CabSafe™ Door Protection
Quick Start Guide

Thank you for purchasing the CEDES CabSafe elevator door protection system. This "Quick Start" guide provides basic information for the system concept. This document does not replace the installation and operating instructions for the components included in this kit and available online at www.cedes.com.

Consult the installation and operation instructions relevant to the individual devices included in this kit for additional information regarding the system, additional warnings, requirements and device-specific specifications:

115 944 CabSafe System Operating Manual; and
116 106 cegard/Pro (CabSafe 2D) Operating Manual

Download these documents at: **www.cedes.com**.

For glass elevators, please see operating instructions for additional requirements.

Important Notes:

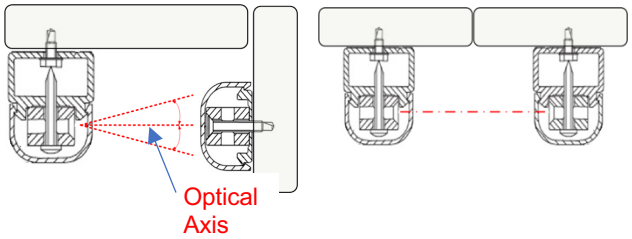
- This door protection system must only be installed and commissioned by qualified elevator installation personnel.
- Before beginning installation of this door protection system, you must be sure that the elevator has been properly placed "Out of Service" to ensure that the elevator and related components will not be allowed to move during the installation. You must follow all applicable safety protocols, rules and regulations that apply.
- Upon completion of the installation and commissioning of this door protection system, qualified elevator installation personnel must ensure that the installation complies with all applicable local, regional and national regulatory requirements, and that the operation of the elevator control system, including this light curtain, perform in accordance with the application and regulatory requirements.

System Overview:

This CabSafe system is designed for use as part of an elevator door protection system in accordance with ASME ANSI A17.1-2019 / CSA B44-19. The CabSafe 2D forms an invisible field of criss-cross beams that detect the presence of persons or objects between the doors. The CabSafe 3D detects persons or objects approaching the elevator entrance. These devices are connected to a CabSafe Controller. When an object is detected, the output from the CabSafe controller changes state to indicate that the doors should be reopened since a person or object is present in the respective detection field.

CabSafe 2D (cegard/Pro):

The CabSafe 2D transmitter and receiver are normally mounted on the doors in a center-opening application or on the door and the slam post in a side-opening application. The maximum door speed should be less than 0.5 m/s (1.64 ft/s). The lowest beam must be less than 25 mm (1 inch) from the sill. The optical Axis must be within ± 5° between the transmitter and receiver.

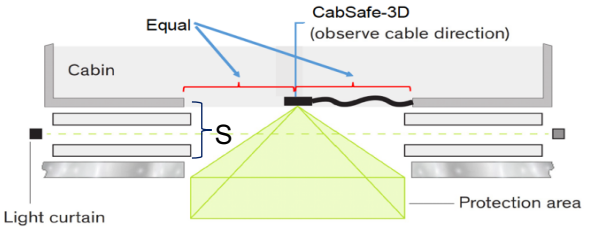


Attach a felt strip in the center of the associated mounting or spacer profile to reduce any vibration that might occur. Once the CabSafe 2D components are mounted, connect the cables from the devices to the CabSafe Controller. Then secure the cables in place, allowing enough slack so that they can bend freely, without becoming snagged on moving parts. Use cable guide wires on door(s) to prevent excessive cable sway.

CabSafe 3D:

The CabSafe 3D is a time-of-flight (TOF) transom-mounted device that projects a detection field in front of the elevator cab entrance. For OEM applications where the transom already has a cut-out for the sensor, the mounting is straightforward using an optional backplate included with the sensor and two (2) security screws (spanner type).

The cable must exit right from the sensor as you look into the cab (regardless of left-open, right-open or center-open application).



The above figure shows a "Sensor Mounted in Center"

For center mounting applications, the sensor should be centered in the opening as shown above. For side-mounting applications, the sensor must:

- Be positioned no more than 240 mm (9.5 inches) from the slam post (Distance "D").
- Be less than 300 mm (12 inches) from the landing side of the landing door (Distance "S").

Route the cable from the CabSafe 3D to the CabSafe controller. Connect the cable to the CabSafe 3D and then secure the sensor in the transom. An optional stainless-steel back of transom bracket is also available for modernization applications.

CabSafe Controller:

CabSafe controllers are available with a wide ranging or 24 V DC ± 20% input power. The CabSafe sensor components plug into the CabSafe Controllers the same way for all variants. Namely,

- CabSafe 2D Transmitter = 3-pole Plug
- CabSafe 2D Receiver = 4-pole Plug
- CabSafe 3D Sensor = 6-pole Plug.

