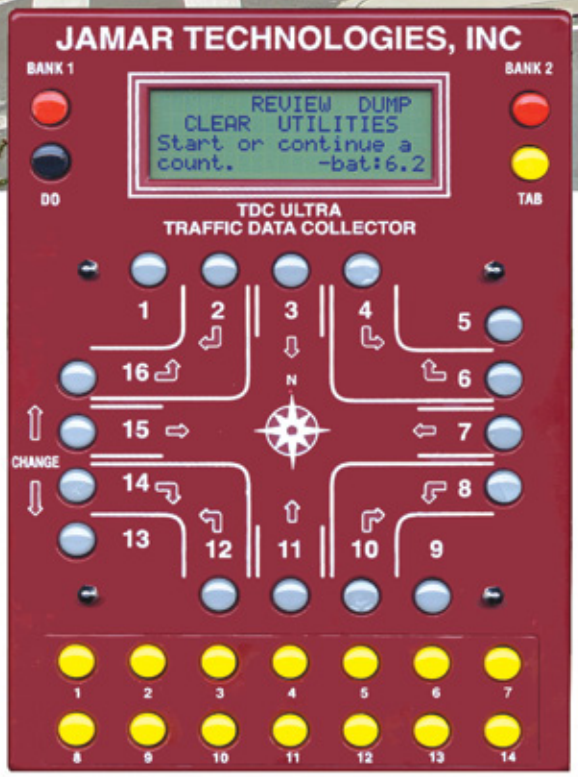
TDC Ultra

Now With Roundabout Studies



Traffic engineering...
...in the palm of your hand.

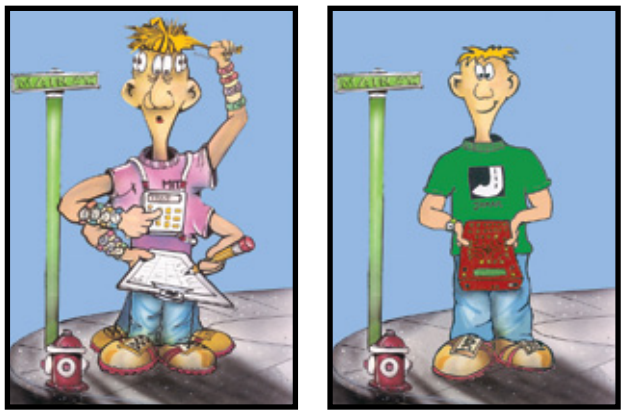
- Turning Movements for up to 14 classes
- Turning Movements for Roundabouts
- Saturation Flow Rate & Signal Timings
- Stop Sign Delays
- Signalized Intersection Delays
- Vehicle Classifications
- Multi-direction Gap
- Vehicle Speeds with Classification

JAMAR
Technologies, Inc.

Making Data Collection Easier

The TDC Ultra...
Data Collection Made Easy

JAMAR data collectors are known worldwide as the best, most effective way to manually collect traffic data. The TDC Ultra is the single most powerful hand-held traffic data collector in the world today. With this one recorder, you can save countless hours by electronically collecting many types of traffic data for easy download and analysis with the powerful PETRAPro software.



How do YOU collect traffic data?

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.

