EN

INCOLD ACTIVE
Rapid doors

USE AND MAINTENANCE

ROLL UP DOOR WITH MEMBRANE KEYPAD AND COAXIAL MOTOR

2023-12
04030656EN 03

incold®

SUMMARY PAGE

1. GENERAL INFORMATION

1.0 MANUFACTURER

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1.1 GENERAL INFORMATION ABOUT THE MANUAL

This manual and the information contained in it are the exclusive property of INCOLD S.p.A. Reproductions and reprinting, even partial, are prohibited without the written authorisation of INCOLD S.p.A.
This manual is updated to the current state of the technologies used. INCOLD S.p.A. reserves the right to make changes due to technological progress.
The assembly sequences are referred to in the annexes.
The images presented are not faithful reproductions of the machine but are merely for illustrative purposes.
The manufacturer declines all responsibility for injury to persons or damage to property resulting from incorrect or improper installation, incorrect or improper use.

1.2 INFORMATIVE ICONS

Dangers and behaviours to be avoided during use, assembly, maintenance and in any situation that could cause serious injury or death.

Prescriptions, rules, references and communications that each person responsible for the installation and use of the door (each for their competence) must respect.

1.3 PROHIBITIONS AND REQUIREMENTS

This manual must be read before installing the door, being sure to respect what has been described in order to guarantee correct operation of the product.
The manual is to be considered part of the door and must be kept for the entire duration of the product.
The manufacturer considers itself exempt from any responsibility in the following cases:

- improper use of the product
- incorrect installation, not performed according to the rules indicated
- serious failings in the scheduled maintenance
- unauthorised modifications and interventions
- use of non-original spare parts
- partial or total failure to comply with the instructions.
- anything not expressly indicated in this manual.

1.4 SAFETY WARNINGS

The local safety regulations must always be observed.
Transportation, mechanical assembly and electrical connection of the door must be performed by expert and qualified personnel. Regulation of the traffic in the operating area of the automatic operation doors is the responsibility of the USER; INCOLD S.p.A., as a safety condition, recommends preventing traffic in areas along parallel and adjacent paths of the automatic operation doors, delimiting/identifying these areas and carrying out specific training and instruction on use for the personnel concerned.

Use of the door is intended solely for personnel who have been instructed on correct operation of the door itself and on the risks associated with improper use.
If in doubt, contact the manufacturer.
Attention risk of crushing.

2. PRODUCT DESCRIPTION

2.1 PRESENTATION OF THE PRODUCT

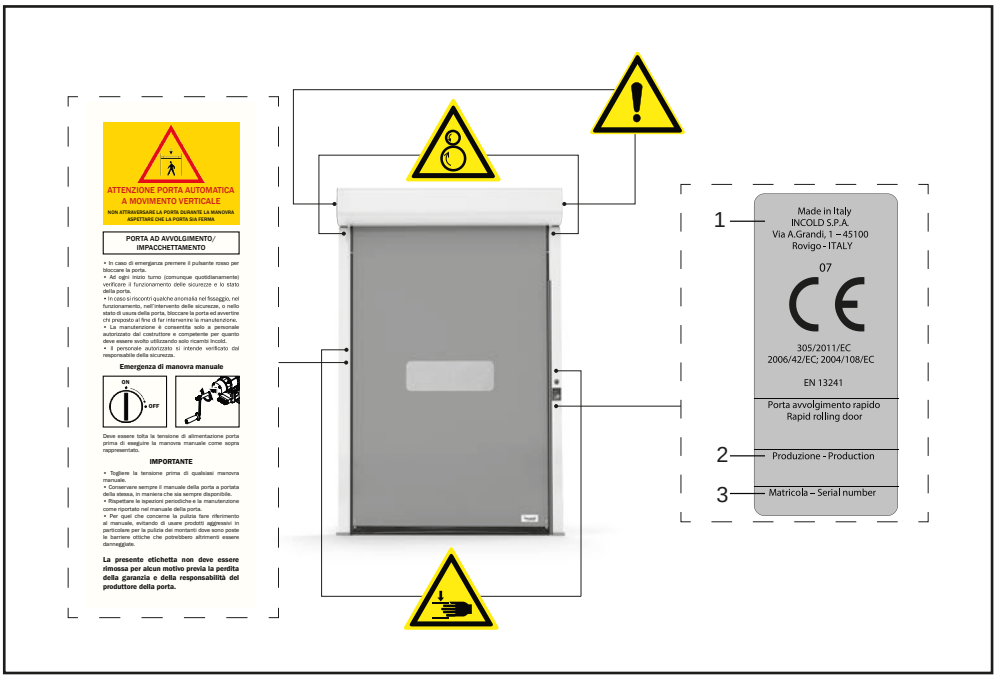
The Incold roll-up doors are automated rapid roll-up doors.
The automatic drive is via a worm gear motor-reducer. The control panel and related software are the exclusive property of INCOLD S.p.A.
Positioning of the sheet is controlled by an encoder installed in the gearmotor, while the speeds and ramps are controlled by an inverter.
Control of the door and adjustment of the parameters take place via the keypad integrated within the frame.

