ENGLISH

WINNY LIGHT NEW MODEL

AUTOMATION FOR SLIDING DOORS

use and maintenance manual

opening solutions

V04/2018

GENERAL PROSPECTUS

The sliding door automations allow a fluid and silent movement.
The doors will arrest to the slightest obstacle and in the event of a power outage the door could be manual released.

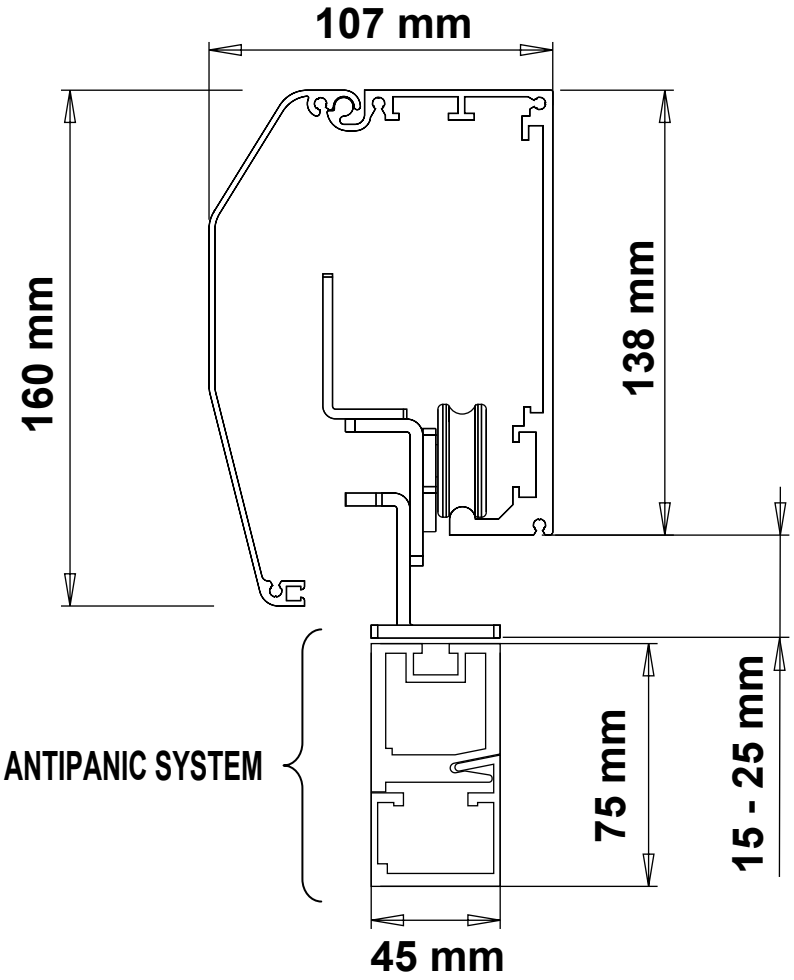
AUTOMATION PROSPECTUS

- Stamped and anodized aluminum structure
- Quick access to the equipment
- Belt drive with automatic tensioning system.
- Galvanized steel trolleys with horizontal automatic adjustment, vertical manual adjustment and nylon wheels (lubrications not required)
- Control panel supply: 24 Vac 6 A with microprocessor
- Digital programming of operating parameters with permanent memory
- Motor speed control with PWM signal.
- Optical encoder input with wiring test
- Maneuvers and alarms will be indicate in a 7 segments display and by acoustic warning signals
- Operations counter and maintenance warning
- Emergency Automatic opening with backup battery (optional).
- Control with digital selector(optional)

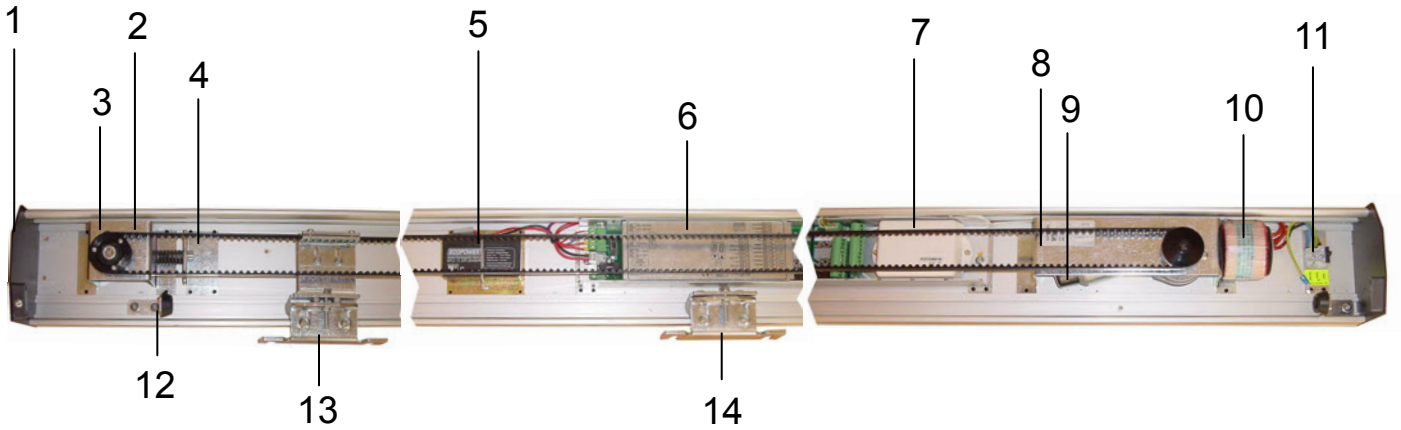
TECHNICAL DATA

Power supply	**230Vac**	**Max weight 2 leaves**	**80+80 Kg**
Rated frequency	**50Hz**	**Protection rating**	IP44
Nominal power	**50W**	**Weight**	**4Kg/mt**
Protection fuse	**2A**	**Backup battery (optional)**	**12V 1.2 Ah**
External accessories power supply	**24Vdc**	**Noise level**	**<30dB**
Max weight single leaf:	**120 Kg**	**Working temperature**	**- 20\+55°C**

DIMENSIONS



COMPONENTS HOUSING



1. Side caps
2. Support driven pulley
3. Electric lock with manual release
4. Belt Tensioner
5. Back-up battery
6. Control unit
7. Photocells amplifier
8. Motor support with pinion
9. Motor optical encoder
10. Transformer
11. Input Power supply terminal
12. Mechanical limit switch
13. Pulling cart
14. Free cart

CONSIDERATIONS FOR INSTALLATION

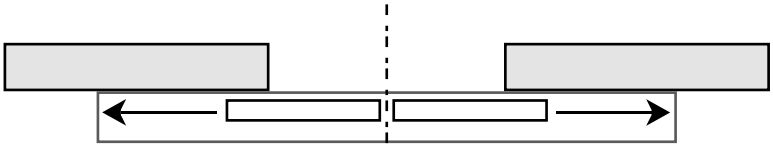
- The installation and testing operations must be performed solely by qualified personnel in order to guarantee the proper and safe operation of the sliding door.
- The company declines any responsibility for damage caused by incorrect installations due to incompetence and/or negligence.

INSTALLATION

METHOD POSITIONING

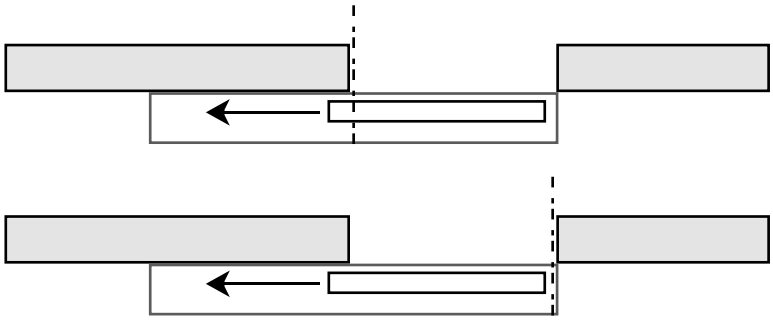
2 WINGS

The center of the profile should coincide with the center of the opening passage.



1 WING

The center of the profile should coincide with the end of the opening passage or the end of the profile should coincide wit the end of the opening passage.



COVERALL FASTENING

Remove the cover. Drill holes on the front side of the coverall. it is recommended not to exceed a distance of 600 mm between the holes.

