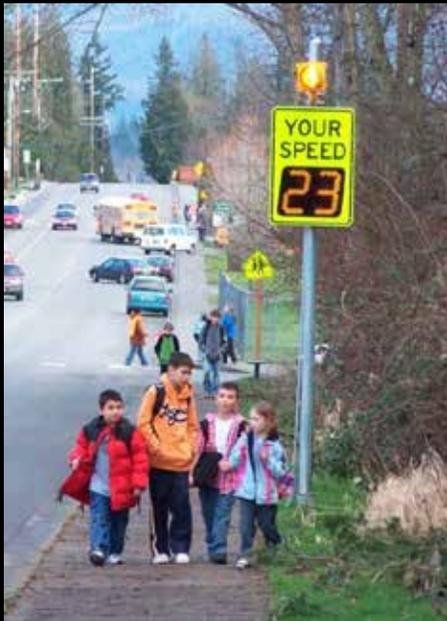


THE BEST IN THE BUSINESS



# INFORMATION DISPLAY COMPANY



INTELLIGENT TRANSPORTATION SYSTEMS

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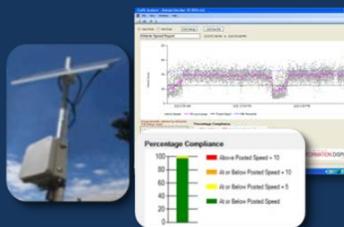
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# Specifications and Options



We are the leading manufacturer of intelligent traffic displays. For over 20 years, our first-on-the-market SpeedCheck™ radar speed displays (*pictured at left at work in a school zone*) have continued to outperform all others. This tradition of excellence extends throughout our entire product line. Simply stated, **we design, deliver, and support the most versatile, effective and durable display products available** to make streets and roads safer for drivers, passengers and pedestrians.

Our only goal is to partner with you to address your traffic safety concerns and provide you with the best possible solutions at the greatest possible value. Our customers know we take this goal seriously, which brings them back to us repeatedly to work on additional solutions and to refer others to us without hesitation.

When you choose to do business with Information Display Company, you can be confident you have selected **the most respected name in the industry.**

## Intelligent traffic displays that dramatically outperform all others

### Versatile and effective

Many applications, superior results. Easy to set up, easy to change, cost effective.

- **Maximum Versatility.** Our products are designed to work together, using the same DeviceController™ with DeviceManager™ software. Display types can easily be changed by swapping the static sign and adjusting the software. This cross-product compatibility reduces complexity and cost, and saves time on training and maintenance.
- **Superior Visibility.** Our exclusive UltraClear™ contrast delivers superior viewability in bright sunlight, with no "88" character ghosting.
- **InstaNet™ Two-Way Wireless Network.** Onsite™ local Bluetooth® communication up to 50 feet in front of the sign, or InstaNet 900MHz radio hub/node network with remote communication from your TMC and OfficeAlert™ automatic failure notifications via text or email.
- **Precise Traffic Data.** TrafficInfo™ collects data on individual vehicles by date, time, and speed of the vehicle and stores over 200,000 data points with no lost details due to averaging or binning of the data. We even provide access to the raw data with a .csv file. TrafficAnalyzer™ generates predefined reports, with easy data windowing and merging of data files with overlapping dates.
- **Easy Unlimited Scheduling.** SchedulePro™ provides unlimited schedules, exceptions and time tables with a perpetual calendar and two-year exception list.
- **Daily Time Synchronization.** Our TimeKeeper™ provides daily GPS time synchronization of the display's internal clock, ensuring that your operating changes occur exactly on time and that multiple signs are in sync within a fraction of a second.
- **FHWA MUTCD Compliant.** Compliance reduces your financial risk, meets requirements for federal funding, and provides the benefit of driver familiarity with static sign faces, color, sizes, and shapes.

### Exceptionally durable

We proudly stand behind our products. Each component is designed for maximum life expectancy.

- **Exceptional Warranty.** Three years on products, five years on white LED panels, 10 years on amber LED panels.
- **Longer Display Life.** Our DC display drive design significantly prolongs LED life and brightness.
- **Best Vandalism Protection.** The shatterproof window on the 15" display flexes up to 2½ inches without damaging internal components.
- **Lowest Power Consumption.** Our display design combines unique technologies that result in dramatically lower power requirements compared to any other product on the market.
- **Guaranteed Solar Solutions.** Every solar-powered display is customized to your specific weather and traffic conditions, allowing us to guarantee 24/7/365 operation even during the most severe winter conditions.
- **Easiest to Repair.** Our modular design makes it easy to repair our products in the field using standard hand tools.

## VariableSpeed Limit™

VariableSpeed Limit™ displays manage traffic flow and increase road safety by changing the posted speed limit and displaying it in easy-to-read LED digits within a familiar MUTCD static sign.

These displays are often used to reduce speed limits in school zones when students are present. With our SchedulePro™ scheduler, speed limit changes can be quickly programmed on a two-year basis, with exceptions for weekends, vacations, and special events.

This solution is also useful in work zones and is highly effective in gradually slowing drivers transitioning from high speed arterials into pedestrian zones or other areas with dramatically lower speed limits.

## Slowing down to get there faster

Studies show that traffic flowing more slowly, smoothly and consistently actually helps motorists get through to their destinations more quickly. Fewer rear-end and lane-changing accidents occur in slow-but-steady conditions, and both fuel usage and carbon emissions are decreased.

Increasingly, our VariableSpeed Limit displays are being used on highways in real-time to alert drivers of changing road conditions ahead. Applications include severe weather or congestion management on multi-lane freeways and arterials.

Our NTCIP communication capabilities, integrated radio modems and solar power options make it easy to consider these very cost effective solutions for your traffic management program.

# Regulatory Displays



VariableSpeed Limit™ highway application

Full-matrix 18-inch displays use high contrast white digits or reverse contrast with black digits. 18-inch seven-segment displays use high-contrast white digits only.

## Alerting drivers to adjust to appropriate speeds as road conditions vary

## VariableSpeed Limit Alert™

VariableSpeed Limit Alert™ displays further alert drivers to a changing speed limit by activating our radar-enabled ViolationAlert™ feature. Drivers exceeding the current posted speed are warned as the digits begin to flash the speed limit. The higher the speed of the oncoming vehicle, the faster the digits will flash.

This combination is ideal for slowing drivers when sign space is limited.

The 15-inch model has an optional "SLOW DOWN" message that can be set to flash alternately with the digits displaying the speed limit.

## School zone solutions



Some agencies add flashing beacons to increase driver awareness when the speed has changed during selected hours, especially school zones.

The City of Federal Way, Washington, tied our displays to their speed cameras, using our SchedulePro™ to activate the cameras during school hours. Drivers speeding through school zones can now be ticketed.



VariableSpeed Limit Alert™ in Flagstaff, Arizona

Effective. Versatile. Durable.

# VariableSpeed Limit™

A number of states have successfully implemented VariableSpeed Limit™ displays to regulate traffic from their Traffic Management Centers (TMC) on heavily-traveled interstates. Here are two projects using our solutions—the first to smooth the flow of traffic to get drivers through congestion more quickly and to minimize crashes normally caused by stop-and-go conditions. The second project focuses on driver safety during severe weather through a high mountain pass.

## Georgia's I-285 benefits from first solar and radio VariableSpeed Limit displays



Warning drivers to slow down increases safety

"VSL gives us the ability to warn drivers in advance that they are approaching heavy congestion or a crash site, and to slow down that approaching traffic to a safe speed—one that will best facilitate its movement through the affected area. This will be immeasurably safer than having to slam on the brakes when suddenly confronted with backed-up traffic."