MODEL	ZIP K	GLIDE K
Certification (EN 13241)	Istituto Giordano	Istituto Giordano
Applications	Indoor	Indoor
Wind resistance (EN 12424)	Classe 3	-----
Dimensions: **Lenght x Height max**	2000 x 3000 mm	2000 x 3000 mm
Maximum weight of door (sheet)	sheet 900g < 20 kg/m^2	sheet 900g < 20 kg/m^2 sheet 1300g < 20 kg/m^2
Maximum opening speed	1,2 m/s	1,2 m/s
Intermittence service class	Continuous functioning S3 = 75%	Continuous functioning S3 = 75%
Power supply **Motor rated output**	230 Vca 50 Hz 0.25 KW	230 Vca 50 Hz 0.25 KW
IP Rating	IP 54 motor IP 66 electrical panel	IP 54 motor IP 66 electrical panel
Operating temperature	+1 °C +40 °C	+1 °C +40 °C
Noise	≤ 70.3 dBA	≤ 68.9 dBA

2.2 PLATE DATA

On the side of the upright, on the keypad side, is the data plate with the following information:
1. Name and address of the manufacturer
2. Production date (year / month / day)
3. Serial number

Safety and maintenance label. Do not remove the label. The manufacturer declines responsibility if the label has been removed. The warranty will be null and void if the label has been removed.



2.3 CONDITIONS OF USE

The doors of the INCOLDACTIVE line are designed to close the access areas to agro-food and refrigerated rooms at a positive temperature. The door and its components have been designed to work in a temperature range of 0° to +40°.

Door not suitable for use in environments with explosion and ATEX risk.

If the operating temperatures are not observed, the safety systems may not work.

The power supply to the panel is 230V with a frequency of 50-60 Hz; the gearmotor has a power of 0.25 kW.

Ensure a differential magnetothermal switch for each door
2 poles - 10 A - Id = 0.3 A - Type F or Type B

The user must ensure that the power supply line is suitable for the power demand, with a voltage dip of not more than 3%.

Correct functioning of the door is not guaranteed if the differential magnetothermal switch is not provided as indicated.

2.4 INCORRECT USE OF THE MACHINE

The following are strictly forbidden:
- The intervention on rapid roll-up doors by inexperienced or untrained persons;
- Removing or tamper with the automation system and with other door elements;
- Changing the programming of the operating logic of the automation control unit;
- Excluding of the safety systems;
- Transiting through the opening with vehicles at speeds higher than walking pace.

2.5 SAFETY DEVICES

Rapid roll-up doors are machines and, as such, are fitted with safety devices that prevent accidental injury to users and limit dangerous situations during their operation.
Rapid roll-up doors for cold rooms are usually installed in areas that restrict access to a limited number of persons who have been trained for use. They should not be installed in areas frequented by large numbers of the public or by untrained personnel.
In order to limit the risks, the fast roll-up doors are fitted with:

- **Sensitive side or sensitive edge:** (optional) this is the main safety device to ensure the safety of users; it is located on the lower part of the sheet and when it intervenes, it causes immediate stopping and reopening of the door
- **Optical barriers** it consists of a transmitter - receiver group, they stop movement and reopen the door if, during closing, the interruption of the light beam occurs.
- **Emergency button:** red in colour and characterised by the typical mushroom shape, it ensures instantaneous blocking of all door movements in all situations of danger or emergencyc
- **Flashing optical indicator** (on request only): the indicator goes into operation when the automatic door is activated.

