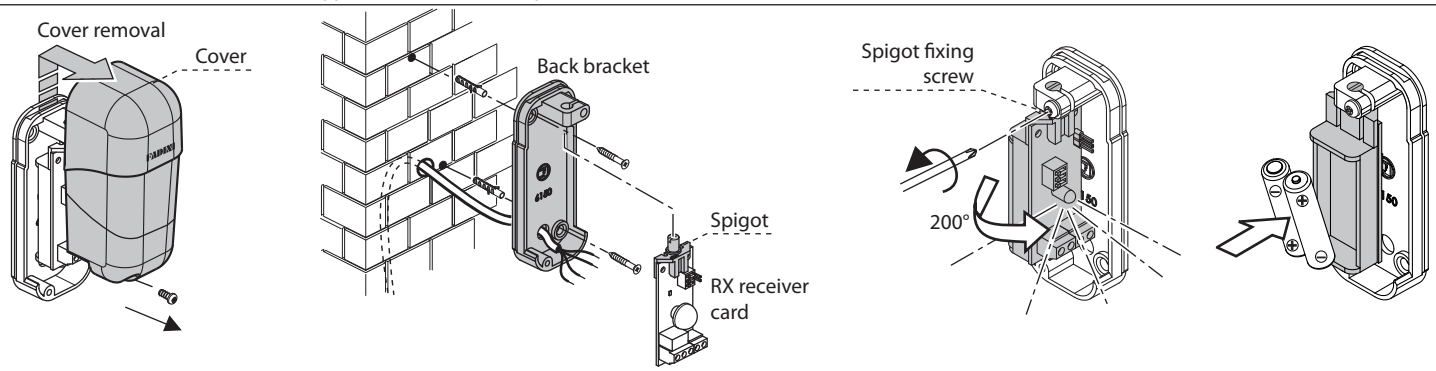
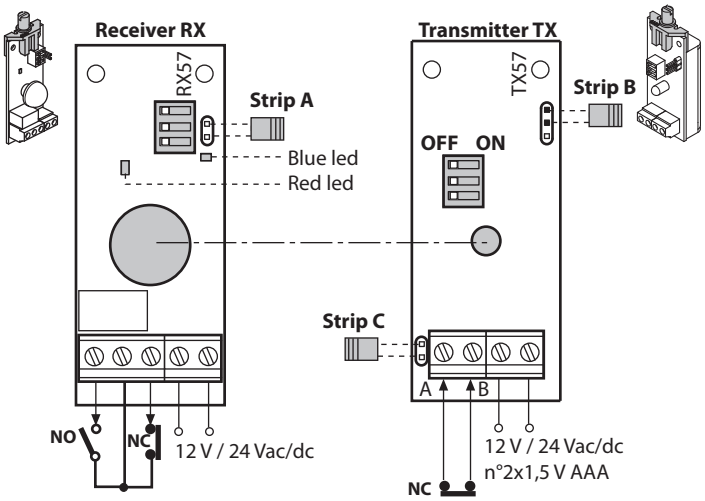
Photocells ORBITA 57: pair of infrared photocells, TX (transmitter) and RX (receiver), adjustable on the horizontal plane. Two options available:
1) The TX57 transmitter can be battery operated 2x1,5 V AAA or 12 V / 24 Vac/dc power supplied.
2) Synchronized operations achievable up to 7 pairs, but only with the 12 V / 24 Vac/dc power supply option: one on top of the other, all the TX's on to one side and all the RX's on to the other. The barrier thus achieved is absolutely interference free (pair match Rx and Tx through the dip-switches).
For any required application use the NO and NC output contacts, and the NC input for the safety edge.
The manufacturer is not liable for other applications out of the scope here indicated.



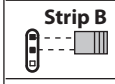


NO and NC output contacts to be connected to an Elpro control panel

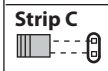
- NC input contact for **safety profiles** fitted on to the edges requiring crash prevention on closing.
- A and B inputs to be used when **synchronization** between Tx and Rx pairs is required.

