

# QUICK GUIDE

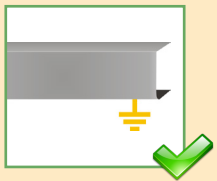
# LZR®-FLATSCAN SW

Safety sensor for full- and low-energy automatic swing doors  
(US version)



Visit [www.BEAinc.com](http://www.BEAinc.com)  
for full User's Guide.

## ! READ BEFORE BEGINNING INSTALLATION & SET-UP !



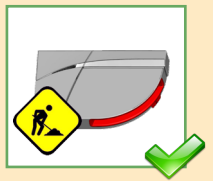
The door control unit and the header cover profile must be correctly grounded.



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



Always test for proper operation before leaving the premises.



Do not remove the laser window protection during construction.

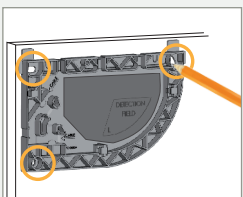
**THIS SENSOR IS POWERED BY DC VOLTAGE ONLY.**  
SEE NEXT PAGE FOR INFORMATION REGARDING USE OF A RECTIFIER.

## 1 MOUNTING

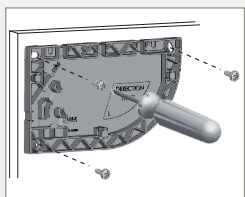
*If installing only one sensor (low-energy, approach side), disregard steps associated with the pass-thru cable.*



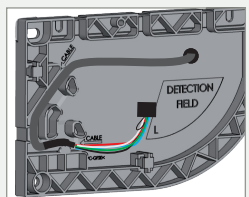
For applications requiring a spacer, first mount spacer to door, and then mount mounting base to spacer.



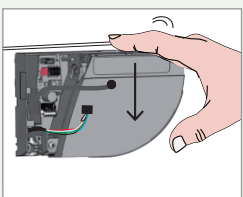
Position mounting base on door frame and mark and drill holes.



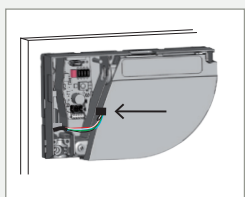
Secure mounting base to door frame.



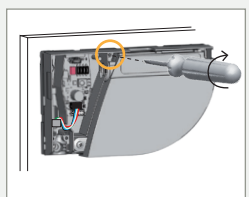
Drill pass-thru hole in mounting base and route primary/secondary cable.



Remove cover, pass cable through, and secure sensor to mounting base.

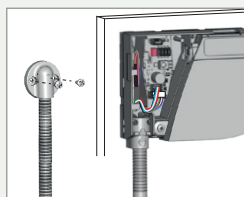


Connect black plug to black connector.



Tighten lock screw.

## 2 WIRING



Install door loop.



**Cut the power cable to the right length, strip the 10 wires, and connect as indicated above.**

12-24 VDC<sup>1</sup>  + POWER SUPPLY  
 -

NO/NC<sup>2</sup>  OUTPUT 1 **STOP IMPULSE**  
COM   Swing side of the door

NO/NC<sup>2</sup>  OUTPUT 2 **REOPENING IMPULSE**  
COM   Approach side of the door

 GRAY<sup>3</sup>  
 GRAY<sup>3</sup>

 PURPLE  
 PURPLE TEST

- <sup>1</sup> If only VAC power is available, a 12V transformer paired with a rectifier must be used. Do not use a 24V transformer and rectifier as this will cause damage to the product.  
<sup>2</sup> Output status when sensor is operational (can be NO or NC; NO=default). See page 10.  
<sup>3</sup> Not used.



## 3 DIP SWITCHES

**ON (switch ↑)**



RELAY 1: STOP-impulse on swing side of door

**OFF (switch ↓)**



RELAY 2: REOPENING-impulse on approach side of door

		ON	OFF	
<b>DIP 2</b>	<b>ENVIRONMENT</b>	standard	critical	Switch to CRITICAL when external disturbances are likely to cause unwanted detections (min. obj size, immunity and uncovered zone are increased).
<b>DIP 3</b>	<b>OUTPUT CONFIGURATION</b>	N.O./N.O. <sup>1</sup>	N.C./N.C. <sup>1</sup>	Settings for this DIP switch must be set on the primary sensor (i.e. the sensor connected to the door control).
<b>DIP 4</b>	<b>PINCH ZONE</b>	on	off	Switch to OFF when the hinge area does not need to be secured and objects can cause unwanted detections.