*Russell McMurry  
GDOT Chief Engineer*

One of metro Atlanta's most congested roads is the northern half of Interstate 285. With the goal of improving traffic flow and decreasing accidents, in October 2014, Georgia's Department of Transportation (GDOT) installed 174 VariableSpeed Limit™ displays with 18-inch full-matrix LED digits along this roadway—some in the median, some along the outer shoulder—the largest deployment of regulatory VariableSpeed Limit™ displays in the country.

The displays are in 88 locations at 0.5 to 1.4 mile increments, and road conditions are monitored 24/7. TMC operators can adjust the speed limit in 10 mph increments from the normal 65 mph to as low as 35 mph to respond to vehicle breakdowns, crashes, heavy congestion or severe weather conditions.

Project cost and installation time were significantly minimized by eliminating the need to trench under the highway to supply power and communication to the median. Because the displays require so little power, those in the median were equipped with solar power.

For communication between the TMC and the median displays, engineers devised an integrated relay process. GDOT Navigator NTCIP communicates speed limit changes via fiber connection to master radios on the AC-powered displays installed on the shoulder. Those master radios in turn communicate speed changes to slave radios on the median displays. Again, there were no delays for trenching during installation.

## Severe weather demands varying speed limits for driver safety on I-80 in Utah



"We are really looking to improve safety and also improve mobility throughout that canyon."

*Rob Clayton  
UDOT Director of Traffic Management*

Nearly 50,000 vehicles travel each day through Parley's Canyon, the highest summit on Interstate 80 in Utah. Frequent winter storms create treacherous road conditions in the canyon, making the posted speed limit of 65 mph unsafe.

The Utah Department of Transportation (UDOT) designed a solution to adjust the speed limit from their Traffic Operation Center (TOC) based on driver speed data, weather conditions, and video feeds to see how drivers are reacting to stormy conditions. A total of 15 of our 18-inch seven-segment VariableSpeed Limit™ displays were installed early in 2014 to warn drivers of unsafe conditions and to tell them to slow down. TOC operators use Ethernet communication to change the speed limits.

Several other locations in Utah have been identified for variable speed limits installation based on the success of this pilot program.

"We are receiving positive feedback from the public," says Chris Siavrakas, PE, PTOE and UDOT project manager. "Some are saying a system like this is long overdue."

Adjusting the Pace. Increasing Safety.

Compared to larger DMS or VMS signs, our hybrid guide displays provide highly effective delivery of important travel information in more locations at significantly lower cost.

Our guide displays are custom designed for your specific situation, and single locations can easily be supported with a road side installation. We support all communication connections, including NTCIP. Your TMC can be automatically notified of failures via our OfficeAlert™ feature.

Add radar to any of our guide display solutions to enable our easy-to-use TrafficAnalyzer™ program for collecting vehicle speed and volume data and creating reports.

## TravelTime™

TravelTime displays in real time the current driving time to pre-defined destination points. Drivers easily recognize these FHWA and MUTCD compliant static signs, and can quickly read the highly legible LED digits, enabling them to choose among alternate routes.

Rerouting even a few vehicles can improve traffic flow and decrease the risk of congestion-related accidents and driver frustrations, while lowering fuel expense, freight costs and vehicle emissions.

# Guide Displays



TravelTime™ freeway application

## Hybrid displays deliver information at more locations for lower cost than large DMS

## TrafficFlow™

TrafficFlow is an effective tool for improving the flow of traffic on roadways controlled by synchronized traffic signals. Drivers tend to accelerate forward when the lights turn green, only to brake at the next light. The ensuing congestion, frustration and rear-end collisions can easily be avoided by giving drivers good information.

Working together with synchronized signals, bright LED digits embedded in a static green "Signals Set For" sign tell drivers the ideal driving speed to get them through the green lights ahead. Complying drivers have a positive experience cruising through all green lights, encouraging continued driving at the recommended speed.

## TollRate™

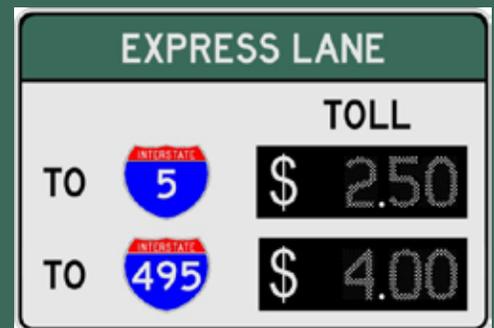
Dynamic tolling is an excellent way to manage express and HOV lanes. Raising the toll price discourages drivers from using lanes or roads at peak times. Some choose alternate routes, thereby reducing congestion on the toll road.

Well-placed TollRate™ displays give drivers sufficient time to decide whether to use the express lane or to seek another route. They also display which lane or route requires no toll. The most cost-effective solution uses an automatic TMC system to send price changes to the display.

Custom display mounting solutions can be engineered for your chosen static sign face.



TrafficFlow™ arterial application



TollRate™ toll road application

Effective. Versatile. Durable.

# Easing Driver Stress



- 9-inch shield
- 15-inch LED digits
- 8-inch letters
- 48"x72" sign
- Solar powered
- 3.5 watts typical
- Pole-mounted
- Radio or cell modem

Right-sized for arterials

An unexpected change in commute time can elevate driver stress, sometimes resulting in aggressive driving. Knowing the anticipated duration of an unusual congestion-related delay can make a big difference in driver behavior. Lower driver stress means increased safety on the road.

By receiving frequent and accurate time-to-destination information, drivers can remain calm, knowing when they will likely reach their destination. They can also notify appointments of any delay, and provide a revised time of arrival if necessary.

Good travel time information also helps drivers decide which route to take. Those choosing alternate routes help improve traffic flow and ease the effects of stop-and-go conditions, such as rear-end crashes.

To give drivers more frequent travel time information, our cost-effective TravelTime™ displays can be deployed quickly and efficiently on the roadside or in the median. The exceptionally low power demands of the seven-segment digit design makes solar a viable option, meaning low power costs as well.

These displays can also eliminate the cost of communication via cellular modem. Our InstaNet™ 900 MHz radio solution can connect to your Traffic Operations Center via an intersection hub.

## TravelTime™ messaging where you need it—a cost-effective roadside solution



Westchester County solution

18-inch full-matrix digits, 48" x 72" sign, solar power, 35 watts DC power requirement, remote NTCIP two-way communication with cell modem. Easily mounted to a pole for a permanent solution.

### Travel anxiety eased for graduates' families

The Westchester County Center is a 5,000-seat multi-purpose arena just off the Bronx River Parkway in White Plains, New York. The Center hosts annual commencement ceremonies for the many high schools serving the county's nearly million residents. Each graduation event generates unusually heavy traffic on the already-congested Parkway. Being caught in slow-moving traffic on such an important occasion can cause unnecessary anxiety for soon-to-be graduates and their families.

The County found the right cost-effective temporary solution just in time for the 2014 graduation season. Their existing time-to-destination infrastructure made it easy to add our 18-inch full-matrix TravelTime display by the side of the road.

Already in place were Sensys Networks' travel time sensors on eight different segments along the Parkway. These sensors gather vehicle travel times and deliver the data to a centralized server running CATAS software by CoVal Systems. The software determines the travel time from the sensor data and delivers travel time information to displays.

The integration was seamless. To tap into the traffic system, the County mounted a TravelTime display on a trailer with solar power sufficient for the display's low power requirements. The display was equipped with NTCIP and two-way cellular communication directly to the central server.

Families traveling to graduation ceremonies could relax, knowing they would arrive in time, or that they could choose an alternate route.