IMPORTANT: at each change of configurations of Orbita 57 it is necessary to turn off power supply for 20 seconds onto the transmitter and the receiver.

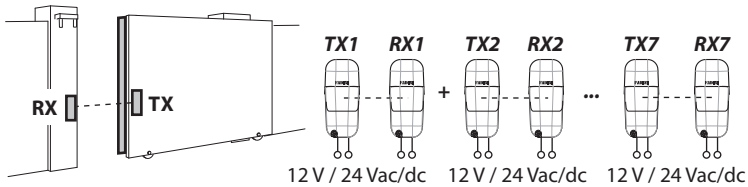
Strip A: by removing this strip, the connection to the control panels Elpro 62, Elpro 63, etc., provides indication of run down batteries.



Strip B: selects power supply mode either by cable or battery.



Strip C: remove this strip when a safety edge is installed or synchronization is required.



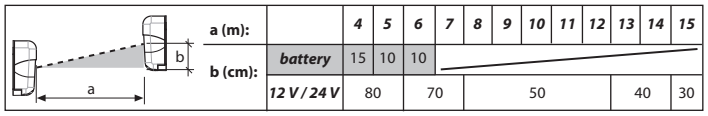
- Blue Led: **off** = perfect centering
flashing = almost perfect centering (first 4 minutes of the installation)
flashing = batteries running down, to replace

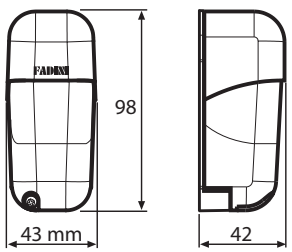
- Red Led: **on** = no centering achieved, or photocells are obstructed
off = perfect centering

TECHNICAL DATA

Power supply	2x1,5 AAA or 12 V / 24 Vac/dc
Transmitter absorption	11 mA - 55 µA (by battery)
Receiver absorption	16 mA
Protection standard	IP 55
Working temperature	-20 °C +80 °C
Distance range (*)	6 m (by battery) - 15 m
Max. rotation	200°
Output contact	1 A - 125 V - 60 VA max
Battery life	about 2 years
Recommended cable section	inferior to 0,5 mm²

(*) Distance decreases by approx. 30-50% in case of fog, rain or dusts.





UE DECLARATION OF CONFORMITY (DoC)

Manufacturer: Meccanica Fadini snc
Address: Via Mantova, 177/A - 37053 Cerea - VR - Italy

declare that the DoC is issued under our sole responsibility and belongs to the following product:

Photocell model **ORBITA 57**

is classified as type D device, according to the EN12453 standard, paragraph 5.1.1.

is in conformity with the relevant Union harmonisation legislation:
- Electromagnetic Compatibility Directive 2014/30/UE
- Low Voltage Directive 2014/35/UE

