video data collection easy. Simply install the OWL using the mounting pole pointed toward the intersection you want to record. The Owl's Android-based setup app can then be used preview the video, set a schedule and monitor battery life. The unit will record multiple days of video on a single battery charge and can be programmed to record specific hours within a day.

Once your video has been collected, simply remove the USB flash drive from the OWL and the video file can be transferred to your computer. Most video viewing software, like the popular VLC media player, can be used to playback the recorded video.

How It Works

Traffic data, including vehicles, bicycles and pedestrians, can then be manually recorded using the TDC Ultra Traffic Data Collection board from the comfort of your office. The TDC Ultra's Video Mode function allows you to playback the video at faster speeds of 1.5x, 2.0x or more, saving time when doing your data collection.

Since the video may have been recorded days or weeks in the past, when you select the Video option you are first prompted to enter the Time and Date to be used for the start of the count. You are then prompted to select the type of count you want to do.

The studies that can be done in Video mode are: TM – Standard Turning Movement Study, CL – Vehicle Classification Study, GAP – Multi-direction Gap Study, RA – Roundabout Study.

In Video mode, YOU have control over when to end the current interval and start the new one.

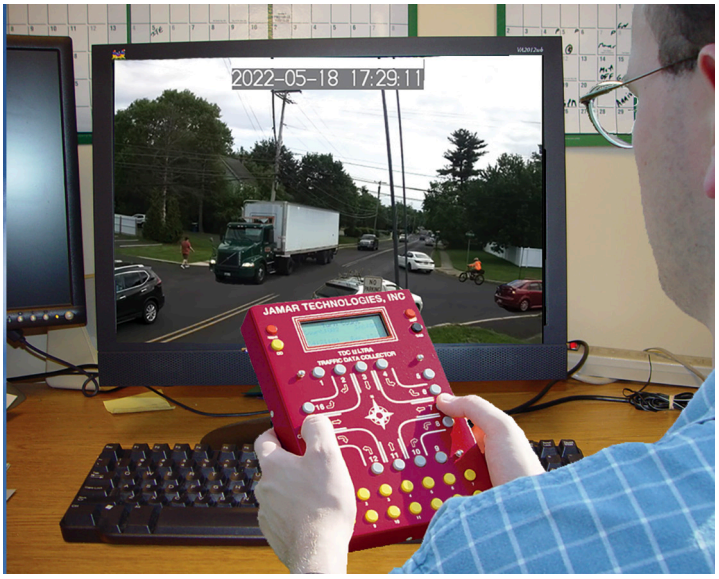
In Video mode, the time clock at the lower left remains static, showing the start time of the current interval, and there is no interval time remaining clock shown at the lower right. When you want to advance to the next interval, you hold down, then release, the DO, TAB and BANK 2 keys at the same time. Once the keys are released, the Ultra will emit a triple beep and the clock at the lower left will advance to show the start time of the next interval.

For example, you have recorded video at a location for 1 hour and now want to count the traffic by watching the video playback. You select a 15 minute interval and being your count in Video mode. Because the traffic is not heavy at the location you are able to play back the video at 3x speed. After 5 minutes of real time you've recorded on the Ultra 15 minutes of video time. By pressing the DO, TAB and BANK 2 keys you can advance to the next interval time on the Ultra without having to wait for a full 15 minutes to pass.

With the Video mode you can complete a study in a fraction of the time it would take to do it in real time.

OWL Specifications

Camera Size: 3" x 5" x 7" **Camera Weight:** Approx. 2 lbs.
Camera Codec: H.264 MPEG4
Resolution: 480i, 720p, 1080p
Frame Rate: 24 to 60fps Field of View: 170 degrees
Base Size: 12" x 10" x 9" Base Weight: 12 lbs.
Battery: 12V 40 Ah



TDC Ultra Turning Movement Data

The TDC Ultra is an electronic hand-held device that enables you to do the most common of all manual traffic data studies: intersection turning movement counts.

The Ultra is simple to use. An OFF/ON switch on top of the unit is used to turn it on and off. A 4-line by 20-character display helps you select the proper entries. All options are clearly displayed, with the currently selected option shown with a blinking highlight. The bottom lines of the display explain the option that is highlighted.