Power is connected to the corresponding pins on power connector. See labels on device for details.

CabSafe 200 with Relay Output 85-265 VAC / 19.2-37 VDC / 120-300 VDC

CabSafe 100 with Relay Output 19.2-37 VDC

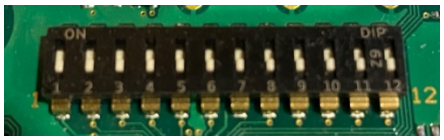
CabSafe 100 with Solid-State Output 19.2-28.8 VDC

DIP Switch Configuration

All versions of the CabSafe controller are configured using DIP switches. The switch settings are described in the following paragraph. Switches should be configured when power is off on the CabSafe Controller.

ON = 1

OFF = 0

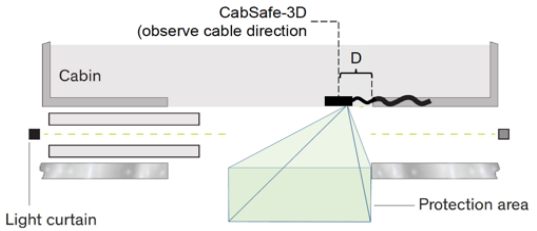


DIP SW 1 & 2 – CabSafe 3D Location

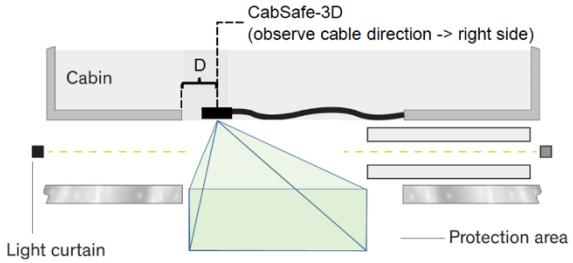
The CabSafe 3D location is the position of the sensor as you look into the elevator cab from the landing side. For side-opening applications, the CabSafe 3D must be mounted on the same side as the slam post / strike jamb.

Function	DIP 1	DIP 2
No function	0	0
CabSafe 3D mounted on left	1	0
CabSafe 3D mounted on right	0	1
CabSafe 3D mounted in center	1	1

Distance "D" as shown below is 240 ± 10 mm (9.45 ± 0.4 inches).



The above figure shows a "Sensor Mounted on Right."



The above figure shows a "Sensor Mounted on Left."

DIP SW 3 & 4 – Door Closed Detection

Normally, the light curtain is able to detect when the doors have reached a point when the CabSafe 3D can be rendered inoperative. When the light curtain does not move with the door(s), an external signal is used to render the CabSafe 3D inoperative. The external signal should transition less than 450 mm (18 inches) from full close. For additional information, see operating manual.

Function	DIP 3	DIP 4
No function	0	0
Via Light Curtain	1	0
Via External Signal	0	1

DIP SW 5 – 8: Sensor Mounting Height

Select based on the mounting height of the CabSafe 3D.

Function	DIP 5	DIP 6	DIP 7	DIP 8
No function	0	0	0	0
6.67 – 7.5 ft	1	0	0	0
> 7.5 to 8.5 ft	0	1	0	0
> 8.5 to 9 ft	0	0	1	0
> 9 to 10 ft	0	0	0	1

DIP SW 9: 2D/3D Select

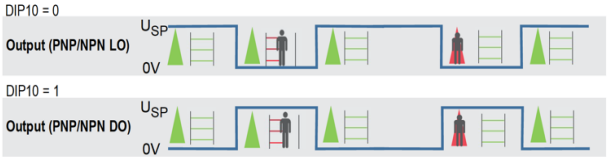
To fulfill ANSI A17.1-2019 / CSA B44-19, both the CabSafe 2D and CabSafe 3D must be active. If DIP9 is configured as 2D Only, the CabSafe 3D sensor must be disconnected from the CabSafe Controller.

Function	DIP 9
2D and 3D Both Active	0
2D Only (3D must be disconnected)	1

DIP SW 10: Output Logic Selector

This configuration changes the polarity of the output.

Function	DIP 10
Standard	0
Inverted	1



CabSafe 100 Solid-state Output Variant

CabSafe 100/200 Relay Output Variant

DIP SW 11: 3D Frequency Selector

This setting is used to prevent interference between CabSafe systems when elevators face one another.

Function	DIP 11
Frequency Range Group A	0
Frequency Range Group B	1

DIP SW 12: Reserved for future use.

An online support and troubleshooting tool is available to assist with installation and troubleshooting. **Scan the QR code** This link is also available at www.cedes.com under Product Listing – CabSafe.

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This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Specifications subject to change without notice.