

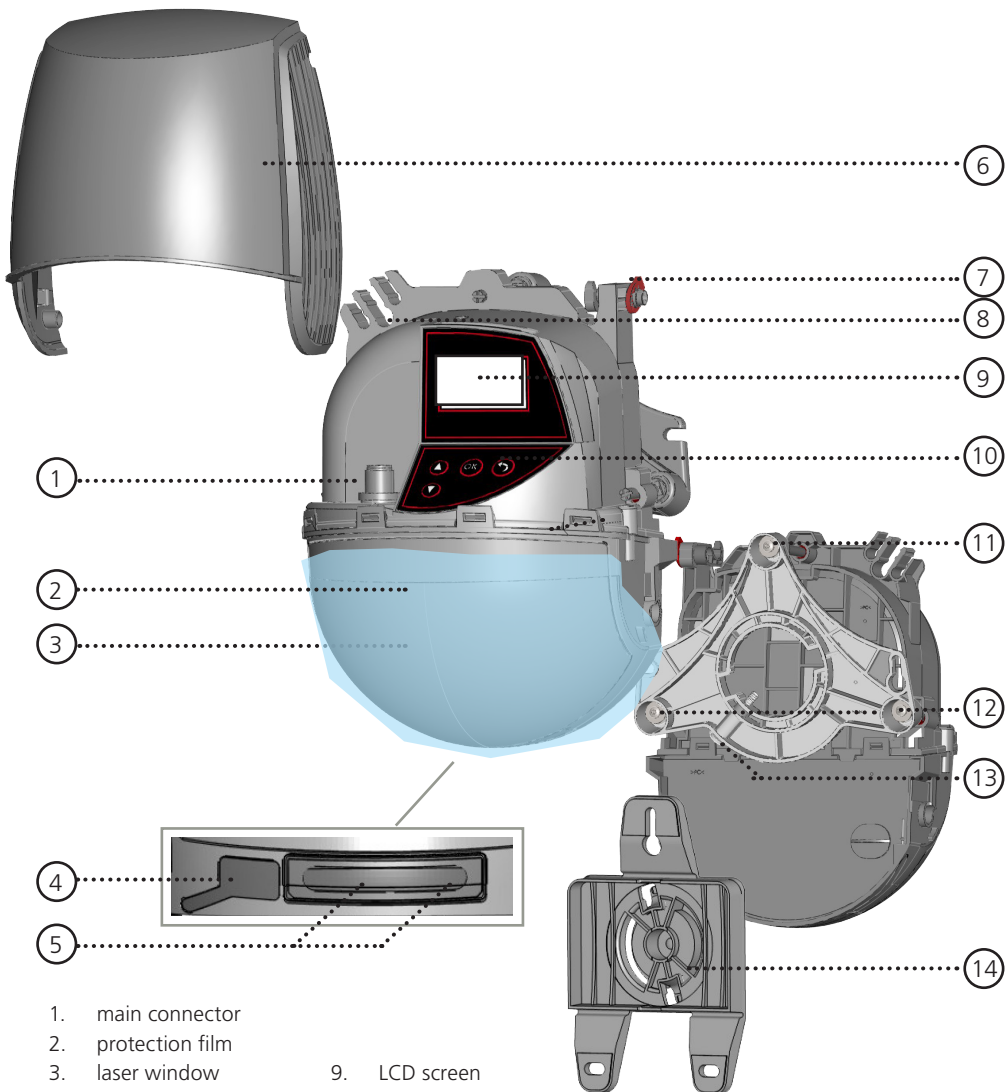
LZR®-WIDESCAN



Motion, Presence, and Safety Sensor
for Industrial Doors

(US version)

DESCRIPTION



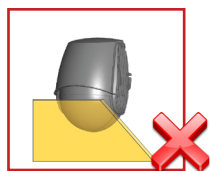
1. main connector
2. protection film
3. laser window
4. USB cap
5. LED display
6. cover
7. cover lock
8. cable passage

9. LCD screen
10. keypad
11. tilt angle adjustment screw (1)
12. parallel angle adjustment screw (2)
13. lateral angle lock screw (1)
14. mounting bracket

INSTALLATION & MAINTENANCE TIPS



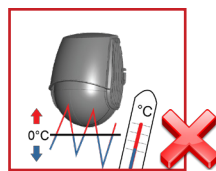
Avoid extreme vibrations.



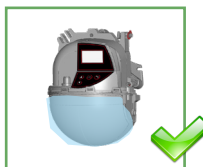
Do not cover the sensor.



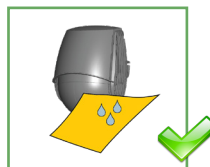
Avoid moving objects and light sources in the detection field.



Avoid exposure to sudden and extreme temperature changes.



Keep the protection film during the mounting of the sensor. Remove it before launching a teach-in.



It is recommended to clean the optical parts at least once a year or more if required due to environmental conditions.



Do not use aggressive products to clean the optical parts.



Avoid direct exposure to high-pressure cleaning.

SAFETY



The device contains IR and visible laser diodes.

IR laser: wavelength 905nm; max. output pulse power 75W (Class 1 according to IEC 60825-1)

Visible laser: wavelength 650nm; max. output CW power 3mW (Class 3R according to IEC 60825-1)

The visible laser beams are inactive during normal functioning. The installer can activate the visible lasers if needed.

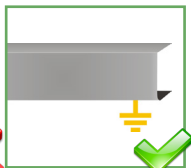


CAUTION!

Use of controls, adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.



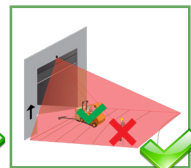
Do not look directly into the laser emitter or the visible red laser beams.



