

OVERHEIGHT WARNING SOLUTIONS

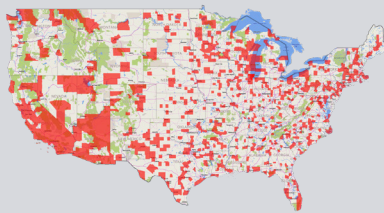




As an industry-leading innovator, TAPCO manufactures, services and distributes a wide portfolio of traffic and parking safety solutions designed to increase safe travels for all. Since 1956, we have set the standard for delivering reliable, cutting-edge traffic safety enhancements. From our world-renowned line of LED-enhanced BlinkerSign® solutions to our pedestrian crossing products and early detection warning systems, safety is at the heart of all TAPCO innovations.

Generations of Expertise

Working alongside traffic professionals for more than 60 years gives our team an exclusive perspective on the past, present and future needs of the traffic and parking safety industry.



A Nationwide Reach

With successful solution installations throughout all 50 states, we understand the safety concerns communities face across the nation.

Innovative, Smart City Technology

Our mission is to continue to lead the industry with an innovative, customer-focused approach that evolves with the technological demands of our customers.



Award-Winning Mindset

As a family-owned company, we take pride in establishing and maintaining our innovative culture.



Overheight Collisions: One Is Too Many

A concern for traffic professionals, overheight vehicle collisions against low structures cost \$300,000-\$500,000 to repair – draining already tight budgets in the process.

Add in the associated costs of local traffic congestion, new route planning and insurance premium hikes, one damage-causing strike is enough to significantly impact any city or roadway authority.

Common Overheight Crash Factors



Unfamiliar Routes

Often times, drivers blindly follow unfamiliar routes that result in encountering low bridges. These unaware drivers regularly collide with structures ahead or are too far down the road to take alternate routes, creating a dangerous wrong-way turnaround.



Lack of Knowledge

Because truck heights vary based on load weight, inexperienced drivers may be unaware of the fluctuating height of their ever-changing load. With the false belief their truck will pass under structures, drivers fail to reroute, resulting in preventable collisions.



Distracted, Tired Drivers

Attention is easily diverted in moments of fatigue and extreme stress. Static warning signs may not be enough to draw attention during these times, especially at night. By the time drivers become aware of an impending collision it may already be too late.

SYSTEM OVERVIEW

OVERHEIGHT WARNING SOLUTION

TAPCO Overheight Warning Systems provide transportation departments their best chance of avoiding potential budget destroying low structure collisions through detecting overheight vehicles and alerting drivers to an impending collision ahead.

This innovative system is designed to reduce major crash factors at low bridges, tunnels, weigh stations, underpasses, parking structures, and any low clearance hazards by:

- Detecting vehicles that won't clear the structure ahead
- Notifying drivers of height restrictions, bringing attention back to the road
- Directing drivers to a safe, alternate route

REDUCES IMPACTS

- Proven to minimize the number of accidents caused by overheight vehicles.
- Eliminates unplanned costs associated with overheight incidents.

SYSTEM FLEXIBILITY

- Custom designed to fit any road configuration.
- Solar power capability allows for installation in any environment.