Before activating the automatic door, the operator/maintenance technician must make sure that the protection devices are perfectly fixed, functioning and that accidental or voluntary causes have not compromised their function.

USE	RESIDUAL RISK	PREVENTIVE SOLUTIONS TO REDUCE RISKS
Handling, installation, electrical connection, maintenance.	Danger of injury to parts of the body, crushing, impact, cuts, falls, damage due to electric shock.	These operations must be carried out exclusively by competent and adequately trained personnel, equipped with appropriate PPE, after having read and understood this manual. It is advisable to delimit the work area to prevent access to unauthorised persons. Before carrying out any maintenance operation, press the emergency button. Should it be necessary to intervene on electrical components, disconnect the power supply before starting.
Cleaning operations	Cuts, injuries, falls from stairs, inhalation of chemicals, damage due to electric shocks	Proceed with cleaning operations only after having read and understood the following manual and equipped with appropriate PPE. Use only the products indicated in para.4.1
Use of locks or bolts	Staff trapped inside the cell	Do not install additional door-locking systems, or if necessary, adequately instruct personnel on the correct use of these systems. If necessary, evaluate the installation of an alarm device that signals the presence of trapped personnel
Door operation until a second subject is in the vicinity of the door	Dragging, crushing, impact	Mount the door in places accessible only to authorised and suitably trained personnel. Pay the utmost attention; before operating the door, always check that there are no persons nearby.

2.6 INDICATIONS ABOUT NOISE

The level of airborne noise produced by the rapid roll-up doors was measured and evaluated by simulating operation of the same at the premises of the manufacturer: the equivalent weighted continuous sound pressure level is:
Zip K ≤ 70.3dB
Glide K ≤ 68.9dB

The noise level of closing varies in relation to:
- conditions of use (environment, configuration)
- efficiency state
- power of the motor installed
- door dimensions.

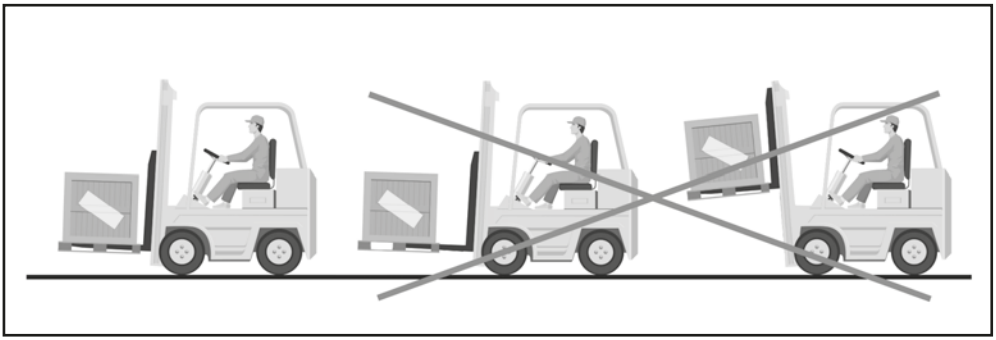
3. OPERATIONS OF INSTALLATION AND USE

3.1 HANDLING / STORAGE

The loading and unloading operations must be carried out by qualified personnel using hand-operated or electric forklift trucks suitable for the dimensions and weight to be handled.

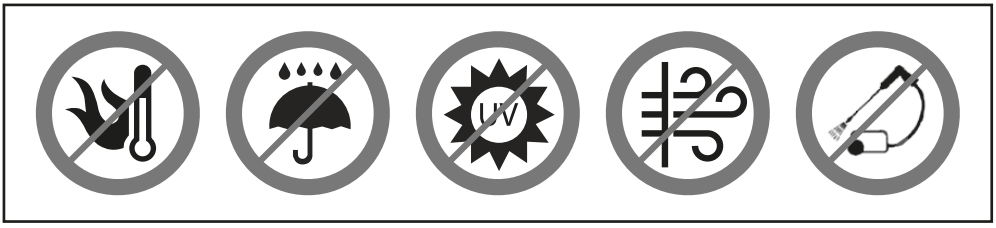
Always position the loading forks at the points indicated to avoid the risk of overturning and always insert the forks completely.