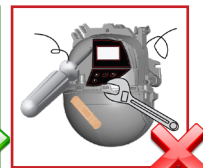
The door control unit and the header cover profile must be correctly grounded.



Only trained and qualified personnel are recommended to install and set up the sensor.



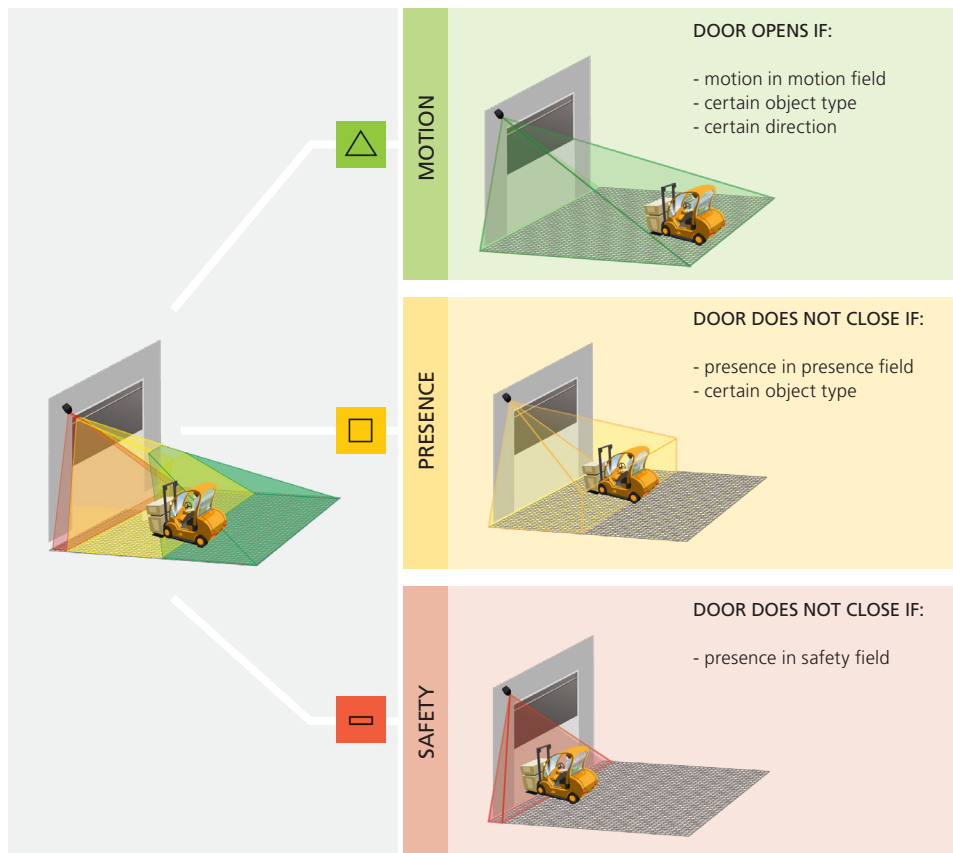
Following installation, always test for proper operation before leaving the premises.







The warranty is invalid if unauthorized repairs are made or attempted by unauthorized personnel.

BASIC PRINCIPLES: FUNCTIONS & OBJECT

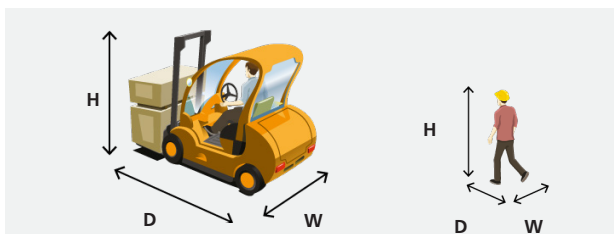
There are 3 main functions that create **3 overlapping detection fields**, each with certain detection characteristics:



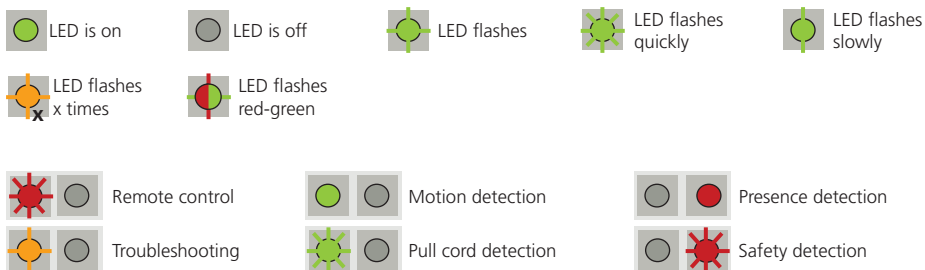
There are 4 additional opening functions. All detection functions can be combined to trigger a specific output (see output functions on page 12).


-  **Motion +:** detection of other moving object type in motion field
-  **Pullcord:** detection of object in learned, pull cord zone
-  **Speed:** detection of object with a minimum speed
-  **Height:** detection of object with a minimum height

The sensor carries out a 3D object analysis and detects depending on height, width, and depth.



LED SIGNALS & SYMBOLS




 Factory value (User's Guide)




+ Additional feature

 Important!