WARNING *Protect the electronic equipment before you drill the holes, and then wipe away any aluminum residues from the belt and the guide.*

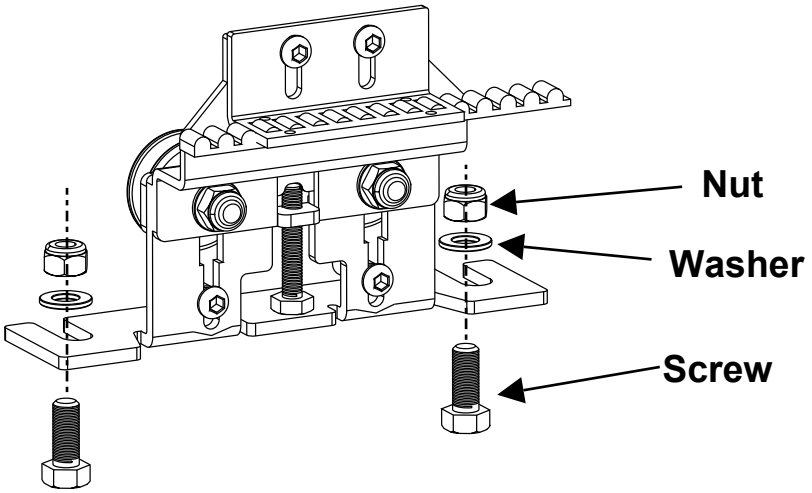
Calculate the measurements for the vertical dimension given by the height of the doors, considering the vertical distance of the carriages. (see coveralls dimensions)

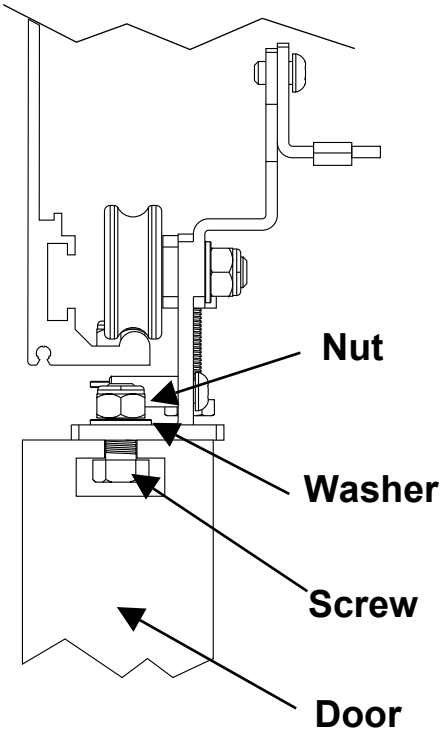
Place the coverall parallel to the floor surface and mark the holes.

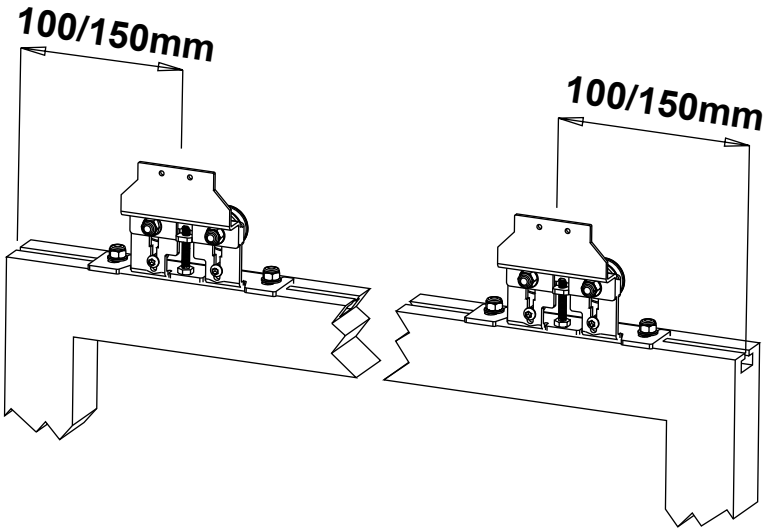
Provide holes for cable entry or open those pre-cutted. Fast the coverall to the wall using screws (minimum diameter of 5.)

LEAVES HOOKING

Place the leaf under the carriages of the coverall and fast with 8/10 mm screws(not supplied), to a distance from the ends of the leaf of 100/150 mm.



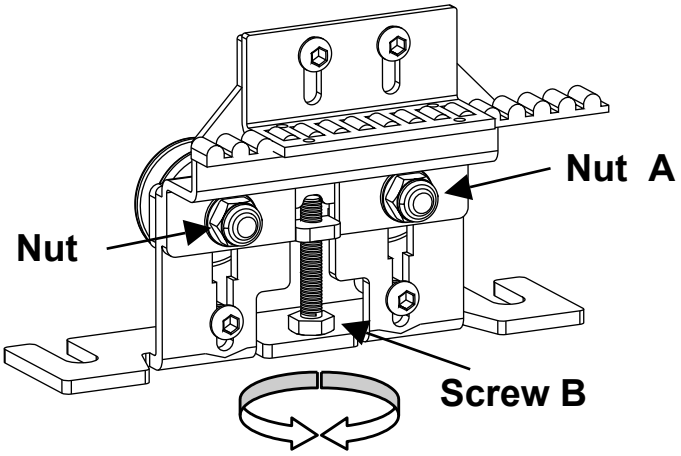


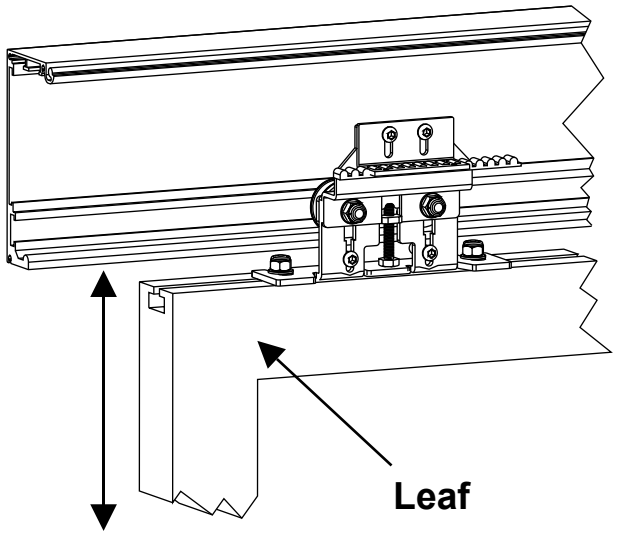


LEAVES HEIGHT ADJUSTMENT

To adjust the height of the leaves loosen the two nuts A and through the screw B make the adjustments : screwing the leaf goes up, unscrewing the leaf goes down.

At the end of the operation block the nuts A.

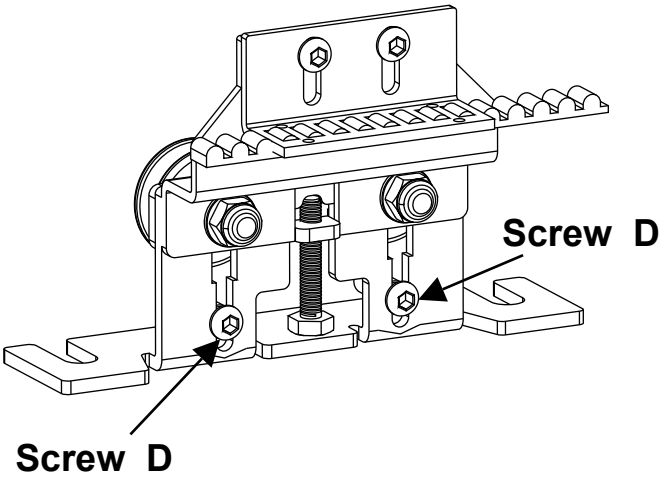


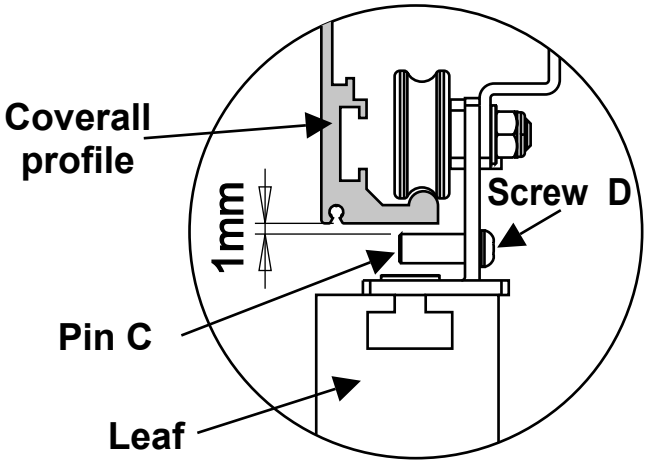


ANTI-DERAILMENT SETTINGS

Adjust the pins **C** to avoid the derailment of the trolleys.

