



Side Object Detection System for Tractor/Trailers

Collision warning solutions for changing lanes and turning

Altra Technologies delivers the latest in collision warning technology. Our systems are designed to increase safety, decrease operating costs, and generate additional profit, utilizing the industry's first modular, low cost, expandable design.

The Side Object Detection System for Tractor/Trailers is a tractor based system that was developed to give driver's assistance when changing lanes and making turns. The sensors are placed on the sides of the cab and cover the driver's blind spots.

Altra has developed a unique sensor technology that combines maximum range information with superb accuracy. This combination provides for precision assistance and early warning of potential hazards. This cuts costly accidents and improves driver productivity.

Altra's Applications Engineering team will work with you to customize a specific solution to your collision warning requirements. Call us today to discuss your individual needs.

***Collision
Warning
Systems***



Features

- Tractor independent: allows hookup to any trailer
- System minimizes false alarms and operator distractions
- Intelligent "smart sensors" keeps cost down
- Ultrasonic technology delivers precise, consistent, and reliable detection in all weather conditions
- Detect objects from 20 feet down to 6 inches

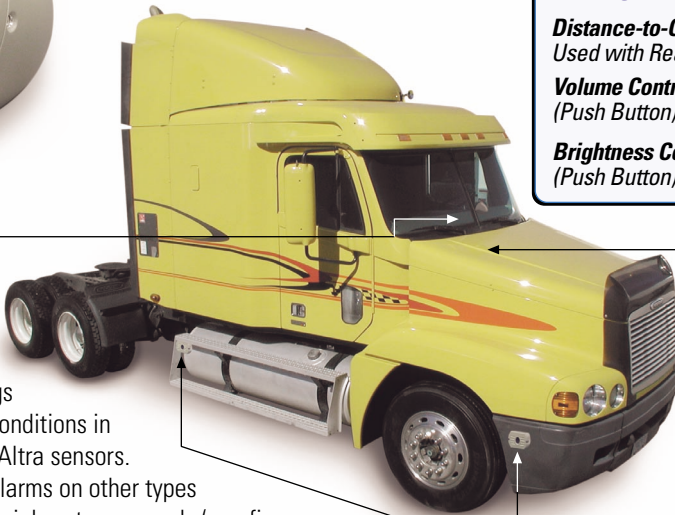
Components

Altra's systems are built using an array of modular, functional components. This approach offers the flexibility to tailor a system that meets each customer's specific needs. The following are the components needed to build a standard side object detection system for tractors.



Driver Vehicle Interface (DVI)

The DVI is mounted on or in the dash. It provides the driver with visual and audible warnings of most hazardous conditions in areas monitored by Altra sensors. It can also provide alarms on other types of conditions for special customer needs (e.g. fire alarm, door open). The DVI also provides automatic adjustment of light levels on its displays to compensate for varying lighting conditions in the cab and a volume adjustment for the audible alarm.



Driver Vehicle Interface - Front Display

Rear Object Detection Indication
(Red Lights) Used with optional Rear Ranging System

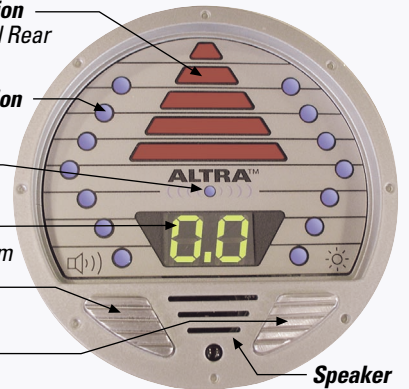
Side Object Detection Indication
(Blue Lights)

System Active Indication
(Blue Light)

Distance-to-Object Display
Used with Rear Ranging System

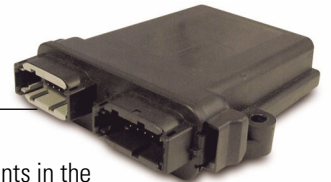
Volume Control
(Push Button)

Brightness Control
(Push Button)



All Altra Technologies Collision Warning System Components are rigorously tested and comply with SAE J1455.

Sensor Signal Processor



The Signal Sensor Processor (SSP) mounts in the cab, out of sight. The SSP receives electronic signals from the AltraSensors, processes the electronic signals (patent pending) to determine the range to objects in vicinity of the AltraSensor, and transfers pertinent data to the DVI.

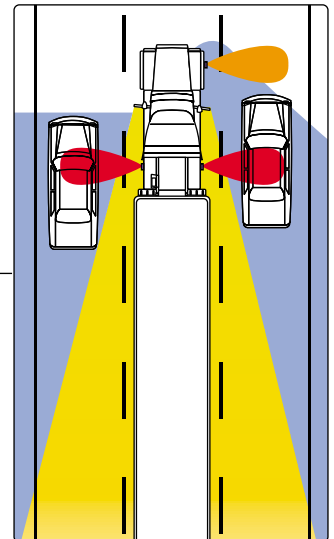
AltraSensor

AltraSensors are mounted on the side of the tractor. Working in conjunction with the SSP, these sensors employ a proprietary technology to achieve superior detection capability. Achieving detection of many objects up to 20 feet away, Altra's system provides effective detection and early warning of potential hazards. The sensors are built to withstand shock, vibration and a wide range of temperatures and each sensor is designed to perform over a broad range of environmental conditions.



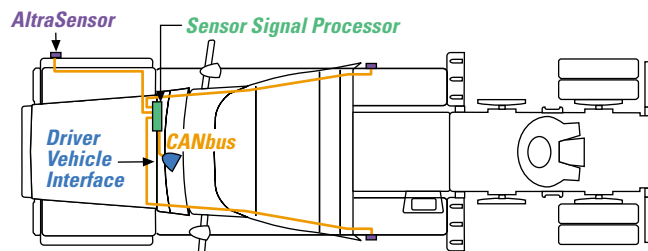
Typical Scenario

- Driver's viewing area
- Driver's "Blind Spots"
- Sensor detection area
- Optional front end coverage



Architecture

Altra's system consists of proprietary hardware and software configured with a flexible system architecture to meet a broad variety of customer needs. This system can be adapted to many types of vehicles to detect objects in the blind spots all around the vehicle.



Altra Technologies, Inc.

605 Lewis Avenue North

Watertown, Minnesota 55388 USA

phone (952) 955-2614 • fax (952) 955-2620

www.altratech.com

Part #ATMSODSTT

© 2002, Altra Technologies, Inc.

Portions covered by patent #6,268,803 B1 and other patents pending.