 Factory value (LCD)

 Good to know

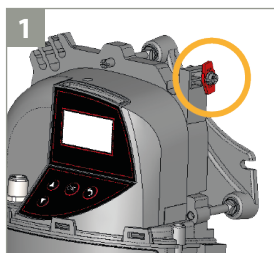
Main functions:

-  Motion
-  Presence
-  Safety

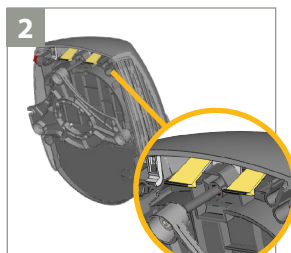
Additional opening functions:

-  Motion +
-  Pullcord
-  Speed
-  Height

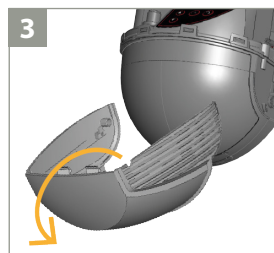
OPENING THE SENSOR



Before opening the sensor, make sure the cover is **not locked** (red cover lock).

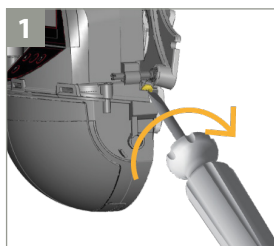


Pull the two legs on top in order to open the cover.

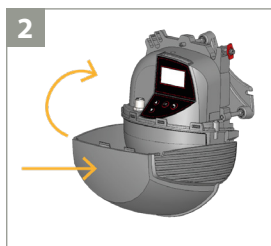


Remove the cover completely before installing the sensor.

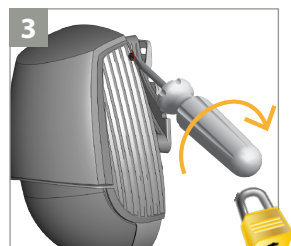
CLOSING THE SENSOR



Lock the sensor position by firmly fastening the angle lock screw.



Reclip the sensor cover **horizontally** and close it as indicated.

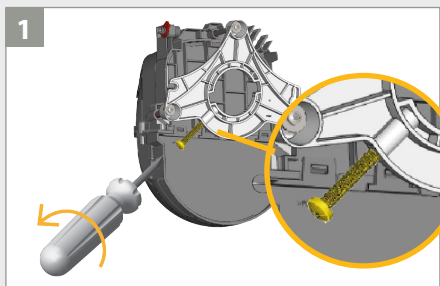
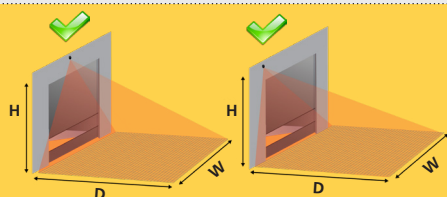


Lock the cover by turning the lock screw clockwise.

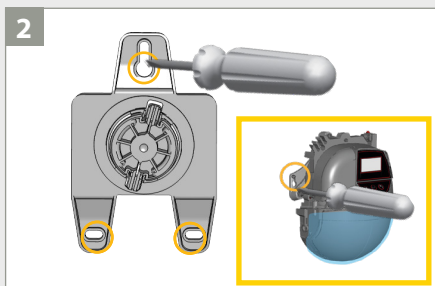
1 MOUNTING & WIRING

! Mounting height: **as high as possible (max. 19'6")**.
The size of the detection field depends on the mounting height.

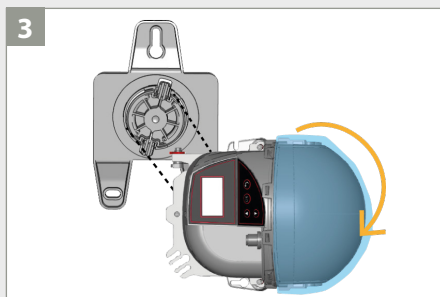
Mounting position: **center of door or left corner**.
Mounting on the right side of the door should be avoided.



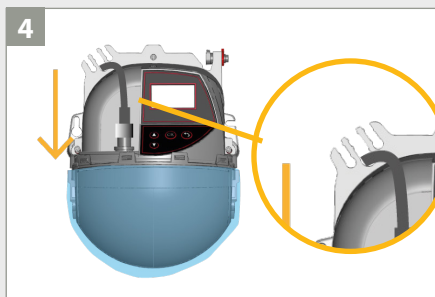
Verify that the angle lock screw is positioned as indicated. Unscrew slightly if necessary.



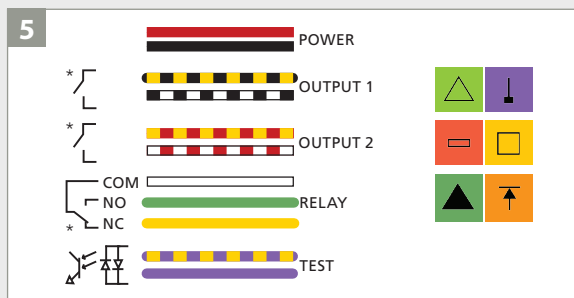
Remove the mounting bracket from the sensor and secure it to the wall. You can also install the sensor directly without using the mounting bracket.



Position the sensor horizontally as shown and secure the sensor to the mounting bracket.



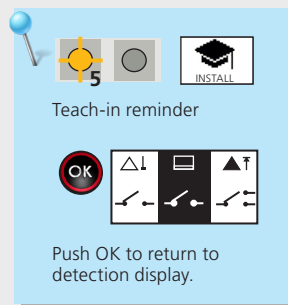
Plug in the connector and pass the cable (PN 20.5399) through the cable passage without making a loop.



*output status powered during non-detection with factory values

Connect the wires accordingly.

The output functions can be configured if necessary (see page 9 or 12).