SYSTEM OVERVIEW

OVERHEIGHT WARNING SOLUTION

SYSTEM FUNDAMENTALS

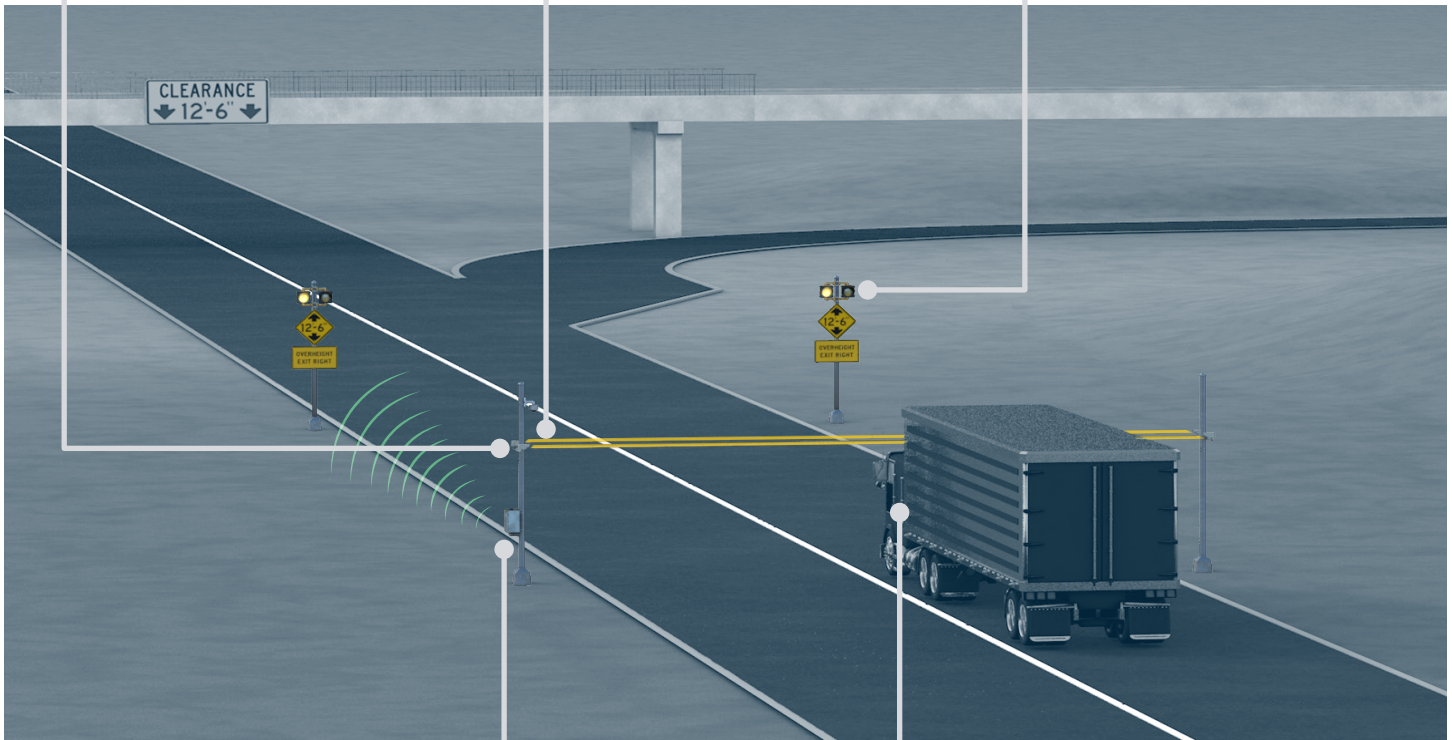
1 Dual beam overheight sensors mounted on both sides of the road transmit infrared beams to detect overheight vehicles.



2 When an overheight vehicle breaks the beams, a wireless signal activates the warning alerts.

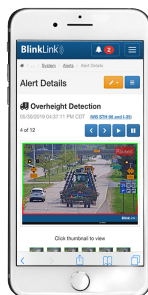


3 Warning alerts catch the driver's attention, notifying them of a collision ahead.



OPTIONAL ENHANCEMENTS

4 Traffic officials can receive real-time visual verification of system activation, remotely monitor system status and collect data including activation trends through BlinkLink®.



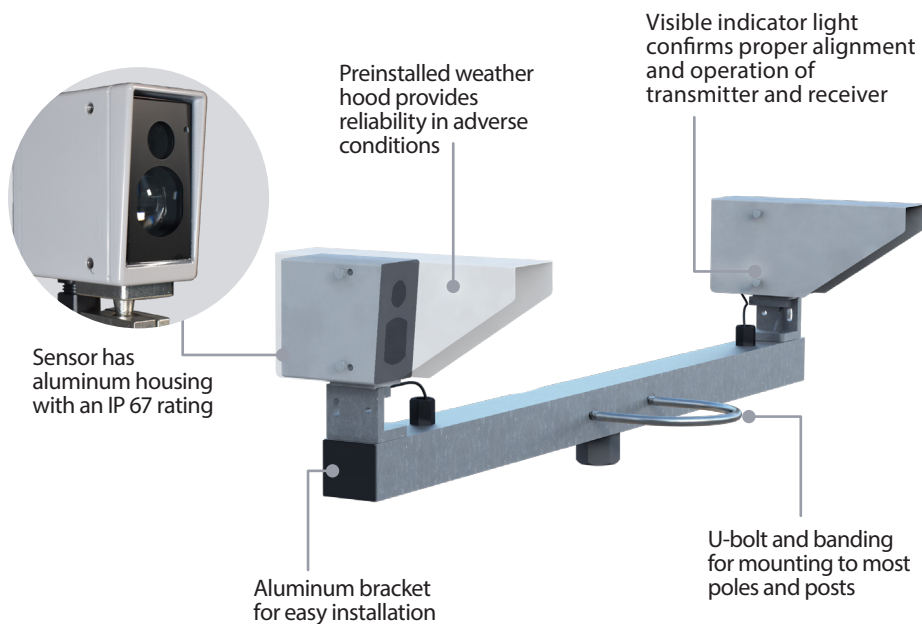
5 TAPCO's Connected Vehicle Interface sends connected motorists in-vehicle alerts, informing them of the low clearance ahead.