## Informing Drivers. Changing Behavior.

# Warning Displays

## SpeedCheck™

Speeding drivers put others at risk, especially when pedestrians are present in school zones, on neighborhood streets, or in work zones. Well-designed radar speed displays are highly effective in getting drivers to slow down in these areas.

SpeedCheck™ radar speed displays detect the speed of oncoming vehicles and display the driver's speed by flashing bright LED digits. The display is combined with an FHWA MUTCD-compliant "YOUR SPEED" static sign face, making it easy for drivers to understand the intended message at a glance and react to it by slowing down.

The ViolationAlert™ feature causes the digits and/or an optional SLOW DOWN to flash when a pre-set threshold is exceeded—the higher the speed, the faster the flash.



SpeedCheck™ with Flashing Beacons

## Alert speeding drivers with intelligent radar-activated warning displays

## AdvisorySpeed™

Pair an electronic AdvisorySpeed™ display with your static warning sign to improve driver safety and reduce road departures on rural roadways and exit ramps. Bright amber LED digits capture the attention of approaching drivers, prompting them to slow down to the displayed speed.

An AdvisorySpeed display can display the speed at all times, and with the radar-enabled ViolationAlert feature, it can be set to flash the digits and/or a SLOW DOWN message when the speed is exceeded—the higher the speed, the faster the flash.

Since the Alert option is activated only when the approaching vehicle exceeds the safe speed limit, drivers are more likely to take notice. Flashing beacons can be added to heighten the alert.



AdvisorySpeed™ with SLOW DOWN Message

## SlowDown Alert™

Reduce road departures and increase roadway safety where an advisory speed has not been established by combining an LED "SLOW DOWN" message with your static warning signs. SlowDown Alert™ displays boost the effectiveness of your standard static warning signs, such as advisory speed, curve ahead, exit, ramp speed, or pedestrian crossing.

Drivers approaching at a safe speed see only your static warning sign and a blank display. Those driving too fast will trigger the flashing "SLOW DOWN" message—the higher the speed, the faster the flash.

By displaying only during a violation, the SlowDown Alert display more effectively grabs the violator's attention.



SlowDown Alert™

Effective. Versatile. Durable.

# 75 percent fewer collisions on California Redwood Highway curves



SpeedCheck™ with Flashing Beacons

## Forewarned four ways

Advisory speed static sign ► SpeedCheck™ radar speed display ► Flashing beacons ► Chevrons

Drivers approaching two dangerous curving stretches along the Redwood Highway first encounter an enormous **curve ahead** sign with the advisory speed prominently posted. Next they see their current speed displayed in bright 18-inch LED digits on a **SpeedCheck YOUR SPEED** display.

If they are traveling too fast for the curve, SpeedCheck's **ViolationAlert™** feature triggers **flashing beacons** and flashes the digits displaying their current speed. The higher the speed, the faster the digits flash. Beyond the display, **chevron arrow signs** draw attention to the sharpness of the curve.

Along California's North Coast, U.S. Highway 101 passes through the giant redwood forests. During the tourist season this meandering "Redwood Highway" is packed with distracted tourists unfamiliar with the roadway, often driving oversized motor homes and campers—a dangerous combination. The likelihood of entering one of this highway's many curves at too great a speed is very high, resulting in many accidents.

To improve safety and reduce the number of accidents along the route, the California Department of Transportation (Caltrans) instituted a comprehensive solution in two trouble spots—the curves just south of the bypass and the Big Lagoon curves.

Caltrans installed SpeedCheck™ driver feedback displays, flashing beacons, and static curve warning signs with the posted advisory speed. They also changed to open-graded pavement to provide better skid resistance and quicker drainage during wet weather.

The results were very encouraging. In the first year, **both locations showed a significant drop in the number of collisions** over the previous two years. Near the bypass, the number dropped by 37 percent, while at the Big Lagoon curves, the number was reduced by an astonishing **75 percent**.

Number of collisions per year			
Year		Bypass	Big Lagoon
2004	Pre-installation	9	12
2005	Pre-installation	8	12
2006	After installation	5	5

# AdvisorySpeed™ displays to decrease crashes/departures in Florida

Since deploying several hundred SpeedCheck™ radar speed displays in the Tampa Bay area, FDOT District 7 has experienced great success in getting drivers to slow down in school zones.

The District has now turned their focus to off-system roadway safety, securing \$2.7+ million in federal funding to address 148 rural and suburban local highway curve segments in their region. (See [www.d7safetysummit.org](http://www.d7safetysummit.org) for details.)

They chose solar-powered AdvisorySpeed™ displays with bright LED speed digits and a "SLOW DOWN" message installed with standard static curve signs.

Each can display the advised speed continuously, or remain blank until a vehicle approaches. When drivers exceed the displayed speed, the radar-activated ViolationAlert™ feature catches their attention by flashing the digits and/or the "SLOW DOWN" message.

More than 170 AdvisorySpeed displays are targeted for curving roads across five counties.



AdvisorySpeed™ and "SLOW DOWN" Message

Calming Traffic. Saving Lives.

# Intersection Safety

Intersection safety is a national, state and local priority. In recent years an average of 22 percent of traffic fatalities and roughly 50 percent of serious traffic injuries occurred at intersections.

Agencies are searching for solutions that avoid the public backlash often associated with photo enforcement programs.

Here is how the city of Chandler, Arizona, a Phoenix suburb coping with a population explosion, greatly reduced the number of traffic fatalities at their intersections.



SpeedCheck™ radar speed displays

## 79 percent fewer intersection traffic fatalities in Chandler, Arizona

### Crash Prevention Measures

Between 2002 and 2008, 65 people lost their lives in traffic collisions within the Chandler city limits. One in three of those deaths were collisions involving excessive speed, despite red-light photo enforcement installed at many busy intersections.

In search of a solution, the city launched a coordinated program including public awareness campaigns to ensure public acceptance.

City traffic engineers widened the intersections, created left turn lanes and dedicated right turn-throughs and increased green time on the speed sensors.

Police stepped up patrol visibility and direct traffic and DUI enforcement. They also added a "speed on green" photo enforcement program by installing SpeedCheck™ radar speed feedback displays ahead of 12 problem intersections to alert drivers to the appropriate speed.

Cameras at these target intersections operate not only when a signal is ignored but also when the posted speed limit is exceeded. Drivers can now be cited through photo enforcement for both red light and speeding violations.

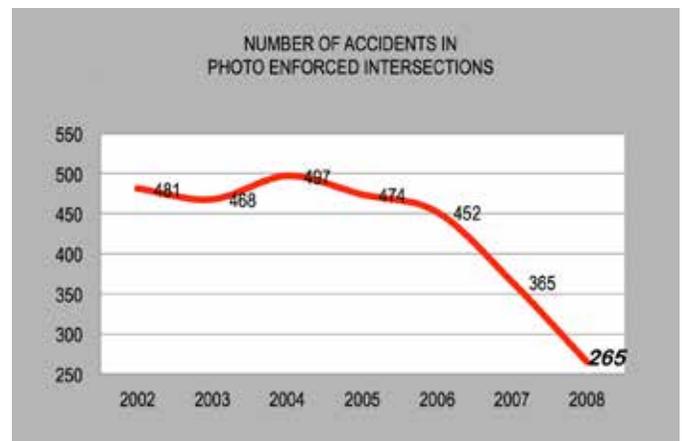
To further inform the public, the city listed on their website the 12 intersection locations where photo enforcement cameras cover speed and red light violations.

### Measurable Results

Chandler got the results they were hoping for. In a year-long study:

- Speed dropped by an average of 4 mph
- Red-light incidents dropped by 50 percent in 2008 compared to 2002

The best news is the **steep decline in traffic fatalities**—79 percent fewer in 2008 than in 2002 despite far more congestion on the roadways.