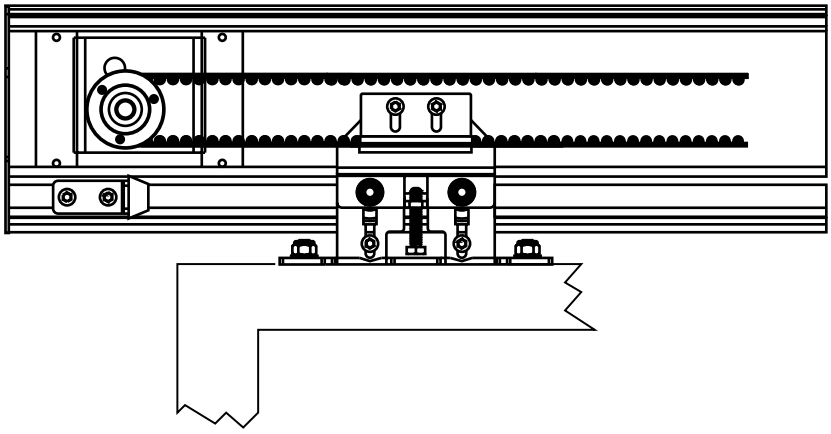
Loosen the screw **D** and adjust the pins at a distance of about 1mm from the bottom of the profile of the coverall.

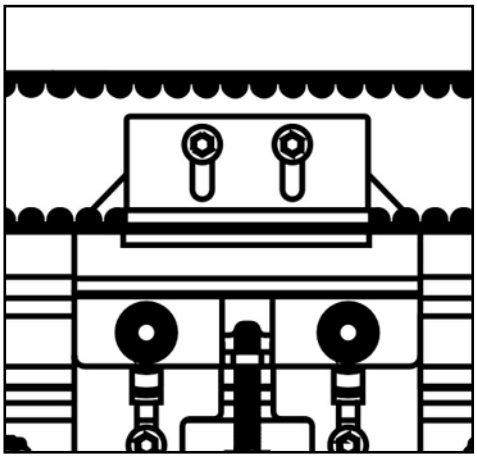


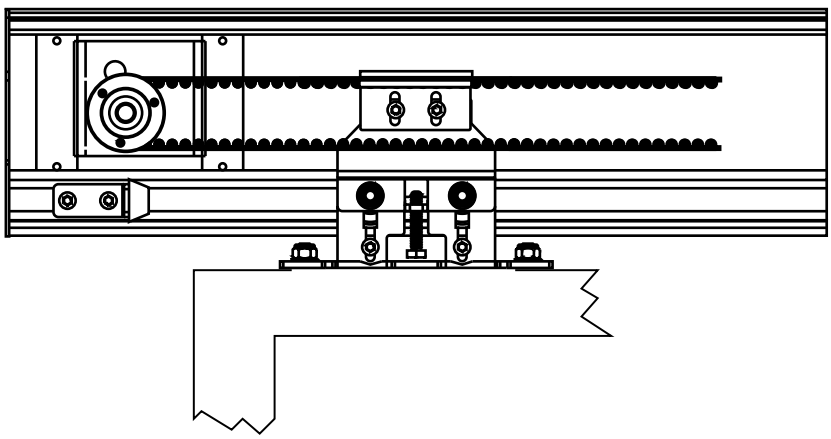


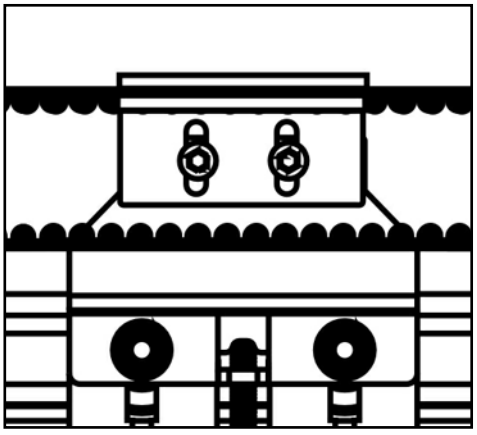
RIGHT - LEFT CONFIGURATION

To reverse the direction of travel in case of single leaf, reverse the belt connection as in the drawing.





