**Product Catalog 2019** 



# COLLISION AWARENESS

# Leekeur

**LEADERS OF INTERSECTION PROTECTION SINCE 2009** 









## **KEEP YOUR WORKFORCE PROTECTED!**

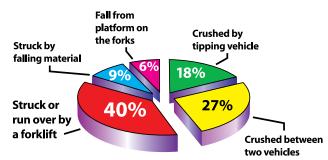
We're the Leader in Intersection Protection. Our goal is to help your employees avoid accidents and reduce your exposure to liabilities.

**Collision Awareness** products are designed to monitor any traffic & alert others, just around the corner.

40% of all forklift fatalities are caused by an individual being struck or run over by a forklift.

Many of these accidents and fatalities can be avoided by warning pedestrians and operators of approaching danger.

Our **LOOK OUT** Sensor Alert Warning System allows for quick and easy recognition of possible hazardous situations. Why take chances of liabilities when you can avoid accidents and protect your most valuable assets.

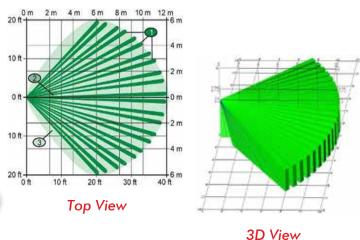


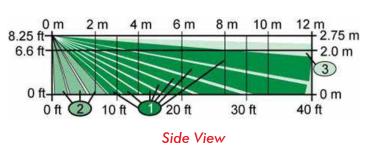
By creating awareness to a possible danger, you reduce the risk of damage, injury and death. Reducing risk should reduce your liability and exposure to workman's compensation claims, and increase employee morale as they see the company efforts to provide a safe workplace.

### NEW STATE-OF-THE-ART SENSORS



Collision Awareness chooses Bosch sensors as their standard sensor for the 42 standard package offerings. The quality and reputation of Bosch, together with Collision Awareness, continues to place us as the leaders of Intersection Protection. This upgrade improves the field of detection and reduces false alerts. Includes a blue sensor indicator light.

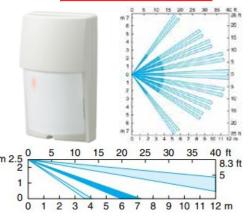




# APPLICATION SPECIFIC SENSORS

(AT AN ADDITIONAL COST)

### **EXTERIOR SENSOR**

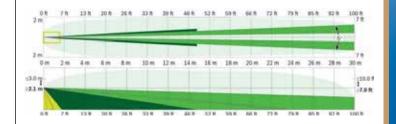


- Coverage: 40' x 40'
- Temperature range: -40°F 122°F
- High reliability against water and insects
- Double conductive shielding can resist more than 50,000 lux of sunlight, eliminating false alarms from light sources.
- Day and Night—Capable of sensing around the clock; both during the day and through the night.

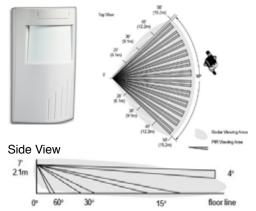
### INTERIOR HIGH SENSITIVITY SENSOR



- Coverage: 100' x 8.5'
- Temperature range: -22°F 130°F
- Perfect for high mount applications.
- Recommended for tunnel applications.
- The transceiver automatically adjusts its detection thresholds based on input from the PIR sensors. Integrating the target distance information from the PIR significantly reduces false alarms from the Doppler radar.



### RADAR SENSOR



- Coverage: 50' x 90°
- Temperature range: 32°F 122°F
- Selectable range up to 50'
- Combined range-controlled radar technology with a passive infrared system to increase false alarm immunity by allowing it to sense human-sized objects within a specified range.

