OPTEX PRO SWING PREMIER Mk2 Specification manual

CE

5918770 OCT 2011

MANUFACTURER'S STATEMENT

Read this manual carefully before use to ensure proper operation of this product.
Failure to read this manual may cause improper operation and may result in serious injury or death of a person. The meanings of the symbols are as follows. Please study the following first and then read the contents of this manual.

⚠ WARNING	Disregard of warning may cause improper operation causing death or serious injury of a person.
⚠ CAUTION	Disregard of caution may cause improper operation causing injury of a person or damage to objects.
NOTE	Special attention is required to the section of this symbol.

NOTE

1. Premier MK2 version Sensor Heads (OA-613) & Controller (OC-913C) are not compatible with old Premier version Sensor Heads (OA-603) and controller (OC-903C). Do not intermix Old & New versions.
2. This sensor is a non-contact switch intended header mount or wall mount for use on automatic swing doors. Do not use for any other application.
3. When setting the sensor's detection area, make sure that there is no traffic around the installation site.
4. Before turning the power ON, check the wiring to prevent damage or malfunction of equipment connected to the sensor.
5. Only use the sensor as specified in the operation manual provided.
6. Be sure to install and adjust the sensor in accordance with the local laws and standards of the country in which the sensor is installed.
7. Before leaving the installation site, make sure that the sensor is operating properly and instruct the building owner/operator on proper operation of the door and the sensor.
8. The sensor settings can only be changed by an installer or service engineer. When changed, the changed settings and the date shall be registered in the maintenance logbook accompanying the door.

⚠ WARNING Danger of electric shock	Do not wash, disassemble, rebuild or repair the sensor, otherwise it may cause electric shock or breakdown of the equipment.

NOTE The following conditions may not be suitable for sensor installation.
-Fog or exhaust emission around the door.
-Moving objects or objects that emit light near the detection area.
-Highly reflecting floor or highly reflecting objects around the door.
-Wet floor.

SPECIFICATIONS

Model (System name) : PREMIER Mk2
Power supply : 12 to 24 VAC ±10% (50 / 60 Hz)
12 to 30 VDC
Power consumption : < 2.2W (< 4VA at AC)
at 1 OA-613 & 1 OC-913C
Output * : CMOS. Relay Voltage / 5 VDC
Output hold time : 0.5 sec. fixed (Activate output)
0.5 sec. to 10sec.(Safety output)
Response time : < 0.3 sec.
Operating temperature : -20 to +55°C (-4 to 131°F)
without dew condensation
Operating humidity : < 80%
Accessories : 1 Spec manual
1 Installation manual
2 Mounting screws
1 Mounting templates for OA-613
1 Communication cable 1m (3'3")
1 Wiring cable 0.6m (2')
1 Velcro tape
2 Wiring shells
1 Connection Matrix

Model (Sensor head) : OA-613
Cover color : Black
Mounting height : 2.0 (6'7") to 2.5m (8'2")
Detection area : See **DETECTION AREA**
Detection method : Active infrared reflection **
Depth angle adjustment : 1st row area ±5°
2nd & 3rd row area ±5°
IP rate : IP44
Weight : 230g (8.1oz)

Model (Controller) : OC-913C
Weight : 65g (2.3oz)

* : Three type of outputs (Activate , Inhibit , Safety)
** : All rows have the presence detection.

NOTE The specifications herein are subject to change without prior notice due to improvements.

Operation indicator : OA-613

Status	Color
Stand-by	Solid Green
1st row area detection	Blinking Red
2nd or 3rd row area detection	Solid Red
Waiting for next learning	Solid Yellow
During learning	Blinking Yellow
During opening or closing	Solid Orange
Signal saturation	Slow Green blinking
Sensor failure	Fast Green blinking
Setting error	Slow Orange blinking
Communication error	Twice Orange blinking
Mixed version error	Red & Green blinking