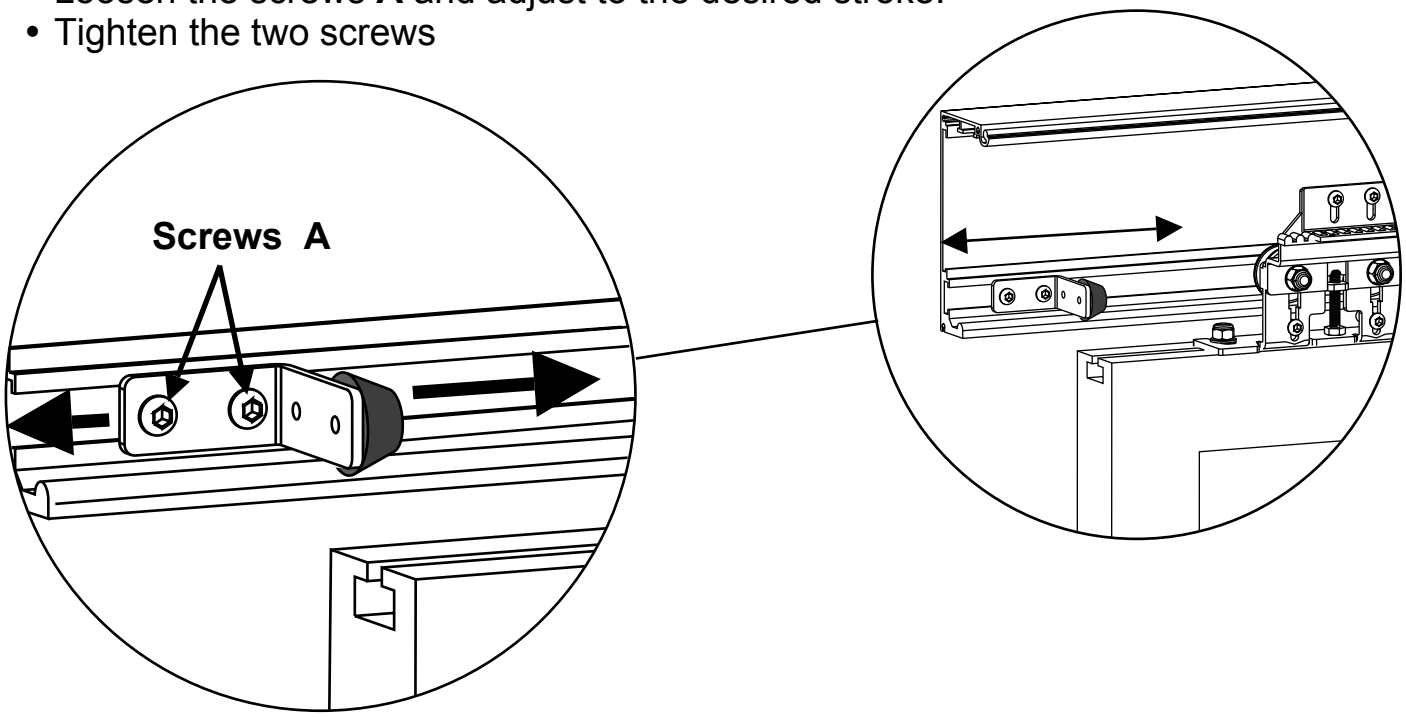




LIMIT SWITCH ADJUSTMENT

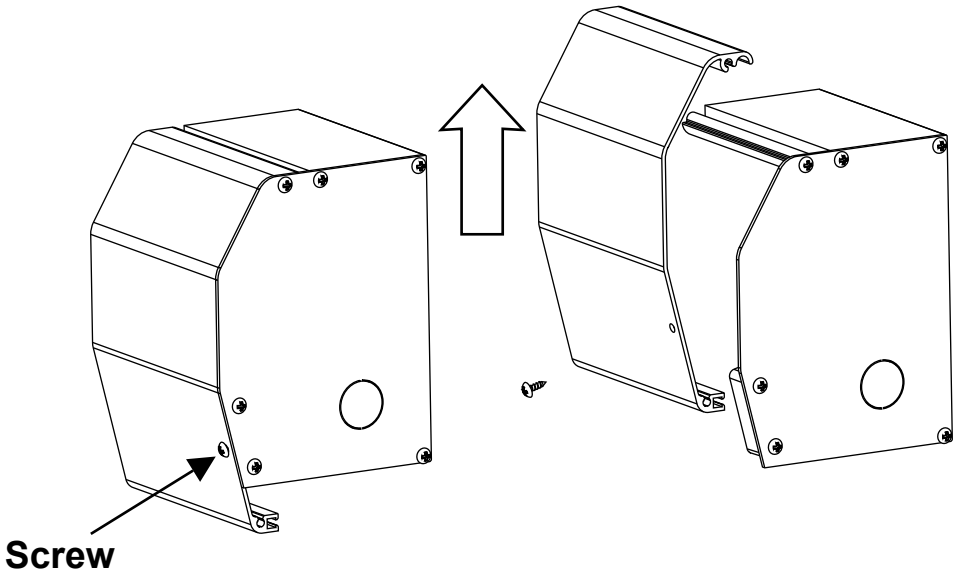
Adjust the limit switches to determine the stroke of the door.

- Loosen the screws **A** and adjust to the desired stroke.
- Tighten the two screws

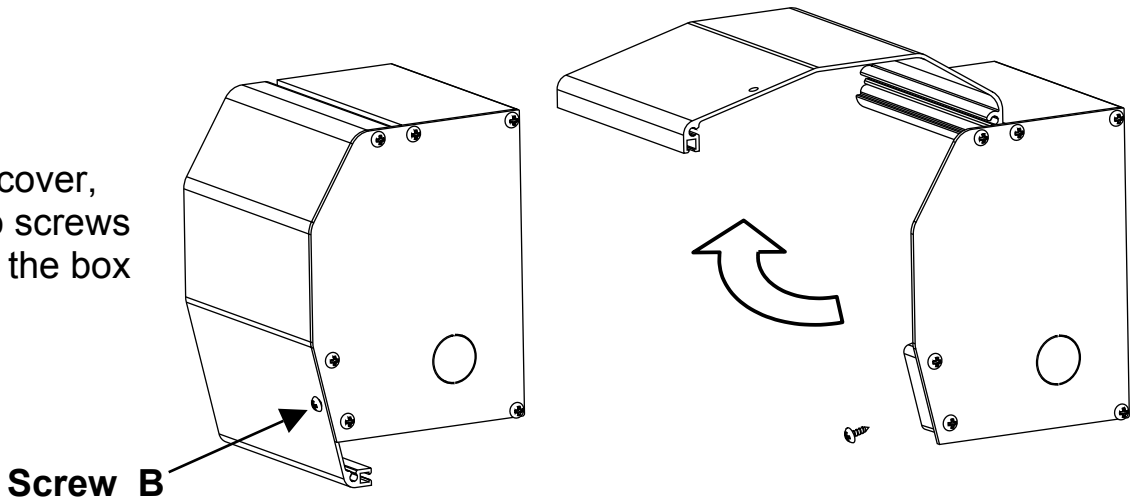


COVER REMOVAL

To remove the front cover, unscrew the two screws **B** at the ends of the box and lift



To lift the front cover, unscrew the two screws **B** at the ends of the box and rotate



ELECTRO LOCK WITH MANUAL SYSTEM (optional)

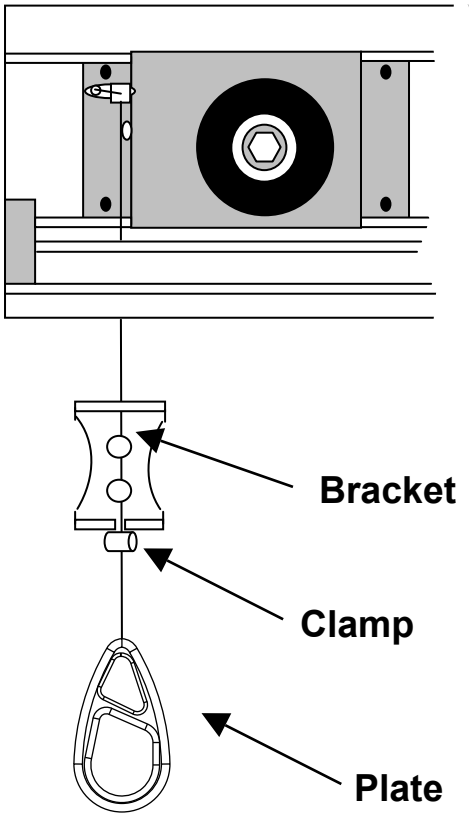
The electric lock is the safest way to lock the door. In case the backup battery is not present or in the event of failure of the latter, the system is equipped with external manual release.

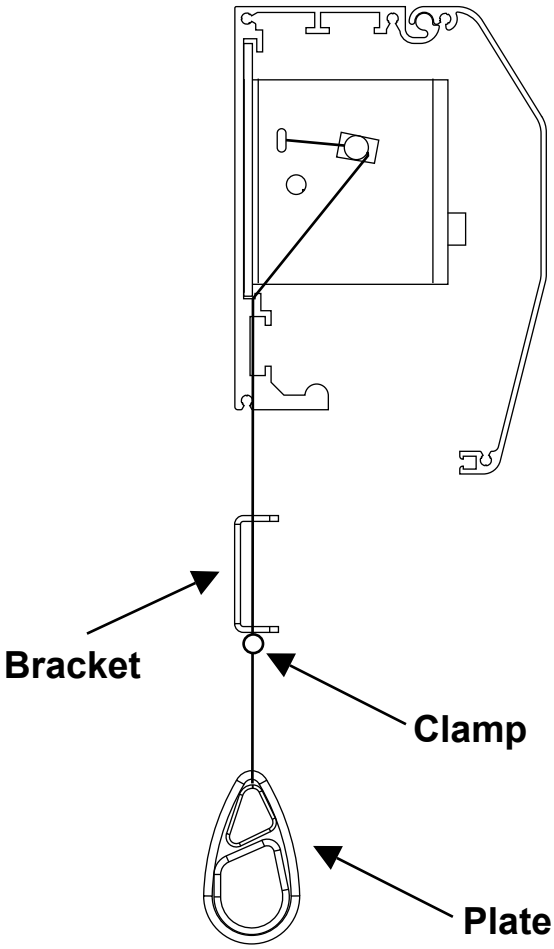
The working principle is based on the voltage given to the steel cable that came with their anchoring systems.

WARNING! Adjust the force according to the diameter of the cable.

With the box open you will notice the steel cable that comes out on the on the left side of the pulling pulley. Drill a hole of 2.5mm perpendicular to the cable.

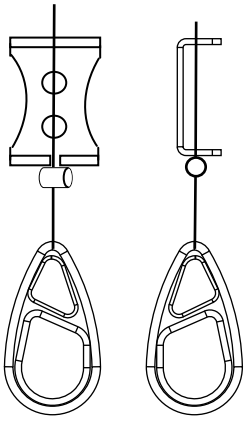
Fix the bracket onto the wall to keep the electro lock pulled permanently

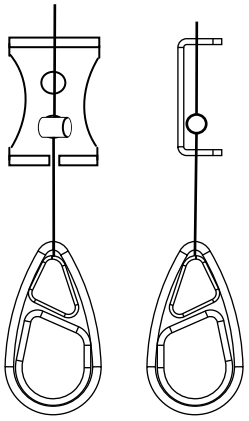




To unlock manually pull the plat and hook the clamp under the bracket.