Speaking about the SpeedCheck displays:

"I wanted to make sure people have ample warning. If people slow down and don't get a ticket, that's a good thing, no matter what prompted them to do it."

*Jeff Weninger  
Chandler City Council*

**Calming Traffic. Saving Lives.**

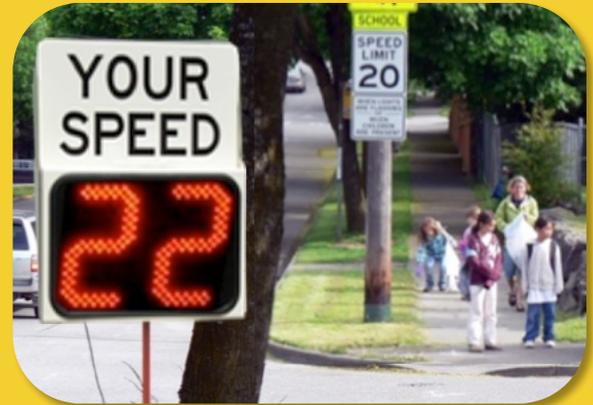
Portable displays are useful when you need to deploy a solution quickly, and a permanent display is not practical.

- Use a portable **SpeedCheck™** display to calm traffic for problem areas, or during special events or harsh weather.
- Place a portable **VariableSpeed Limit™** display in a proposed location to test effectiveness before installing a permanent display.
- Verify time-to-destination solutions with a portable **TravelTime™** display equipped with our **TrafficAnalyzer™** traffic data collection and reporting.

At only 30 pounds, our portables can be deployed and removed by anyone in just a few minutes. The static "YOUR SPEED" sign face includes a handle and folds down for easy transport.

Choose among stand-mount, trunk-mount, or hitch-mount installations, or use our **QuickChange™** brackets on an existing pole.

# Portable Displays



Portable **SpeedCheck** display on stand mount

## Portables provide maximum versatility with many mounting choices

### QuickChange™ brackets

Our **QuickChange™** brackets allow you to move displays among selected pole locations, perfect for studying effectiveness before installing a permanent display, or for servicing multiple locations with one display. Simply install a **QuickChange** pole-bracket at each of your selected locations, and install a receiver bracket on the display. Now you can quickly move it among your locations and secure it with a padlock.



Portable **SpeedCheck** with pole-mounted enclosure



**QuickChange™** bracket with padlock



### Battery power

We recommend a 12V 80AH deep-cycle (trolling) battery, which will operate the display for 7 to 9 days without recharging. Recharge time will depend on the amount of use. One day of use takes a few hours while a week of use may require 24 to 30 hours for a full recharge.



### Stand mount

Use our stand-alone kit to deploy your portable display in work or school zones or for events. The kit includes a collapsible folding stand, adjustable mounting bracket, and portable battery enclosure with cigarette lighter adapter and charger.



### Hitch mount or trunk mount

For the fastest deployment, set the stabilizing feet directly on any vehicle trunk or attach the display to a hitch with our adjustable mounting bracket. No need for a battery—your portable can be powered from the vehicle battery via the cigarette lighter adapter.

Effective. Versatile. Durable.

Our DuraTrailer™ allows you to quickly deploy a temporary intelligent traffic display where you need it, then leave it in place unattended.

## Effective—see the display, no obstructions

**Easy to see.** Mounted at standard level and offset toward the driver's field of vision. Drivers quickly see the display and what's beyond it.

**Tail lights flash like beacons.** For extra driver awareness, the DuraTrailer's tail lights can be set to alternately flash with the display digits when drivers exceed a pre-set speed threshold.

## Versatile—more than just a speed trailer

**Many applications.** You can decide what you want your DuraTrailer to do. It can mobilize any of our electronic displays—AdvisorySpeed™, SpeedCheck™, VariableSpeed Limit™, or TravelTime™—or our FlashAlert™ solution, a combination static traffic sign with radar-activated flashing beacons. Purchase the trailer separately or with our 15 or 18-inch electronic displays or FlashAlert.

**Flexibility in display mounting.** Displays are not permanently mounted to the DuraTrailer. You can easily move them among permanent pole, portable stand, hitch-mount or DuraTrailer using our special QuickChange brackets.

**Tow with any vehicle.** Light tongue weight. Wiring pigtail detaches and adapts to any vehicle lighting system and connector.

## Secure—park it and leave it alone

The DuraTrailer is built with many standard security features, giving you peace of mind when you want to leave it unattended for long periods. You can also add our optional high security package.

# DuraTrailer™



## Durable—lightweight and sturdy

Surprisingly easy to get on the road, this is a trailer you won't hesitate to use, and one you'll have around for many years.

**Tough.** Welded steel frame, fiberglass molded enclosure.

**No rust, ever.** Hot-dip galvanized frame withstands even the worst road salt and ocean spray.

**Smooth, stable ride.** Even at higher speeds and over rough road surfaces. Wide profile wheels and tires, torsion bar suspension.

## Utah DOT boosts speed compliance in floating Active Work Zones



UDOT Active Work Zone on I-15 in St. George

"My initial observations are that they are as effective at slowing traffic as using a highway patrol officer in each work zone."

*Brent Beach*  
UDOT Safety Loss/Incident Manager

"We are looking at expanding to an intelligent work zone implementation in 2015. This project will allow us to validate driver response on-demand and on a dynamic basis using VariableSpeed Limit™ displays to the fullest."

*Josh Van Jura*  
UDOT Project Controls Engineer

In Utah, the normal highway speed limit of 75 mph has been traditionally dropped to 45 mph through highway construction zones, regardless of the length of the project—a practice that has led to very low rates of speed compliance and high danger to workers in the zone.

With the goal of optimizing worker safety by increasing speed compliance, UDOT's Traffic and Safety Division tested a floating Active Work Zone (AWZ) using eight VariableSpeed Limit™ displays, each mounted on a lightweight, easy-to-move DuraTrailer™. The theory was that speed compliance would increase by reducing speeds only where workers are actually present, and by reducing the amount of time drivers are asked to drive below the normal highway speed.

Three speed changes were established in the field using OnSite™ software via Bluetooth® wireless connection. First, the standard 75 mph speed limit was dropped to 65 mph throughout the length of the project during working hours. Second, the speed limit for an AWZ of two miles or less was set at 45 mph. And third, whenever there were two or more miles between AWZ's in the project, the speed returned to 65 mph.

The pilot was a success, achieving 85<sup>th</sup> percentile speeds of 51 mph 1000 feet upstream from the AWZ where the posted speed was 45 mph, and 49 mph at 100 feet upstream of the zone.

# Portable Intelligent Display Applications



Work zone



Expressway



Arterial

Mount to suit your application, location, and duration of deployment



Police



Targeted enforcement



School or pedestrian zone



Neighborhood



Event or festival



Golf course

Calming Traffic. Saving Lives.

# Flashing Systems

## Warning and Regulatory



Getting drivers to slow down saves lives, especially when pedestrians are present. Flashing beacons alert drivers to slow down in crosswalks and school zones and on hazardous roadways.

Our intelligent all-in-one flashing beacon systems include OnSite™ two-way wireless local Bluetooth® communication and SchedulePro™ with unlimited scheduling, perpetual calendar and two-year exceptions list.

Add TrafficAnalyzer™ to collect traffic data and create reports for measuring the effectiveness of your program, and InstaNet™ remote communication to program your devices by groups and to monitor and maintain the devices. You can also pair flashers with any of our electronic displays to increase driver awareness of speed limits and changes.