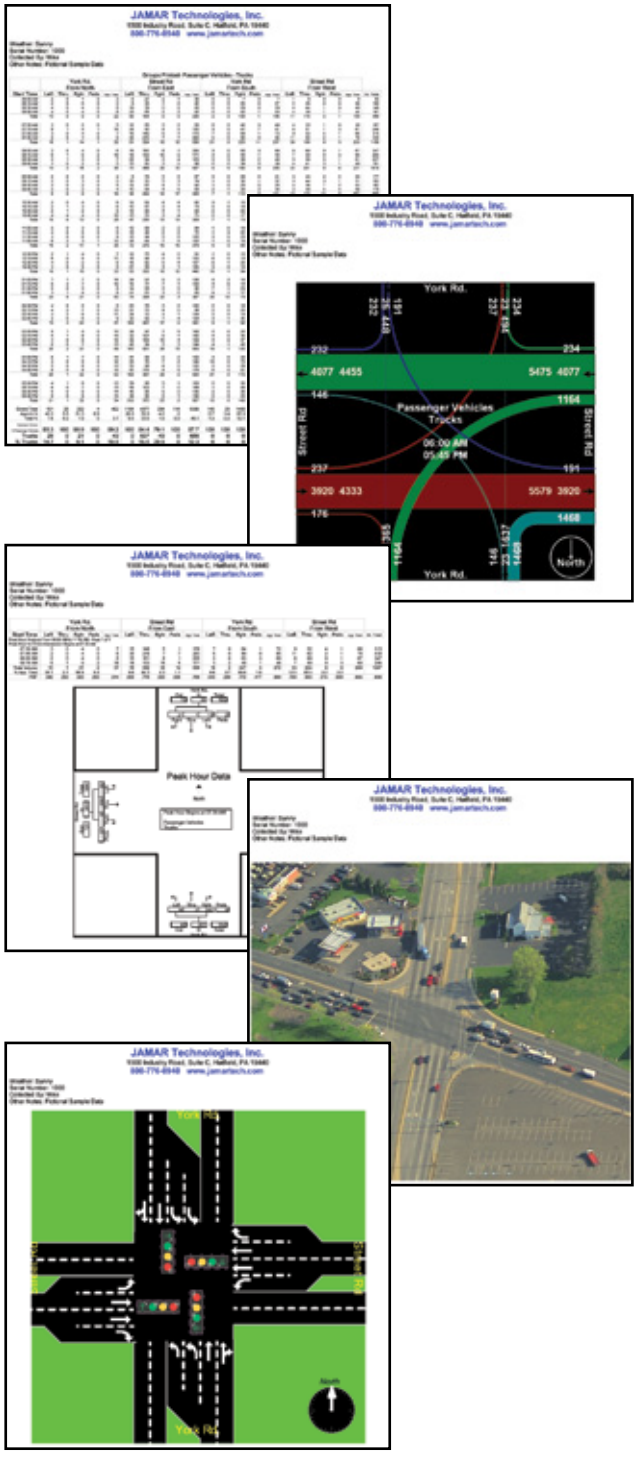
The Ultra is designed to make collecting turning movement data easy and accurate. The buttons are arranged to simulate a standard intersection. There are 16 buttons, with 12 normally used for the left, through, and right movements from each of the four approach directions. The additional four buttons 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.

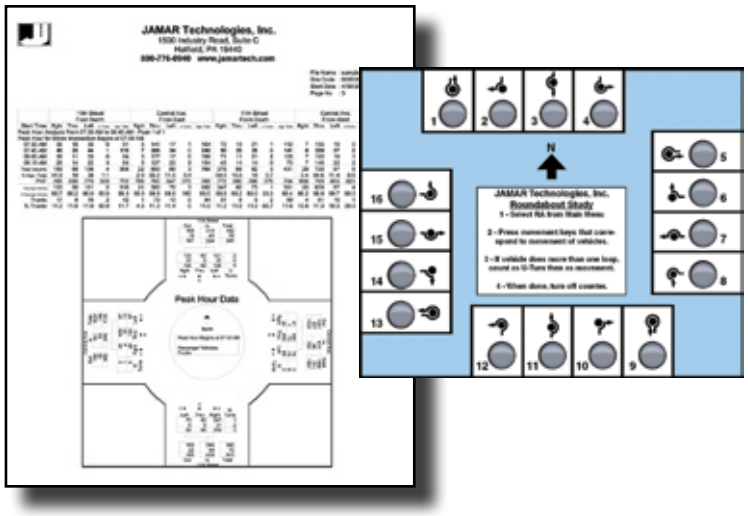


Many More Types of Traffic Data Collection

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.

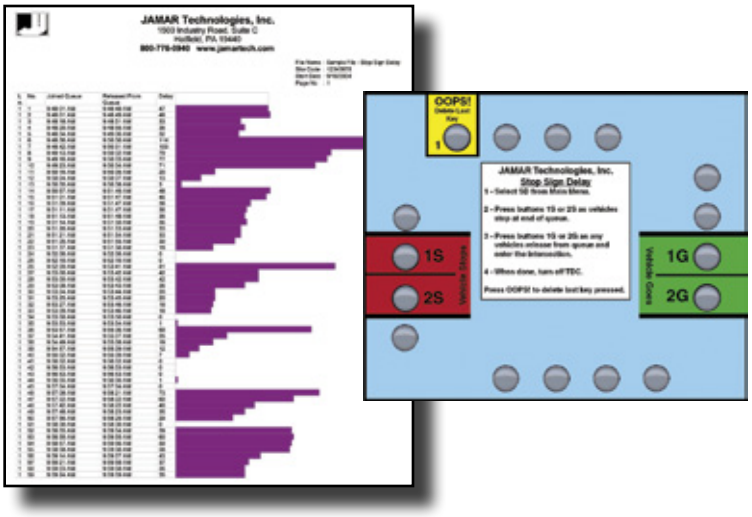
• Roundabout Movements

Modern Roundabouts are one of the more popular new developments in traffic engineering and 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. The actual recording of the data is very simple. Watch a vehicle as it approaches and track it as it moves through the roundabout. For example, if it makes a right movement, press the right movement key for the approach it came from. If it makes a through movement, press the through movement key.