To lock put the clamp inside the bracket



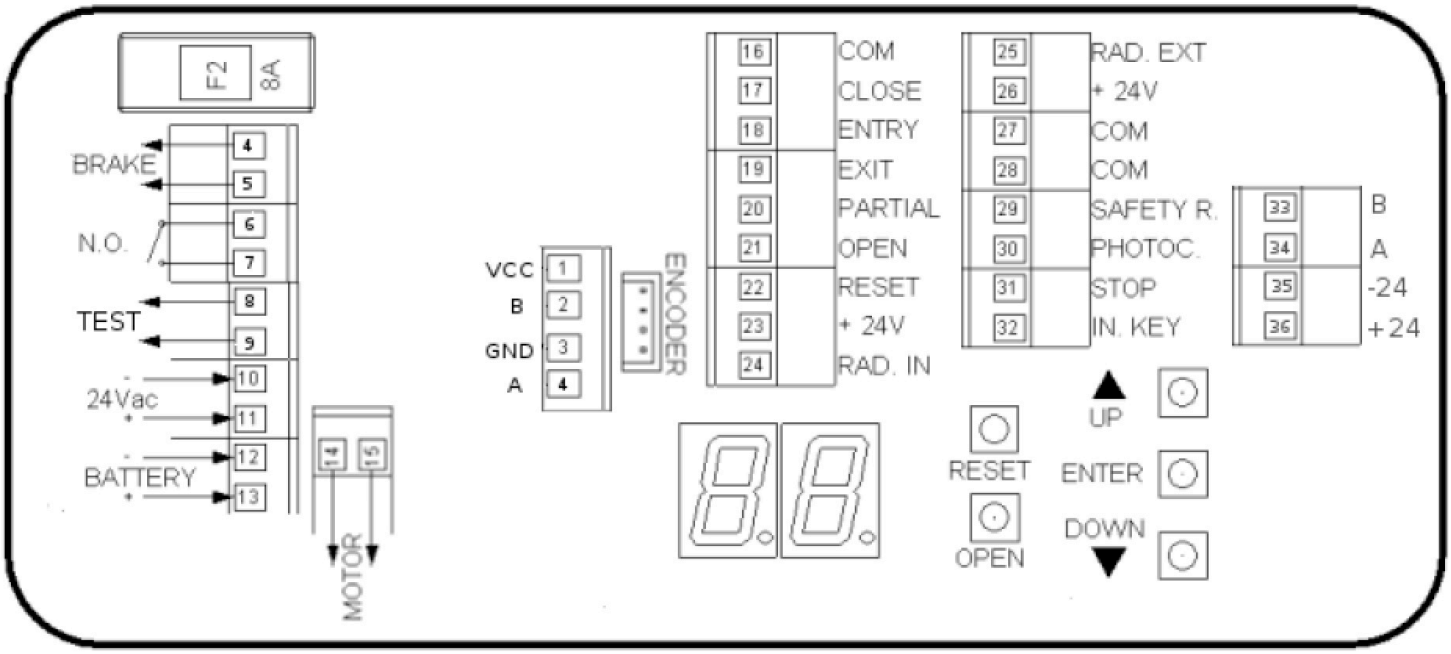


CE

QK-CE24WL18

CONTROL PANEL FOR AUTOMATIC DOORS

Use for automatic sliding door. Self-learning programming of the movements. Reading and programming of values and parameters via a LED display. Password installer and password maintainer. Operation in sequence for security doors (i.e. for bank). Continuous function test (by enabling a parameter, the door continues to move itself in order to simulate an ordinary condition of working). Error diagnostics. Separete input for safety side radars.



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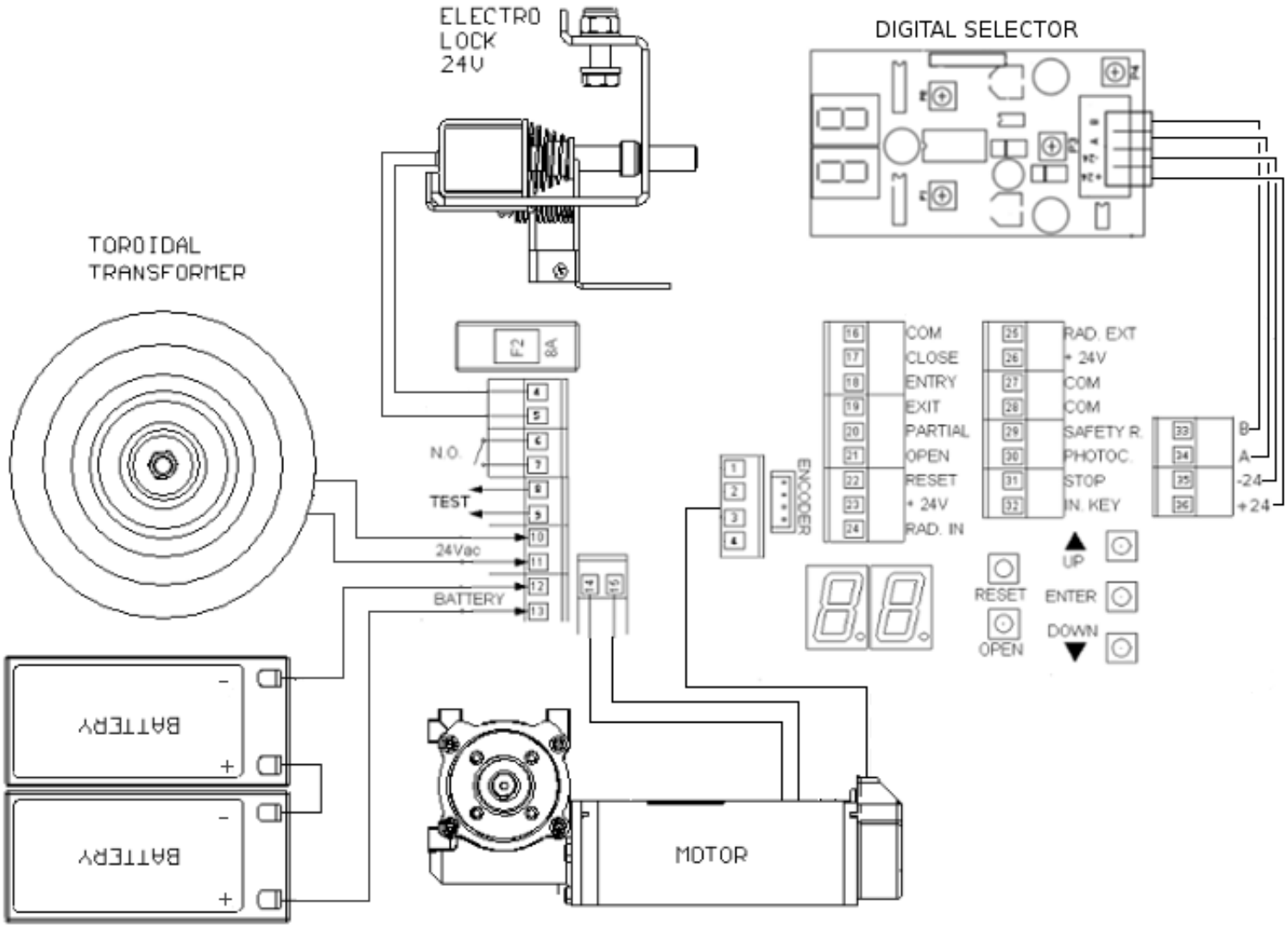
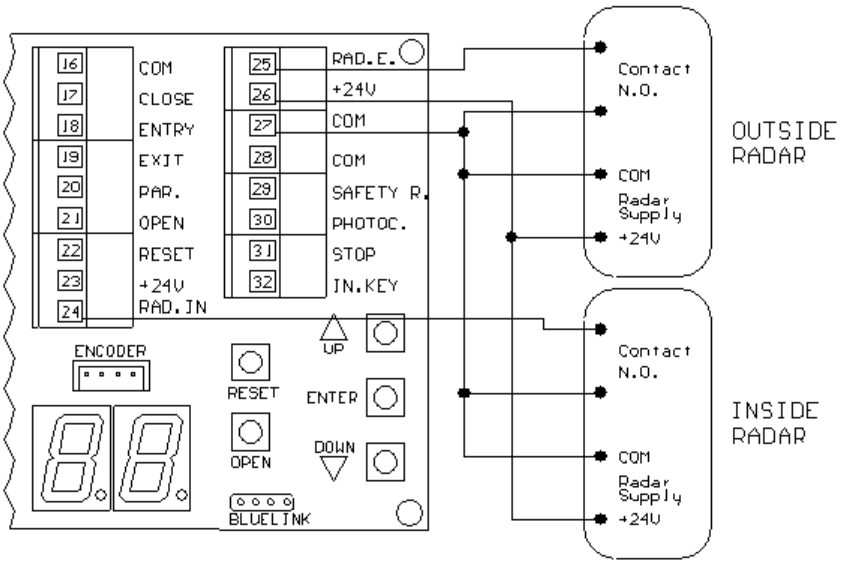
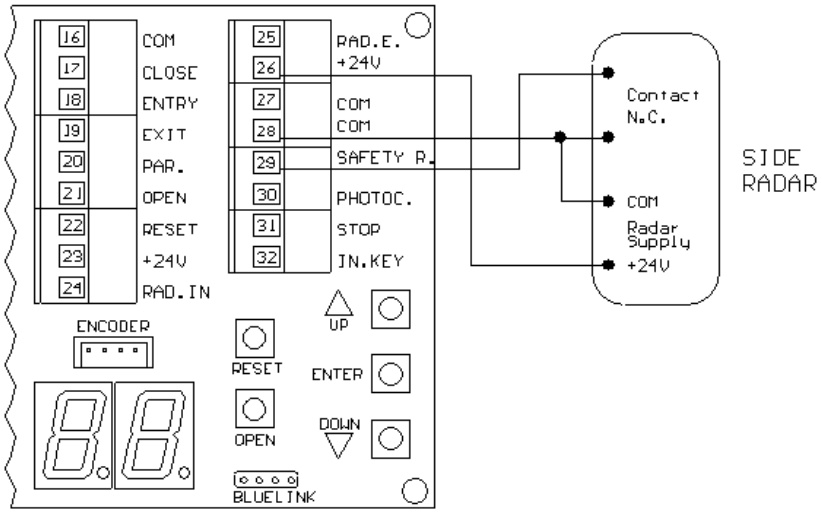
1 WIRINGS



