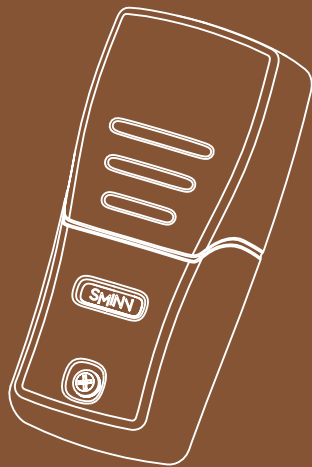


FC350 LIGHT BARRIER

RX - TX SYNCHRONIZED

INSTRUCTIONS MANUAL



SMINN

innovative in electronics

DESCRIPTION

SMINN'S FC350 light barrier is composed by a RX receiver and a TX emitter.

Devices that are built using high quality materials and components and the latest technology. They are made taking into account the current regulations for usage in residential, commercial and light industry environments.



OPERATION

Once the light barrier is correctly installed, the emitter sends a beam of infrared light modulated by pulses to the receiver, setting up a safety barrier. Each time the light beam is broken the receiver activates the internal red led and activates the alarm relay . All regulations on security of the installation must be strictly observed.

APLICATIONS

The FC350 light barrier has been designed for proteccion in automatic doors, barriers and blinds. It can be used for access detection in alarm system and traffic control.

INSTALLATION

Check the integrity of the product to be installed.

- Place it away from heat sources, humidity or excessive radiation and to a minimun height of 30-40 cm from the floor, preventing reflection problems with the light beam.

THE MANUFACTURER IS NOT RESPONSIBLE OF THE DAMAGE CAUSED BY AN INCORRECT INSTALLATION OR IMPROPER OR CARELESS USE

- Avoid GASES or INFLAMMABLE PRODUCTS, as they are a serious danger for security in electric installations.
- Place emitter and receiver one in front the other, in the same axis and the same height.
The receiver has a red LED that switches on when there is no visibility between the emitter and receiver making alignment and diagnostics easier.
- Select the operating distance with the JUMPER J1 placed in the receiver. See Fig.7
Jumper J1 ON distance < 15 m
Jumper J1 OFF distance > 15 m (máx. range)

NOTE: The operating distance can be dramatically reduced because of external, adverse conditions such as dust, excess of light, rain, fog, etc.

Installing two sets of light cells:

If we install two sets of light cells, we should proceed as follow:

Powered with an AC power supply

In this case it is recommended to use the synchronous mode, with the JUMPER J2-OFF placed in the emitter (Fig.2) and install the emitters in one side and the receivers in the other one, but reversing their power supplies. (See Fig. 4)

Jumper J2 ON continuous mode in AC and DC
Jumper J2 OFF synchronous mode only in AC

With the synchronous mode, the emitter will project a beam of infrared light modulated only in one of th half-cycles af AC current. That allows to install two sets of ligh cells very close to each other without interferences.

Powered with direct current DC

In this case the J2 jumper has no effect because the emmitters are in continuous mode, so it´s needed to install them in alternate sides of the door. Fig. 3.
Connect as indicated in the attached diagram, depending on the type of installation. Lastly, connect the power supply to the system and check if it works correctly.

OPERATION VERIFICATION

To verify that the light barrier is operating, interrupt the beam of light and check that the red led and the relay activate in the receiver. Without interrupting the beam and with both emitter and receiver aligned, the led must be off. With the beam interrupted or with the emitter or receiver not aligned, the red led must be on and the relay must activate.

MANTENIMIENTO

Even though this product doesn't need any special maintenance, it is a good idea to keep in mind the instructions given by the installer, manufacturer and current laws about maintenance, repairs and device cleaning and documental control.

WARRANTY

This product has undergone a complete TEST during its manufacturing process that guarantees its reliability and proper operation.

The manufacturer provides 24 months of warranty to the product from the date printed in the product and against any anomaly that it may present in its appearance or operation.

Any damage caused by third parties, natural causes (flooding, fire, lightning, etc), arising from improper handling or installation, vandalism or any other cause non attributable to the manufacturer will void the warranty.

The warranty only covers repairs or replacement of the damaged device.

Any expenses derived from assembling, travelling, transport, natural wear of parts, etc., and, in general, any expenses that are not part of the repairs or replacement of the damaged element of the system are excluded.