### Retrofit existing flashing beacons

You can upgrade your installed flashing beacons simply by adding our DeviceController™ to your existing hardware. Upgrading will expand your scheduling capability, provide two-way wireless communication and give you the option of adding data collection and reporting.

Our systems are 12V DC with an expandable solar solution, and can support AC, making conversions easy.

## InstaNet 900MHz radio network—an easy, effective, and affordable solution

### School zone safety with a positive twist

Many young families with children are attracted to the small-town atmosphere of Gilbert, Arizona, creating heavy traffic congestion in school zones where parents drive their children to school. To increase school safety, promote walking and biking to school, decrease traffic congestion, and improve air quality, the community launched a grant-supported Safe Routes to School program that installed ramps, sidewalks and SpeedCheck™ displays.

In addition to calming traffic, the program extended the practice of positive reinforcement from the classroom to the street to “reward” drivers observing the speed limit through the school zone.



Drivers approaching the SpeedCheck displays at or below the speed limit are greeted with “smiley face” beacon.

No smiley face appears for those driving above the speed limit. Instead, the LED digits flash their current speed to encourage them to slow down.

Kids have now joined the cause by asking their parents to show them the smiley face as they drive through the zone.

### Flashing beacon retrofit eliminates cell costs



To get drivers to pay attention to school zone speed limits, the City of Renton, Washington integrated their flashing beacon and static school zone signs with American Traffic Solutions' speed ticketing camera system.

Unfortunately the cost of cell service had become too high to operate the system, and the City needed a way to verify the beacons were working when tickets were issued. They also needed a quick way to turn off all beacons on school snow days.

The City worked with us to develop a **reliable, low-cost, fully integrated InstaNet 900MHz network** with two-way wireless communication, eliminating cell costs and adding the functions they needed.

Since retrofitting their system with our DeviceController, the City now uses our SchedulePro software to activate the flashing beacons on each school's bell schedule. After a five-minute delay, OutputManager™ triggers the cameras, allowing drivers time to see the beacons once they are on.

The City can verify the beacons are working by accessing our beacon operational logs remotely via the InstaNet network. They can also control all beacons with an “all off” scheduling command when needed during an unexpected district-wide school closure event, such as snow.

By the end of the pilot project, four schools will be retrofitted and the network will include three InstaNet hub radios and 15 radio nodes with existing flashing beacon system enclosures. **Reliable, fully integrated, no cell service charges.**

## Calming Traffic. Saving Lives.

FlashAlert™ is a cost-effective means of alerting drivers to decrease speed for upcoming roadway hazards, such as intersections, blind curves, stop signs, or signals ahead. It is also an effective way to warn drivers to avoid entering a road the wrong way.

Drivers are more likely to notice FlashAlert since the beacon flashes only when the radar detects the presence of an approaching vehicle and/or a vehicle is exceeding a set threshold. This versatile solution can be paired with any static or changeable message sign, and can be used as a warning device, using amber flashers, or regulatory, using red.

FlashAlert can trigger optional external devices such as audible alarms, cameras or changeable message signs and can collect and report traffic speed and volume data by adding our TrafficAnalyzer™ option.

Key features include:

- Two-way wireless communication with OnSite™ via Bluetooth® or with InstaNet™ radio networking to your TMC.
- Low maintenance costs with longer beacon life since they flash only when a vehicle is present and/or in violation.
- Low power requirements at less than seven watts with a single flasher powered by AC, DC, or solar.

# FlashAlert™

## Warning and Regulatory



Wrong-way FlashAlert with beacons or RRFB's

## Increase roadway safety with intelligent radar-activated beacons

### Leon County warns drivers of sharp curves



Crashes and road departures were a constant threat on a hazardous stretch of road in Florida's Leon County. Drivers were unable to see sharp curves ahead in time to negotiate them safely, especially at night.

To increase safety, the County chose FlashAlert as the ideal solution since it activates only when vehicles are approaching too rapidly. They installed six curve warning signs with FlashAlert to forewarn drivers of the danger ahead.

### Stop alert saves lives at four-way stop

In a rural section of California's Contra Costa County, drivers approaching a four-way stop were often unable to see the stop sign until it was too late. Many sailed right through the intersection, sometimes crashing into other vehicles already in the intersection.

To increase stop sign awareness, the County selected a FlashAlert solution because of its low power needs and activation only when needed.

Now drivers get advance warning in plenty of time to stop safely at the intersection.



### Wrong-way driving a national issue

The National Highway Traffic Safety Administration reports 300 to 400 fatalities each year due to drivers entering high-speed divided highways or access ramps the wrong way. State departments of transportation nationwide are conducting pilot studies to find ways to prevent these crashes and fatalities. These studies are focusing on increased visibility with placement, lighting, standard flashing beacons or rectangular rapid flashing beacons (RRFB's) and changeable message displays.

Our FlashAlert product is approved on the Florida APL and is in use in many other states. FlashAlert is ideal since it is activated only when it detects a vehicle going the wrong way.

Also being tested is the effectiveness of RRFB's to heighten driver attention, especially impaired drivers who are most likely to offend. State officials are hopeful new signs with RRFB's will help alert drivers headed the wrong way on interstate ramps. Sensors attached to the signs determine when a car is driving the wrong way up the ramp, and the RRFB alerts the driver before the wrong-way vehicle arrives at the main interstate lanes.

The second phase will add cameras to take videos or photos of vehicles traveling the wrong way on the ramp and send them directly to Highway Patrol or other designated contacts via a cellular connection. Upon receiving the photo, an emergency response can be dispatched and overhead message boards changed to alert other drivers of the impending danger.

## TrafficInfo™

TrafficInfo™ is an inexpensive and reliable data collection and reporting solution. It collects the date, time and speed of each target vehicle passing the location, and TrafficAnalyzer™ generates instant reports that graph and chart the data for analysis. Over 200,000 vehicle speeds are stored with the ability to store FIFO or to stop collection when the limit is reached.

## Use traffic data for planning and operating your road network

Quickly access real-time traffic volume and speed data as part of your Intelligent Transportation System. Unlike other data collection systems, the data is stored with the date, the time and the speed of each vehicle. The data is never averaged or grouped by speed or time categories.

TrafficInfo supports many communication formats, putting this important data at your fingertips when and where you want it, via OnSite™ Bluetooth® communication, or our InstaNet™ options that easily integrate into your Traffic Management Center to help you manage your roadways.

Use traffic volumes and speed data to:

- Analyze traffic volume on congested roadways.
- Adjust traffic light signalization based on traffic flow and monitor bottlenecks in work zones.
- Make adjustments for toll pricing, ramp metering and information displayed on electronic signs.
- Optimize variable speed limits, signals and travel times.

# Traffic Data



Pole mount with solar power or battery only



Stand mount with battery

Enclosure is designed to hold DeviceController™, modem, radar, solar controller and battery



Non-metallic enclosure

Stealth data with simple, effective reporting—works even in snow

## TrafficAnalyzer™

### Full-featured analysis and reports

- Data, time and speed of the vehicle is saved. Raw data available for additional analysis via .csv file to use with any program.
- Reports include summary statistics, graphs and charts, data trimming and data windowing by date and time-of-day for targeted speed trend analysis.
- Automatically creates a percent-compliance chart with four user-defined percentiles.
- Historical data available for further analysis.
- Enables combining of separate overlapping data files or date ranges for full analysis.