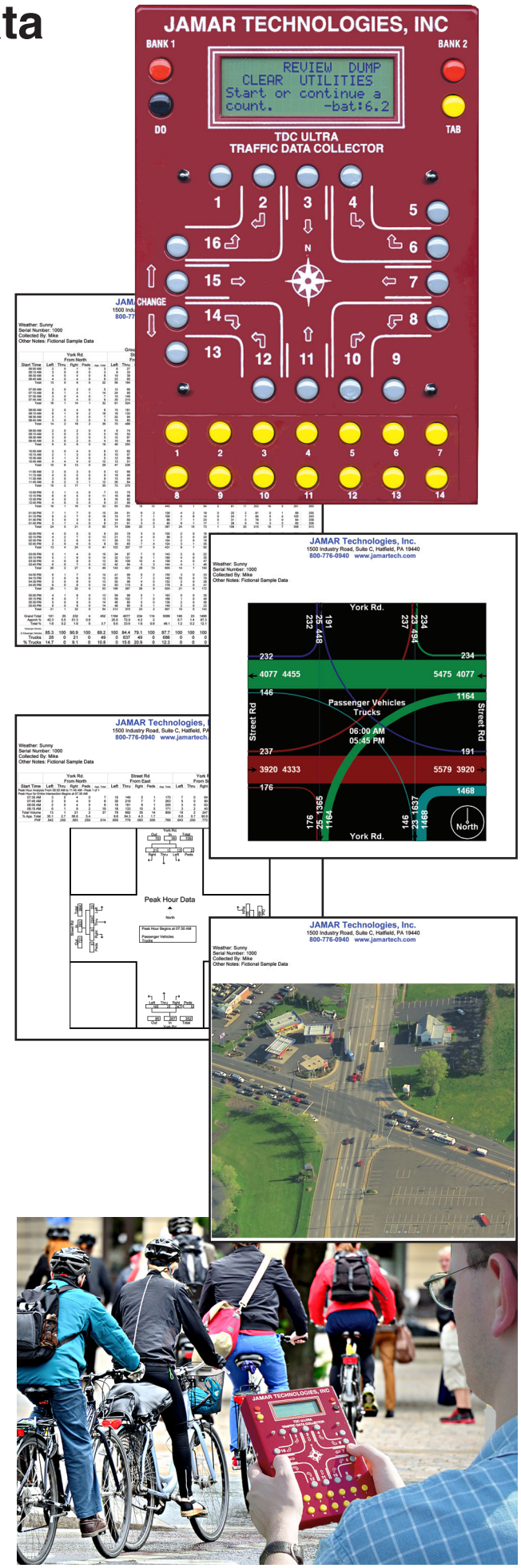
Two buttons are all that are used to move from menu to menu, and to select from the options shown on the display. The TAB key is used to cycle through the options while the DO key is used to select an option. If you move the highlight too far and over-shoot the desired option, just keep pressing the TAB key until it is re-selected.

The Ultra is designed to make collecting turning movement data easy and accurate. The buttons are arranged to simulate a standard intersection. There are 16 buttons, with 12 normally used for the left, through, and right movements from each of the four approach directions. The additional four buttons are user-defined; they can be used for bicycles, pedestrians, or whatever you want.

Since the TDC Ultra looks like an intersection, doing a count is very intuitive. If a car makes a left turn from an approach, you simply push the button that shows a left turn from that direction. The Ultra keeps track of everything else for you. At the end of every time interval, the data is automatically stored, so there is no need for technicians to take their eyes off the intersection to write down numbers.

While you record turning movements, you also have the option to classify the vehicles recorded in up to three separate classes using the Ultra's 'Bank' buttons. Trucks and other heavy vehicles can be stored separate from passenger vehicles, and percentage breakdowns can be determined.

Multiple studies can be stored in the Ultra. For each count, the unit stores the date and time, the number of intervals used, a site code, and the data. At any convenient time, you can transfer the data to your computer through the Ultra's USB port to our PETRAPro software. The PETRAPro software allows you to easily read, edit and store the data, as well as print a variety of reports and graphs, without ever having to manually enter data.



Bicycle Data Classification

As the expansion of the country's bicycle infrastructure accelerates, there has been a growing need for counting and classifying bicycle use. Much of this counting has been done with pen and paper, which often involves tedious transcribing. Now there is a better way.

The TDC Ultra allows you to collect your data electronically, then download and produce reports in a matter of minutes. With the TDC Ultra's Bicycle Classification study you can define up to 48 separate categories of data types. The categories can be any type of data you wish to quantify, such as gender, age, helmet usage, sidewalk riding, wrong way riding, bicycles on buses, and more.

The TDC Ultra also allows you to record full turning movements of bicyclists in up to 14 separate categories. Once your data has been collected, download it to our powerful, yet user-friendly, PETRAPro software and produce extensive reports in minutes.

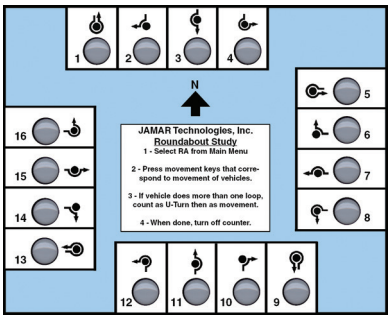
The hand-held TDC Ultra has been used for years for the purpose of automotive data collection and as such it has proven its durability and reliability.

Many More Types of Traffic Data Collection

The TDC Ultra is the single most powerful hand-held traffic data collector in the world today. Not only does it do the most common of all manual traffic data studies - turning movements - it does many additional studies, making it the most versatile traffic data collection tool currently available.