### **FIT SENSOR**

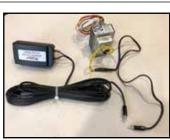


- Coverage: Available in 70', 130', and up to maximum distance of 200' between sensors
- Temperature range: -31°F 140°F
- Utilizes infrared beam disruption detection
- Used in our Fit Packages 1, 2, and 3 for alerting drivers to overhead obstacles (pg. 11)
- With a high reliability against water and insects, a dust-tight seal, an anti-frost hood cover, and an automatic gain control circuit that monitors changes in conditions and adjusts the signal's strength and sensitivity, this sensor is perfectly fit for both indoor and outdoor applications.

### STANDARD POWER SUPPLY CORDS

Suggested lengths based on application:

- Wall mounted 15' (pictured)
- Rack mounted 25°
- Ceiling hung 50', 75', or 100'



### **Universal Transformer (pictured)**

A UL listed universal transformer is used in order to receive incoming voltage from 120 Vac, 220 Vac, or 277 Vac and is reduced to 24 Vdc to energize our units. The transformer is mounted in a UL approved junction box by a licensed electrician and then the remaining 2' cord plugs into the top of our units, just like the standard power supply jack.

# BASIC MODELS

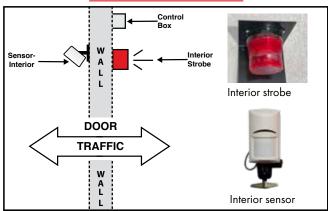
# CONSIDER THE BASICS Detect on one side, alert on the other side

Choose from the following six basic models



Featured: Hall Door Basic

### **ECONOMY STROBE**

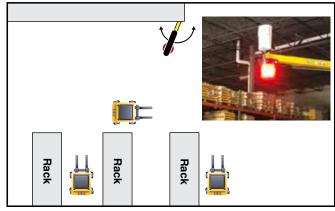


An inexpensive and economical way to detect in one direction and alert with a bright red strobe

Includes: • Red Strobe, Control Box, and Wall Mount Bracket

- Interior Sensor
- Wall Mount Bracket

### AREA MONITOR



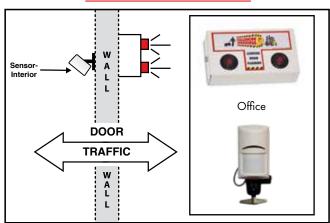
Mount in an area where there are no defined traffic lanes and rotate towards traffic as patterns change.

Includes: • Wall mounted aluminum arm with a swivel

- Red Strobe
- All Weather Sensor

# CHOOSE INTERIOR BOXES

### OFFICE DOOR BASIC

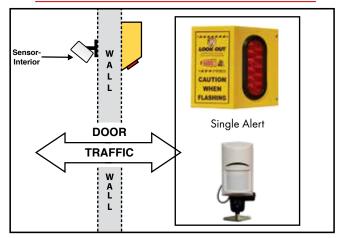


Alert individuals inside the office of forklift activity on the other side of an office door as well as foot traffic entering the office area.

Includes: • Low profile office box

- Interior Sensor
- Wall Mount Bracket

### **OVERHEAD DOOR BASIC—SINGLE**



Alert forklift operators and individuals in a two way traffic pattern of potentially dangerous traffic coming through strip doors, high speed doors, and passing through openings.

Includes: • OHD Box with one large red light

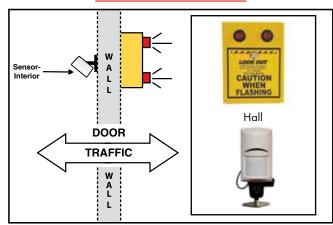
- Interior Sensor
- Wall Mount Bracket

### **Options for Improved Visibility:**

- Add additional Interior Sensor
- Add an Interior Audible Alert
- Add on the Wall Burst feature

(Available on any yellow box style)

### HALL DOOR BASIC

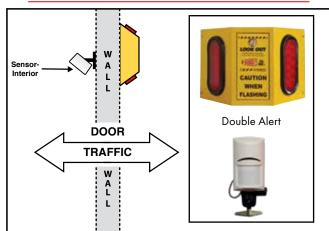


Alert individuals and forklift drivers of potentially dangerous of traffic on the other side of a door or hallway. (See illustration on previous page)

Includes: • Interior Alerting Box with two small red lights

- Interior Sensor
- Wall Mount Bracket

### **OVERHEAD DOOR BASIC—DOUBLE**



Alert forklift operators and individuals in a two way traffic pattern of potentially dangerous traffic coming through strip doors, high speed doors, and passing through openings.