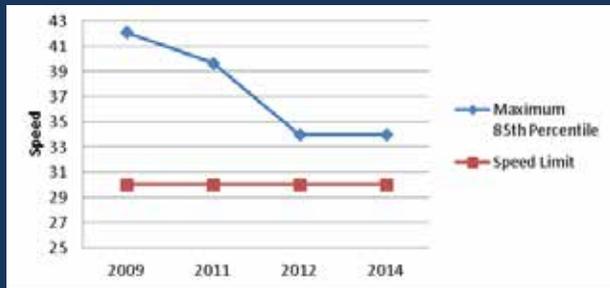


Automatic reports available within minutes of data download

Effective. Versatile. Durable.

# TrafficAnalyzer™

## 85th percentile speeds drop by 8 mph



## SpeedCheck™ still effective on Florida road

Speeding was a chronic problem along a two-mile stretch of Tarpon Woods Boulevard, a collector road in Pinellas County, Florida. Citizens often complained of speeders, and studies in 2009 and 2011 showed 85<sup>th</sup> percentile speeds well above the posted 30 mph speed limit—an average of 38.5 mph, with 85<sup>th</sup> percentile speeds as high as 42 mph.

In 2012, the Pinellas County Residential Traffic Management Program targeted this roadway for intervention, installing SpeedCheck™ radar speed displays at six locations along the route.

The results were immediate—an 8 mph reduction in 85<sup>th</sup> percentile speed. The average 85<sup>th</sup> percentile speed dropped to 32 mph, with a maximum of 34.

Two years after the installation, drivers continue to respond to the SpeedCheck displays, hitting the brakes and slowing down. A 2014 study showed 85<sup>th</sup> percentile speeds of 33 mph with a maximum of 34, maintaining an 8 mph reduction. And residents have stopped calling Pinellas County officials to complain about vehicles speeding on this stretch of Tarpon Springs Boulevard—a satisfying success story.

## Reports demonstrate effectiveness of radar speed display programs



SpeedCheck with targeted enforcement

## 50 mph speeder cited in school zone

"After studying the traffic data supplied by SpeedCheck's TrafficAnalyzer, we pinpointed one driver speeding at 50 mph through a school zone daily at 7:20 am. With data in hand, the police were dispatched, and when the offending speeder came through that morning, she was issued a speeding citation."

*Dean Gilbert, Traffic Engineer  
Mt. Vernon, Washington*

## San Jose leads the way

As capital of the Silicon Valley, the city of San Jose, California, is constantly driven to address the speeding and pedestrian safety issues brought on by population growth. A pioneer in traffic calming, the city began to implement radar speed displays as early as 1999.

In 2001, the city conducted a study to determine the effectiveness of radar speed displays in school zones. Overall the results were encouraging, with a 5 to 7 mph reduction in speed when displays were operating.

Since 2006, the city has deployed over 70 SpeedCheck™ radar speed displays in neighborhoods and school zones. In the spring of 2014, five SpeedCheck display locations were evaluated, using data from our TrafficAnalyzer™ software collected remotely using InstaNet™.

The SpeedCheck radar speed displays continue to prove effective in calming traffic. For the studied locations, 3 to 6 mph reductions in speed were noted during hours of operation.

## Bellevue's view on stationary radar displays

In 2009, the city of Bellevue, Washington, published a stationary radar display report, which reads: "As of January 2009, the City has installed 31 stationary radar signs. Results show an overall reduction of vehicle speeds between 1 and 6 mph, even up to 8 years after the signs were installed. Due to this level of effectiveness, the City will continue to use radar displays to address vehicle speeds and/or bring a motorist's attention to an upcoming situation, such as a curve or school zone."

Since 2007, the city has deployed 32 SpeedCheck radar displays, 17 replacing other manufacturers in 2012. Positive traffic-calming results continue year after year in the neighborhoods and school zones where the displays are at work.

Intelligent Data. Managing Roadways.

# DeviceManager™



Remote



OnSite

As part of our shared platform design, all of our products use our DeviceManager™ software and DeviceController™ hardware, allowing you to quickly add many optional features.

DeviceManager software adds the ability to wirelessly program speed settings, set operational schedules, upgrade firmware, and download traffic data and operational logs.

## Communication Options

OnSite™	Enables two-way onsite communication using a laptop with a Bluetooth® wireless link to program, update, and conduct display diagnostics, and download speed data, from up to 50 feet from front of device equipped with DeviceController with a Bluetooth® interface. One USB Bluetooth® module per agency included.
InstaNet™	Enables remote communication from TMC or any remote location to program, update, download speed data, conduct diagnostics, via NTCIP, fiber, WAN TCP/IP, cellular modem, radio/RF modem, serial, or Ethernet.
OfficeAlert™	Failure reporting and alert notification via text message or email. Includes failure notification of LED segments, power monitoring for solar systems, recent high detected speed for speeding problems, and built-in time clock correction using NIST time servers. Allows separate maintenance, administrative, and enforcement email or text message contacts.

## Main Product Options

SchedulePro™	Sets operation hours by time of day and day of week with unlimited schedules and modes on perpetual calendar; includes two-year exception list. Schedule times of day for on and off control, view current schedule and speed settings modes, edit exceptions by date and time, and download pre-configured schedules to any of our devices.
TimeKeeper™	Automatic daily time synchronization of on-board clock via GPS satellite signal to government atomic clock.
Slow Down	Alternately displays speed limit and "SLOW DOWN" 6-inch message, available in red or amber LEDs.
TrafficInfo™	Collects date, time and speed for over 200,000 individual target vehicles and provides access to the raw data for further analysis. Program ON or OFF times, download and erase data in device, select stop-when-full or FIFO data storage.
TrafficAnalyzer™	Uses data from TrafficInfo to generate easy pre-defined speed compliance reports; includes advanced data windowing and statistics. Collects date, time, and speed of vehicle and generates speed compliance reports with data windowing and access to raw data via .csv file.
Output Manager™	Triggers external devices, e.g. flashing beacons or cameras, by speed threshold or schedule, or remotely from your Traffic Management Center.
Input Manager™	Allows external devices to manage display operation with external contact closure. Includes wiring harness.

## Packaged Options

Package-01	"SLOW DOWN" Message. 15" only.
Package-02	SchedulePro and TrafficAnalyzer.
Package-03	SchedulePro, TrafficAnalyzer and "SLOW DOWN" Message. 15" only.

All packages require DeviceController equipped with DeviceManager OnSite and include one USB Bluetooth® module per agency.

## Efficient and affordable—just plug and play

Save time and reduce the cost of maintaining your flashing beacons and electronic displays with our InstaNet™ network solution. Truly plug and play, InstaNet instantly delivers two-way wireless communication with your devices, point-to-point or point-to-multi-point, without cellular service fees.

Program speed settings, set operational and flasher schedules, verify and monitor device operation, upgrade firmware, and download traffic data and operational logs using our DeviceManager™ software from your desk. With remote communication, you can update operations by locations or groups, such as all elementary schools, or all middle schools.

InstaNet supports NTCIP, fiber, WAN TCP/IP, cellular modem, radio/RF modem, serial, or Ethernet connections.

## Eliminate unnecessary service calls

No need to drive around to verify your devices are working. Monitor and troubleshoot from your desk, sending a service crew only when needed with the problem pinpointed with the right parts in hand.

## Verify operation—get tickets to stick

DeviceManager monitors LED operation for our devices, including VariableSpeed Limit displays and school zone flashing beacons, and it documents that operation by time of day. When you need proof the device was working at a specific time, simply download your operational logs.

# InstaNet™

## Two-Way Wireless



## Keeping Kids Safe



Use InstaNet 900MHz network to program remotely through centralized radio hub using hardwire to existing communications network.

## InstaNet 900MHz radio network—perfect upgrade for existing beacons

### Retrofit your existing flashing beacons

Just add InstaNet to your current flashing beacons—even those from other manufacturers—to enjoy the benefits of two-way wireless communication while preserving your previous investments. Keep your enclosures and existing power systems.