- NO unauthorised persons should be present near the lifting operation.
- Distribute the weight of the package to keep the centre of gravity of the load in equilibrium.



The use of gloves and any other personal protective equipment is recommended in order to avoid the risk of injury or damage during all stages of assembly.

DO NOT store the product in open areas and therefore subject to atmospheric agents and direct sunlight. Exposure to ultraviolet rays causes permanent deformation of plastic materials. Storage temperature -10° +50°.
Before storing, check that the packaging is intact and that there are no defects that could compromise future installation.



3.2 RECEIPT, UNPACKING, PRELIMINARY OPERATIONS

Before proceeding with installation, check:
- that the packaging is intact and has no defects
- that all the elements have been provided for assembly of the same with perfect verticality of the surfaces on which the door will be installed (check with plumb line/laser level etc.)

In case of uncertainty, contact the manufacturer for any clarification.

3.3 MECHANICAL INSTALLATION

3.3.1 Installation hole

For installation of the door a hole is required in the wall with the dimensions indicated in Fig. 1, where:
H = free light height of the door,
L = free light width of the door.

Warning, above height H it is necessary to provide enough space for the top part, equal to:
- almeno 600 mm

3.3.2 Frame assembly

Near the installation hole, clean the floor and place the two vertical uprights and the crossbar on the ground.

FIG. 2
The joining element is on the upper part of the two uprights. Line up the holes with those in the guide support and secure everything with the screws provided, M8X20 (Fig. 2).
Repeat the operation on the second upright.

3.3.3 Positioning and holes

The door must be positioned with the uprights perfectly perpendicular to the ground, and the upper part straight; use a spirit level, aligners or plumb line in this phase. There are slots in the two uprights, in a central position; drill with a Ø13 bit for inserting the M12 tie rods (Fig. 3). On the ground, drill and secure the two dowels for locking the uprights.

Create a Ø13 hole on the wall, on the right upright and one on the left upright corresponding to the slot on the metal back of the crosspiece.

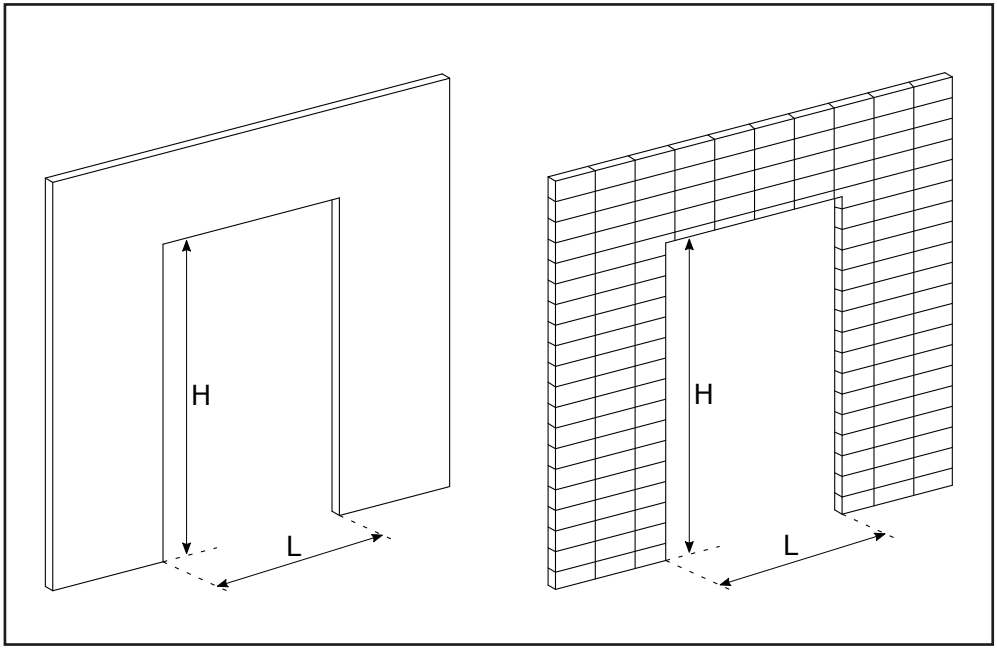
3.3.4 Fixings

For securing at the top, use the two nylon tie rods with their washers and allocated nuts from the opposite part of the securing wall.