Operation indicator : OC-913C

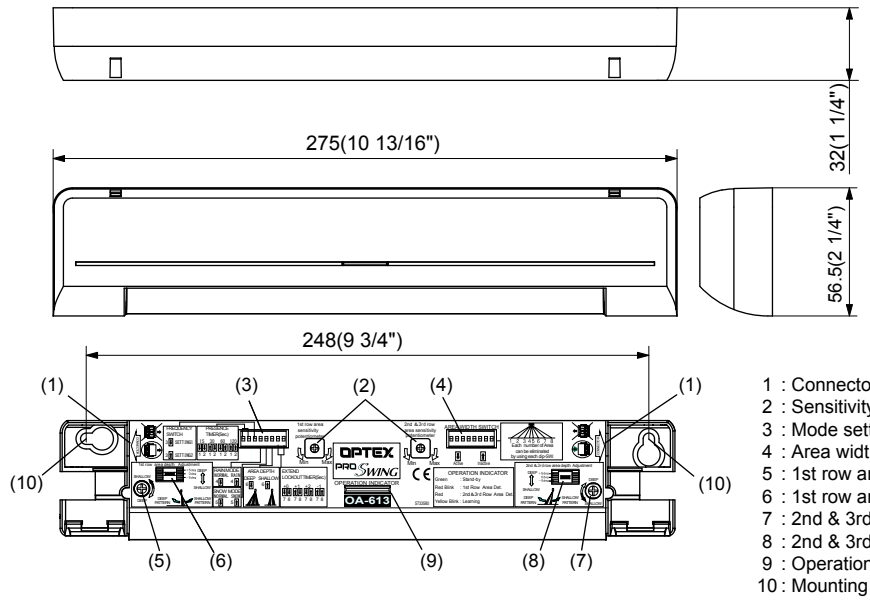
Status	Color
Door fully closed	Solid Green
Door closing	Solid Orange
Door fully opened	Solid Red
Door Opening	Blinking Red
During Learning	Slow Green blinking
Communication error	Twice Orange blinking
Mixed version error	Red & Green blinking

Interface LED : OC-913C

LED indication		Operation
Inhibit output	Solid Green	When outputting
	OFF	When not outputting
Safety output	Solid Green	When not outputting
	OFF	When outputting
Activate output	Solid Orange	When outputting
	OFF	When not outputting
Activate input / Beam input	Solid Orange	When receiving input
	OFF	When not receiving input

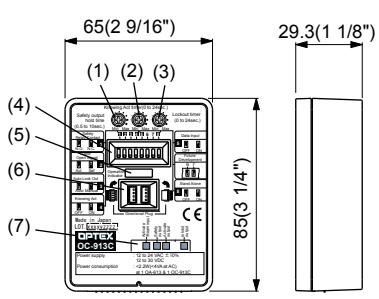
OUTER DIMENSIONS AND PART NAMES

Sensor head: OA-613



1 : Connector
2 : Sensitivity potentiometer
3 : Mode setting switches
4 : Area width setting switch
5 : 1st row angle screw
6 : 1st row area angle gauge
7 : 2nd & 3rd area angle screw
8 : 2nd & 3rd area angle gauge
9 : Operation indicator
10 : Mounting holes

Controller: OC-913C



1 : Safety output hold timer
2 : Knowing Act timer
3 : Lockout timer
4 : Dipswitches
5 : Operation indicator
6 : Connector
7 : Interface LED
(Inhibit output, Safety output, Activate output, Activate/Beam input)