SYSTEM ACTIVATIONS

DUAL BEAM OVERHEIGHT SENSORS

Infrared sensors are mounted on either side of the road in advance of the low structure, transmitting infrared beams over the road. When an overheight vehicle breaks the infrared beams, it immediately activates the system's warning devices.



RELIABLE DETECTION

- Detects vehicles traveling at low or high speeds.
- Determines traffic direction at time of activation.

CUSTOM INSTALLATION

- Sensor height tailored to low clearance structure of each system.
- Can be installed up to 150 feet apart.
- Single beam available in select applications.



WIRELESS COMMUNICATION

BLINKERBEAM®

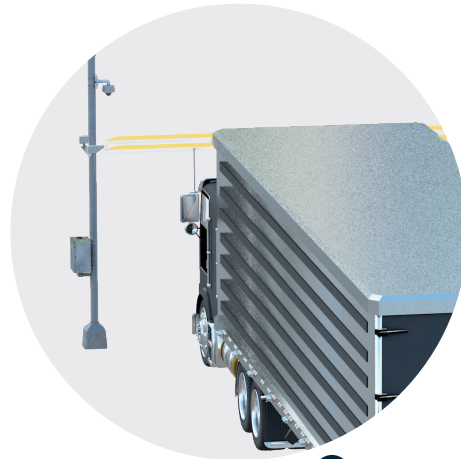
BlinkerBeam® wireless radios communicate system activation to all TAPCO warning alerts.

Placed at the detection or activation location, a transmitter radio sends wireless signals upon system activation to receiver radios located inside the control cabinet of each warning alert, triggering the alert to flash.

- Easy-to-read, backlit LCD display
- Intuitive joystick for in-field control
- Menu-driven diagnostics for quick set-up and configuration
- Three selectable power levels, up to 1 watt, to increase signal distance
- Range of up to 900 feet; works with multiple antenna options to extend distance
- Utilizes 900 MHz frequency-hopping spread spectrum