Proceed with inserting the nylon tie rods and from the opposite part place the nylon washer and its nut on all the slotted holes.

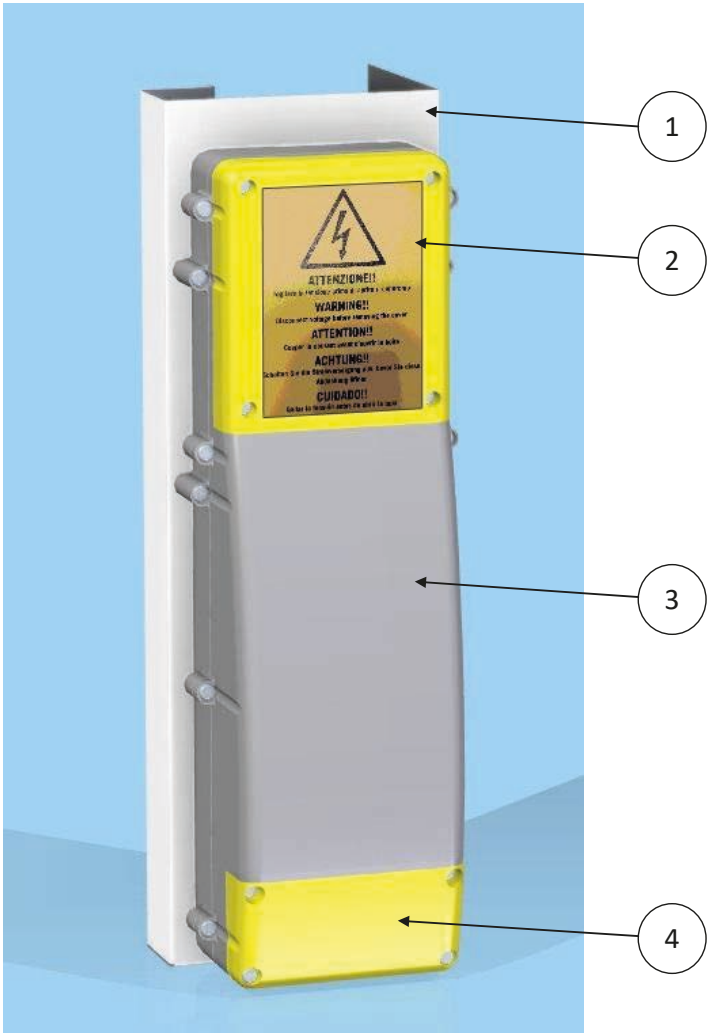
3.3.5 Completing assembly

Mounting the covers: there are 2 versions of the door with bent sheet metal uprights or with aluminium uprights. The covers in the aluminium version snap into place without the need for screws; the covers in the bent sheet metal versions are fastened with screws in the holes provided.
Finally, place the sheet metal cover on the cross beam, securing it with screws.