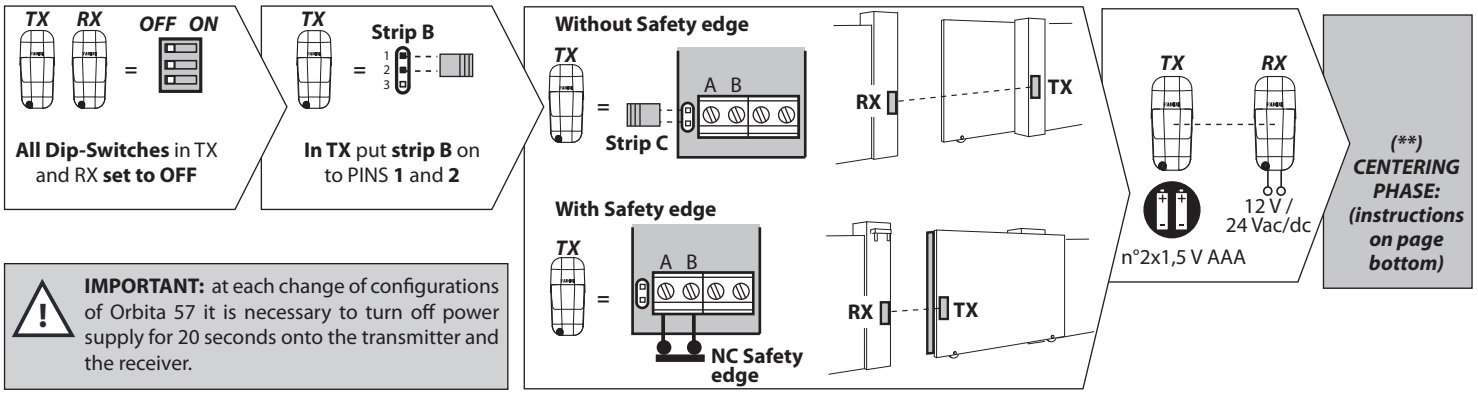
Cerea, 15/03/2017

Meccanica Fadini s.n.c.
Responsible Manager

Via Mantova, 177/A - 37053 Cerea (VR) Italy
Ph. +39 0442 330422 Fax +39 0442 331054
e-mail: info@fadini.net - www.fadini.net

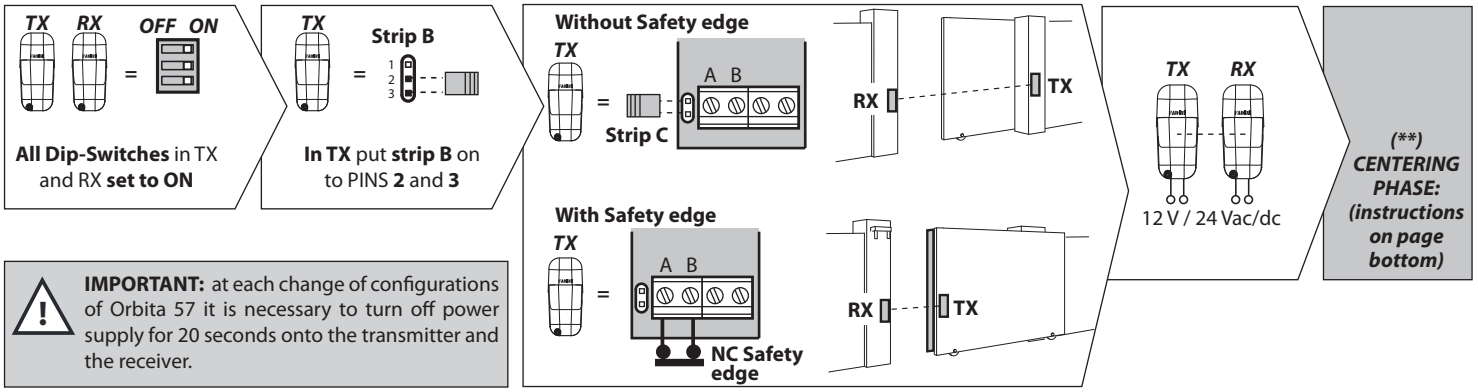
03-2017

Functioning by battery (only transmitter TX): max distance between TX and RX 6 m (one pair)



IMPORTANT: at each change of configurations of Orbita 57 it is necessary to turn off power supply for 20 seconds onto the transmitter and the receiver.

Functioning by 12 V / 24 Vac/dc: max distance between TX and RX 15 m (one pair)



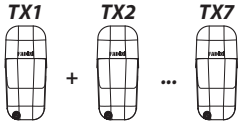
IMPORTANT: at each change of configurations of Orbita 57 it is necessary to turn off power supply for 20 seconds onto the transmitter and the receiver.