Includes: • DOD Box with two large red lights

- Interior Sensor
- Wall Mount Bracket









**Interior Audible** 

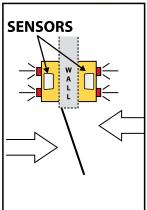
**Wall Burst** 

# STANDARD INTERIOR DOOR MODELS

HALL DOOR MONITORS 2, 3, & 4 include sensors to detect pedestrians as they approach the door and alert the forklift operator as they pass by the doorway, creating a safety zone. The sets of HALL DOOR MONITORS below illustrate the options available. We can also develop custom options for your specific needs. A 15' power cord is recommended and is an additional cost. Longer power cords are also available and come in 25', 50', and 100'.

### **HALL DOOR MONITOR 2**



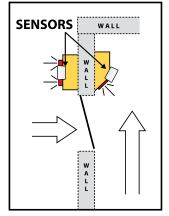


Includes: • Two Interior Alerting Boxes, both with two small red lights

- Two Interior Sensors
- 3' Wiring Harness

### **HALL DOOR MONITOR 3**



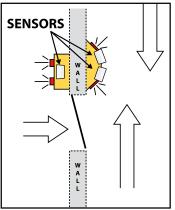


Includes: • Interior Alerting Box with two small red lights

- OHD Box with one large red light
- Two Interior Sensors
- 3' Wiring Harness

### **HALL DOOR MONITOR 4**





Includes: • Interior Alerting Box with two small red lights

- DOD Box with two large red liahts
- Three Interior Sensors
- 3' Wiring Harness

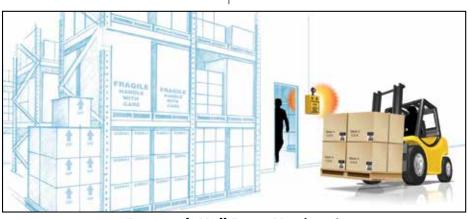
### **Options for Improved Visibility:**

- Add an Interior Audible Alert
- Add on the Wall Burst feature









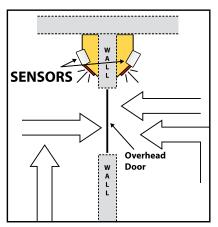
Featured: Hall Door Monitor 2

# OVERHEAD DOOR MODELS

The Overhead Door series is similar to the Hall Door series, except with larger lights. **OVERHEAD DOOR 2** is your primary line of defense designed to alert forklift operators and pedestrians as they approach an overhead doorway. Before passing through, the sensor(s) detect motion on one side and activate the light on the opposite side, alerting pedestrians and forklift operators. OVERHEAD DOOR 3 & 4 expand your area of defense with multiple sensors to alert forklift operators and individuals as they approach an overhead doorway. The additional radius of sensors will help protect high-traffic areas and areas that may consist of either temporary or permanent obstructions which block the view of approaching traffic.

### **OVERHEAD DOOR 2**

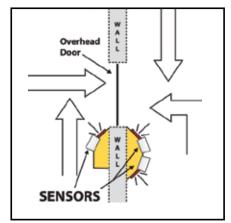




- Includes: Two OHD Boxes, both with one large red light
  - Two Interior Sensors
  - 3' Wiring Harness

### **OVERHEAD DOOR 3**

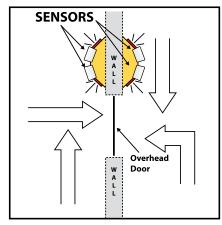




- **Includes:** OHD Box with one large red
  - DOD Box with two large red lights
  - Three Interior Sensors
  - 3' Wiring Harness

### **OVERHEAD DOOR 4**





- Includes: Two DOD Boxes, both with two large red lights
  - Four Interior Sensors
  - 3' Wiring Harness



### **GREAT FOR:**



Featured: Overhead Door 2

# LOOK OUT 1 & 2

### FOR TYPICAL FORKLIFT TRAFFIC ALERTS

Each sensor alerts the opposite corner and both sensors can activated simultaneously. Units include mounting hardware and can be installed in minutes. UL listed for US and Canada.