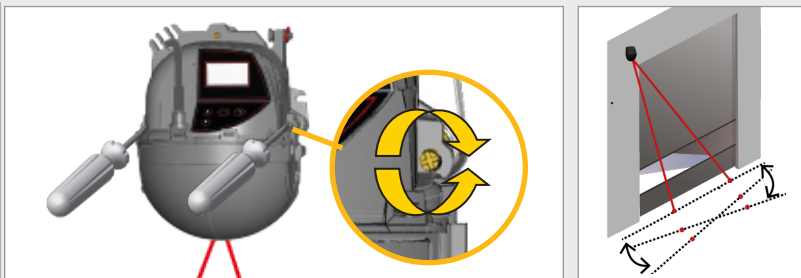
2 POSITIONING OF DETECTION FIELD

Remove the blue protection film from the laser window.



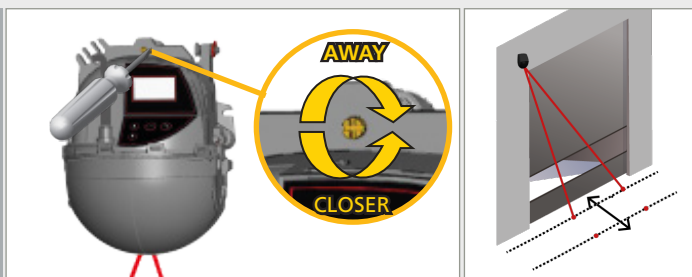
Activate the 2 visible laser spots by pressing **OK** twice or pressing **ⓘ** **⏻** **⏻** on the remote control.

PARALLEL ANGLE



Make sure the curtain is parallel to the door by adjusting one or both screws on the side.

TILT ANGLE



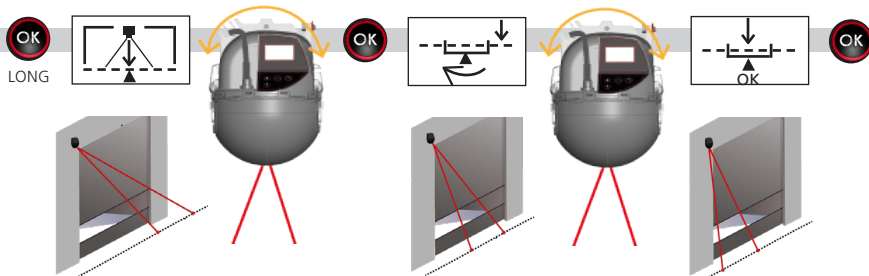
Position the curtain closer to or farther away from the door by turning the screw at the top.

When the safety function is required, the red spots should be as close to the door as possible.

Negative angles reduce the depth of the detection fields.

LATERAL ANGLE

Launch the **POSITION WIZARD** to position the detection field correctly in front of the door.



1. Push and hold **OK** to launch the **POSITION WIZARD**.
2. Rotate the sensor in order to align the center of the red spots with the center of the door. Push **OK**.
3. Rotate the sensor until the LCD screen validates the position. Push **OK** to exit.

Lock the sensor position by tightening the angle lock screw (see page 4).

HOW TO ADJUST THE SENSOR BY REMOTE CONTROL



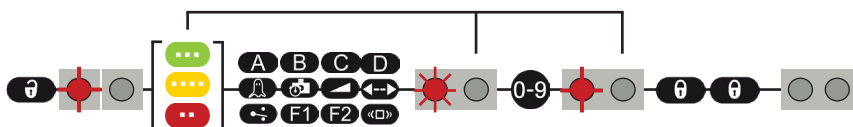
After unlocking, the red LED flashes and the sensor can be adjusted by remote control.



If the red LED flashes quickly after unlocking, enter an access code from 1 to 4 digits. If you do not know the access code, **cut and restore the power supply**. Within 1 minute, you can access the sensor without any code.

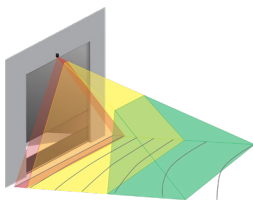


To end an adjustment session, always lock the sensor.



If necessary, select the corresponding detection field before selecting the parameter and changing the value. The second LED indicates the detection field.

- ... MOTION
- PRESENCE
- .. SAFETY



Activate red spots on floor	
Teach-in: install	0
Teach-in: pull cord	... 2
Presettings	3 / 4 / 5
Restoring	8 / 9

HOW TO ADJUST THE SENSOR BY LCD



Enter the LCD menu.
Select a folder, parameter, or value.
Confirm a value and exit edit mode.



Return to previous menu or display.



Activate red spots on floor.



Scroll up or down.



Launch POSITION WIZARD.



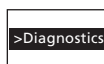
Select your **Language** before entering the first LCD menu.
Within the first 30 seconds of power-on of the sensor or later in the diagnostics menu.



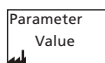
Enter a **Password** if necessary.



Access advanced adjustments.



Go to the **Diagnostics** menu.



Displayed value = Factory value



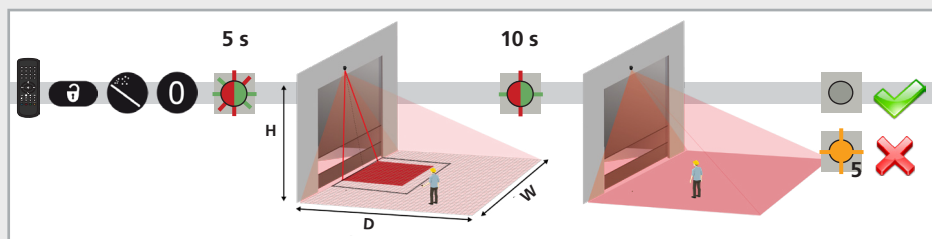
Displayed value = Saved value

3 PROGRAMMING THE SENSOR

TEACH-IN: INSTALL



- The teach-in zone (i.e. square in front of the 2 visible spots) must be completely clear.
- This teach-in must be launched each time a sensor angle has been changed.
- Make sure the blue protection film is removed!

