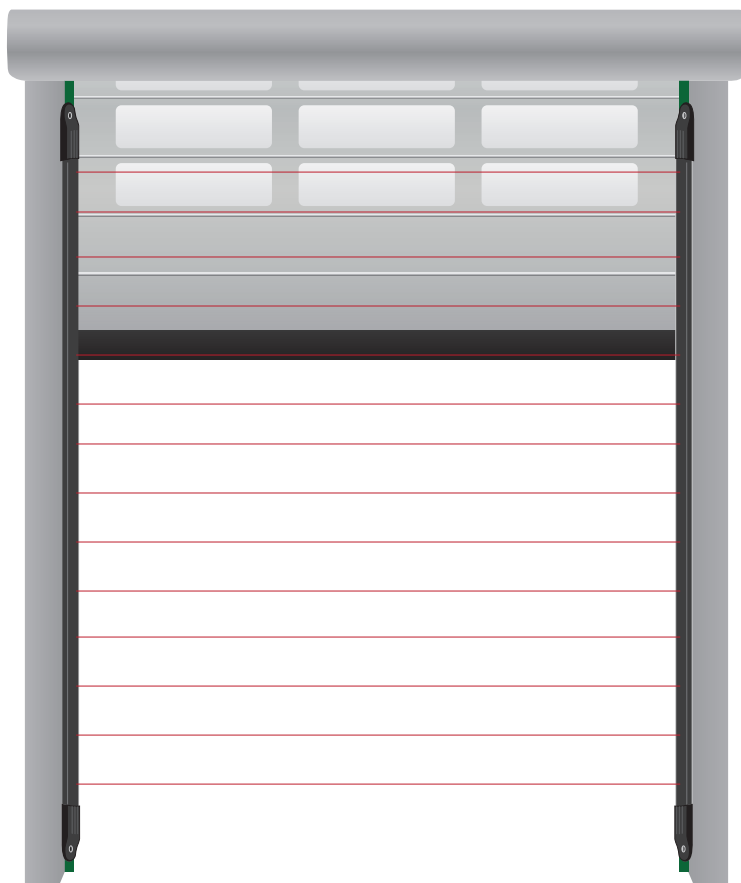


- Security barrier for gates and automatic doors
- Gradual shut down function with encoder or Scan of the crossing beam



LIGHT SAFETY SCREEN

operating guide



Foreword

This manual provides all the specific information you need to familiarize yourself with and correctly operate your unit. Read it very carefully when you purchase the instrument and consult it whenever you have doubts regarding use and before performing any maintenance operations. The manufacturer has the right to modify the product without previous notice.

Environmental protection measures

Information regarding the environment for customers within the European Union. European Directive EC 2002/96 requires that units bearing this symbol on the unit and/or on the packaging be disposed of separately from undifferentiated urban wastes.



The symbol indicates that the product must not be disposed of with the normal household wastes. The owner is responsible for disposing of this product and other electrical and electronic equipment through specific waste collection facilities indicated by the government or local public agencies. Correct disposal and recycling help prevent any potentially negative impact on the environment and human health. To receive more detailed information regarding disposal of your unit, we recommend that you contact the competent public agencies, the waste collection.

Symbols and warning



DANGEROUS

This is a warning and if it is not respected it can provoke material damage.



READ CAREFULLY THE OPERATING MANUAL

Read carefully this manual before installation and keep it for the future.

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Technical Description

Width	22,5 mm
Thickness	23 mm
Power Supply	12÷30 Vdc / 12÷24 Vac
Range Up	30 m inside 15 m outside
Synchronization	Automatic
Output	Allarm e BUS EB

Models available and absorption

The following table shows the LIGHT SAFETY SCREEN version available. The absorption is calculated according to one sample barrier, so pls consider a tolerance value of minimum $\pm 5\%$

Version ACTIVE-DOOR	N°of rays	Abs [mA]
1020	20	50
1530	30	68
2040	40	85
2550	50	103

For a correct use, don't install the infrared barriers near trees, plants or places where they can have a deep sun-light (for example car-lights, rays of sun, if it is not possible, install the transmitter but not the receiver in front of the sun-light). It is possible to install the receiver and the transmitter in all angles as long as the sensors are parallel positioned. Make sure that the transmitters and receivers should be installed in the same direction (the cables have to come out from the same side both the receiver and the transmitter)