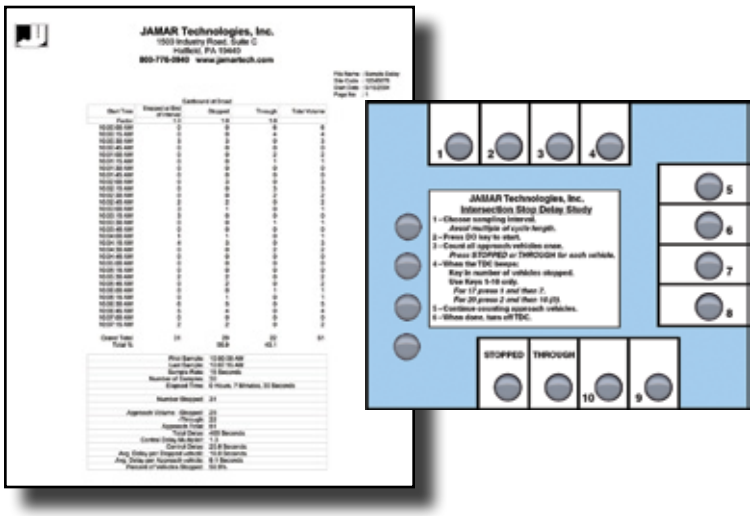
• Stop Sign Delay

Are people complaining about how long they have to wait at a stop sign? The TDC Ultra lets you accurately record queue lengths and vehicle delays at a stop sign controlled intersection. Data can be collected for one or two lanes using just two or four keys. 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. The TDC Ultra accurately measures the times when you press each key. The analysis software then can calculate how long it takes each vehicle to progress through the queue and enter the intersection. The software also calculates the number of cars in the queue at all times.



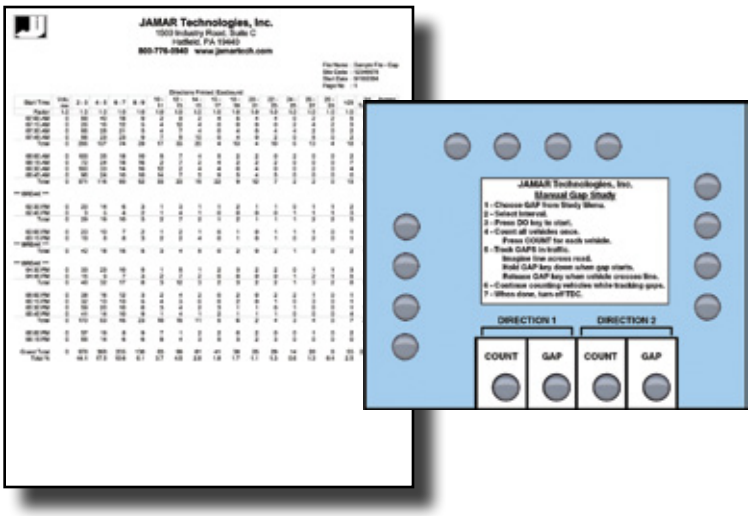
• Signalized Intersection Delay

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 (the light is red or the light is green but a queue exists) or gone Through (the light is green and no queue exists). You only record a vehicle once - it is either Stopped or Through. Second, while you are recording the approach vehicles the TDC Ultra will beep at a designated interval you have selected (between 10 and 16 seconds). 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.



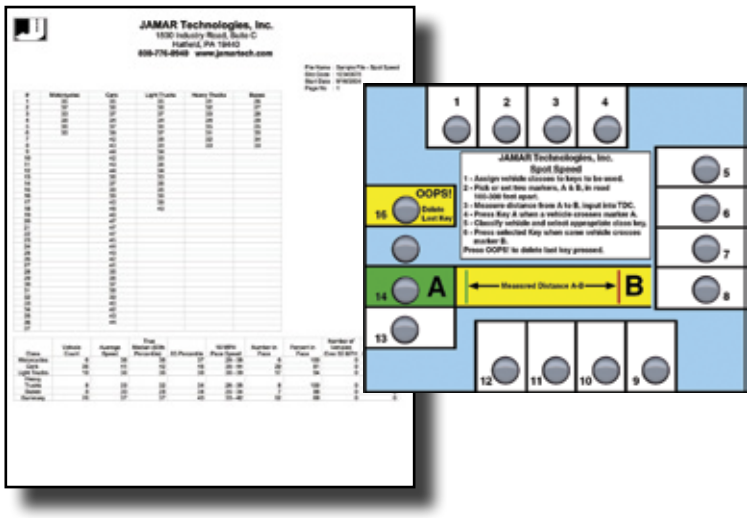
• Multi-direction Gap

Is there adequate time for pedestrians to cross a street? Does side street traffic have enough opportunities to cross over a main route? Will the traffic generated by a proposed new business have adequate time to make a left hand turn into or out of the driveway? A gap study helps you find out. 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.