DETECTION AREA

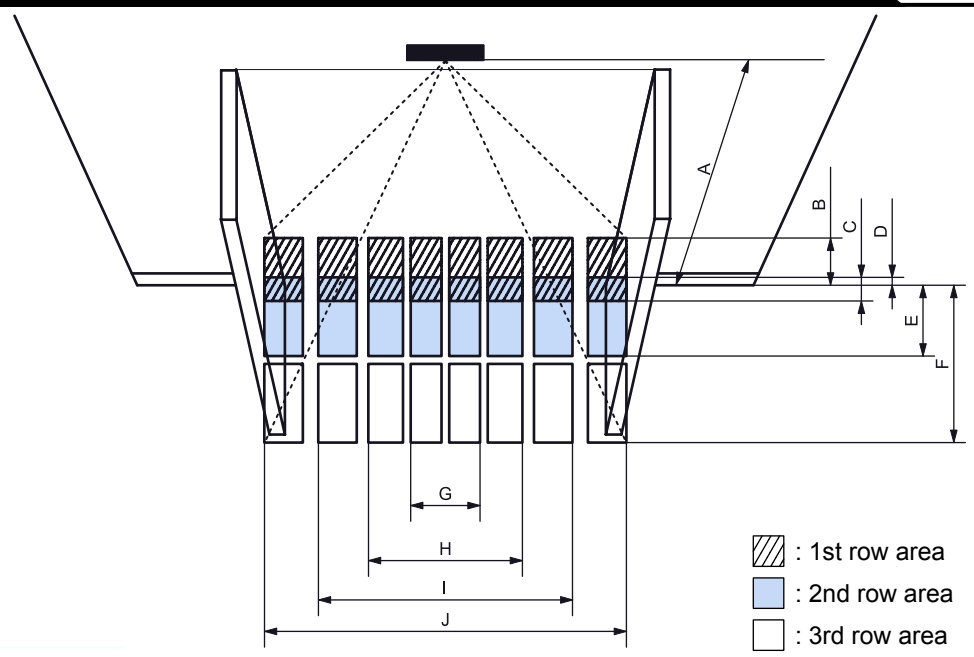


Chart shows figures if all angles are set at 0degree.

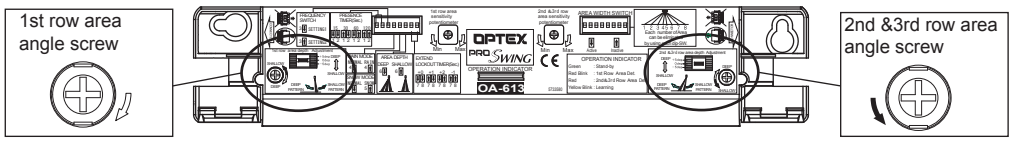
[mm (ft,inch)]

A	2000 (6'7")	2200 (7'3")	2500 (8'2")
B	364 (1'2")	400 (1'4")	455 (1'6")
C	182 (7")	200 (8")	227 (9")
D	23 (1')	25 (1')	28 (1')
E	664 (2'2")	730 (2'5")	830 (2'9")
F	1391 (4'7")	1530 (5'1")	1739 (5'9")
G	682 (2'3")	750 (2'6")	852 (2'10")
H	1318 (4'4")	1450 (4'9")	1648 (5'5")
I	2045 (6'9")	2250 (7'5")	2557 (8'5")
J	2864 (9'5")	3150 (10'4")	3580 (11'9")

NOTE The actual detection area may become smaller depending on the ambient light, the color / material of the object or the floor as well as the entry speed of the object.

ADJUSTMENTS for OA-613

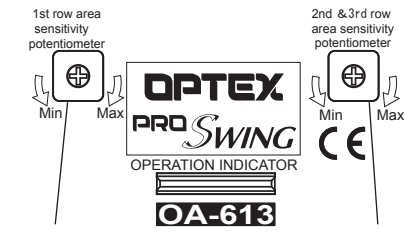
1 Area depth angle adjustment



Start with 1st row area depth angle
at -5 degrees(shallow).
If after walk test the pattern is too shallow,
adjust towards deep as necessary.

Start with 2nd & 3rd row area depth angle
at +5 degrees(deep).
If after walk test the pattern is too deep,
adjust towards shallow as necessary.

2 Adjusting the sensitivity



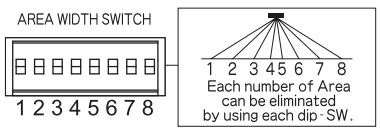
3 Initial setup

This sensor has the function to fit floor condition changes automatically.
Therefore, even if objects are put in the detection area, sensor will learn the changes gradually and set back to normal operations automatically after presence timer has expired.
To enable a Learn process only, flip any dipswitch on OA-613 sensor head and wait 1 second, then flip it back to the original position.

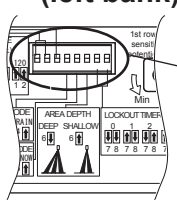
NOTE
See PREMIER Mk2 installation manual section 6 (**Premier Learn process**).

4 Area width setting switch (right bank)

Set the dipswitch as necessary.
Active : Enable area
Inactive : Disable area



5 Mode setting switch (left bank)

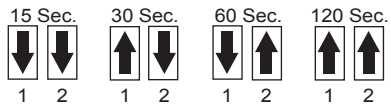


1,2: Presence timer
3 : Frequency
4 : Rain mode
5 : Snow mode
6 : Area depth
7,8: Extend Lockout timer

NOTE Whenever a Dipswitch is moved a Premier Learn process is enabled, ensure proper completion of process (See step 3).