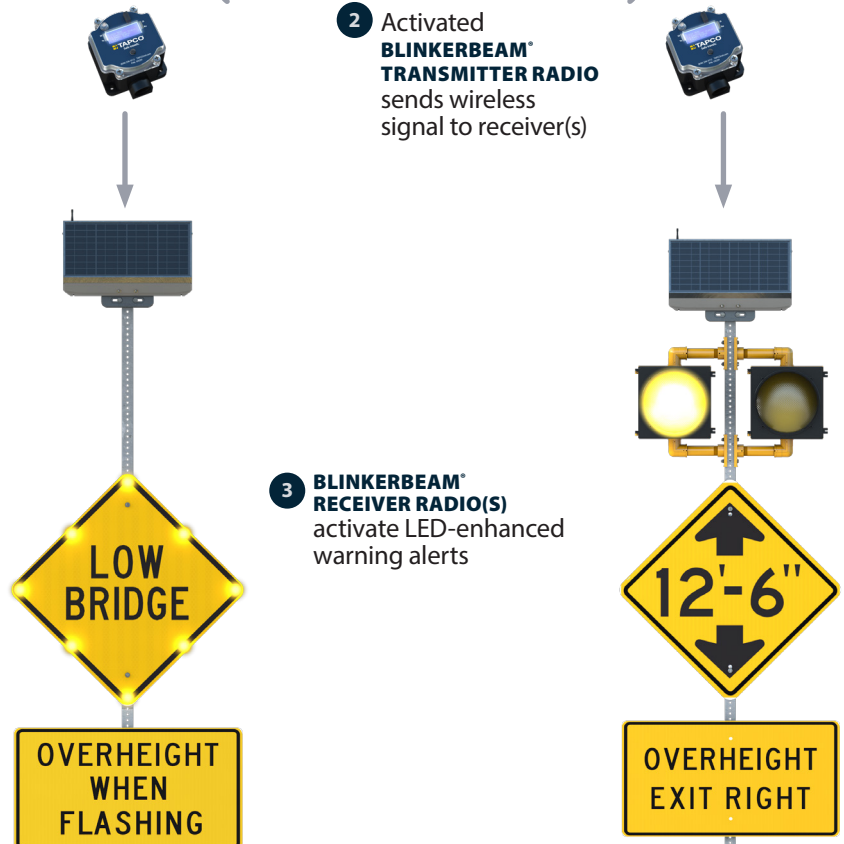
**BLINKERBEAM®
WIRELESS RADIO**



1 SYSTEM ACTIVATION



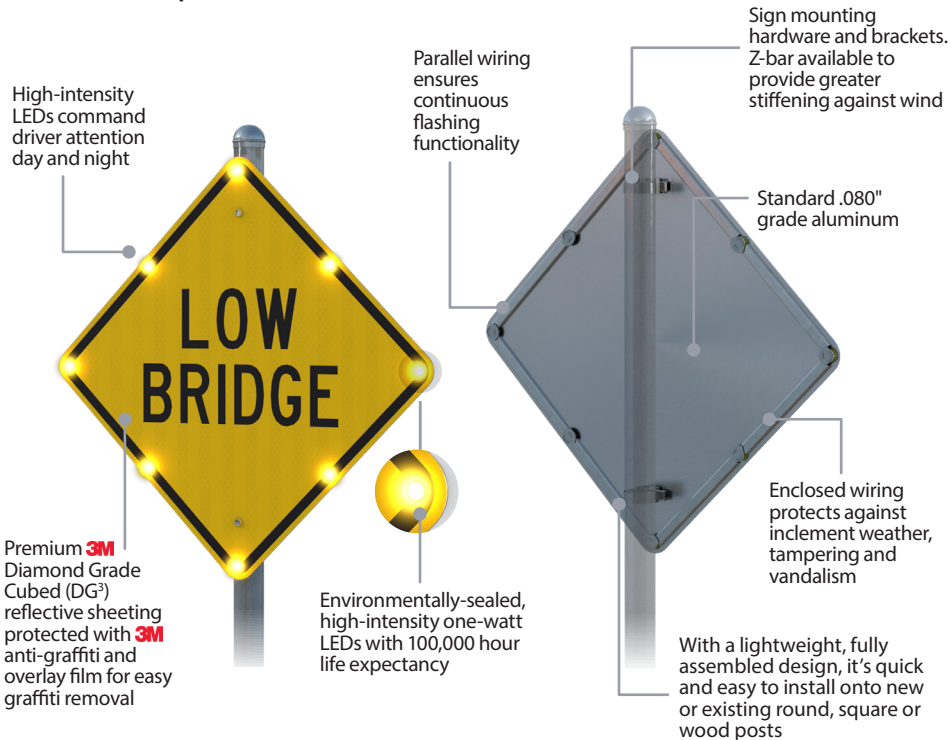
**2 Activated
BLINKERBEAM®
TRANSMITTER RADIO
sends wireless
signal to receiver(s)**



LED-ENHANCED WARNING ALERTS

BLINKERSIGN® FLASHING LED SIGNS

BlinkerSign® Flashing LED signs are edge-lit signs engineered to capture drivers' attention and decrease the number of overheight collisions. Sign legends can be designed to customer preference.



MUTCD-COMPLIANT

- Each BlinkerSign® is MUTCD-compliant and flashes in accordance with MUTCD section 2A.07.

HIGH QUALITY, MADE IN THE USA

- Manufactured in Brown Deer, Wisconsin, each BlinkerSign® is engineered to withstand the harshest environmental conditions.

VARIABLE DIMMING

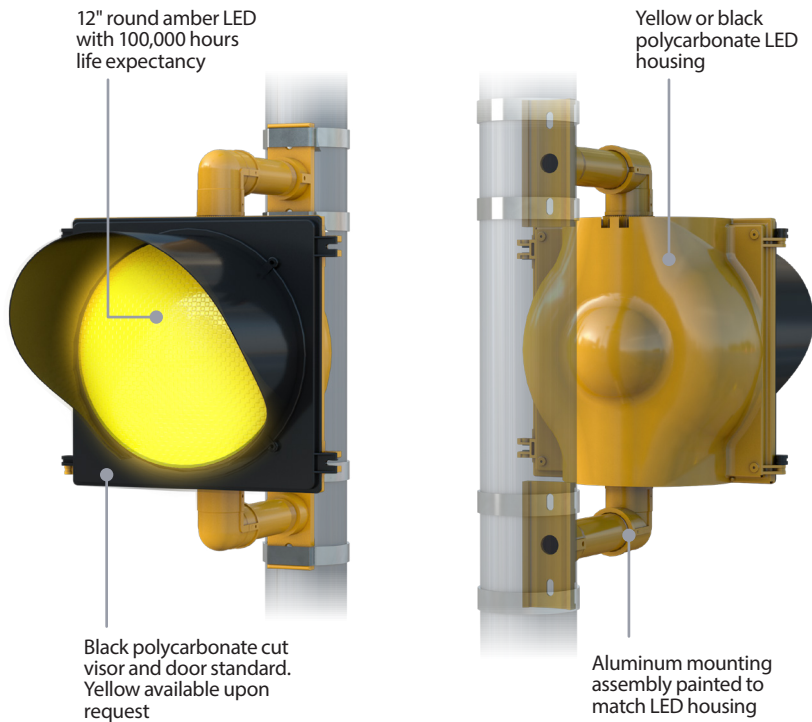
- LEDs automatically dim based upon ambient light – maintaining optimal LED output and extending battery life.



LED-ENHANCED WARNING ALERTS

BLINKERBEACON™ FLASHING LED BEACONS

BlinkerBeacon™ Flashing LED Beacons provide drivers real-time warning when their vehicle won't clear the structure ahead.