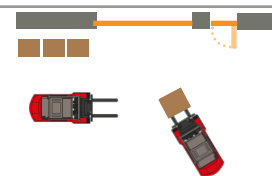


1. Launch a teach-in by remote control. It starts after 5 seconds.
2. Wait while the position, angle, and height are learned and the background is analyzed.
3. The teach-in ends successfully. If not, refer to Troubleshooting on page 14.

PRESETTINGS

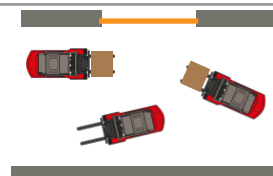
Choose one of the following presettings. They adjust parameters automatically according to your application. If necessary, you can also adjust a parameter independently via remote control (see page 9).

STANDARD



- next to pedestrian door
- exterior, large space
- traffic from and to all directions
- storage right and/or left

CORRIDOR



- interior, confined space
- traffic from and to all directions
- no storage near door

CORNER



- interior or exterior
- no parallel traffic
- storage on one side of door

SETTINGS



- width: **max**, depth: **max**
- object type: **vehicle**
- direction: **uni 100%**



- width: **max**, depth: **6'6"**
- object type: **vehicle**
- max presence time: **30 min**



- width: **max**, depth: **1'3"**
- max presence time: **infinite**
- uncovered zone: **5 3/4"**



OUT1 - Motion / Pull-Cord



OUT2 - Safety



REL - Motion+ and Height Trigger

SETTINGS



- width: **max**, depth: **max**
- object type: **vehicle**
- direction: **uni 100%**



- width: **max**, depth: **6'6"**
- object type: **vehicle**
- max presence time: **infinite**



- width: **max**, depth: **1'3"**
- max presence time: **10 min**
- uncovered zone: **5 3/4"**



OUT1 - Motion / Pull-Cord / Safety



OUT2 - Safety



REL - Motion+ and Speed Trigger

SETTINGS



- width: **max**, depth: **max**
- object type: **vehicle**
- direction: **uni**



- width: **max**, depth: **6'6"**
- object type: **vehicle**
- max presence time: **30 min**



- width: **max**, depth: **1'3"**
- max presence time: **10 min**
- uncovered zone: **5 3/4"**



OUT1 - Motion / Pull-Cord / Presence



OUT2 - Safety



REL - Motion+ and Height Trigger

OPTIONAL REMOTE CONTROL SETTINGS



FACTORY VALUES

	0	1	2	3	4	5	6	7	8	9
	install									
Teach-in				standard	corridor	corner				
Presettings										
Service Mode	The service mode deactivates the presence and safety detection during 15 minutes and can be useful during an installation, a mechanical teach-in of the door or maintenance work. Exit the service mode by using the same sequence.									
Factory Reset				full: complete reset of all values partial: reset of all values except IN/OUT					full	partial
Red Spots	Pressing "magic wand" twice activates the 2 laser spots, enabling angle adjustments and sensor positioning.									
F1 Out 1 Function*	no change	motion	motion pull cord	presence	safety	pull cord	motion + speed	motion + height	motion pull cord safety	motion pull cord presence
F1 Out 2 Function*	no change	motion	motion pull cord	presence	safety	pull cord	motion + speed	motion + height	motion pull cord safety	motion pull cord presence
F1 Relay Function*	no change	motion	motion pull cord	presence	safety	pull cord	motion + speed	motion + height	motion pull cord safety	motion pull cord presence
Always enter 3 digits for the F1-parameter: 1st digit refers to output 1, 2nd to output 2, 3rd to the relay function (see p. 13 for detailed info)										

Always enter 3 digits for the F1-parameter: 1st digit refers to output 1, 2nd to output 2, 3rd to the relay function (see p. 13 for detailed info)

MOTION

<div>C</div> Width	<div><div>X</div><div>X</div><div>X</div></div> 000 (min) – 240 (max) factory default: 240	<div><div></div></div>
<div>D</div> Depth	<div><div>X</div><div>X</div><div>X</div></div> 000 (min) – 287 (max) factory default: 287	
<div><div></div></div> Object type	<div><div></div><div>bi</div><div><div>uni</div><div>100%</div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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PRESENCE

<div>C</div> Width	<div><div>X</div><div>X</div><div>X</div></div> 000 (min) – 240 (max)factory default: 240	<div></div>
<div>D</div> Depth	<div><div>X</div><div>X</div><div>X</div></div> 000 (min) – 287 (max)factory default: 080	
<div></div> Object type	<div></div> <div>vehicle: only vehicles are detected (all types) any: vehicles and pedestrians are detected</div> <div>vehicle</div> <div>any</div>	
<div></div> Max. presence time	<div>30 s</div> <div>1 min</div> <div>2 min</div> <div>5 min</div> <div>10 min</div> <div>30 min</div> <div>60 min</div> <div>120 min</div> <div>infinite</div>	
<div></div> Immunity	<div>1</div> <div>2</div> <div>3</div> <div>4</div>	
<div>B</div> Door zone OFF	<div><div>X</div><div>X</div><div>X</div></div> 000 (min) – 287 (max)factory default: 000	
InvertField	<div>no</div> <div>yes</div> <div>By activating the filed inversion, the motion field learned during the walk teach-in will be inverted.</div>	