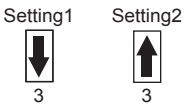
5-1.Setting the presence timer

To comply with ANSI standard, set to "30sec." or longer.



5-2.Setting the frequency

When using more than two sensors close to each other, set the different frequency for each sensor by dipswitch 3.



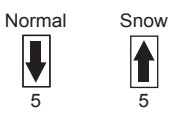
5-3.Setting the rain mode

Set dipswitch 4 to "Rain" if the sensor is used in a region with a lot of rain.

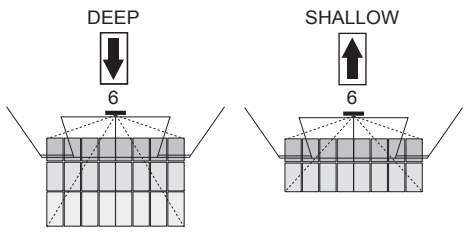
NOTE
When set to "Rain", the actual detection area may become smaller.

5-4.Setting the snow mode

Set dipswitch 5 to "Snow" if the sensor is used in a region with snow or a lot of insects.



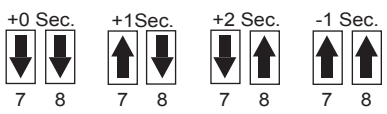
5-5.Setting the area depth



For standard application.

For bi-fold or smaller door.

5-6.Setting the Extend Lockout timer

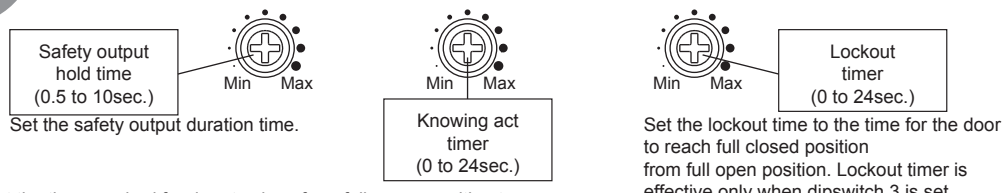


Fine-tune the lockout time after setting the lockout timer on OC-913C by volume (0-24 sec.)
Only effective when Dipswitch 3 is set to “Manual” and Dipswitch 5 is set to “OFF” on OC-913C.

NOTE See ADJUSTMENTS for OC-913C

ADJUSTMENTS for OC-913C

1 Timer adjustment



Set the time required for door to close from fully open position to within 10 degrees when uses for Knowing Act application(dipswitch 4:ON).

Set the lockout time to the time for the door to reach full closed position from full open position. Lockout timer is effective only when dipswitch 3 is set to “Manual” and dipswitch 5 is set to “OFF”.

2 Setting the dipswitches

Set the dipswitches as shown below.

Dipswitch setting		OFF ⬇	ON ⬆
1	Safety Relay Contact	NO	NC
2	Door Open Signal Switch	Act	Saf
3	Auto Lock Out	Auto	Manual
4	Knowing Act	OFF	ON
5	Data Input	OFF	ON
6	Future Development		
7			
8	Stand Alone	OFF	ON

1. Safety Relay Contact : Choose the Relay Contact.
2. Door Open Signal Switch : Determines safety output when door is open.
3. Auto Lock out : Set the lockout method
   ON : Manual (by volume setting on OC-913C)
   OFF : Auto (by motor voltage)
4. Knowing Act : If uses KnowingAct Function, set to “ON”.
5. Data Input : If using data output from door control for Lockout, set to “ON”.
   When Data Input is “ON”, setting of Auto Lock Out(dipswitch 3) is ignored.
6,7. Future Development (not used)
8. Stand Alone : Set to “ON” when door mount sensor and OC-913C are used for Knowing Act application without OA-613.

⚠ CAUTION | When using OA-613, dipswitch 8 must be set to “OFF”.

Knowing Act Function

Use this function when Primary Activation is knowing act (i.e. Push Plate, Card reader, etc.) and a secondary activation sensor(door mount or header mount) is desired.
See WIRING in the installation manual when Knowing Act Function is required.

Secondary activation sensor status in Knowing Act Function:

- Full Closed position
  Secondary activation sensor is inactive until the knowing act device is initiated.
  Door can be used manually without activation or reactivation from sensor.
- Door Opening & Full Open
  When door is activated by Knowing Act, the secondary activation sensor is active and the door will remain open when the sensor is in detection.
- Door closing
  Secondary activation sensor is active and will reactivate the door upon detection until the Knowing Act timer expires. Set the Knowing Act timer on OC-913C control to stay active to within 10 degrees from full closed.