Add other features to suit your specific needs.

- Our SchedulePro™ software for unlimited schedules and modes with a two-year exception calendar.
- TrafficAnalyzer™ to measure program effectiveness with traffic data collection and reporting.
- OfficeAlert™ for automatic failure notifications via text or email.

### Radio node retrofit

The antenna, beacon and enclosure are each installed independently.

Reception distance can be increased by placing the antenna at the top of the pole—especially useful near trees or other tall obstructions.



## InstaNet 900MHz Options

Hub-HW	<b>Hub hardwired connection</b> uses an existing network connection via traffic cabinet or at school building. Includes non-metallic enclosure, AC power ready, hub controller equipped with an Ethernet port, and external hub radio (900MHz with 2000 ft. omnidirectional antenna, pole-mount bracket and 3/4-inch conduit connector.)
Radio Node	<b>InstaNet radio node</b> for use with our products. Includes external 900MHz Radio-Node with 2000 ft. omni-directional antenna, pole-mount bracket and 3/4-inch conduit connector and RJ45 plug, and adapter board for connection to existing DeviceController™. Fee per device.
Radio Node Retrofit	<b>InstaNet radio node retrofit</b> for use with other manufacturers' flashing beacon systems (enclosure, beacons, mounts, and power.) Includes external 900MHz node radio with 2000 ft. omnidirectional antenna, pole-mount bracket and 3/4-inch conduit connector and RJ45 plug, and adapter board for connection to existing DeviceController™ with universal mounting plate and cables; DeviceController with OnSite™; SchedulePro: one Bluetooth® USB interface per agency. Fee per device.

Instant Access. Minimal Cost.

# Shared Platform, Many Applications

All of our products are designed to work together for maximum ease and versatility, using our **DeviceManager™** software and **DeviceController™** hardware architecture, allowing you to choose from our many cross-product options to get the functionality you need for your specific applications. Display types can easily be changed by swapping the static sign and changing settings with the software. This cross-product compatibility reduces your overall costs and saves you time on training and maintenance.



Warning



Regulatory



Guide



## Solutions made simple

Hardware: **DeviceController** or **NTCIP**

Software: **DeviceManager**

Wireless Connections: **OnSite™** via Bluetooth® or **InstaNet™** with integrated 900MHz radio, Ethernet™, fiber, hardwire, cellular modem

Operation: Program, change, maintain by device with **OnSite** and/or remotely with **InstaNet** plug and play network. On-demand changes via TMC for variable speed limits, travel times, signals set for, toll rates, and operation schedules

Maintenance: Remote diagnostics and **OfficeAlert™** failure notifications and reports via email and text



Flashing



Traffic Data

**TrafficInfo™** with **TrafficAnalyzer™**



Power: AC, battery, solar

15-inch or 18-inch seven-segment displays: amber or white digits; SLOWDOWN message; strobe

**SchedulePro™** and **GPS TimeKeeper™**  
18-inch white full matrix message panels with NTCIP

Mounting: permanent, portable, trailer

Options

Effective. Versatile. Durable.

# Display Specifications

Standard Electronic Display Product Names and Part Numbers					
Display Product Name	15" digits	18" digits	Full matrix NTCIP	Static sign	Radar equipped
AdvisorySpeed™	AS-15	AS-18	—	"ADVISORY SPEED" with "MPH" or "KPH"	—
AdvisorySpeed Alert™	ASA-15	ASA-18	—	"ADVISORY SPEED" with "MPH" or "KPH"	Yes
SpeedCheck™	SC-15	SC-18	—	"YOUR SPEED"	Yes
TollRate™	TR-15	TR-18	TR-18M	Custom	—
TrafficFlow™	TFM-15	TFM-18	TFM-18M	"SIGNALS SET FOR"	—
TravelTime™	TT-15	TT-18	TT-12M, TT-15M, TT-18M	Custom	—
VariableSpeed Limit™	VSL-15	VSL-18	VSL-18M	"SPEED LIMIT"	—
VariableSpeed Limit Alert™	VSLA-15	VSLA-18	—	"SPEED LIMIT"	Yes
SlowDown Alert™	SDA-6	6-inch digits only		None	Yes
Standard Display Product Specifications					
Digit size	15 inches	18 inches	18-inch full matrix		
Recommended speed	Up to 45 mph	Over 45 mph	Over 45 mph		
Digit design	Seven segment	Seven segment	Full matrix		
LED color	Amber or white	Amber or white	White		
SLOW DOWN message	Red or amber	—	—		
Display housing size	26½" x 20" x 6"	31" x 22 ¾" x 5"	31" x 22 ¾" x 5"		
Static sign size	30" x 42"	36" x 48" or 48" x 60"	36" x 48" or 48" x 60"		
Weight	31 lbs. (14.5 kg)	35 lbs. (15.9 kg)	45 lbs. (2.4 kg) or 65 lbs. (29.4 kg)		
Seven segment display	Two seven-segment digits comprised of 16 LEDs per segment; unique display design creates immediate recognition and UltraClear™ technology increases contrast and viewability.				
Full matrix display	Pixel Matrix Pitch: 0.85 inch 24W x 32H per digit. Viewing Distance: >1,100 feet. Sign Intensity: >12,500 Cd/M² max. Viewing Angle: 30 degrees included angle. Usable in both positive and negative contrast modes.				
Power	AC 110-240VAC, 12VDC, dual power options <b>Seven-segment:</b> AC 20 watts; DC 6.5 watts max; <b>typical</b> 3.5 watts. <b>Full matrix:</b> DC 28 watts positive contrast; 48 watts negative contrast.				
Solar power	12V 8A or higher PWM solar charge controller with temperature compensation and gel-cell or AGM solar battery, solar panel and top or side-mount brackets. Solar power systems designed for specific geographic location and application. Performance guaranteed 24/7/365.				
Radar unit	Approach-only K-Band with vehicle detection range set at 600 to 800 feet.				
Environmental	Conformal-coated electronics. NEMA 3R cabinet. Operating temperature: -40°C to +75°C, -40°F to +167°F. 90% RH non-condensing, 5-30Hz 3-axis vibration, ½-sine 3-axis shock. Radar FCC part 15 low-power device, no operating license required.				
Warranty	Three years on products, five years on white LED panels, 10 years on amber LED panels. Free technical support for three years.				