REAL DIMENSION of the barriers

There are the real dimensions of the LIGHT SAFETY SCREEN barrier version. The length is up to the dimensions of the covers:



with COVERS

Models of ACTIVE-DOOR	Real dimensions with covers [cm]
1020	133
1530	183
2040	233
2550	283



with PLUGS

Models of ACTIVE-DOOR	Real dimensions with covers [cm]
1020	126
1530	176
2040	226
2550	276

Dichiarazione CE conformità / EC declaration of conformity

ACTIVE-DOOR-1020 / ACTIVE-DOOR-1530 / ACTIVE-DOOR-2040 / ACTIVE-DOOR-2550

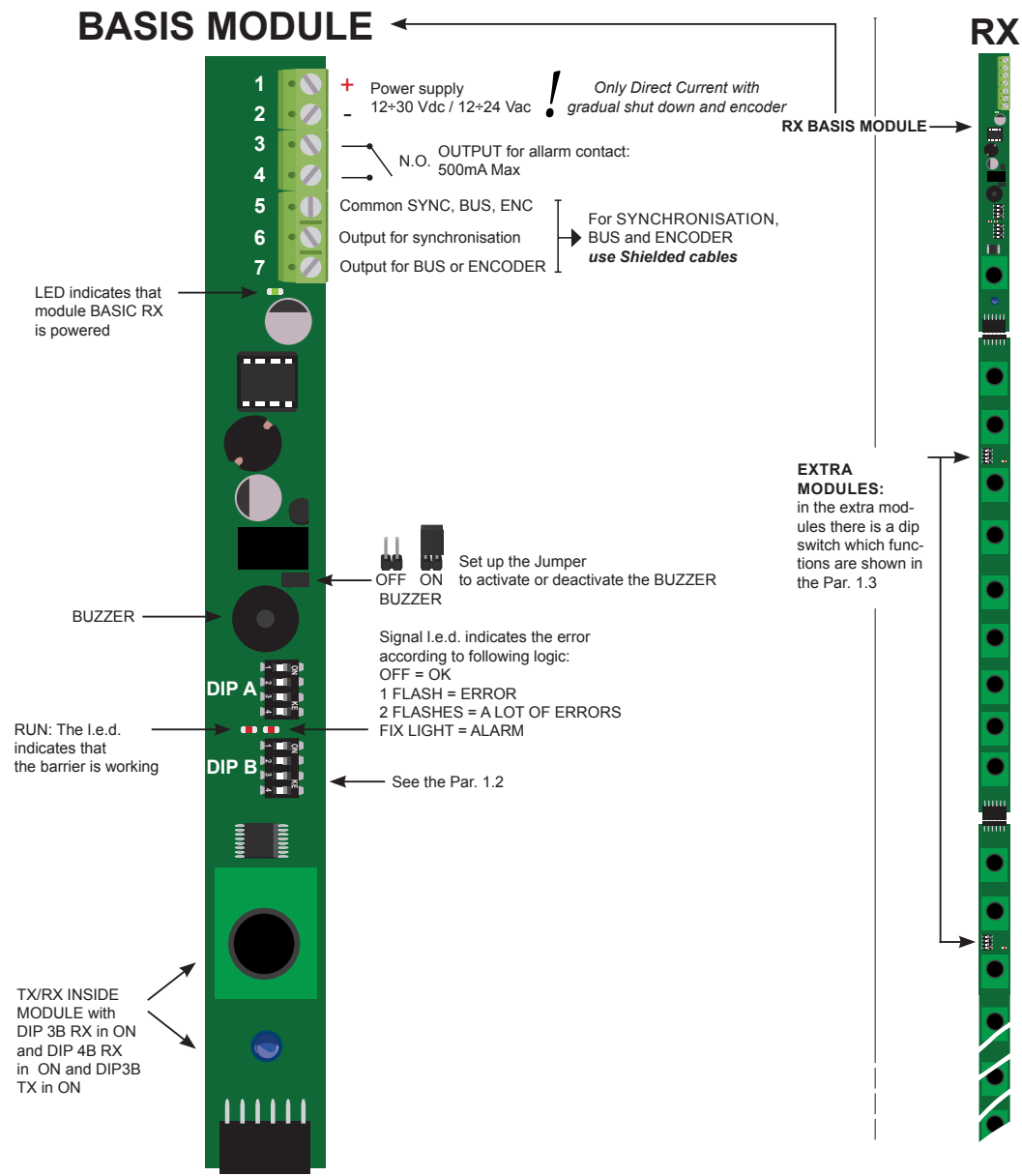
è conforme alle seguenti disposizioni pertinenti: / complies with the following norms:

EN 50081-1 EN 50082-1 EN 60529 2004/108/CE






1 Installation

1.1 RECEIVER

The LIGHT SAFETY SCREEN is composed of one TX and one RX. As described we have different models available with different dimensions and rays. Each single barrier (light curtain) is composed of one BASE and then different extra module according to the version.