SAFETY

<div>C</div> Width	<div><div>X</div><div>X</div><div>X</div></div> 000 (min) – 240 (max)factory default: 240 <div></div>
<div>D</div> Depth	<div><div>X</div><div>X</div><div>X</div></div> 000 (min) – 287 (max)factory default: 016
<div><div></div>Max presence (for objects < 1'6")</div>	<div><div>30 s</div><div>1 min</div><div>2 min</div><div>5 min</div><div>10 min</div><div>30 min</div><div>60 min</div><div>120 min</div><div>infinite</div></div>
<div><div></div>Immunity</div>	<div><div>1</div><div>2</div><div>3</div><div>4</div><div colspan="5">Depending on mounting height, angles, and other installation factors, some immunities might exclude conformity with EN 12445.</div></div>
<div>F2Uncovered Zone</div>	<div><div>2"</div><div>4"</div><div>6"</div><div>8"</div><div colspan="5">An object < 6" is not detected. An object > 6" is detected during 10 min (adjustable). An object > 1'6" is detected infinitely (not adjustable).</div></div>
InvertField	<div><div>no</div><div>yes</div><div>By activating the filed inversion, the motion field learned during the walk teach-in will be inverted.</div></div>

OPTIONAL REMOTE CONTROL SETTINGS (cont.)



MOTION

	0	1	2	3	4	5	6	7	8	9
Direction (see next pg for details)		bi	uni 100%				uni rev	uni 100%+		uni

1

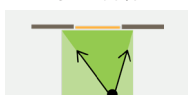
BIDIRECTIONAL



*bidirectional detection
approaching and going away*

2

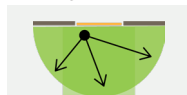
UNI 100%



*unidirectional detection
approaching within the width of
the max. field*

6

UNI REV



*unidirectional detection reverse
going away*

7

UNI 100% +



*unidirectional detection
approaching within the width of max. field
+ 1 m of bidirectional detection in front of door*

9

UNIDIRECTIONAL



*unidirectional detection
approaching in any direction
(distance between object and sensor decreases)*

OPTIONAL LCD CONTROL SETTINGS

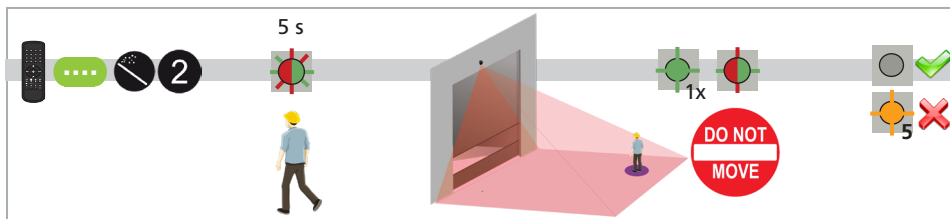
Additional parameters are also available via LCD menus. These cannot be accessed/programmed via remote control. Such functions are listed as follows (but not limited to):

LCD PATH	PARAMETER	OPTIONS (default = bold/underlined)
MAIN ↓ IN – OUT ↓ > MORE ↓ [parameter]	OUTPUT1 LOGIC	NC, <u>NO</u>
	OUTPUT1 HOLDDTIME	100 ms, <u>1 s</u> , 3 s, 5 s, 10 s, 30 s, 60 s, 5 min, 10 min, 20 min
	OUTPUT1 TEST	<u>OFF</u> , ON
	OUTPUT2 LOGIC	NC, <u>NO</u>
	OUTPUT2 HOLDDTIME	100 ms, <u>1 s</u> , 3 s, 5 s, 10 s, 30 s, 60 s, 5 min, 10 min, 20 min
	OUTPUT2 TEST	<u>OFF</u> , ON
	RELAY LOGIC	PASSIVE NC/NO, <u>ACTIVE NO/NC</u>
	RELAY HOLDDTIME	100 ms, <u>1 s</u> , 3 s, 5 s, 10 s, 30 s, 60 s, 5 min, 10 min, 20 min
MAIN ↓ QUICK START ↓ > MORE ↓ [parameter]	RELAY TEST	<u>OFF</u> , ON
	HEATING	<u>OFF</u> , ECO, AUTO

TEACH-IN: PULL CORD

When an object is detected in the virtual "Pull-Cord" zone for at least 3 seconds, the door will open. In order to use this function:

- make sure the corresponding wires are connected to the door activation input (out 1 by default)
- make sure the output or relay function is set to **Motion or Pull-Cord** (factory value) or **Pull-Cord**





1. Launch a "Pull-Cord" teach-in by remote control.
2. Go to the position where you want to activate the door by a virtual pull-cord.
3. The learning process starts. The sensor confirms that a person has been seen. Do not move until the LED stops flashing!

If nobody is seen after 1 minute, the sensor flashes orange 5x (see TROUBLESHOOTING).

If motion is detected, the sensor starts a new learning process.

4. The teach-in ends successfully. If not, refer to the TROUBLESHOOTING section on page 14.



To delete the virtual "Pull-Cord" zone, simply relaunch a "Pull-Cord" teach-in (step 1) without standing in the scanning zone. After 1 minute, the sensor flashes 5x orange. Push unlock + lock ( ) to exit the adjustment mode:

HEIGHT TRIGGER

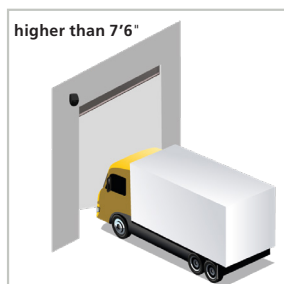
By default, all objects higher than 7'6" will activate the Height Trigger. This function can also be used to partially open the door depending on the height of the object.

The Height Trigger function can be used for a door control which has a partial-open input.

- a. Assign Output 1, Output 2, or Relay to **Motion + Height**.
- b. Connect to the Full-Open input on the door control.
- c. Set the motion field to any object and assign the motion to an output.
- d. Connect to the Partial-Open input of the door control.