### LOOK OUT 1





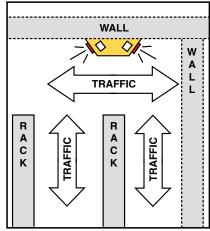
- End of rack aisles
- Wall mount for end of aisle obstructions
- Uses a single set of flashing LED lights
- 528 lumens from each lens

### **Options for Improved Visibility:**

- Add Interior Audible
- Wall Burst Option Available on Look Out 1 Wall

### **LOOK OUT 1 WALL**





- Mount to wall opposite of end of rack aisles
- Uses a set of 2 small flashing LED lights
- 528 lumens from each lens

### <u>LOOK OUT 2</u>





· An additional set of lights that alternate when activated

### **LOOK OUT 2 XL**



- Available in a ceiling hung model
- Floor Burst available—see page 10

MADE in the U.S.A.





Interior Audible Wall Burst

# LOOK OUT 3's

### LOOK OUT 3 RACK



Front view

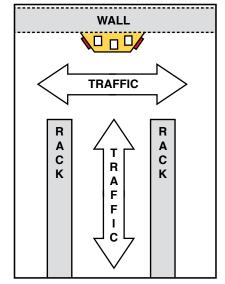


Rear view

- Monitor 3-way intersections and alert in all directions
- Two sensors monitor the main aisle while a third monitors the row that meets in the main aisle to provide an alert in 3 directions
- 25' power cord recommended

### **LOOK OUT 3 WALL**





- Monitor 3-way intersections and alert in all directions
- Two sensors monitor the main aisle while a third monitors the row that meets in the main aisle to provide an alert in 3 directions
- 25' power cord recommended

### **LOOK OUT 3**

Ceiling Hung





- For 2, 3 or 4-way intersections to monitor and alert just around the corner
- Sensor range is 35' away and 40' wide, adequate distance to stop a fork truck traveling at OSHA recommended speeds
- 50' power cord is recommended
- Optional "Brilliant" lights for mounts above 20'
- Floor Burst available—see page 10

### **Options for Improved Visibility:**

- Add Interior Audible
- Add Wall Burst



**Interior Audible** 



Wall Rurst

MADE in the U.S.A.



# CEILING HUNG MODELS WITH FLOOR BURST

### **LOOK OUT 2, 3 & 4**

Hanging Mount



**LOOK OUT 2 XL** 



### **LOOK OUT 3**

- For 2, 3 or 4-way intersections to monitor and alert just around the corner
- Sensor range is 35' away and 40' wide, adequate distance to stop a fork truck traveling at OSHA recommended speeds
- 50' power cord is recommended
- Optional "Brilliant" lights for mounts above 20'

### AN ADDITIONAL BURST OF SAFETY!

Too often employees can become distracted and miss important warning devices. Our new Floor Burst option provides an extremely fast pulsating light that illuminates the floor of an intersection before traffic passes through. This feature is offered on all of our ceiling hung models, Look Out 2, 3, & 4.



# THE 'FIT' HEIGHT AWARENESS SENSORS

### THE 'FIT' HEIGHT AWARENESS SENSORS

The **'FIT'** height warning sensors alert from truck drivers of overhead obstacles that may be in the line of an elevated mast. When sensor beams are broken, the **'FIT'** lights and audible continuously alert the driver to potential danger. Sensors should be mounted protect obstacles approximately 10' – 15' before obstacles. 15' power cord is recommended.

- Choose from 70', 130', and 200' options for distance between sensors.
- Sensors and selectable audible can be used for interior or exterior applications.