1.2 DIP A & B on BASIS-MODULE RX

 ON 1 2 3 4	DIP A 1-2-3 (DIP 4 A Not used)	Setting the number of modules (Parameters already set in production)	<table><tr><th>DIP 1</th><th>DIP 2</th><th>DIP 3</th><th>N°</th></tr><tr><td>ON</td><td>OFF</td><td>OFF</td><td>1</td></tr><tr><td>OFF</td><td>ON</td><td>OFF</td><td>2</td></tr><tr><td>ON</td><td>ON</td><td>OFF</td><td>3</td></tr><tr><td>OFF</td><td>OFF</td><td>ON</td><td>4</td></tr></table>	DIP 1	DIP 2	DIP 3	N°	ON	OFF	OFF	1	OFF	ON	OFF	2	ON	ON	OFF	3	OFF	OFF	ON	4	<table><tr><th>DIP 1</th><th>DIP 2</th><th>DIP 3</th><th>N°</th></tr><tr><td>ON</td><td>OFF</td><td>ON</td><td>5</td></tr><tr><td>OFF</td><td>ON</td><td>ON</td><td>6</td></tr><tr><td>ON</td><td>ON</td><td>ON</td><td>7</td></tr></table>	DIP 1	DIP 2	DIP 3	N°	ON	OFF	ON	5	OFF	ON	ON	6	ON	ON	ON	7
DIP 1	DIP 2	DIP 3	N°																																					
ON	OFF	OFF	1																																					
OFF	ON	OFF	2																																					
ON	ON	OFF	3																																					
OFF	OFF	ON	4																																					
DIP 1	DIP 2	DIP 3	N°																																					
ON	OFF	ON	5																																					
OFF	ON	ON	6																																					
ON	ON	ON	7																																					
 ON 1 2 3 4	DIP 1 B ON	Planning intervention time	Planning intervention time of the light curtains at 100mS. <i>Very useful in case of outside installation and in case of snow</i>																																					
 ON 1 2 3 4	DIP 2 B ON	<i>Not used</i>																																						
 ON 1 2 3 4	DIP 3 B ON	Beam of the limit switch	Activate the beam of the limit switch BASE when DIP4B is inON																																					
 ON 1 2 3 4	DIP 4 B ON	Gradual shut down	Activate the gradual shut down with ENCODER function																																					

1.3 Description of the extra modules In the RX

Each module, and next modules, which compose the RX have, besides the infrared sensors, a 4 ways DIP and one L.E.D. This permit to check eventually errors while the DIP SWITCH can:



Signal light:


- FLASHING: Correct Working
- FIXE LIGHT: Error

DIP 1-2-3:
Setting the number of modules

DIP 1	DIP 2	DIP 3	N°
ON	OFF	OFF	1
OFF	ON	OFF	2
ON	ON	OFF	3
OFF	OFF	ON	4
ON	OFF	ON	5
OFF	ON	ON	6
ON	ON	ON	7

DIP 4:
Deactivation of the cross scanning beams

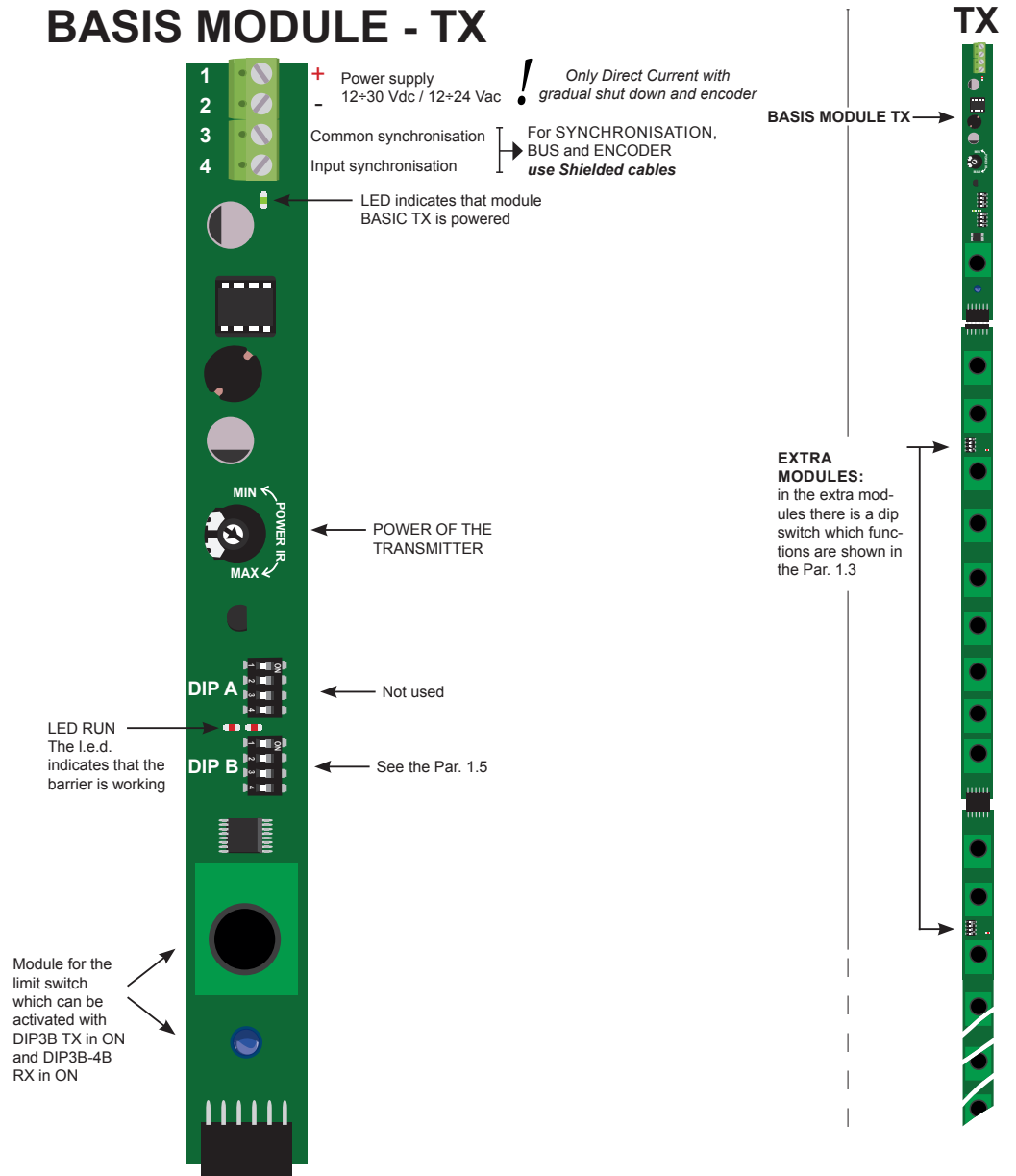
If you put in ON desactivate the cross scanning beam. Put in ON in case of gradual shut down (DIP4B in ON Basic Module RX)

 Parameters of factory setting




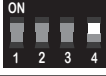
1.4 TRANSMITTER

Here you can see the detail of the TX:

BASIS MODULE - TX




1.5 DIP B on BASIS-MODULE TX

	DIP 1 B	<i>Not used</i>	
	DIP 2 B	<i>Not used</i>	
	DIP 3 B ON	Beam of the limit switch	Activate the beam of the limit switch BASE, put BASE RX DIP 3B e DIP 4B in ON.
	DIP 4 B	<i>Not used</i>	

1.6 Description of the extra modules In the TX

Each module, and next modules, which compose the TX have, besides the infrared sensors, a 4 ways DIP and one L.E.D. This permet to check eventually errors while the DIP SWITCH can