Synchronization up to 7 pairs 12 V / 24 Vac/dc supply voltage: max distance between TX and RX 15 m

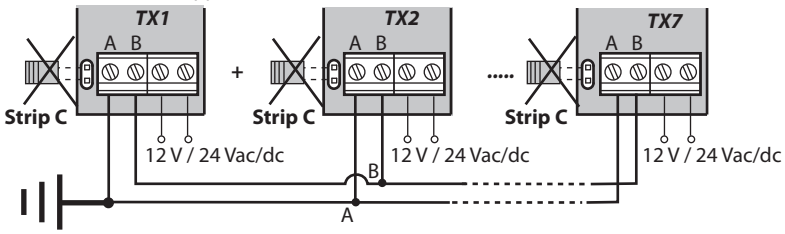
IMPORTANT: at each change of configurations of Orbita 57 it is necessary to turn off power supply for 20 seconds onto the transmitter and the receiver.

Installation where the receivers RX are all on one side and the transmitters TX are all on the opposite side.

1) From all the transmitters TX:

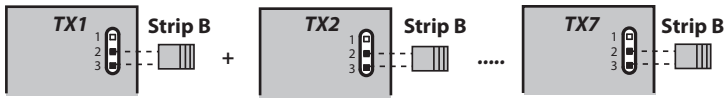


Remove the **Strip C** and parallel connect the A and B terminals of all the transmitters in the system.



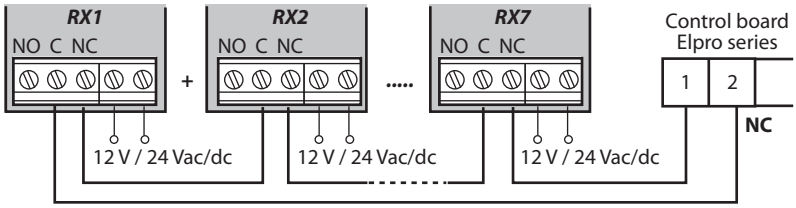
In case of installation on metallic structures, ground connect terminal A to better stabilize the system.

With all the required Tx transmitters, position **Strip B** so to link the **pins 2** and **3** to supply the units with **12 V / 24 Vac/dc** electric power.

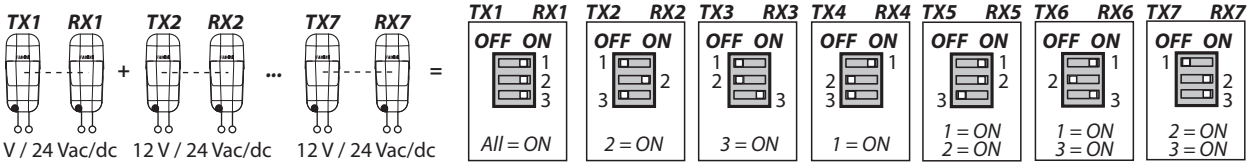


2) On all the Receivers RX:

Series connect all the NC contacts of the receivers to the control board.



3) Each pair TX and RX must have the same Dip-Switch configuration. ***(**) CENTERING PHASE: (instructions on page bottom).***
MOST IMPORTANT: AMONG ALL THE POSSIBLE CONFIGURATIONS AVOID THAT WHERE ALL DIP-SWITCHES ARE SET TO OFF AND CONFIGURATION 1 (ALL DIP-SWITCHES TO ON) MUST ALWAYS BE INCLUDED.



(**) CENTERING PHASE: for Orbita 57 in any mode of functioning

Important: power supply TX and RX. 4 minutes are available for this phase, during which the Blue Led is flashing and the Red Led is steady on thus indicating that centering between Tx and Rx is no good. Drive the fixing screw so that the cards are held in position, but not too hard, and adjust them until aligned: **alignment is achieved when the blue and red leds are both off**, then tighten the fixing screw thoroughly. The Red Led indicates centering failure (as well as obstacle detection), while the Flashing Blue Led helps with centering by indicating that the infrared beam "cone" of the transmitter is only partly centered with the receiver.
After 4 minutes from powering, the Blue Led goes off, even if no centering has been achieved; it starts flashing again in case the batteries (if this option applies) are running down. If the electrical power is disconnected, on powering back the photocells (should they not been aligned), the Blue Led flashes for 4 minutes (the time available for a new centering), on expiring of this time, the led sets back to run down battery mode.

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