### **GREAT FOR:**

- Sprinkler heads above rack
- · Overhead heaters
- Overhead lights
- Overhead Storage
- Ceiling Fans
- Air handlers

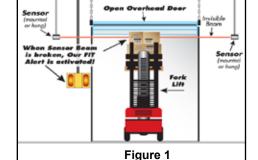
- Loading Dock Awnings
- Industrial Canopies
- Overhead Bridge Cranes
- Interior Doorways
- Parking Garages

# Add additional sets of sensors to detect from the opposite side or from multiple openings.

- Fit Pkg 1 1 set of sensors
- Fit Pkg 2 2 sets of sensors
- Fit Pkg 3 3 sets of sensors



Selectable Audible



### Selectable Audible

- Choice of 32 tones
- Remote activation up to two tones
- Up to two remote selectable tones produces 82 -100 dBa

# DOCK WATCHER SENSORS

### **KEEP DOCK TRAFFIC WORKING WITH SAFETY IN MIND!**

### **DOCK DOOR MONITORS**

**DOCK DOOR MONITORS** have a wall mounted arm with swivel feature that allows the exterior sensor to monitor activity in a trailer. As the fork truck backs out, the bright flashing strobe warns co-workers. Plugs directly to a 110 Vac outlet.

- Exterior Sensor
- Aluminum Arm
- Sealed Red Strobe





**DDM** without activity



**DDM** with activity



Mount to door track or wall

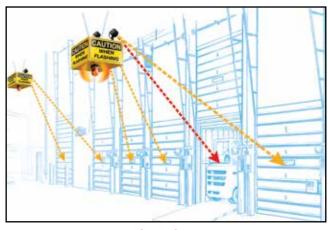
### **DOCK WATCHERS**

**DOCK WATCHER 1** is designed to monitor one or two dock doors. It senses motion and warns operators and pedestrians of impending danger. It is a ceiling hung sensor that mounts high enough to allow all mobile traffic to clear.

By adding remote sensors you create DOCK WATCHERS 2, 3, or 4. Specify the cable length needed for each remote sensor. Sensors can point to door locations and also identify motion in traffic areas near the loading dock.

Unit hangs from your chain.





**Dock Watcher 1**: 1-2 Doors **Dock Watcher 2**: 3-4 Doors



# **Outstanding Features**

- Made In America
- Alerts pedestrians of approaching traffic
- Light activated sensors let you know you're detected, giving you peace of mind
- Significant loss prevention benefits
- Great for hearing impaired employees
- Light flash patterns safe for those with epilepsy
- Newly designed flash patterns to reduce false alerts, known as Imminent Danger
- Option for audible alert for indoor or outdoor applications
- Optional floor or wall burst
- Applications such as wash down environments
- All sensors can be rotated up, down, left, and right for better detection
- Options for direct wiring via conduit
- All models low voltage
- LED lights have 100,000 hour warranty
- All models ship UPS

- The only manufacturer with remote mounting for sensors
- No sensor calibration required
- No batteries to replace
- No expensive microwave sensors
- Nothing attaches to your fork truck
- Mounts up and out of the way
- New sensors for high mount situations
- Ability to set flash timing for 6, 15, or 30 seconds
- Ability to turn off audible
- Ability to protect tunnels
- Sensor shields available to reduce the field of vision to reduce false alerts
- Standard sensors work with 14°F 131°F temperature range
- Exterior sensors work with -40°F 122°F temperature range
- Fit sensors work with -31°F 140°F temperature range
- Up to 10 year warranty available



### **Product Dimensions**

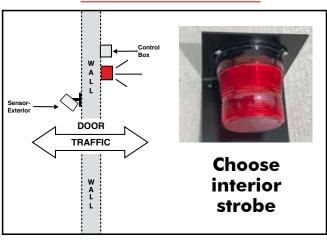
NEMA Enclosures Available	0=0	•			Heim	TAIL DAY	O PARTIES IN THE PART
Height without sensors	4"	8″	10″	10"	10"	18″	11"
Height with sensors	N/A (remote)	14"	16"	16"	16"	24"	16"
Width	6"	6"	10"	14"	5″	5″	16"
Depth	2"	4"	5″	5″	5″	5″	15"