MUTCD-COMPLIANT

- Each BlinkerBeacon™ can flash in accordance with MUTCD section 4L.03.

VARIABLE DIMMING

- LEDs automatically dim based upon ambient light - maintaining optimal LED output and extending battery life.

AVAILABLE OPTIONS

- 8" or 12" LED modules.
- ITE-compliant 12V power options.
- Cut visor standard, tunnel visor available.



POWER AND CONTROL OPTIONS

FLEX POWER

Flex Power options provide flexible system configuration for multiple applications and power requirements while allowing easy access to control cabinets. Any TAPCO system can be designed to fit your power or environmental need.

AC POWER OPTIONS



120VAC



STREETLIGHT POWER

Tap into existing infrastructure to power TAPCO systems.

POPULAR SOLAR PACKAGES

TAPCO offers many solar packages to choose from, some of the most popular are listed below with other options available upon request.



13-watt solar panel
14Ah battery capacity

* Compatible with warning alerts only. Sensors require additional power for continuous operation.



26-watt solar panel
27Ah battery capacity

* Compatible with warning alerts only. Sensors require additional power for continuous operation.



55-watt solar panel
48Ah battery capacity

POWER AND CONTROL OPTIONS

FLEX POWER



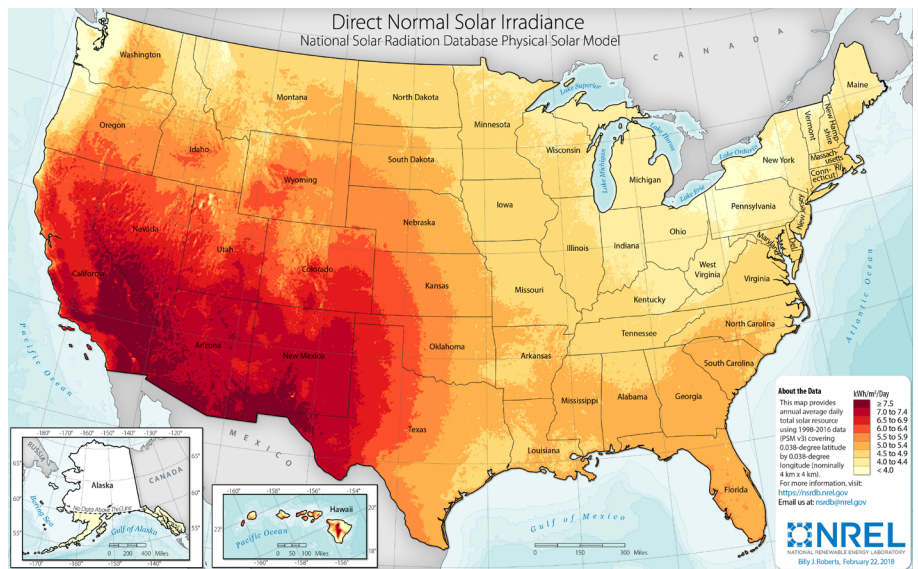
85-watt solar panel
105Ah battery capacity



130-watt solar panel
105Ah battery capacity

SOLAR REQUIREMENTS

Critical solar factors such as direct normal irradiance and global horizontal irradiance vary depending on system location. To ensure the right power configuration, we conduct solar calculations to meet desired system power needs.



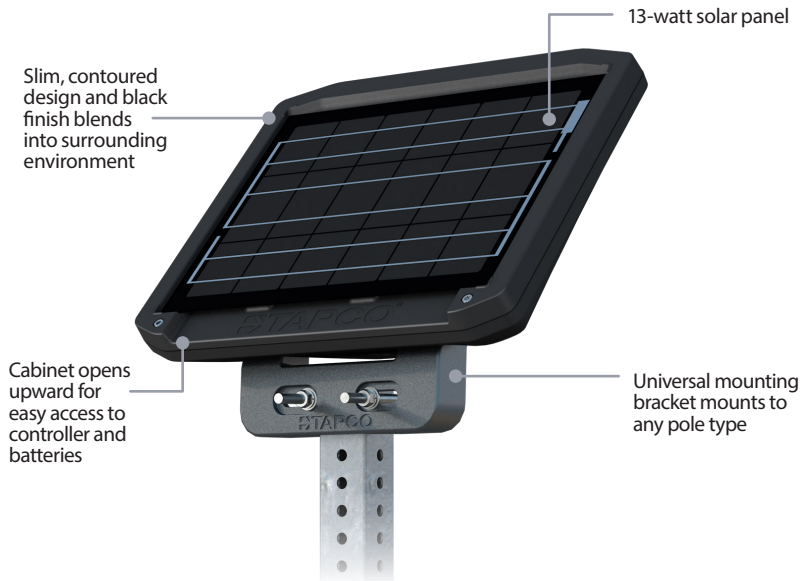
Call us today for a free solar consultation! **(800) 236-0112**

POWER AND CONTROL OPTIONS

SELF-CONTAINED SOLAR CABINETS

Uniquely designed using durable polycarbonate, TAPCO's new 13-Watt Self-Contained Solar Cabinet is a lightweight option that can power warning alerts.