# Product Options

Power Options		All products support AC 120/240V, 12VDC, dual power and solar power options
Batteries	28, 55, or 100 Amp hour gel-cell or AGM solar batteries.	
Solar Power	Solar power system includes mounting brackets, solar panels, wiring, pole-mounted battery box, solar charge controller and 55AH solar battery. System sized for seven days of autonomous operation. Supports 24/7/365 display operation based on customer-provided solar requirements specific to location, solar hours and sunlight obstructions. Solar panels 20 watts to 200+ watts supported.	
SuperCap	Super-capacitor clock backup power supply in lieu of DeviceController™ clock backup batteries.	
Alert Options		
SLOW DOWN	Alternately displays speed limit and 6-inch character red or amber LED SLOW DOWN message.	
Flashing Beacon Kits	One to four amber LED flashers: black polycarbonate housing/door and tunnel visor, AC/DC/Solar power ready, mounting hardware included. Available with 8-inch, 12-inch, or 12-inch smiley face LED beacons.	
Strobe Flash	Red or white strobe light. Draws further attention for a speeding driver to slow down. Simulates a traffic camera strobe flash. Single or multi-flash options. Requires Output Manager option.	
Mounting Brackets		Easily installed using standard banding
Standard Brackets	Standard brackets for mounting displays to poles up to 2.5", 4", and 8" diameter OD using banding.	
QuickChange™	Pad-lockable bracket for quickly moving displays among pole locations or for mounting to DuraTrailer.™	
Tilt Brackets™	Vertical adjustment bracket for severe road grade and/or display mounting heights over 12 feet above grade. Upper bracket to tilt display down or lower bracket to tilt display up.	
Extension Brackets	Increase space between pole and static sign, such as school or speed limit, to install them flush with our electronic displays. Two brackets included.	
Flat Brackets	Enables displays to be mounted to walls, posts, and flat surfaces using bolts.	
Enclosure Brackets	Pole-mounted battery box mounting bracket set, includes one each upper/lower and four bolts.	
Enclosures		
Pole-mounted	<b>Non-metallic enclosure</b> with lockable hinged door, 15.5 x 13.5 x 7.7 inches. Enclosure equipped to hold DeviceController™, solar controller, 26AH battery, radar and cell or radio modem	
	<b>Metal enclosure</b> with lockable hinged door, 15.75 x 13.0 x 9.5 inches. Enclosure equipped to hold solar controller and 55 or 100AH batteries.	
Ground	<b>Metal</b> with lockable hinged lid and handles, 17 3/4 x 10 3/4 x 10 7/8 inches. Designed with bracket on back of enclosure to secure to pole with chain and pad lock. Equipped to hold up to 100AH battery.	
Extended Warranties		
Product Warranties	Extended 2 or 4-year warranty includes technical phone support and product replacement parts, fee per unit.	

Effective. Versatile. Durable.

# Product Specifications

Product	P/N	Specifications			
TrafficInfo™	TI	Collects data for up to three lanes of traffic using low-power radar. Includes TrafficAnalyzer reporting with data windowing and access to the raw data via .csv file. Power: 2 watts typical, 3.5 watts with remote communication. Includes 28AH battery for up to 7 days operation without charging, and battery charger.			
Portable SpeedCheck™	P18T P18S P18H	18-inch seven-segment, red digits standard; includes low power 24.150 GHz (K-band) approach-only radar; optional battery box with auxiliary charger. Display housing 31" x 22 3/4" x 5"; flip-up YOUR SPEED static sign 31" x 19"; weight 30 lbs. (13.6 kg) Options: Trunk-mount, stand-mount, or hitch-mount.			
DuraTrailer™	DT DT-15 DT-18 DT-FA DT-TI	DuraTrailer™ supports all displays except full matrix over 36"x48". Equipped with QuickChange™ bracket and plug-in wiring harness for easy changing of product types.			
		<b>Electrical:</b> Control panel inside enclosure includes battery condition meter, on/off switches and power indicators for sign, alarm and auxiliary power controls, protection for alarm system.			
		<b>Mechanical:</b> Height: 9' 3" with 15" display; Width: 5' 2"; Length: 5' 5" with hitch; Torsion bar suspension, stabilizing jacks, standard 13" heavy-duty tires; protected corrosion-resistant external charging power jack; standard flat-4 trailer light pigtail. One security lug nut for each wheel; wheel chain and padlock for one wheel.			
		<b>Power:</b> Up to three 12V deep cycle 100AH batteries. Weight: 280 lbs. with one battery; 480 lbs. with three batteries; Includes wiring and brackets, inter-battery leads, battery hold-downs. Processor-controlled automatic float charger prevents batteries from self-discharging. Increase operation time up to 8 weeks with three batteries, longer operation with 40 watt solar assist.			
		<b>Compliance:</b> MUTCD, NHTSA, FCC compliant; VIN number can be registered.			
<b>DuraTrailer Options</b>					
	DT-Pkg-HC	<b>High compliance package:</b> ViolationAlert™ triggers high intensity tail lights to flash rapidly when set speed threshold is exceeded.			
	DT-Pkg-HS	<b>High Security Package:</b> Includes alarm system with movement sensor, back-up alarm battery, security lug nuts for all wheel studs and high-tensile strength wheel chains and padlocks for both wheels, and trailer coupling lock with key.			
Flashing Beacon Systems	FL-Sys-8 FL-Sys-12 FL-Sys-12S	Low power, solar viable. Includes OnSite™ two-way Bluetooth® wireless communication, and SchedulePro™ with perpetual calendar, unlimited schedules, two-year exceptions calendar. Options: InstaNet™, OfficeAlert™, and by adding radar, TrafficAnalyzer.™			
FlashAlert™	FA-8 FA-12	Vehicle-activated beacon system combined with advisory, regulatory or warning static signs. Option to trigger external devices: audible alarm, camera and/or changeable message sign. Low power, solar viable. Options: InstaNet, OfficeAlert, and TrafficAnalyzer.			
LED beacons	Quality color and long life LED light source. Moisture and dust resistant with a UV stabilized shell, operating temperature range -40F to +122F, conforms to standards specified in ITE LED Vehicle Signal Modules. aluminum mount included for use with U-bolts or standard banding equipment.				
	<b>Beacons</b>	<b>Housing</b>	<b>Visor</b>	<b>Mounting</b>	<b>LED Power</b>
	8", 12", amber, red, optional smiley face	Polycarbonate (standard) Aluminum (optional)	Cap (standard); tunnel or full circle optional	Top, side by side, or top and bottom	12V DC—5 watt LEDs AC 110/220V—10 watts
Beacon system enclosure	Non-metallic rustproof composite enclosure with lockable hinged door, 15.5 x 13.5 x 7.7 inches (39.3 x 34.2 x 19.5 cm.) Non-metallic enclosure allows BlueTooth wireless connection. Non-metallic enclosure equipped to hold DeviceController™, solar controller, battery, radar for TrafficAnalyzer and Alert capability and cell or radio modem.				
Power	AC power supports 110-240VAC. Solar power includes 12VDC system, solar charge controller 12V 8A PWM with temperature compensation, 28 AH gel-cell or AGM solar battery, and solar panel with top or side-mount brackets.				

THE BEST IN THE BUSINESS



# INFORMATION DISPLAY COMPANY

10950 SW 5<sup>th</sup> Street, Suite 330, Beaverton, OR 97005



"We're very concerned about measuring and monitoring results of our projects and **TrafficAnalyzer™** has helped us to **verify the effectiveness** of our SpeedCheck™ displays.

By comparing average traffic speeds before and after the units are installed, we see that the radar speed displays have an **immediate and long-lasting impact on driving behavior.**"

*Susan Lowery, Project Manager  
Santa Clara County, California*

"It has been a pleasure working with Information Display Company. Their **service is exceptional**—both responsive and helpful.

We have installed SpeedCheck displays in several new locations throughout the city as well as **replaced some of the less reliable signs** we had previously purchased from a different manufacturer.

SpeedCheck displays have proven to be **easy to install, rugged and reliable.**"

*Doran Beauclair, Signal Electrician  
City of Bellevue, Washington*

## Effective. Versatile. Durable.

"These displays are a **cost-effective** means of getting people to police themselves and we have received several messages from residents praising us for **improving safety.**"

*Police Chief Bill Dickinson  
City of Tigard, Oregon*

"The portable radar display is very mobile and very **user friendly**. I like to say it yells at you by blinking very fast what YOUR SPEED is."

*Corporal Steve Rana  
City of Carmel-by-the-Sea, California*

When the first winter storm hits in Parleys Canyon, the Utah Department of Transportation has new **versatile VariableSpeed Limit™** displays to combat a harsh winter environment.

These displays have big LED numbers that inform drivers **how much to decrease speeds** driving in these dangerous canyon settings.

"We are really looking to **improve safety** and also **improve mobility** throughout that canyon."

*Rob Clayton  
UDOT Director of Traffic Management*

