



**We make  
highways  
talk™**

- **MANAGEMENT**
- **SAFETY**
- **PRESERVATION**

*International Road Dynamics Inc. develops and maintains traffic management products and systems technology that make highways talk. What are they saying? They are providing information that roadway administrators need to manage traffic, preserve infrastructure and provide safety warnings to drivers.*

*IRD's multi-discipline, innovative and customer-focused team is expert in advanced technologies, advanced traffic solutions and custom-designed systems.*



**CUSTOMER  
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## **Overheight Vehicle Detection System (OHVDS)**

**Are your overhead structures being damaged by overheight vehicle collisions? We can help you!**

### **OVERVIEW**

IRD is an integrator and supplier of an Overheight Vehicle Detection System (OHVDS) that reduces collisions between motorists and overhead structures. An Overheight Vehicle Detection System detects overheight vehicles moving toward overhead obstacles, such as bridges, tunnels and other structures, and individually warns drivers. The system provides the driver with the opportunity to actively avoid a collision with an overhead structure. The OHVDS is comprised of a transmitter and receiver. The transmitter contains either an infrared or high intensity, visible red light source that is pulsed across the highway from the transmitter to the receiver. The receiver is designed to issue an alarm if the red beam is blocked by an object at least 5 cm (2") in diameter, 2.5 cm (1") above the line of detection and moving between 1 km/h (1 MPH) and 120 km/h (75 MPH). The transmitter and receiver may be direction discerning, which triggers the alarm only when vehicles traveling in a certain direction are considered overheight. The alarm activates a warning sign with alternating flashers and/or an audible alarm. In the event of a failure, the system will not activate the flashers on the sign, but will display a constant message, such as "WARNING - HEIGHT RESTRICTION".

This system reduces damage to structures by overheight vehicles. The driver is made aware of the danger ahead and is provided with the opportunity to take alternate action or an alternate route.



### **APPLICATIONS**

To provide overheight warning detection for:

- Overpasses
- Traffic tunnels
- Bridges
- Warehouse entrances

### **BENEFITS**

Driver:	Reduces damage to trucks/trailers and occupant injuries
Government/Owner:	Decreases damage to public structures
Public:	Decreases traffic backups due to a reduction of vehicle collisions with overhead structures
Insurance Companies:	Reduces accident claims due to a reduction of truck - overhead structure accidents

# OVERHEIGHT VEHICLE DETECTION SYSTEM

## SENSOR TECHNOLOGY AVAILABLE

- Infrared Light
- Visible Red Light

## OPTIONAL SIGNS

As an alternative to flashing warning signs, changeable message signs (CMS) or variable message signs (VMS) may be incorporated into the system. Changeable message signs have two (2) or three (3) predetermined messages that become visible when activated. Variable message signs are fully variable and when activated will display a predetermined message (e.g. "WARNING - HEIGHT RESTRICTION"). During times when the message sign is not activated, the sign may display any operator-defined message or image.

## OPTIONAL VIDEO

As an option, a video component can be added to the system to capture and store video images of vehicles which trigger the overheight detector.

## SPECIFICATIONS

Power	115 VAC +/- 10%, 50/60 Hz Other options include 24 VDC solar power on 230 VAC on special order for certain models of transmitter and receiver
Output	Form C, dry relay contact closure Contacts rated 115 VAC 10A, protected by an 8A circuit breaker
Climatic Operating Range	-40 to + 58°C (-40 to +135°F)
Environmental Control	Internal thermostat controls air flow which reduces moisture and maintains internal temperatures during cold weather (on some models)
Alarm Time	Adjustable between 2 and 30 seconds
Maximum Range*	Suggested maximum range 60 meters (200 feet) to allow for bad weather and lens contamination. Absolute maximum range of 215 meters (700 feet)
Reaction Speed	1 to 120 km/h (1 to 75 MPH) for a 5 cm (2") diameter object 2.5 cm (1") above the established height of detection
Housing	External housing is heavy ALMAG casting and sheet aluminum (not less than 1/3cm (1/8") thickness) to minimize vandalism and provide for rigid mounting
Shipping Weight	14 to 23 kg (30 to 50 lbs)

\* Maximum range refers to maximum distance the detector eyes will perform



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