

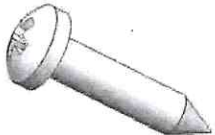


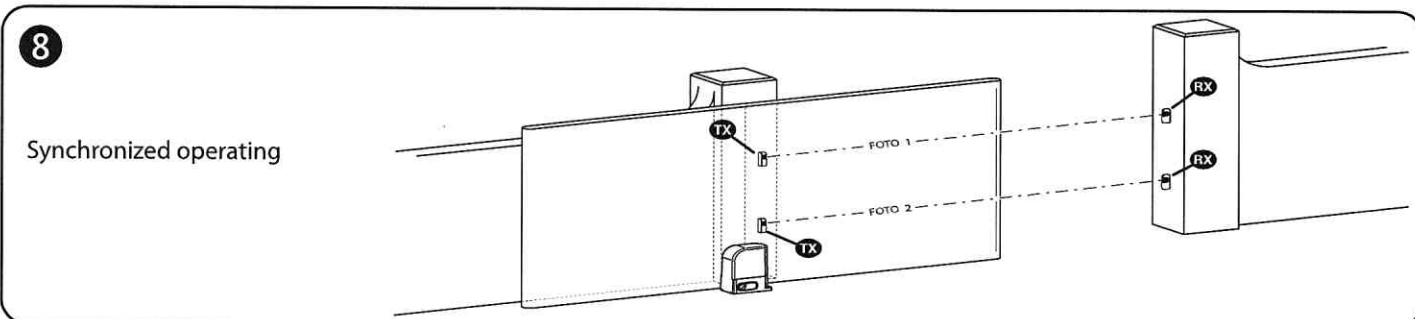
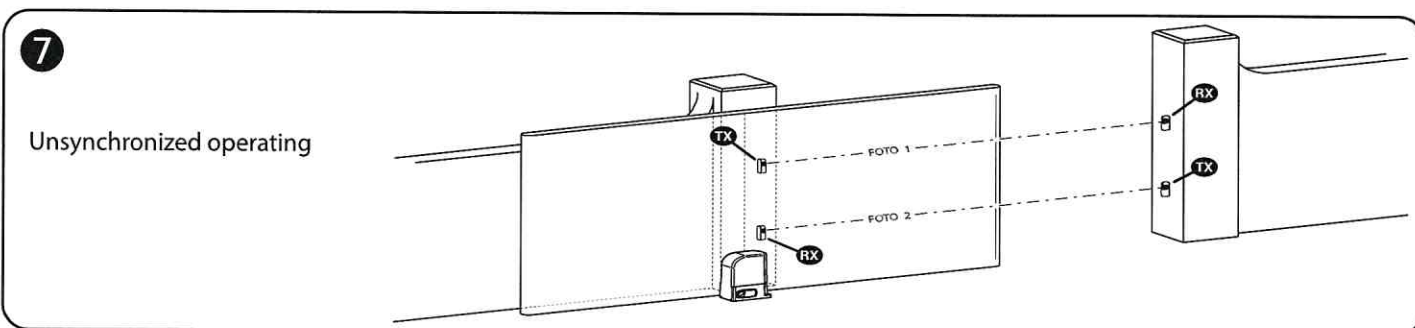
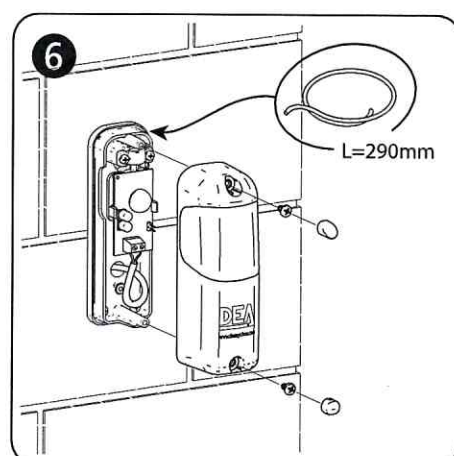
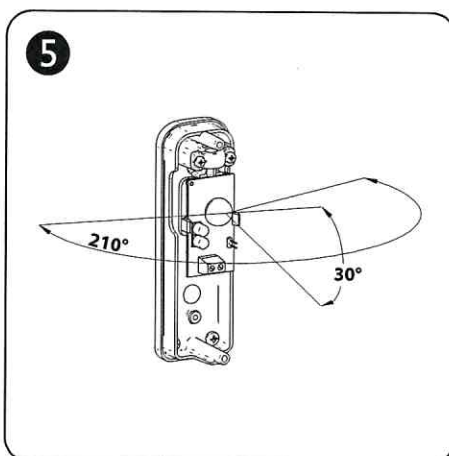