NOTE When using the Knowing Act Function, Push/Pull activation MUST be disabled at the door control.

INFORM BUILDING OWNER / OPERATOR OF THE FOLLOWING ITEMS

⚠ WARNING

1. Always keep the detection window clean. If dirty, wipe the window with a damp cloth.(Do not use any cleaner / solvent.)
2. Do not wash the sensor with water.
3. Do not disassemble, rebuild or repair the sensor yourself, otherwise electric shock may occur.
4. When the operation indicator blinks Green, contact your installer or service engineer.
5. Always contact your installer or service engineer when changing the settings.
6. Do not paint the detection window.

NOTE

1. After applying power, wait 10 seconds then walk test detection area to ensure proper operation.
2. Do not place any objects that move or emit light in the detection area. (e.g. Plant, illumination, etc.)

TROUBLESHOOTING

Symptom	Operation indicator		Possible cause	Possible countermeasures
	OA-613	OC-913C		
Initial setup can not start.	None	None	Power supply voltage.	Set to the stated voltage.
			Wrong wiring cable (Brown &Orange wires) of OC-913C.	Check the wiring cable.
	Twice Orange blinking or None	Twice Orange blinking	Connection failure from OA-613 to OC-913C.	Check the connector.
			Defective communication cable.	Replace as necessary.
	Slow Orange blinking		When all the area are inactive. (Right bank dipswitches on OA-613)	Verify proper settings. See **installation manual section 4**.
			OC-913C Dip-SW 8 is ON, but OA-613 is also connected to OC-913C.	If use OA-613, set OC-913C Dip-SW 8 to “OFF”. If do not use OA-613, disconnect it.
Incomplete initial setup	Blinking Yellow	Blinking Green	OC-913C dipswitches set wrong.	Check the dipswitch settings.
Door operates when no one is in the detection area. (Ghosting)	Solid Green or Solid Red or Blinking Red	Proper	Improper 1st row or 2nd & 3rd row area angle adjustment.	Set 1st row area angle at -5 degrees (shallow) or 2nd & 3rd row area angle at +5 degrees (deep).
			Stalling caused by traffic just outside of swing path.	Set dipswitch 6 on left bank dipswitch of OA-613 on/up (shallow).
			Moving objects near guide rails.	Remove the objects.
			Area width dipswitches set wrong. (Right bank dipswitches on OA-613)	Verify proper settings. See **installation manual section 4**.
			Wet floor.	Check the installation condition referring to **MANUFACTURER'S STATEMENT**.
			The exhaust emission or fog penetrate into the detection area.	
			Reflecting objects in the detection area.	Remove the objects.
			Objects that move or emit light (Ex.Plant, illumination, etc.)	
			Water drops on the detection window.	Use the rain-cover (Separately available). Or install in a place keeping the water drops off.
			Sensitivity is too high.	Adjust the sensitivity lower.
			Snow drifting.	Set the snow mode to “Snow”.
			Other than above.	Set the rain mode to “Rain”.
Door does not operate properly when a person enters the detection area. (Sensor does not detect.)	Solid Green	Proper	Sensitivity is too low.	Adjust the sensitivity higher.
			Area width dipswitches set wrong. (Right bank dipswitches on OA-613)	Verify proper settings. See **installation manual section 4**.
	Slow Green blinking	Proper	Improper 1st row or 2nd & 3rd row area angle adjustment.	Set 1st row area angle at -5 degrees (shallow) or 2nd & 3rd row area angle at +5 degrees (deep).
			Signal saturation.	Remove highly reflecting objects from the detection area. Or lower the sensitivity.
	Fast Green blinking	Proper	Dirty detection window.	Wipe the detection window with a damp cloth. (Do not use any cleaner or solvent.)
			Sensor failure.	Contact your installer or service engineer.
OA-613 detects but door operate.	Red or Blinking Red	Proper	OC-913C dipswitches set wrong.	Check the dipswitch settings. See **installation manual section 2**.
Door remains open.	Solid Green	Proper	Improper wiring of door equipment on / off / hold switch.	Verify proper wiring of on / off / hold switch.

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