\*New features written in blue

# NOW DETECT OUTDOORS

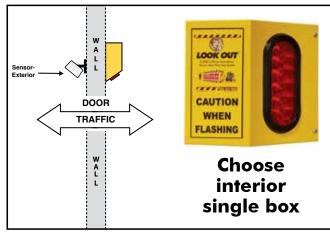
**KEEP YOUR WORK FORCE PROTECTED FROM EXTERIOR TRAFFIC ALSO!** Collision Awareness continues to develop additional products to keep you protected. Below are new exterior options. Simply choose which option alerts indoors from **Dual Use 1 through 4** with an exterior sensor and bracket. If you require detection on both sides of the door, choose from **Dual Use 5 through 12**, with sensors and alerting boxes on both sides of the walls on the following pages.

**DUAL USE 1 EXT—STB** 



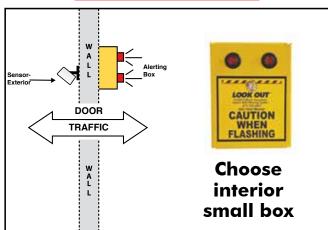
- Red Strobe, Control Box, and Wall Mount Bracket
- Exterior Sensor
- Wall Mount Bracket

### **DUAL USE 3 EXT—OHD**



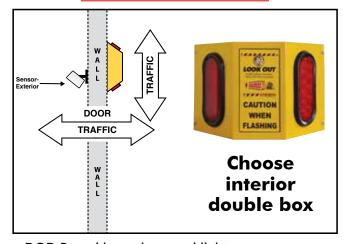
- OHD Box with one large red light
- Exterior Sensor
- Wall Mount Bracket

### **DUAL USE 2 EXT—SML**



- Interior Alerting Box with two small red lights
- Exterior Sensor
- Wall Mount Bracket

### **DUAL USE 4 EXT—DOD**



- DOD Box with two large red lights
- Exterior Sensor
- Wall Mount Bracket

### **Options for Improved Visibility:**

- Add additional Exterior Sensor
- Add an Interior Audible Alert
- Add on the Wall Burst feature
   (Available on any yellow box style)

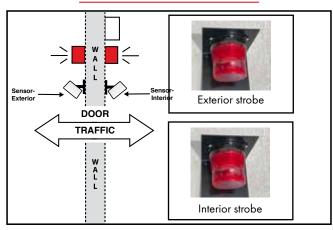






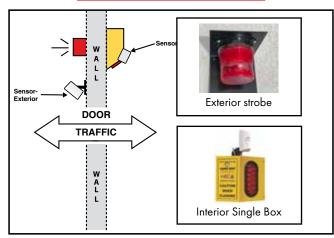
# & ALERT INSIDE

### **DUAL USE 5 EXT—STB**



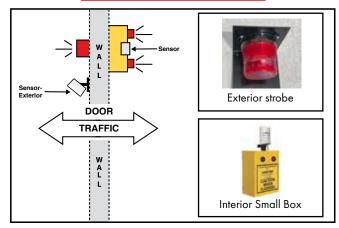
- 2 Red Strobes and 1 Control Box with
  - 2 Wall Mount Brackets
- 1 Exterior Sensor and 1 Interior Sensor
- 2 Wall Mount Brackets

### **DUAL USE 7 EXT—OHD**



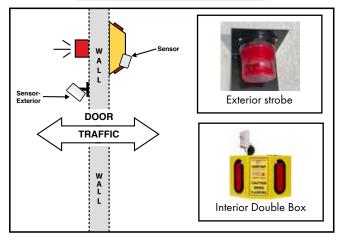
- Red Strobe with Wall Mount Bracket
- OHD Box with one large red light
- 1 Exterior Sensor and 1 Interior Sensor
- 1 Wall Mount Bracket