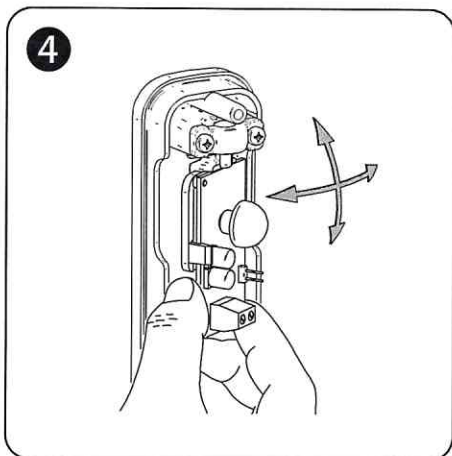
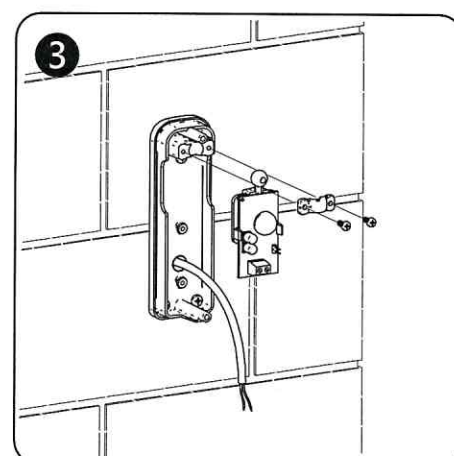
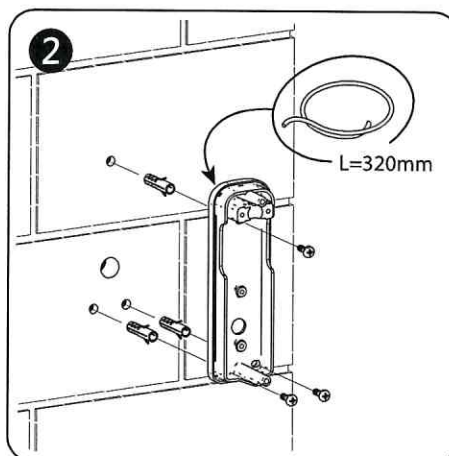
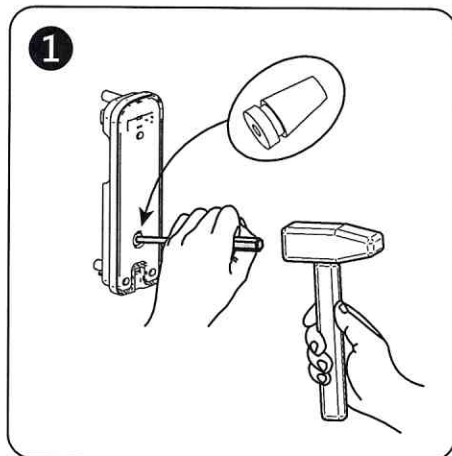
# Linear