The l.e.d. indicates that the barrier is working

DIP 1-2-3:
Setting the number of modules

DIP 1	DIP 2	DIP 3	N°
ON	OFF	OFF	1
OFF	ON	OFF	2
ON	ON	OFF	3
OFF	OFF	ON	4
ON	OFF	ON	5
OFF	ON	ON	6
ON	ON	ON	7

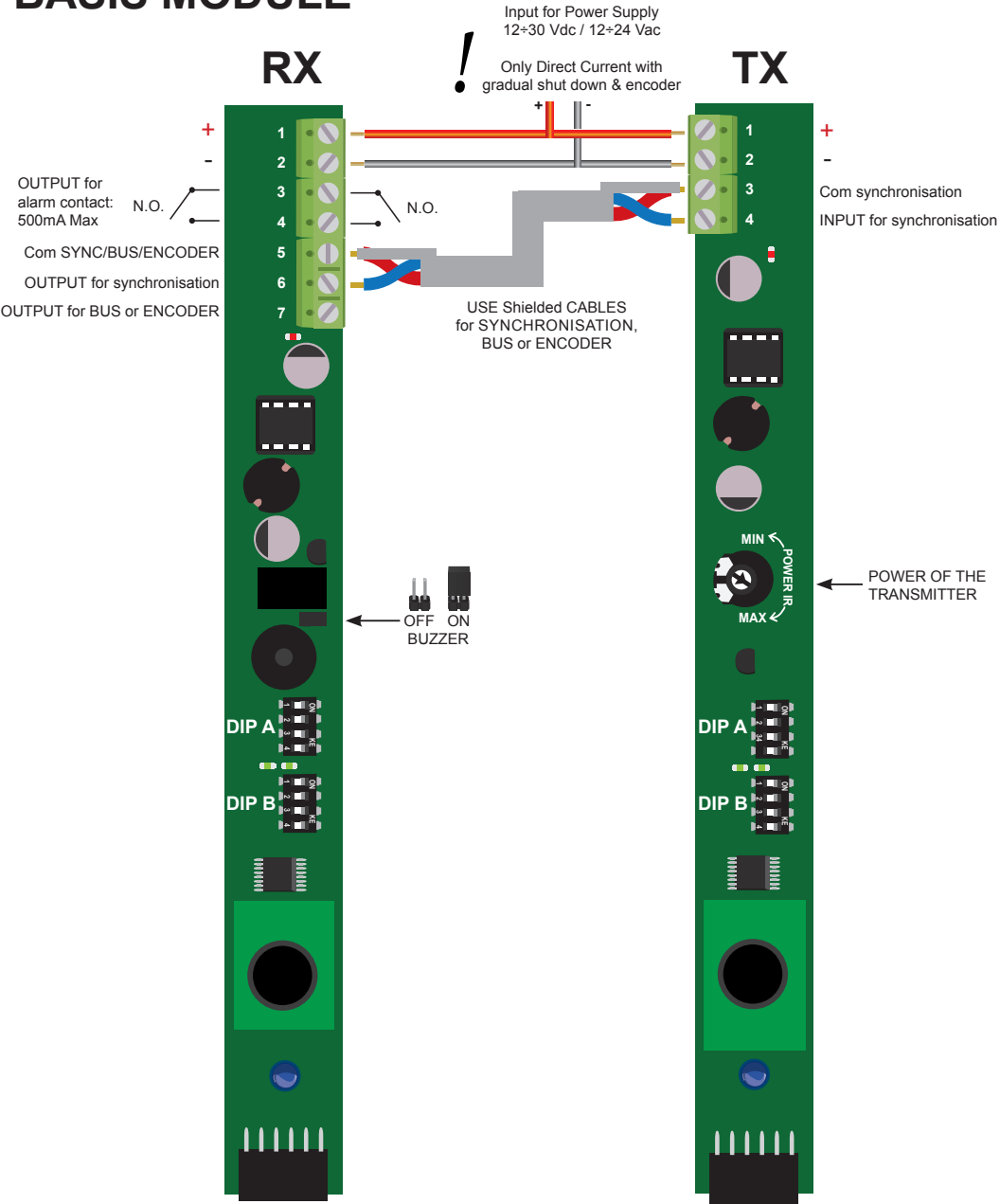
DIP 4:
Not used



Parameters already set in production

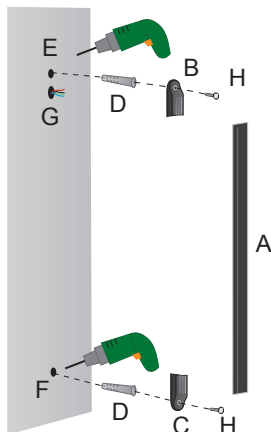
1.7 Description of the electrical connection