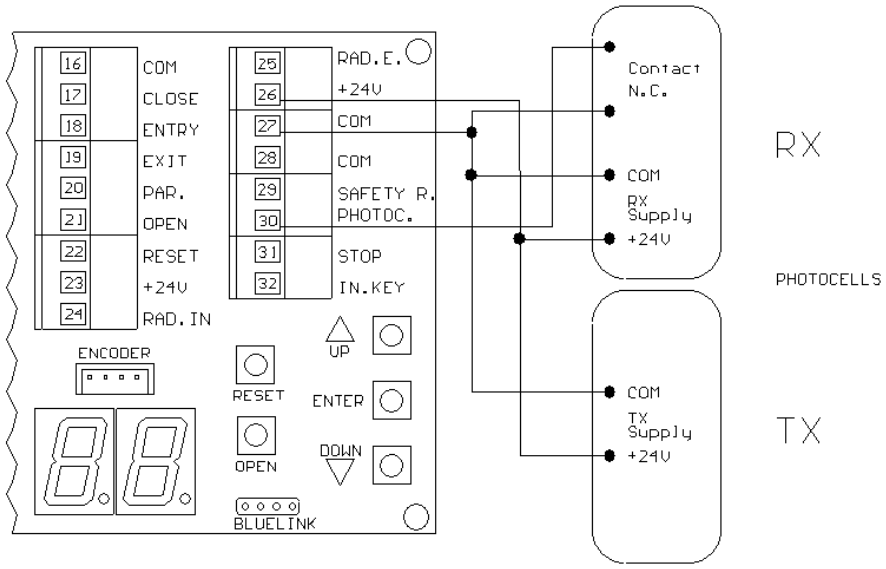
2 RADAR/SENSOR WIRING



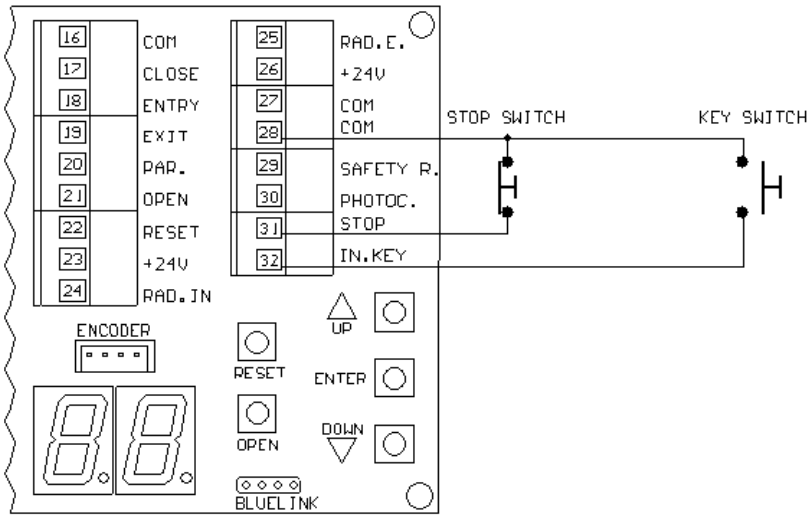
3 SIDE SAFETY RADAR WIRING



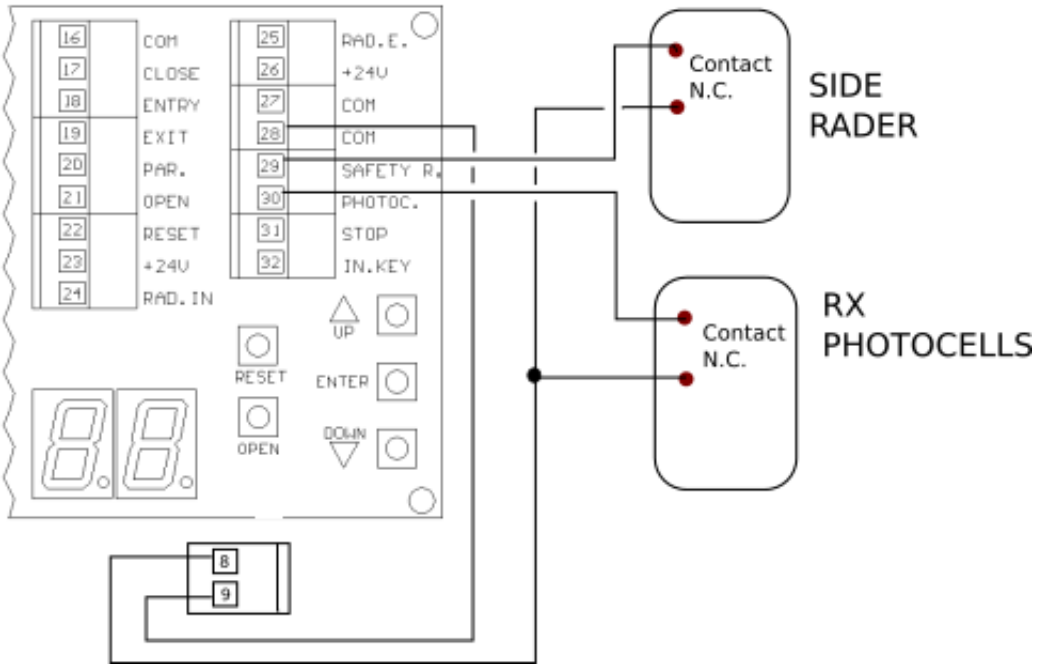
4 PHOTOCELLS WIRING



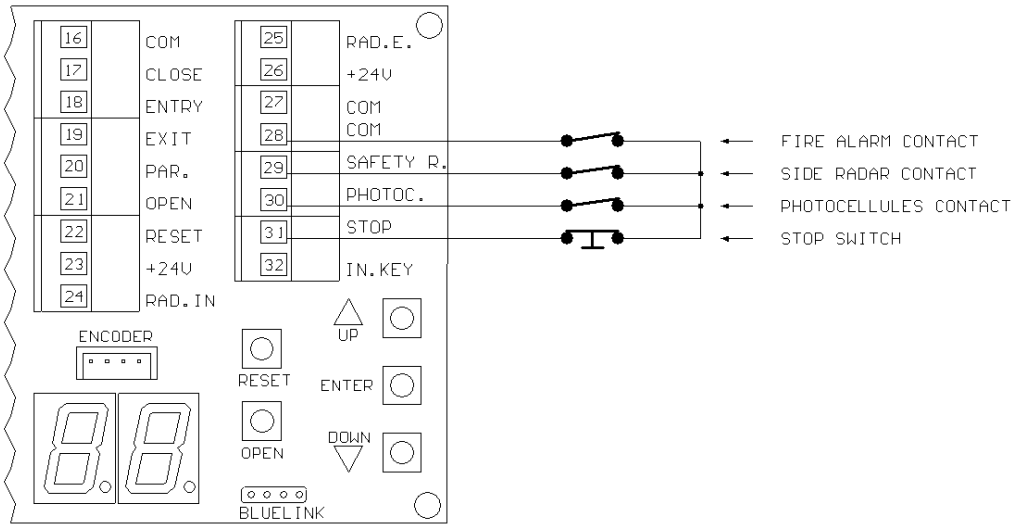
5 KEY SWITCH AND STOP BUTTON WIRING



6 PHOTOCELLS AND SAFETY RADAR TEST WIRING



7 FIRE ALARM WIRING



The fire alarm contact must be wired in serial to the inputs side safety radar, photocells and stop contact. The fire alarm feature will open the door in case of emergency. Only if the multifunctional selector is set on CLOSE the door will remain closed ignoring the alarm.