The door opens partially.



The door opens completely.

The factory default for this parameter is 7'6", but additional parameters are available by accessing the "Height Limit" parameter in the "OTHERS" menu, via LCD only – customization of this parameter is unavailable via remote control. Follow the LCD menu path to make changes:

MAIN ➔ OTHERS ➔ HEIGHT LIMIT ➔ 68.9, 78.7, **88.6**, 98.4, 108.4, 118.1, 127.9, 133.3, 157.5
(factory default is bold/underlined)

NOTE: Each of these available parameters is **higher than** XX inches. I.e. If the parameter 108.4 is chosen, the sensor will detect objects with a MINIMUM height of 108.4 inches.

SPEED TRIGGER

By default, all objects that move slower than 3 mph will activate the output.

This function helps to trigger the door open in the case of late / slow-moving objects in close proximity to the door.








The factory default for this parameter is less than 3 mph, but additional parameters are available by accessing the "Speed Limit" parameter in the "OTHERS" menu, via LCD only – customization of this parameter is unavailable via remote control. Follow the LCD menu path to make changes:

MAIN ➔ OTHERS ➔ SPEED LIMIT ➔ **3.1**, 6.2, 9.3, 12.4, 15.5, 18.6, 21.7, 24.8, 28, 31,
(factory default is bold/underlined)

NOTE: Each of these available parameters is **slower than** XX mph. I.e. If the parameter 15.5 is chosen, the sensor will detect objects moving at speeds SLOWER than 15.5 mph.

OUTPUT FUNCTIONS

There are 7 detection functions (3 main functions and 4 additional opening functions):

MAIN			ADDITIONAL		
	Motion	detection of moving object in motion field = door opens		Motion +	detection of other type of moving object in motion field = door opens
	Presence	detection of object in presence field = door does not close		Pull-Cord	detection of object in learned pull cord zone = door opens
	Safety	detection of everything in safety field - door does not close		Speed Trigger	detection of object with max. speed (< 3 mph) = door opens
				Height Trigger	detection of object with min. height (> 7'6") = door opens
			Two additional detection functions are also available:		
			<ul style="list-style-type: none"> • Motion, Pull Cord, or Safety • Motion, Pull Cord, or Presence 		

Any of these functions are available to be assigned to all of the three outputs. **F1**

Always enter 3 digits, 1 for each output:

- 1st digit refers to output 1
- 2nd digit refers to output 2
- 3rd digit refers to the relay function



If you do not want to change the setting of an output, select 0.

Examples:

F1 — **8** **0** **6**

output 1: Motion or Pull-Cord or Safety

output 2: no change (Presence)

relay: Motion + and Speed

F1 — **9** **0** **5**

output 1: Motion or Pull-Cord or Presence

output 2: no change (Presence)

relay: Pull-Cord

		0	1	2	3	4	5	6	7	8	9
F1	Out 1 Function	no change	motion	motion+	presence	safety	pull cord	motion + speed	motion + height	motion pull cord safety	motion pull cord presence
F1	Out 2 Function	no change	motion	motion+	presence	safety	pull cord	motion + speed	motion + height	motion pull cord safety	motion pull cord presence
F1	Relay Function	no change	motion	motion+	presence	safety	pull cord	motion + speed	motion + height	motion pull cord safety	motion pull cord presence

TEACH-IN: WALK

You can also reshape one or more detection fields by walking around the requested field. It is possible to cut into the existing field from the border or to extract a field within the detection field.



Make sure the field is larger than desired.

The existing field size can be reduced and adapted, but cannot exceed the configured size.

1 LAUNCH A WALK TEACH-IN

Choose the desired field(s) by LCD or remote control:

	LEFT LED
Quick Start > TeachIn > Walk All: Motion, Presence, and Safety field	1
Quick Start > TeachIn > Walk Motion: Motion field only	1
Quick Start > TeachIn > Walk Presence: Presence field only	1
Quick Start > TeachIn > Walk Safety: Safety field only	1

Ex.:



2 GO TO STARTING POINT

60 SEC / 5 SEC

Step away from the detection field and remove any objects (ladder, tools etc).

Go to the starting position of your detection field (see 1st picture below).

The delay after which the teach-in is launched is 60 seconds by LCD (adjustable to 30 or 120 sec via Quick Start > More > TeachInDelay). **The delay by remote control is 5 seconds.**



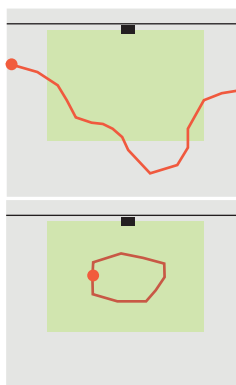
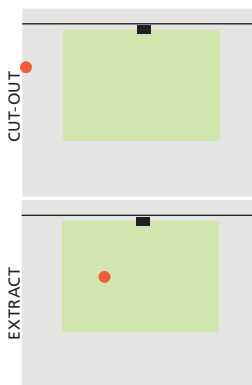
3 DO NOT MOVE

The sensor learns its background as long as the LED flashes red-green.



4 START WALKING

When LED flashes green, hold one arm in the air and slowly start walking the trace of the desired field shape. Then, stop and wait until LED stops flashing.



START outside of the max. detection field.

STOP outside the max. detection field.

Max field
 Walk field

START anywhere in the max. detection field.

STOP close to the starting point.

Max field
 Walk field

The teach-in was either successful or not (see TROUBLESHOOTING).



Using the remote control, you can add a trace of the field shape to all fields or one in particular.