BASIS MODULE



2 FIXING OF BARRIER

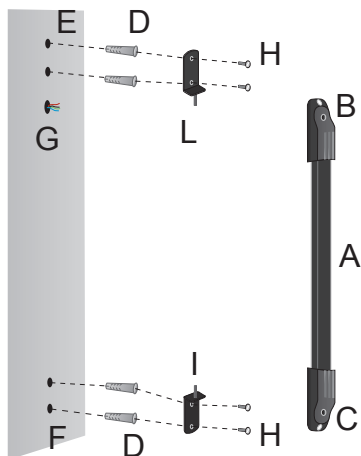
2.1 FIXING OF A STANDARD BARRIER



To fix the barrier make as follow:

1. Fix the point for the fixing hole (5mm) **E** and **F** and check the right position of the module **A** with the covers **B** and **C**. The hole **G** should be just under the fixing hole **E**
2. Make a 5mm holes, put the plug **D**
3. Fix the cover **C** to the hole **F** with self-tapping screw **H**
4. **WARNING!!!** If the barrier is installed outside, make a drainage hole in the lower part of the cover **C**.
5. Pass the cables in the back of the cover **B**, make the connections of the barrier **A**.
6. Plug the cover **B** in the barrier **A**, and take off the cables in excess.
7. Fix the cover **B** with the a self-tapping screw **H**.

2.2 FIXING OF A ROTATING BARRIER



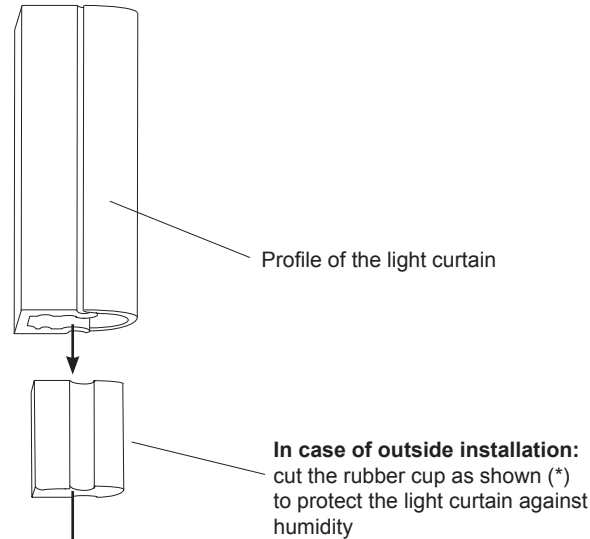
To fix the rotating barrier make a s follow:

1. Fix the point for the fixing hole (5mm) **E** and **F** and check the right position of the module **A** with the covers **B** and **C** with bearing **I** and **L**. The hole **G** should be over the fixing hole **E**.
2. Make a 5mm holes, put the plug **D**
3. Fix the cover **L** to the hole **E** with self-tapping screw **H**
4. **WARNING!!!** If the barrier is installed outside, make a drainage hole in the lower part of the cover **C**.
5. Before make the connections of the barrier and then plug the covers **B** and **C** in the barrier **A**. Plug the covers and take off the cable in excess.
6. Plug the upper part of **A**, **B**, **C** in the part **I**.
7. Plug the part **L** in the lower part of the cover **C** and fix with self-tapping screw **H**.
8. To fix the module of the rotating support, make a 2.5mm hole in the pivot pin and fix the cover with a small self-tapping screw.