 **Adjustable photocell**  
Installation and user's instructions

**DEA<sup>®</sup>**

# Contents of the package

x3		x1	
x3			





## 1. Product conformity

Linear is a CE marked product. DEA System assures the conformity of the product to European Directives 2004/108/CE "electromagnetic compatibility" (EN 61000-6-2 :2005; EN 61000-6-3 :2007).

This device is "D" type according to EN12453. DEA System also grants quality and conformity to rule 2002/95/CE (RoHS) of materials used for the product assembly. The Declaration of conformity may be viewed at: "http://www.deasystem.com/area-download\_eng.php".

## 2. Dangers and warnings

Read carefully; ignoring the following warnings may cause dangerous situations.

**WARNING** Exclusively qualified personnel must perform any operation of installation, maintenance, cleaning or repairing of the whole automation. Always operate when main power supply is disconnected and follow carefully all the laws, concerning electrical installations, in the country where the installation is made.

## 3. Technical characteristics

Power supply	24 V~ / ---
"TX" Absorption	20 mA
"RX" Absorption	25 mA
Contacts capacity	500 mA max 24V
Assured distance	40 m (under optimal conditions) 20 m (in poor visibility conditions)
Maximum length of connection cables	50 m cable 2 x 0,5mm
Protection degree	IP54
Operating temperature	-20 ÷ 55 °C
Dimensions/weight	125 x 40 x 44 mm / 100 g

## 4. Product description

Linear is a presence detector for automatic doors and gates consisting of a transmitter device "TX" and a receiver "RX". In the case of installation of two pairs of photocells at close range, you can set the mode of operation synchronized to prevent interference of the same, without the need for cross devices "TX" - "RX". **The synchronized mode is available only if you use a power supply 24V~.**

The photocells provide an opportunity to orientation of 210° horizontally and 30° vertically (Pic. 5), this can be fixed to surfaces that would normally prevent the correct alignment between "TX" and "RX".

## 5. Assembly and wiring instructions





Depending on the type of automation, identify the points of installation of various elements: in the case where two pairs of photocells should be installed at close range and you can not use the timing, (power supply 24V---) crossing elements "TX" - "RX" as shown in Pic. 7. In case you can use instead the timing (power supply 24V~) "TX" and "RX" can be installed as shown in Pic. 8.

**WITH ANY CONFIGURATION, WHEN MOUNTING IN PROXIMITY ( $\leq 50\text{cm}$ ) OF SOIL OR REFLECTIVE SURFACES (METAL/SHINY, ANY POOLS OF WATER), OR OTHER PAIRS OF PHOTOCELLS, YOU MUST USE THE SPECIAL PIPE PLUG ON "RX".**

**WARNING** Keep the cables separate from any other cable for connecting devices that can generate noise (motors, flashing lights, etc. ...) and which could jeopardize the proper functioning of the system.

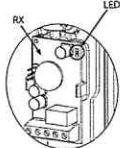
Proceed as follows for the installation of the photocell Linear:

1. Remove the circuit holder from the photocell base so as to facilitate the operations of fixing at wall;
2. release the folding hole on the back of the photocell base (Pic. 1) and apply the supplied cables-gland;
3. fix the base on the wall by using the supplied screws and anchors (Pic. 2);
4. re-assemble the circuit holder on the base avoiding screwing too much the fixing screws (Pic. 3);
5. Depending on the desired operation, refer to the wiring diagram 1 (non-synchronized version) and 2 (synchronized version). In the latter case it is essential to respect the polarity indicated (inverted for the two pairs of photocells). In each case, depending on the type of operation, correctly set the selection jumpers (Table 1).

Table 1	Remote "TX"	Receiver "RX"
Non synchronised operating	 JP1 Closed	 JP2 in pos. B
Synchronised operating	 JP1 Open	 JP2 in Pos. A

6. Adjust lens direction (at 210° on horizontal axis and 30° on vertical one) to find the optimal alignment, verifying the type of flashing LED on the "RX" (see Table 2. Lock the circuit holder (Pic. 4);

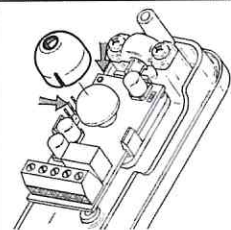
**WARNING** In order to correctly align a pair of photocells, obscure or remove power to all existing transmitters that would interfere. This procedure must be repeated for each couple of photocells in the installation.

Table 2	Type of flashing	Photocell status
	OFF	The 'RX' receives a good signal
	Slow flashing	The 'RX' receives a poor signal
	Speed flashing	The 'RX' receives a bad signal
	ON	No signal

Using the shutter involves a decrease of the radius on the "TX" and of the coverage area on the "RX" (suggested so as to avoid the interference of sunlight).

To replace the lens holder proceed as follows:

Apply the lens shutter as shown in the picture



Align TX-RX.

7. Close the shell with screws and install the caps hole (Pic. 6).

**WARNING** For the assembly and / or breakdown, always use the most appropriate equipment meticulously following the rules in force in the country of sale.

## 6. Maintenance

A good preventive maintenance and regular inspection ensure a long product life. The photocells Linear however, does not require any special control, simply check the condition of the same (lack of moisture, oxides, etc. ...), clean the lens and the outer shell of the device and perform a test to ensure proper functioning.