COMING
SOON



INCREASED AUTONOMY

- Up to 28Ah of battery power delivers autonomy up to 30 days.

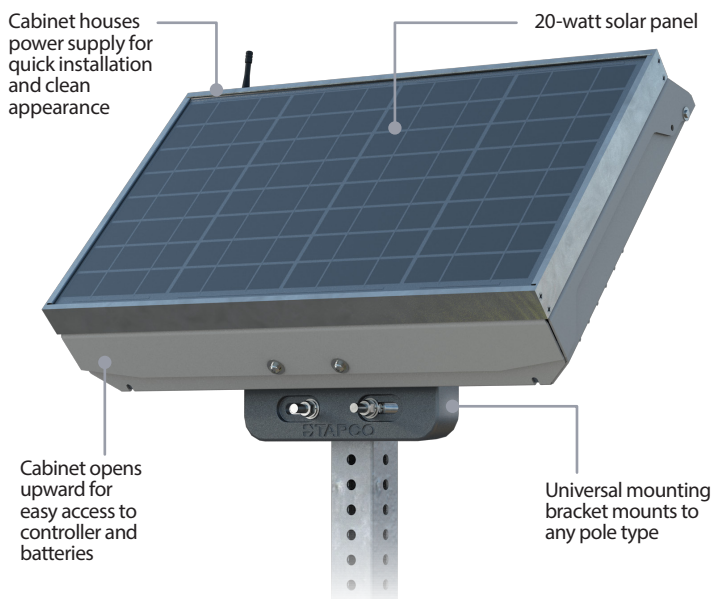
COMPATIBLE

- Supports BlinkerSign® and BlinkerBeacon™ warning alerts without reducing LED and system performance.

EASY TO INSTALL

- Weighs one-third as much as traditional cabinets for one-person installation.

TAPCO's 20-Watt Self-Contained Solar Cabinet provides 44Ah of battery power for warning alerts in a discreet, powder-coated aluminum housing.



INCREASED VOLTAGE

- The 12-volt system is engineered to power a larger assortment of warning alert options.

EASE OF ACCESS

- Cabinet door opens up for easy access and serviceability.

COMPACT DESIGN

- Easily attaches onto new or existing posts and poles.

ENHANCEMENTS

CONNECTED VEHICLE INTERFACE

Add another layer of safety to your overheight solution with the Connected Vehicle Interface (CVI) - an Ethernet interface for TAPCO Overheight Warning Systems to connect with and communicate information to connected vehicle infrastructure, such as typical Road Side Units (RSU).



IN-VEHICLE ALERTS

- Upon system activation, connected vehicles receive notifications through dashboard displays and other onboard devices.

NETWORK AGNOSTIC

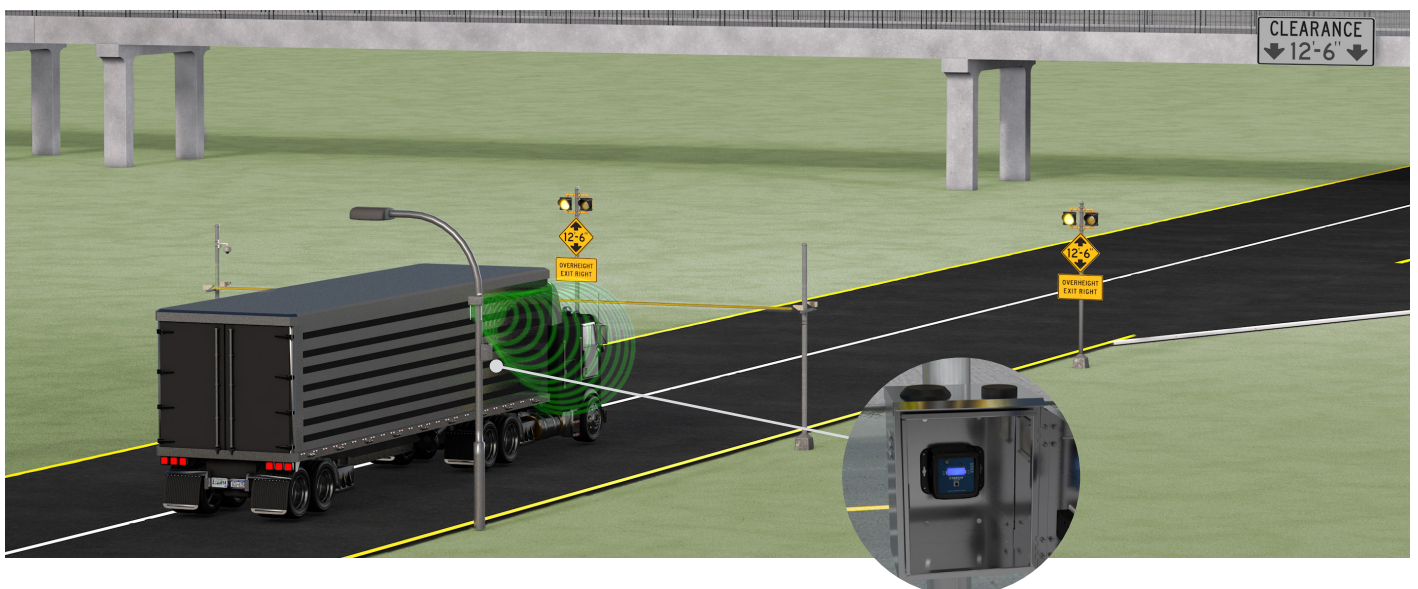
- Transmits data via Dedicated Short-Range Communication (DSRC), or cellular RSUs.