2.3 **FIXING of the BARRIER outside**

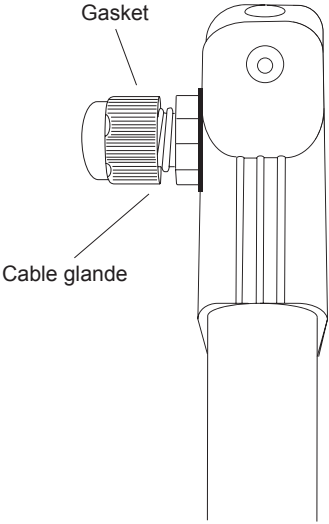
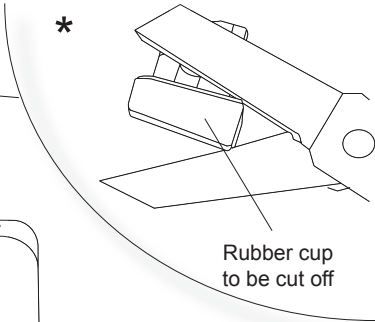
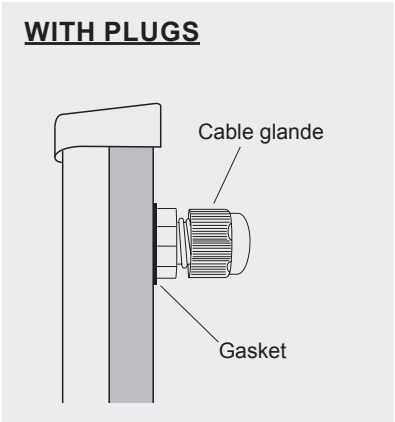
In case of outside installation, we recommend to follow this procedure: use outside cups

WITH COVERS



SIGHT SIDE OF THE LOWER PART

WITH PLUGS



SIGHT SIDE OF THE UPPER PART

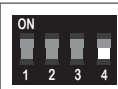

3 **Operation of the barrier**

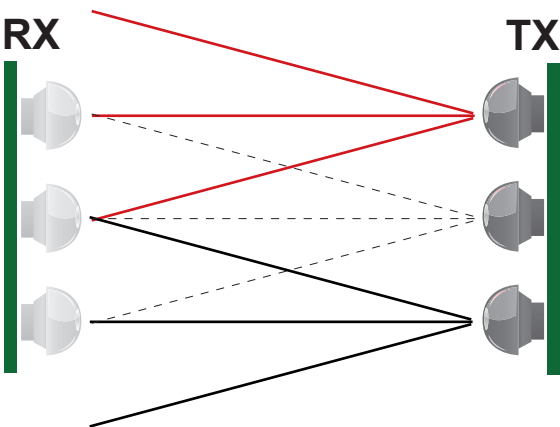
3.1 **Scan of the crossing beam**

ACTIVE DOOR can scan the crossing beam, this is for a safe installation.

This function cannot be activated with a gradual shut down

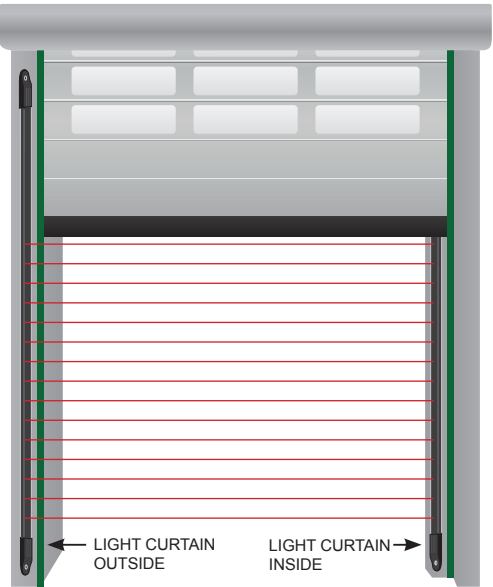
To activate the scan crossing beam, put the DIP SWITCH as shown:

	DIP 4B OFF BASIS RX	Deactivated Gradual shut down
	DIP 4 OFF on all RX MODULES	Activate the scan crossing beam

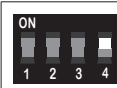



3.2 **Gradual shut down function with encoder with an installation outside the parallax**

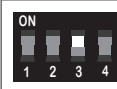
Another function is the consequential use with function encoder, if the light curtains is installed in a roll-up door, it can give the exact position of the curtains, excluding the ray when the curtains goes up and goes down. It need to be installed out of the parallax



To activate the consequential use put DIP as shown:

	DIP 4B ON BASIS RX	Activated gradual shut down
	DIP 4 ON on all RX MODULES	Activated gradual shut down

Once the consequential use is activated it is possible to activate the inside limit switch beam, in the BASIS module, set up the DIP SWITCH as shown in the pic:

	DIP 3B ON BASIS RX & TX	Beam of the limit switch
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! Only direct current

SEA UK LTD

Unit 2 Heron House, Ardath
Road, Kings Norton
Birmingham, B38 9PJ
Tel: 0121 433 3348
Fax: 0121 433 5695
Web: www.seaukltd.co.uk
Email: sales@seaukltd.co.uk