In order to ensure an adequate safety level to the installation, it is advisable to conduct such inspections at intervals not exceeding 6 months.

### 6.1 Disposal

Linear Photocells are made of materials of various types, some of which can be recycled, while others must be disposed.

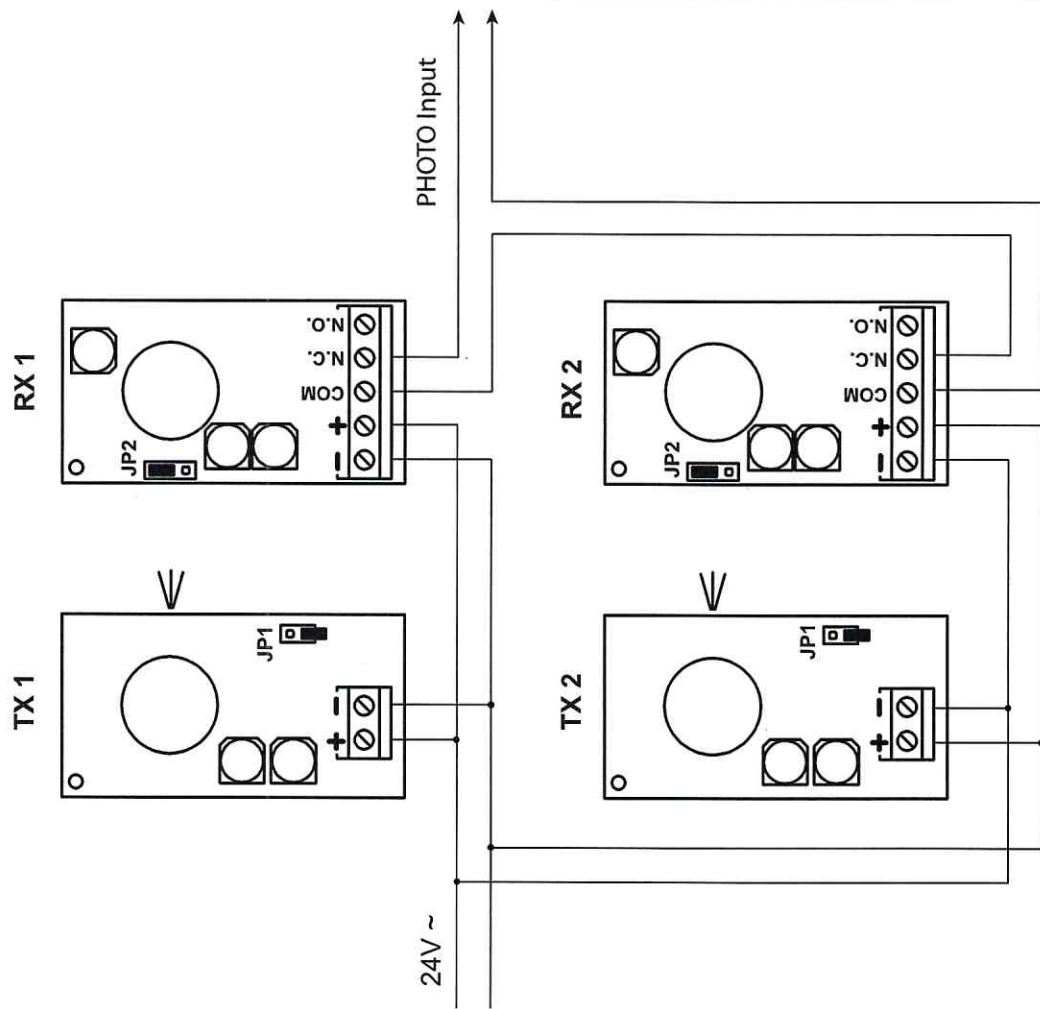
Proceed as follows:

1. Remove the accessory from the power supply and disassemble in reverse order from that described in "Installation";
2. Remove the electronic components;
3. Sorting and disposing of the materials exactly as per the regulations in the Country of sale.



**WARNING** In accordance with EU Directive 2002/96/EC on waste of electrical and electronic equipment (WEEE), this electrical product should not be disposed of as unsorted municipal waste. Please dispose of the product and bring it to your local municipal collection for recycling.

Connection with 2 pairs of photocells synchronized



Connection with 2 pairs of photocells not synchronized