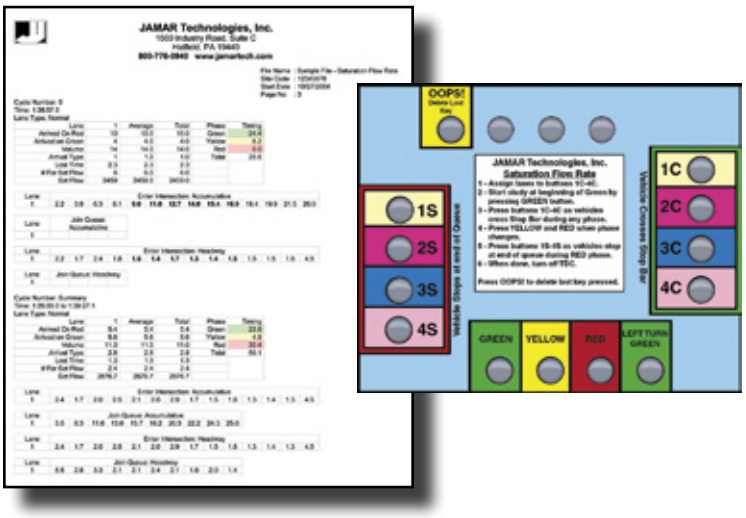
• Spot Speed with Classification

Not sure if a full speed/class study is needed with an automatic traffic data recorder? The TDC Ultra can be used to get a quick snap shot of vehicle speeds. The procedure implemented in the TDC Ultra is based on accurately measuring the time it takes a vehicle to travel over a known distance. 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, which is usually 100-200 feet away. 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.



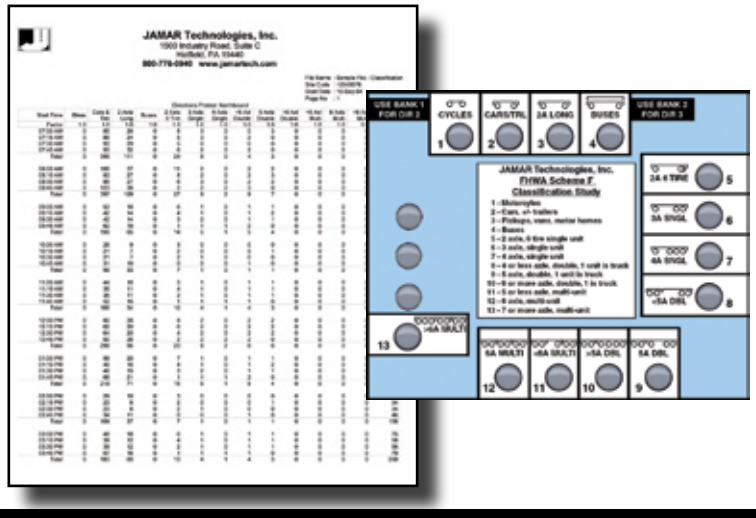
• Saturation Flow Rate

How much are environmental factors impacting traffic flow at an intersection? Don't rely on estimates to find the answer. 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. To collect the data, you wait for the signal to turn red, and watch for vehicles to come to a full stop in the queue. As they do, you press the Vehicle Stops key for the lane you are recording. When the signal turns green, you press the Green key and as each vehicle crosses the stop bar, you press the Vehicle Goes key. When the signal changes phases, you press the Yellow and Red keys, then repeat.

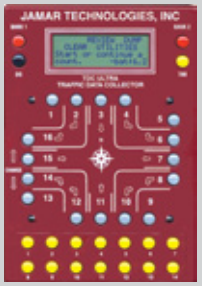


• Vehicle Classification

Is heavy truck traffic slowing down traffic flow? Perform a quick classification study to find out. 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. The first two involve assigning a vehicle type to each button. The FHWA scheme F uses 13 different classes of vehicles, based on the number of axles and the spacing of axles while User-defined classification schemes can have criteria other than axle number and spacing. The last type of study can have any kind of classification criteria, and count any type of event. It doesn't have to be vehicles, or even traffic related for that matter.



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
Records:
Turning Movement Data for up to 14 classes of vehicles
Roundabout Movement Data
Stop Sign Delay Data
Signalized Delay Data
Vehicle Classification Data
Spot Speed Data
Multi-direction Gap Data
Saturation Flow Rate Data
Time-stamped Raw data

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2.0 January 2010