### **DUAL USE 6 EXT—SML**



- Red Strobe with Wall Mount Bracket
- Interior Alerting Box with two small red lights
- 1 Exterior Sensor and 1 Interior Sensor
- 1 Wall Mount Bracket

### **DUAL USE 8 EXT—DOD**



- Red Strobe with Wall Mount Bracket
- DOD Box with two large red lights
- 1 Exterior Sensor and 1 Interior Sensor
- 1 Wall Mount Bracket

### **Options for Improved Visibility:**

- Add additional Exterior Sensor
- Add additional Interior Sensor
- Add an Interior Audible Alert
- Add on the Wall Burst feature
   (Available on any yellow box style)



Interior Sensor



Exterior Sensors



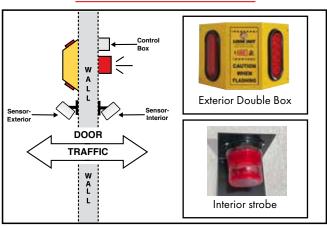
Interior Audible



**Wall Burst** 

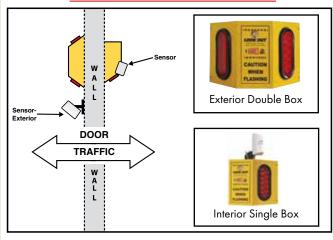
# NOW DETECT OUTDOORS & ALERT INSIDE

### **DUAL USE 9 EXT—STB**



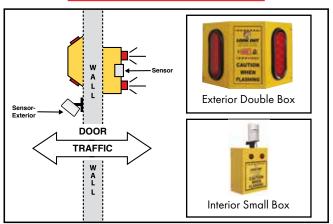
- DOD Exterior Box with two large lights
- Red Strobe, Control Box, and Wall Mount Bracket
- 1 Exterior Sensor and 1 Interior Sensor
- 2 Wall Mount Brackets
- 5' Wiring Harness

### **DUAL USE 11 EXT—OHD**



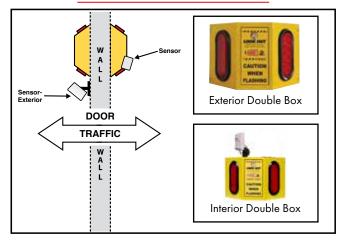
- DOD Exterior Box with two large lights
- OHD Box with one large red light
- 1 Exterior Sensor and 1 Interior Sensor
- 1 Wall Mount Bracket
- 5' Wiring Harness

### **DUAL USE 10 EXT—SML**



- DOD Exterior Box with two large lights
- Interior Alerting Box with two small red lights
- 1 Exterior Sensor and 1 Interior Sensor
- 1 Wall Mount Bracket
- 5' Wiring Harness

### **DUAL USE 12 EXT DOD**



- DOD Exterior Box with two large lights
- DOD Box with two large red lights
- 1 Exterior Sensor and 1 Interior Sensor
- 1 Wall Mount Bracket
- 5' Wiring Harness

### **Options for Improved Visibility:**

- Add additional Exterior Sensor
- Add additional Interior Sensor
- Add an Exterior Audible Alert
- Add an Interior Audible Alert
- Add on the Wall Burst feature (Available on any yellow box style)



Interior Sensor



Exterior Sensors

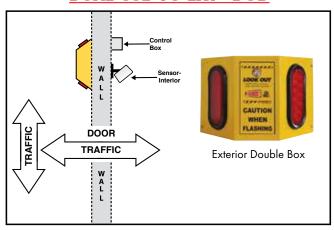


ior Interior Audible



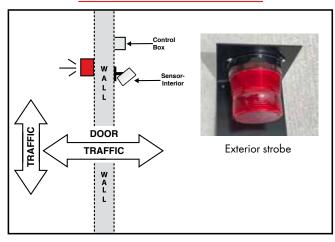
**Wall Burst** 

### **DUAL USE 13 EXT—DOD**



- DOD Exterior Box with two large red lights, Control Box, and Wall Mount Bracket
- Interior Sensor
- Wall Mount Bracket
- 5' Wiring Harness