You can invert each detection field via LCD (Motion, Presence, Safety > More > Field inversion).

Always verify the field dimensions via the Field Display option on the LCD screen (Diagnostics > FieldDisplay).

To delete a trace, simply relaunch a walk teach-in without walking in the respective detection zone during 15 seconds.



TROUBLESHOOTING

E1		E1: CPU-XXX	The sensor encounters an internal problem	Replace sensor.
		E2: XXX PWR	The internal power supply is faulty	Replace sensor
E2		E2: IN SUPPLY	The power supply is too low or too high	Verify power supply (Diagnostics > LCD).
		E2: TEMP	The internal temperature is too low or too high	Verify the sensor temperature (Diagnostics > LCD).
				Protect the sensor from direct exposure to heat or cold.
E5			The sensor requests a teach-in	Launch teach-in after angle adjustment. All presence/safety outputs are activated.
		E5: FLATNESS	Faulty teach-in	Make sure that the teach-in zone is clear of objects and then launch install teach-in.
		E5: TILT	Faulty teach-in due to tilt angle	Adjust tilt angle (max. 15° > Diagnostics > LCD).
				Launch install teach-in.
		E5: AZIMUTH	Faulty teach-in due to lateral angle	Adjust lateral angle (max. 45° > Diagnostics > LCD).
				Launch install teach-in.
		E5: HEIGHT	Faulty teach-in due to mounting height	Adjust mounting height (max. 19'6", min. 6'6").
E6		E6: FQ OUT	Faulty sensor output 1	Replace sensor.
		E8: ...	Faulty detection engine	If temperature is lower than -4 °F, wait until the heating process is completed.
E8				If temperature is higher than -4 °F, replace the sensor.
		ORANGE LED is on	The sensor encounters a memory problem	Replace sensor.
		LED and LCD display are off	Incorrect wiring	Check wiring.
		Door does not react	Service mode is activated	Exit service mode (see page 9).
		Product does not react to remote control	Sensor is password-protected	Enter correct password. If you forgot the code, cut and restore power supply in order to access the sensor without entering a password during 1 minute.
		Motion detection starts too late	Negative angle is too large	Reduce angle of the sensor.

TECHNICAL SPECIFICATIONS

Technology	LASER scanner, time-of-flight measurement (7 laser curtains)		
Detection mode	Motion and presence		
Max. detection field	Width: 1.2 x mounting height Depth: 1.2 x mounting height		<i>adjustable, depending on user settings</i>
Thickness of first curtain	¾ inch per 3 feet of mounting height		
Typ. mounting height	6’6” – 19’6”		
Min. reflectivity factor	> 2 % (of floor and object) (measured at max. 19’6” in safety field)		
Typ. min. object size	6” @ 19’6” (in proportion to object distance)		
Testbody	27 ½” x 11 ¾”x 7 ¾”		
Emission characteristics	IR LASER: Wavelength 905 nm, max. output pulse power 25 W, Class 1 Visible LASER: Wavelength 650 nm, max. output CW power 3 mW, Class 3R		
Supply voltage	12 – 24 VAC ±10%	12 – 30 VDC ±10% @ sensor terminal	
Power consumption	< 2.5 W (heating: off)	< 15 W (heating: eco or auto)	
Response time	Typ. 100 ms (max. 500 ms)		
Output	2 solid-state relays (galvanic isolation, polarity free) 30 VDC (max. switching voltage) – 100 mA (max. switching current) - in switching mode: NO/NC - in frequency mode: pulsed signal (f= 100 Hz ±10%) 1 electro-mechanic relay (galvanic isolation, polarity free) 42 VAC (max. switching voltage) – 500 mA (max. switching current)		
Input	30 VDC (max. switching voltage) low < 1 V high > 10 V (voltage threshold)		
LED signals	2 tri-colored LED: Output status / remote control response / error signals		
Dimensions	7 ¾” (H) x 6” (W) x 4” (D) (approx.)		
Material / Color	PC/ASA / Black		
Rotation angles on bracket	45° to the right, 15° to the left (lockable)		
Tilt angles on bracket	-10 – 5°		
Protection degree	NEMA 4 / IP65		
Temperature range	-30 – 60 °C		
Vibrations	< 2 G		
Norm conformity	EN 61000-6-2 EN 61000-6-3 EN 60950-1	EN 60825-1 EN ISO 13849-1 Pl “d”/ CAT2 EN 62061 SIL 2	EN 61496-1 ESPE Type 2 EN 12978 EN 50581

Specifications are subject to change without prior notice. All values measured in specific conditions.

BEA INSTALLATION/SERVICE COMPLIANCE EXPECTATIONS

BEA, the sensor manufacturer, cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor/device; therefore, BEA does not guarantee any use of the sensor outside of its intended purpose.

BEA strongly recommends that installation and service technicians be AAADM-certified for pedestrian doors, IDA-certified for doors/gates, and factory-trained for the type of door/gate system.

Installers and service personnel are responsible for executing a risk assessment following each installation/service performed, ensuring that the sensor system installation is compliant with local, national, and international regulations, codes, and standards.

Once installation or service work is complete, a safety inspection of the door/gate shall be performed per the door/gate manufacturer recommendations and/or per AAADM/ANSI/DASMA guidelines (where applicable) for best industry practices. Safety inspections must be performed during each service call – examples of these safety inspections can be found on an AAADM safety information label (e.g. ANSI/DASMA 102, ANSI/DASMA 107, UL 325).

Verify that all appropriate industry signage and warning labels are in place.



Tech Support: 1-800-407-4545 | Customer Service: 1-800-523-2462
 General Tech Questions: Tech_Services@beainc.com | Tech Docs: www.BEAinc.com