ATMS INTEGRATION

- Connects with Advanced Traffic Management Systems to provide traffic managers with actionable system data.

MODULAR

- Can be added to existing or new TAPCO Overheight Warning Systems.



SMART CITY SOFTWARE

BLINKLINK® POWERED BY TAPCO

INTELLIGENT WARNING SYSTEM MONITORING FOR SMART CITY INFRASTRUCTURE

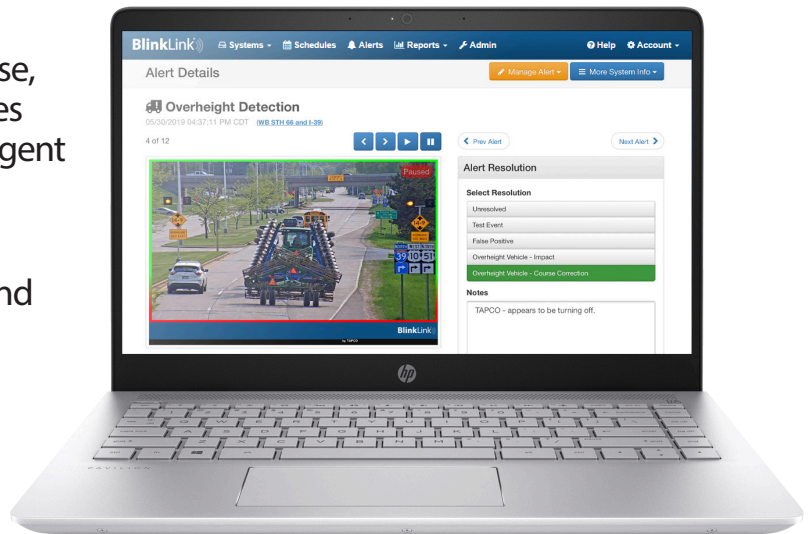
BlinkLink® powered by TAPCO is an easy-to-use, cloud-based software application for agencies to remotely manage and monitor their Intelligent Warning Systems.

Securely connected through reliable cellular networks, BlinkLink® collects real-time data and sends voice, email and SMS notifications to predetermined recipients.

- Access on any web-enabled device
- Easily program and view the status of every system
- Analyze system activation trends and gain insight to problem areas
- Generate custom activation reports
- Keep your whole team informed through activation notifications
- Add visual confirmation to activation notifications through optional enhancements