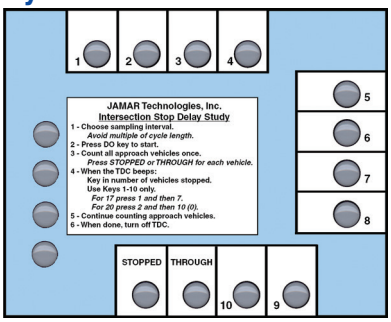
• Roundabout Movements

Modern Roundabouts are being installed at an ever increasing number of locations. The TDC Ultra is designed to make roundabout movement data collection simple and accurate. The buttons are arranged to simulate the standard approaches to an intersection, which makes collecting the data intuitive.



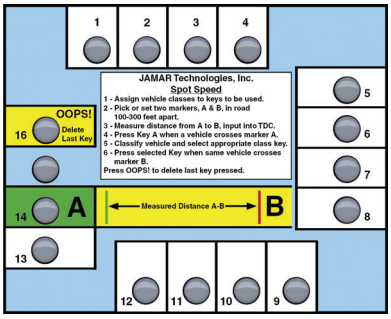
• Signalized Intersection Delay

Doing a Signalized Intersection Delay study is actually like doing two studies at once. First, you are recording every vehicle that comes to the intersection from a specific approach as either having Stopped or gone Through Second, while you are recording the approach vehicles the TDC Ultra will beep at a designated interval When the beep occurs, you enter the number of vehicles in the queue at that exact moment. These two procedures, taken together, provide enough information to give measurements of the delay.



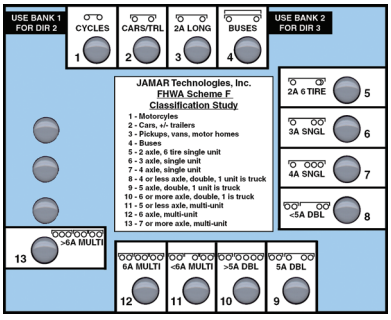
• Spot Speed with Classification

The TDC Ultra can be used to get a quick snap shot of vehicle speeds. You press one button when the vehicle passes over the start line you designate and then press another button when the same vehicle passes over the end line you designate, If you want to classify vehicles, rather than just pressing the same key when the vehicle crosses the end line you can press any of the 1 through 13 keys to classify it.



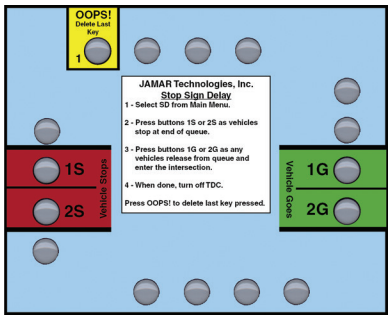
• Vehicle Classification

With the TDC Ultra, you can do three types of classification studies: one, Vehicle Classification using the Federal Highway Administration's vehicle classification system (scheme F); two, Vehicle Classification using your own scheme; or three, any type of classification study you invent. For the last one, it doesn't have to be vehicles, or even traffic related for that matter.



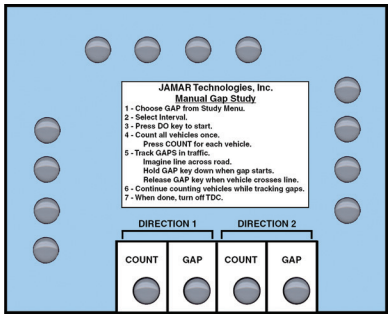
• Stop Sign Delay

The TDC Ultra lets you accurately record queue lengths and vehicle delays at a stop sign controlled intersection. This is a simple study to understand. You press one key when a vehicle stops at the end of the queue, and you press another key when a vehicle (not necessarily the same one) crosses the stop bar.



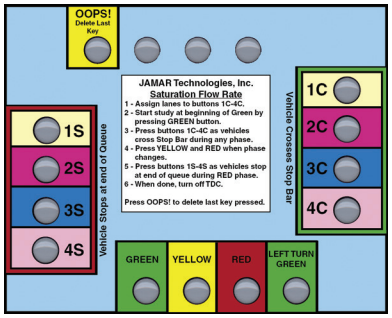
• Multi-direction Gap

The TDC Ultra allows you to easily measure traffic gaps in up to two directions using just two buttons. While you're recording the gaps for two directions, the Ultra will also automatically track and store combined gap information. You can also record vehicle volumes while tracking gaps to get a complete picture of traffic patterns.



• Saturation Flow Rate

The TDC Ultra allows you to directly measure actual saturation flow rates, and also collect data for signal timings, arrival types, headways and lost time.



TDC Ultra Specifications

Size: 8.5" x 6" x 1.5" **Weight:** Approx. 1.5 pounds
Case: ABS non-warping plastic
Power: 4 AA alkaline batteries
Interface: USB 'B' Port
Download Speed: Up to 57600 bps
Memory: 132K Flash Memory
Clock: Always active real-time clock
Display: Wide Temp, 4-line by 20-character LCD display
Output: ASCII file read by PETRAPro or other software
Diagnostics: Built-in tests for memory, display, and keys
Keys: Internal steel domes rated for 1 million clicks

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