8 STARTING UP OF THE DOOR

After all the accessories and devices (radar, photocells, electric lock and selector multifunctional) are wired, switched on the power on the control panel. In the display will appear (EL – XX) and subsequently the word AP (movements learning)

The door starts CLOSING at slow speed and once reached the total closure it re-opens (always in a slow motion). As soon as it has fully opened, it stops and start re-closing till the completely closed position; always in slow motion. Self-learning programming is now over and on the display the symbol – (dash) flashes.

The door is now ready to work according to the default parameters (see the table in the attached page 6). If necessary it's possible to modify the parameters, according to the weight and dimensions of the door but for the best performance of the door, we highly recommend NOT to set speeds on the maximum.

9 PASSWORD ENTRY

In order to enter the basic setting menu, insert the password **3000**. **(P1=3, P2=0, P3=0, P4=0)**
In order to enter the detailed setting menu, insert the password **6000**. **(P1=6, P2=0, P3=0, P4=0)**

To insert the password do the followings:

- press **ENTER**. The display shows **P1** in steady light and after 2-3 seconds, the number 0 appears flashing.
- Now you have to insert the **first** digit; in this case the number **3** or **6**. Press the **UP** key until the 3 or 6 appears.
- Then confirm it by pressing the **ENTER** key. It will automatically move on to inserting the **second** digit (in this case 0). So, **P2** appears in the display in steady light, and after 2-3 seconds the flashing number 0 appears
- In this case you do not need to press **UP** or **DOWN** because the 0 is already there; you only need to press **ENTER** again to confirm and go to the next digit.
- To enter the **third** and **fourth** digits repeat the above steps as 0 is already there so you don't have to press **UP** or **DOWN** keys but just the **ENTER**.

10 PARAMETERS SETTING

Once you have set the password (according to the selected menu), carry on in this way:

- press **ENTER** until you reach the desired parameter (1,2,3,4, etc.)
- wait until the value set appears flashing
- press **UP** or **DOWN** if you want to increase or decrease the value set on it
- once the value has reached, press **ENTER** to select another/next parameter
- or just wait 10 sec. or press many time **ENTER** until you see the letters **rd** (record)

New parameters are now set.

The number in steady light indicates the number of the parameter, and this number changes every time you press ENTER. The number that flashes indicates the value of the parameter selected with Enter and can be modified as follows: the UP button increases the value and the DOWN button decreases the value.

11 EN16005 REGULATIONS

The control panel has been designed to fully meet the requirements of the new EN16005 regulations, so we recommend the use certified radar in accordance with regulations. Any other aspect of the legislation in terms of product installation, risks' analysis and setting up of the door should be done by the final installer.

We will not be responsible in any way for any damage caused to things and/or persons by improper installation careless security, by the absence or inadequacy of a carefull evaluation of the risks or by the use of control panel PLUS on installations not in accordance with the regulations.

In case of using of certificated radars:
Connect the power supply, output radar (N.O. contact), output Photo (N.C. contact) according to the Chapters 2, 3 and 4.
For each radar connected, the input TEST has to be supplied by taking a 24V output of the control panel and passing throught the contact "TestRadar"; terminals 8 and 9 of the control panel.
Example:
- Output 28 --> bring it to input 9.
- Output 8 --> take it to the input "TEST +" on the radar.
- Output "TEST -" on the radar --> bring it to input 27 or 28.

IMPORTANT: If you do not use the lateral safety radars, do the following connections:
- terminal 28 --> bring it to terminal 9
- terminal 8 --> bring it to terminal 29

In case of using normal radars NOT certificated without Test function:
The control panel PLUS has the possibility to work with the "TestRadar" disabled in order to be used with normal radars; Proceed as follows:

Enter into the menu "Basic Parameters" and set to "0" parameter "6 Test Radar" (see table).
Connect the power supply, output radar (N.O. contact), output Photo (N.C. contact) according to the Chapters 2, 3 and 4.
IMPORTANT: If you do not use the safety side radars, contact 28 and 29 should be left closed (bridged).

! ATTENTION ! Using the control panel with this configuration it does not comply in any way with the regulations in force. Any responsibility for this will be fully borne by the final installer.

12 CYCLES COUNTER

It is possible to read in the display, the number of cycles done from the door in that moment:

- press **UP** button, you will see 2 numbers appearing (i.e. 03)
- press **DOWN** button, you will see another 2 numbers appearing (i.e. 10)
- put the numbers together and multiply them **x 1000** (in the example 03 and 10 mean 310.000 cycles)

13 RESET TO GO BACK TO THE DEFAULT VALUES

Press **UP, DOWN, ENTER** buttons together until you see in the display the letters **dF** (default).

14 BASIC SETTING MENU

In order to operate in the below menu, you have to use the password **3000** .

NR	PARAMETER	RANGE	DEF	DESCRIPTION	INSERTED VALUE
1	Door weight*	1-5	2	1=100Kg - 2=120Kg - 3=140Kg 4=110Kg - 5=130Kg No. 1,2,3 are for 100 pulses encoder No. 4 and 5 are for 5 pulses encoder	
2	Automatic closing time	0-30 sec.	2	Reclosing time after opening by radar. If it is set on 0 it doesn't reclose automatically	
3	Automatic closing time after key switch impulse	0-30 sec.	5	Reclosing time after opening by key switch. If it is set on 0 it doesn't reclose	
4	Automatic closing time after partial opening	0-30 sec.	2	Reclosing time after opening by partial opening. If it is set on 0 it doesn't reclose	
5	Battery operation	0-2	0	0= Normal operation 1= Open and stays open 2=Close and stays closed	
6	Photos Test Input 8-9	0-1	0	0= Ph1-Ph2 Test disable 1= Ph1-Ph2 Test enable	
7	Aux Relay	0-1	0	0= Aux Relay disable 1= Aux Relay enable	
8	Partial opening space	5-90 %	50	Partial opening space calculated in percentage of the total stroke of the door	
9	Opening by forcing the door manually	0-10 cm	5	0=reversible (easily opening) 1=closing force contrast >1 space in cm that closing force contrast works; i.e. with 5, you have to force the door for about 5 cm before the door becomes reversible.	
10	Cycles counter reset	0-1	0	0=Counter does not reset 1=Counter reset	
11	Alarm buzzer after a certain number of cycles i.e. for maintenance	0-2	1	0=Cycle counter not active 1=Buzzer working upon reaching 300.000 cycles 2=Buzzer working upon reaching 1.000.000 cycles	
12	Stop in open	0-9	0	0=not active >0=stay open and buzzer after 1-9 x1000 cycles	
13	Continuous testing **	0-1	0	0=continuous test not active 1=continuous test active	

* this parameter modifies the ordinary speed, approach speed, and acceleration and deceleration features. Set it according to the door weight and not according to the speed.

** after having activated this function by inserting the value 1, to start the test you must engage a radar. The door starts opening and closing continuously. In order to return to normal operation, press the stop key or press the reset key.

The column values set on the control panel must be filled out by the maintainer or installer.

15 DETAILED SETTING MENU

In order to operate in the below menu, you have to use the password **6000**.