### NOTES:

1. RELAY 1 / RELAY 2



ORANGE



GREEN



OFF



> 3 sec.

After changing a DIP-switch, the orange LED flashes.  
A LONG push on the push button confirms the settings.  
Afterwards, a number of green flashes (x) indicates the number of connected sensors (x).

## 4 TEACH-IN

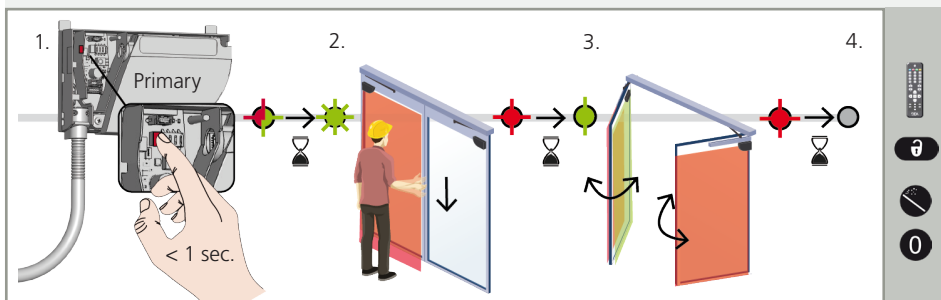


Before launching a teach-in, ensure the following:

- door is closed (use Service Mode if needed – see page 4)
- both relays are connected to door control and primary/secondary cable is connected between sensors
- detection field is free of environmental obstructions, objects, and people
- laser window protector is removed

**NOTE:** A teach-in on the primary configures both the primary and the secondary. A teach-in on the secondary only configures the secondary. In case the primary and secondary sensor are not aligned, first launch a teach-in on the primary and then on the secondary.

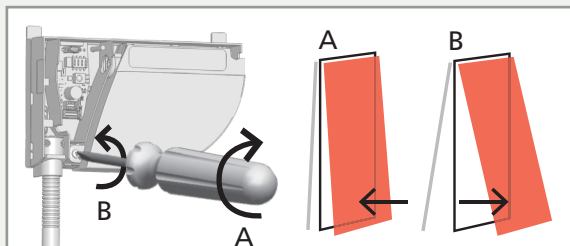
1. Press the Primary sensor push-button briefly. The LED will begin quickly flashing red/green. When installing the sensor on a pair of doors, repeat this on the second Primary sensor.
2. When both sensors flash green, position yourself in front of the door and stretch out your arm in front of you. Make an up-and-down motion at the leading-edge to mark the limit of the detection zones. The LED will flash red while calculating the width of the door leaves.
3. When the sensors flash green again, remove yourself from the detection field and cycle the door open to allow the sensors to learn the environment. The sensors will flash red during the closing of the door.
4. Once the door is completely closed again and the LED is off, the teach-in is complete.



## 5 TESTING / ADJUSTING



Check the correct positioning of the safety fields by walk-testing according to ANSI 156.10 standards.

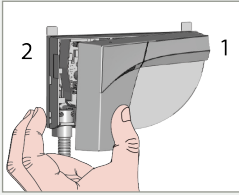


If necessary, adjust the tilt angle of the laser curtain by turning the tilt angle adjustment screw (from 2° to 10°).



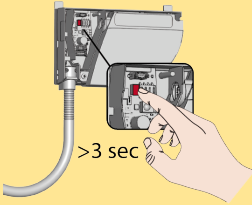
Always launch a teach-in and test the correct positioning of the detection fields after making adjustments to the angle, sensor position, or environment.

## 6 CLOSE SENSOR



Apply cover.

## ! SERVICE MODE



Service Mode **deactivates all detection fields** for 15 minutes and can be useful during an installation, a mechanical teach-in of the door, or maintenance work.

- To enter Service Mode, push and hold the button for at least 3 seconds. The LED will turn off.
- To exit Service Mode, push and hold again for at least 3 seconds.

Service Mode is deactivated automatically when a teach-in is launched.

### BEA, INC. INSTALLATION/SERVICE COMPLIANCE EXPECTATIONS

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

BEA, Inc. 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/device system performance 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's 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, UL294, UL325, and International Building Code).

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



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General Tech Questions: [techservices-us@BEAsensors.com](mailto:techservices-us@BEAsensors.com) | Tech Docs: [www.BEAsensors.com](http://www.BEAsensors.com)