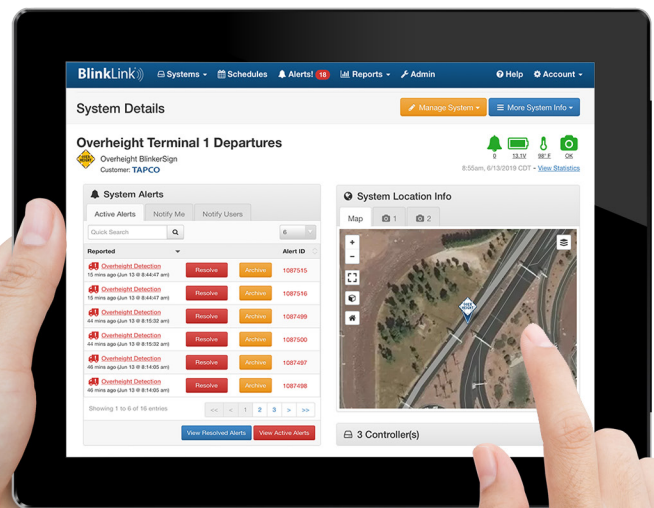


Optional Cameras capture images upon system activation



Collect real-time data including activation trends

Remotely review the health of the system and manage overheight detection alerts

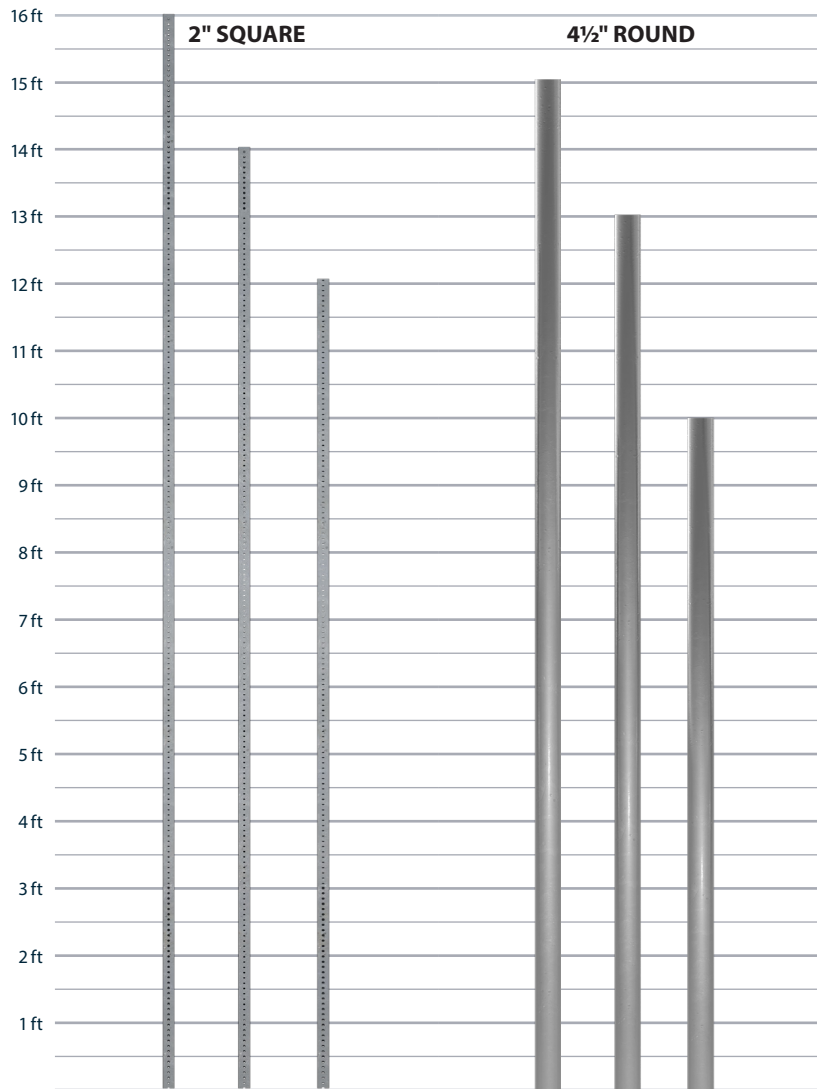


COMMON POLE KITS

POLES & BREAKAWAY ANCHORS

COMMON POLE KITS

Pole configuration plays a crucial role in the design of your Overheight Warning System. Below are some of our most popular options.



2" x 2" Square Post Kits

- Accommodates warning alerts only
- Include:** post height of choice, sleeve and assembly hardware
- Sign brackets and anchor sold separately

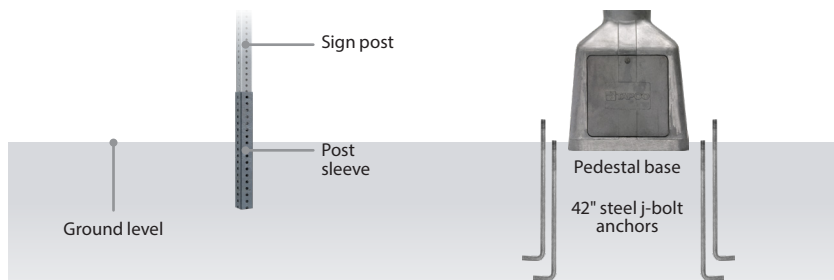
HEIGHT	PART NUMBER
12 ft	114401K
14 ft	138313
16 ft	138314



4 1/2" OD Round Pole Kits

- Accommodates warning alerts and sensors
- Include:** pole height of choice, pedestal base, 42" steel j-bolt anchors and assembly hardware
- 18" steel j-bolt anchors available
- Sign brackets sold separately


HEIGHT	PART NUMBER
10 ft	107889
13 ft	101919
15 ft	101920



Additional poles, anchors and mounting options are available dependent upon weight loads, including 2 3/8", 2 7/8" and wood posts.



 **TAPCO**[®]
Safe travels.

 (800) 236-0112

 TAPCOnet.com