NR	PARAMETERS	RANGE	DEF	DESCRIPTION	INS VALUE
1 *	Opening motor torque	2-18	6	Motor torque during opening	
2 *	Closing motor torque	2-18	4	Motor torque during closing	
3 *	Opening speed	5-75 %	71	Speed of the door during the opening	
4 *	Closing speed	5-75 %	56	Speed of the door during the closing	
5	Slowdown speed while opening	5-40 %	20	Speed of the door during the slowdown in opening	
6	Slowdown speed while closing	5-40 %	20	Speed of the door during the slowdown in closing	
7 *	Opening deceleration space	5-45 cm	20	Deceleration space during the final phase of opening	
8	Closing deceleration space	5-45 cm	25	Deceleration space during the final phase of closing	
9 *	Opening acceleration	1-25	20	Acceleration speed while opening (max 25)	
10 *	Closing acceleration	1-25	20	Acceleration speed while closing (max 25)	
11 *	Opening deceleration	1-35	20	Deceleration speed during opening (max 35)	
12 *	Closing deceleration	1-35	20	Deceleration speed during closing (max 35)	
13 *	Braking level	1-35	30	Deceleration speed upon radar or photocell activation	
14	Speed while self-learning the stroke	10-40 %	25	Speed after a reset to self-learning the stroke again	
15	Features of the side safety radar; input NC	0-1	0	0= slowdown motion during the opening 1= stops the door while opening	
16	Electro-lock feature	0-1	0	0= switched ON when the door is working 1= switched OFF when the door is working	
17	Electro-lock release delay	0,2-1 sec	0,5	Delay of the electro-lock release using the key switch	
18	Encoder speed	1-99	85	**DO NOT MODIFY THESE PARAMETERS**	
19	Encoder type	0-1	0		
20	Obstacles detector disabled in the last phase of opening	1-99	99	If an obstacle is detected in this space the door doesn't reverse. 99=2cm approx	
21	Obstacles detector disabled in the last phase of closing	1-99	99	If an obstacle is detected in this space the door doesn't reverse. 99=2cm approx	
22	Disabling password	0-1	0	0= password request enabled 1= password request disabled	
23	Password 1 **	0-9	6	1st detailed setting menu password digit	
24	Password 2	0-9	0	2nd detailed setting menu password digit	
25	Password 3	0-9	0	3rd detailed setting menu password digit	
26	Password 4	0-9	0	4th detailed setting menu password digit	

* the default values vary according to the value set for parameter **1** of the basic setting menu
** the set digit must be different than 3 (already used as basic setting menu password)
The column values set must be filled out by an installer or qualified person.

16 LIST OF ERRORS OR FAULTS DIPLAYED ACCORDING TO THE PRIORITY

The table shows the state of potential errors; the first faults listed have the priority over the inferior errors. It means that, after having solved a fault it might appear other fault in an inferior level.
See the table below:

DISPLAY	ERROR TYPE	CAUSE-EFFECT	SOLUTION
EE	Encoder error	Encoder damaged or not wired. The door doesn't move at all	Check encoder wires
FT	PhotoTest Error	Failed radars test. The door opens and closes at low speed.	Check "RadarTest" wires, check possible disease of radar, otherwise replace the not working one.
ED	Motor direction	Incorrect motor direction. The door begins to open and stops	Invert motor's wires
EP	Programming error	Incorrect encoder reading. The door doesn't slow down	Press the reset button to re-setting the door
OA	Opening obstruction	Obstacle detected in opening phase. The door stops during opening	Check if the door moves freely during opening. Eventually increase the value of the opening torque parameter
OC	Closing obstruction	Obstacle detected in closing phase. The door stops during closing	Check if the door moves freely during closing. Eventually increase the value of the closing torque parameter
ST	Input Stop	Stop input open or not wired. The door doesn't move at all	Check the wiring of the stop input; input NC
F2	Input side safety radar	Safety radar input open or not wired. The door always opens in slow motion.	Check the wiring of the side safety radar input; input NC
F1	Input photocell	Input photocells opened or not wired. The door opens and remains open	Check the wiring of the photocells input; input NC
NL	Absence of tension (voltage)	Absence of main power supply 230Vac. The door works according to the value set in parameter 5 of the basic setting menu	Check fuse F1
PA	Key Selector on partial	Multifunctional key selector set on partial opening	Check selector wiring.
EN	Key Selector on entry	Multifunctional key selector set on entry (only external radar is enabled)	Check selector wiring.
OT	Key Selector on exit	Multifunctional selector set on exit (only internal radar is enabled)	Check selector wiring.
CL	Key Selector on closed	Multifunctional selector set on closed. The door can only be controlled by key switch input (nr. 32)	Check selector wiring.
OP	Key Selector on open	Multifunctional selector set on door opened	Check selector wiring.
IP	Key switch input	Key switch input active (nr. 32)	Check selector wiring.
AP	Self-learning	The door learns its stroke (space)	Check input wiring reset
_	No signal	Stand-by	

17 LOCK THE DOOR

When the CLOSE input is active the door is locked.
The only way to open the door is to use the KEY input.

18 DIGITAL SELECTOR □ QK-SELDGT

Instruction to use Digital Selector can be found ın thè digital selector user manual.

19 ORDINARY MAINTENANCE

- After 300.000 cycles or 1 year from the date of installation: Clean the sliding rails – check the condition of the upper and lower wheels - check battery operation – check the state of the skid floor and verify the tension of the belt (see paragraph “calibration of the door”).
- After 1.000.000 cycles it is recommended to replace the sliding wheels of the carriages – check crossbeam and carriages screws- clean the sliding rails – check operation of the security mechanisms (photocell and radar) - check the rubber caps of the mechanical stops and rest of things suggested on first topic.

It is recommended to enable the alarm for maintenance, with parameter 11 of the basic parameters menu, by inserting 1 or 2 according to the use of the door.

20 MAINTENANCE LOGBOOK

The maintenance worker or installer are required to fill below logbook in any part regarding ordinary and extraordinary maintenance done on the door.

DATE	PROBLEM	TYPE OF MAINTENANCE	NUMBER OF CYCLES	MAINTENANCE WORKER NAME	MAINTENANCE WORKER SIGNATURE

SAFETY PRECAUTIONS

These warnings are an essential, integral part of the product and must be given to the user. They provide important indications on the installation, use and maintenance and must be read carefully. This form must be preserved and passed on to subsequent users of the system. The incorrect installation or improper use of the product may be dangerous.

INSTALLATION INSTRUCTIONS

- The installation must be performed by professionally skilled personnel and in compliance with current local, state, national and European legislation.
- Before beginning the installation, check the integrity of the product.
- The laying of cables, electrical connections and adjustments must be workmanlike performed.
- The packing materials (cardboard, plastic, polystyrene, etc.) are a potential hazard and should be disposed of correctly and not left within reach of children.
- Do not install the product in potentially explosive environments or environments disturbed by electromagnetic fields. The presence of inflammable gases or fumes is a grave danger to safety.
- Set up a safety device for overvoltage, a disconnecting and/or differential switch suitable for the product and conforming to current standards.
- The manufacturer declines any and all responsibility for product integrity, safety and operation in the event incompatible devices and/or components are installed.
- Solely original spare parts should be used for repairs and replacements.
- The installer must provide all the information relating to the operation, maintenance and use of the individual parts, components and system as a whole.

WARNINGS FOR THE USER

- Read the instructions and enclosed documentation carefully.
- The product must be used for the express purpose for which it was designed. Any other use is considered improper and therefore hazardous. In addition, the information given in this document and in the enclosed documentation may be subject to modifications without prior notice. It is given as an indication only for product application. The company declines any responsibility for the above.
- Keep products, devices, documentation and anything else provided out of reach of children. In the event of maintenance, cleaning, breakdown or faulty operation of the product, cut off the power and do not attempt to operate on the product. Contact solely the professionally skilled personnel responsible for these operations. Failure to adhere to the above indications may be dangerous.

DECLARATION OF CONFORMITY

(OF THE MANUFACTURER)

Manufacturer: QUIKO ITALY
Via Seccalegno, 19
36040 Sossano (VI)
Italia

hereby declares, under his liability, that the products:
WINNY LIGHT AUTOMATIC SLIDING DOORS

if installed by qualified personnel capable of evaluating risks, are in compliance with norms:

UNI EN 12453, EN 12445, EN 16005

and their amendments and modifications, and with the regulations set forth by the National Legislative Body of the country in which the machinery is destined for use.

Sossano, 1/1/2018

Managing Director
Luca Borinato

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