### **DUAL USE 14 EXT-STB**



- Red Strobe, Control Box, and Wall Mount Bracket
- Interior Sensor
- Wall Mount Bracket

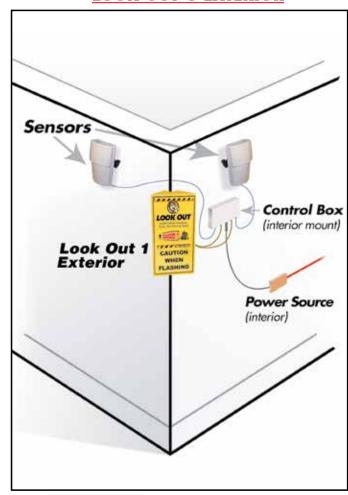
### **Options for Improved Visibility:**

- Add Exterior Audible Alert
- Add Additional Interior Sensor





### **LOOK OUT 1 EXTERIOR**







**Control Box** 



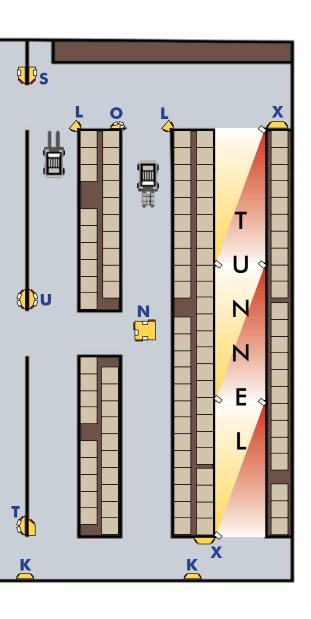
**Exterior Sensors** 

- Powder coated stainless steel box for durability
- •15' Power cord recommended.

# TYPICAL WAREHOUSE APPLICATIONS



# NEW IMMINENT DANGER FEATURE STANDARD ON ALL MODELS WITH AUDIBLE!



- A Area Monitor (pg. 4)
- **B** Dock Door Monitor (pg. 12)
- C Dock Watcher (pg. 12) Up To 4 Dock Doors
- D Dual Use 1 (pg. 14) Indoor-Outdoor
- E Economy Strobe (pg. 4)
- F Hall Door Basic (pg. 5)
- G Hall Door Monitor 2 (pg. 6)
- H Hall Door Monitor 3 (pg. 6)
- I Hall Door Monitor 4 (pg. 6)
- **J** Look Out 1 (pg. 8)
- K Look Out 1 Wall (pg. 8)
- L Look Out 2 (pg. 8)
- M Look Out 2 XL (pg. 8)
- N Look Out 3 (pg. 9)
- Look Out 3 Rack Left- or Right-Hand Mount
- P Look Out 3 Wall (pg. 9)
- Q Look Out 4 (pg. 10)
- R Office Door Basic (pg. 5)
- S Overhead Door 2 (pg. 7)
- T Overhead Door 3 (pg. 7)
- U Overhead Door 4 (pg. 7)
- V Overhead Door Basic Double (pg. 5)
- W Overhead Door Basic Single (pg. 5)
- X Tunnel Application (300' example shown)

- Avoid Forklift Accidents
- Alert Workers & **Pedestrians**
- Warehouse, Yard and **Office Applications**
- Reduce Liabilities
- Increase Up Time



Let pedestrians and operators know if someone is iust around the corner with our New LOOK-OUT™

# LEADERS OF INTERSECTION PROTECTION **OUR FACILITY PROTECTION PARTNER**

# **Save"ty Yellow Products**



**Self Closing Swing Gate** 



Protecting an Office



**Guarding Equipment** 



**Guarding Standard Conveyor** 





**Guarding Battery Racks** 



**Guarding Electrical Panels** 



**Panoramic View** 