The installer/provider will ask the manufacturer for an RMA number or authorization for transport of the system in warranty. Without this previous requisite, the manufacturer will not be able neither to process nor provide warranty service.

WARNING

This product must be used in istallations which has been conceived for, considering any other as improper use. The packaging and wrapping MUST NOT be dumped in the environment. Keep products, packaging, wrapping, documentation, etc., out of the reach of children.

Follow the current local, national or European regulations.

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT DIRECTIVE (WEEE)

In accordance with the European Directive 2002/96/EC about waste electrical and electronic equipment (WEEE), the presence of this symbol (see symbol at the bottom of this text) in the product or in the packaging, means that this article shall not be disposed in local non-classified waste streams. It is the user's responsibility to dispose this product taking it to a collection point designed for waste recycling of electrical and electronic devices.

The separate collection of this product helps optimize the waste sorting and recycling of any recyclable material and also decreases the impact on health and the environment.

For more information about the correct wasting of this product, please contact the local authority or the distributor where you acquired this product.



TECHNICAL SPECIFICATIONS

Nominal range	10m (20 m jumper J1 = ON)
Maximum range	15m (30 m jumper J1 = OFF)
Technology	Optical by modulated IR
IR ray adjustment	Horizontal -90°/0°/+90° (+/-5%)
Infrared wavelength	880 nm
Modulation frequency	600 Hz

Receiver Power Supply	12/24V AC/DC
Receiver Power Compsumption	< 50mA (100mA with activated relay)
Transmitter Power Supply	12/24V AC/DC
Transmitter Power Consumption	< 500uA

Relay contact	0.5 Amp
Detection delay	< 20 ms
Reset delay	< 120 ms

Plastic Housing	PA6 + 30% FG
	PC infrared + UV filter
Index of protection	IP65 (Mounted with closure gasket)
Dimensions	H112 x W52 x Z33 mm
Temperature range	-20/ +70°C

Note: the light barrier by itself **is not a complete security product**; it is only a part of the system. According to the current legislation for an automatic door, regulations that allow to declare conformity on the manufactured product will have to be taken into account.

CE DECLARATION OF CONFORMITY

The company ELSON SISTEMAS, S. L.
Pol. Torrelarragoiti, P6 - A3 - 1ª
48170 Zamudio - Vizcaya (SPAIN)

Declares:
The product FC-350 adjustable IR light barrier
Manufactured by: ELSON ELECTRÓNICA, S.A.
Under the trademark: **SMINN**
For use in: Residential, commercial or light industry environments.

This device meets the provisions contained in the article 3 of the R&TTE 1999/05/CE, as long as its usage is compliant to what was envisaged, having applied the following regulations.

Electromagnetic compatibility. EN 301 489-3 v1.3.1 (2001-11)
Low Tension EN 60730-1 (2000)

2012.12.15 Zamudio

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Fig. 1

3 different positions of the lens. 180° horizontal rotation.

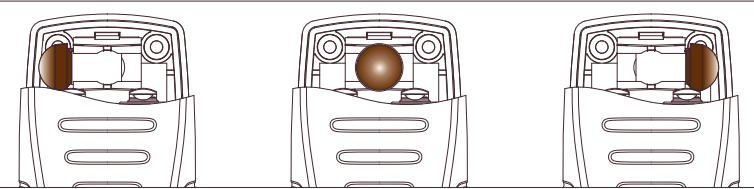


Fig. 2 Jumper configuration

Feature - Device	Jumper	ON	OFF
Gain - RX	J1	Normal	High
Mode	J2	Continuous	Synchronous

Fig. 3 DC - J2 ON installation continuous mode:

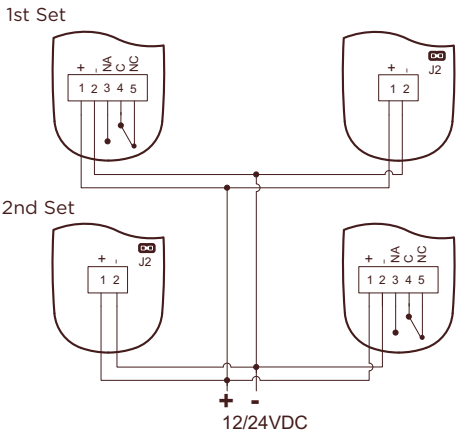


Fig. 4 J2 OFF AC installation synchronous mode:

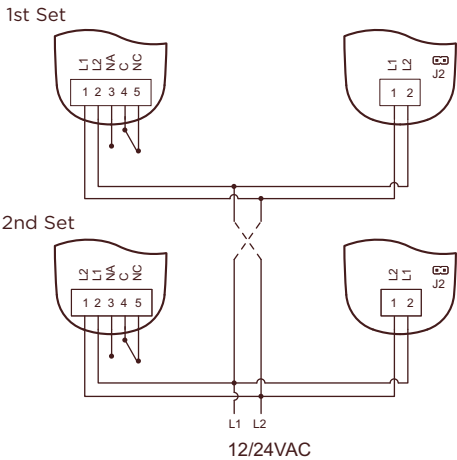
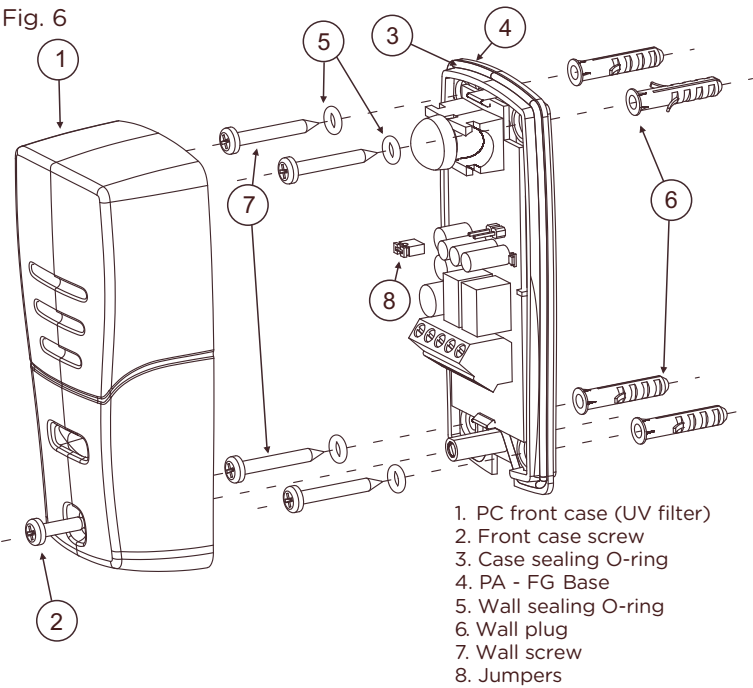


Fig. 6



- 1. PC front case (UV filter)
- 2. Front case screw
- 3. Case sealing O-ring
- 4. PA - FG Base
- 5. Wall sealing O-ring
- 6. Wall plug
- 7. Wall screw
- 8. Jumpers

Fig. 7 Light barrier terminal blocks.

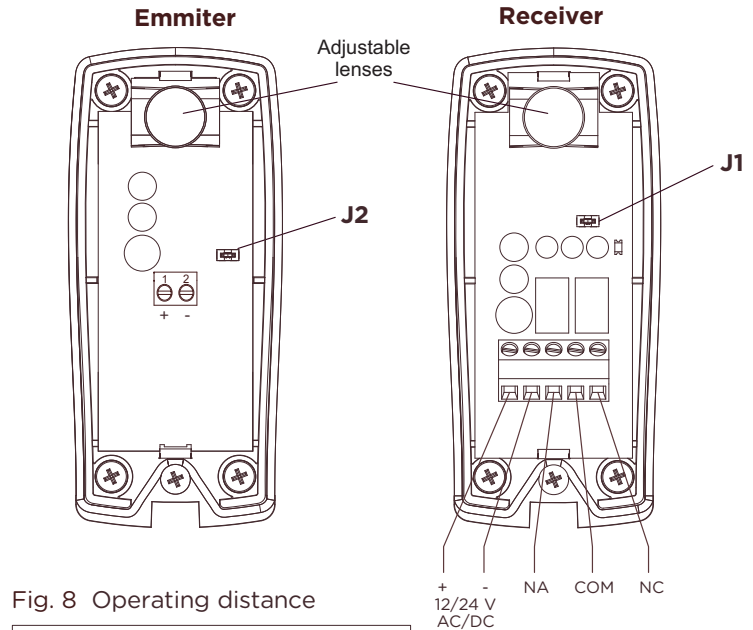


Fig. 8 Operating distance