H
L
H
L

DETAIL OF THE MAIN BOARD ASSEMBLED IN ITS WHITE SUPPORT

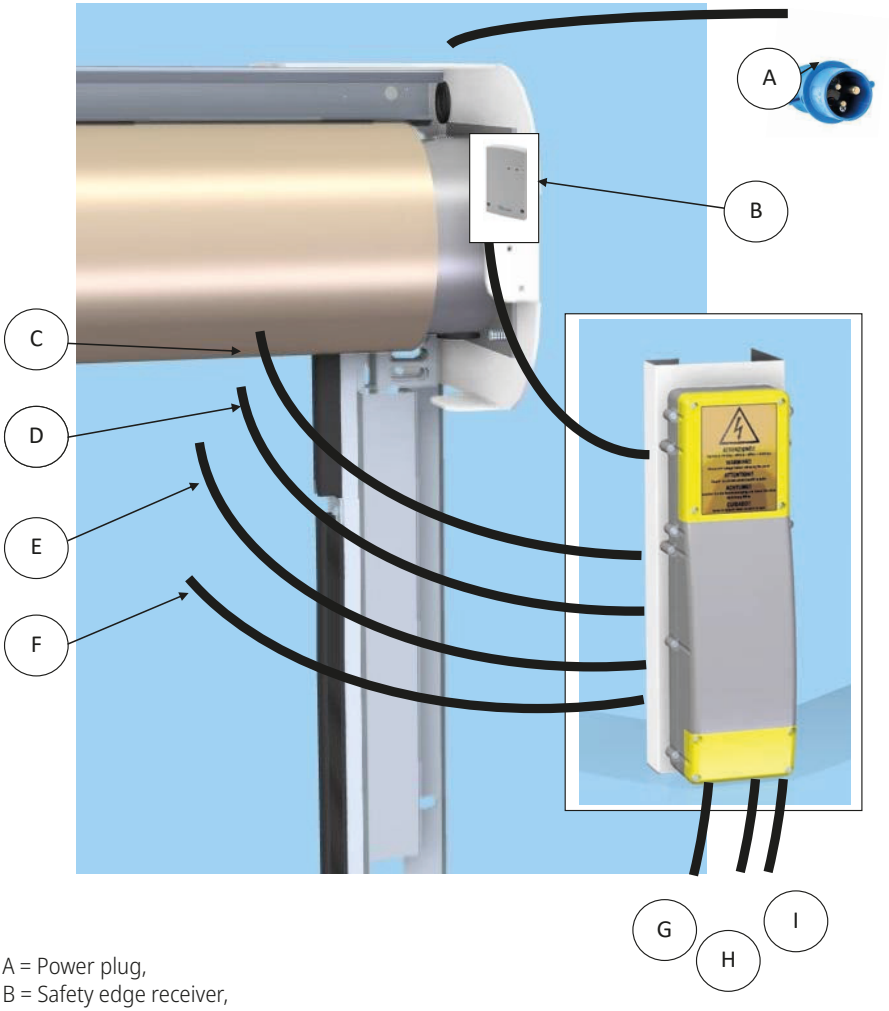
Never detach the main board from the support



1 – White support
2 – Yellow cover to access terminals board
3 – Main board
4 – Small yellow cover to access to the power supply 230V -50Hz 1 phase + neutral + ground

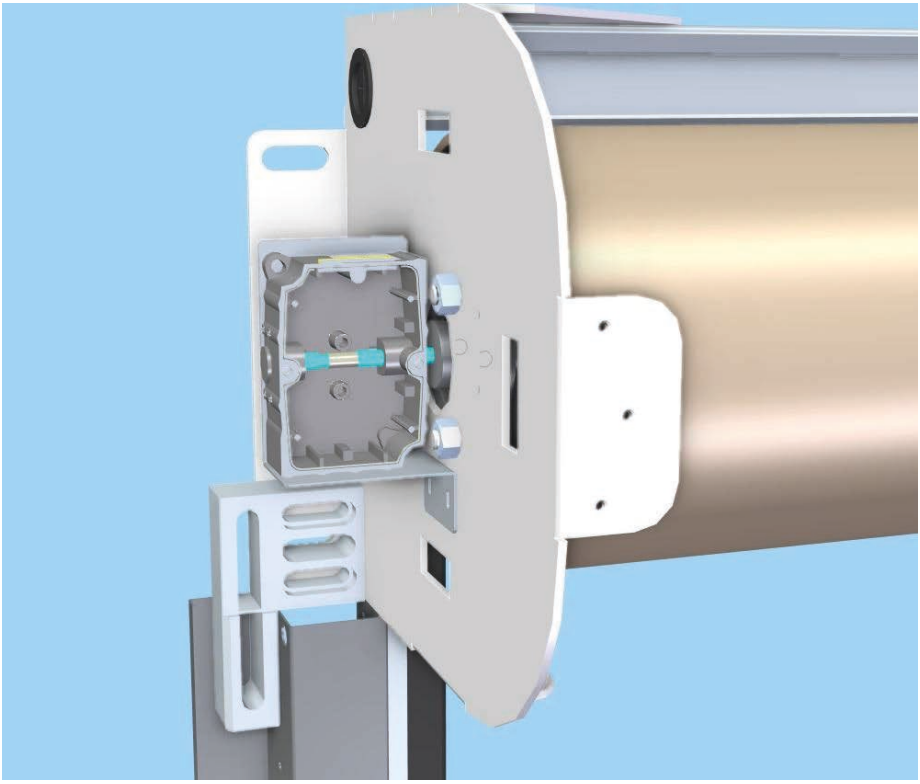
CABLE FROM THE MAIN BOARD:

The main board comes disassembled from the uprighr because it is wired to the canopy, attach it to the upright being very careful not to damage and cut the cables.



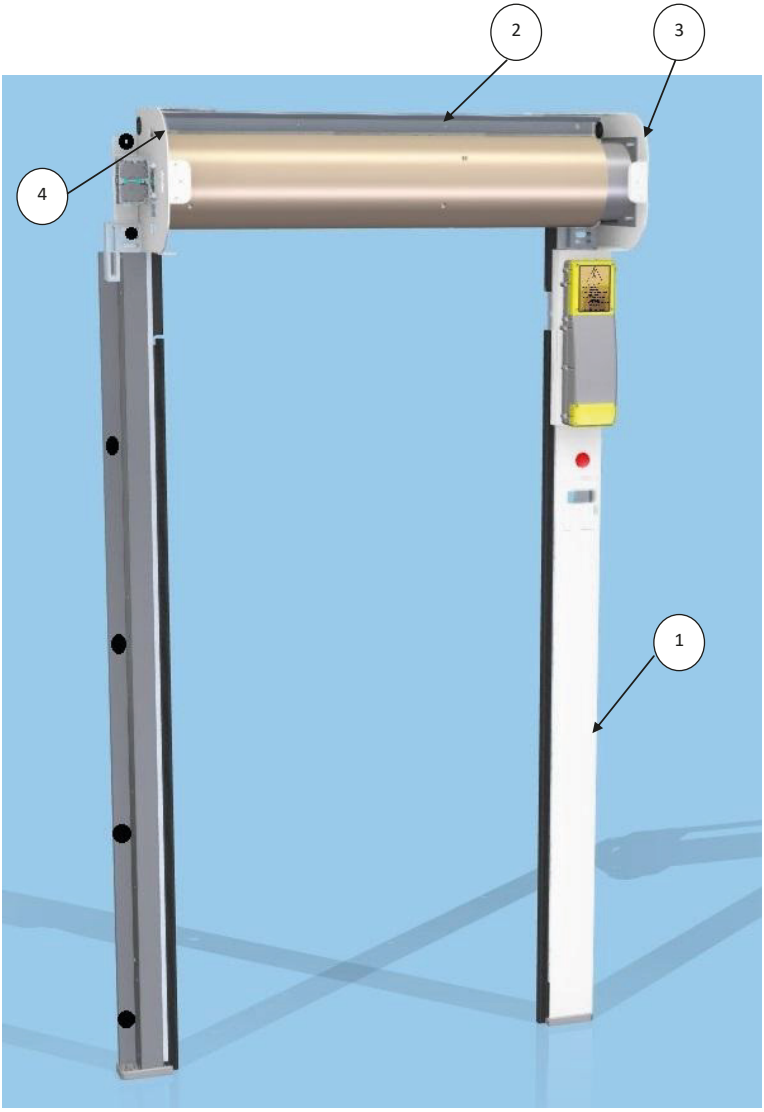
A = Power plug,
B = Safety edge receiver,
C and H = photocell
D = Encoder cable,
E = Gray cable for internal button,
F = Cable 8 wires to : motor, break and window switch,
I = From plug power supply,
H = Cable to keypad on the right upright .

ENCODER DETAIL ON THE LEFT SIDE OF THE CANOPY



FASTEN UPRIGHTS AND CANOPY WITH SCREWS SUITABLE FOR THE TYPE OF STRUCTURE (WALL, SANDWICH PANELS, METAL STRUCTURE, ETC.)

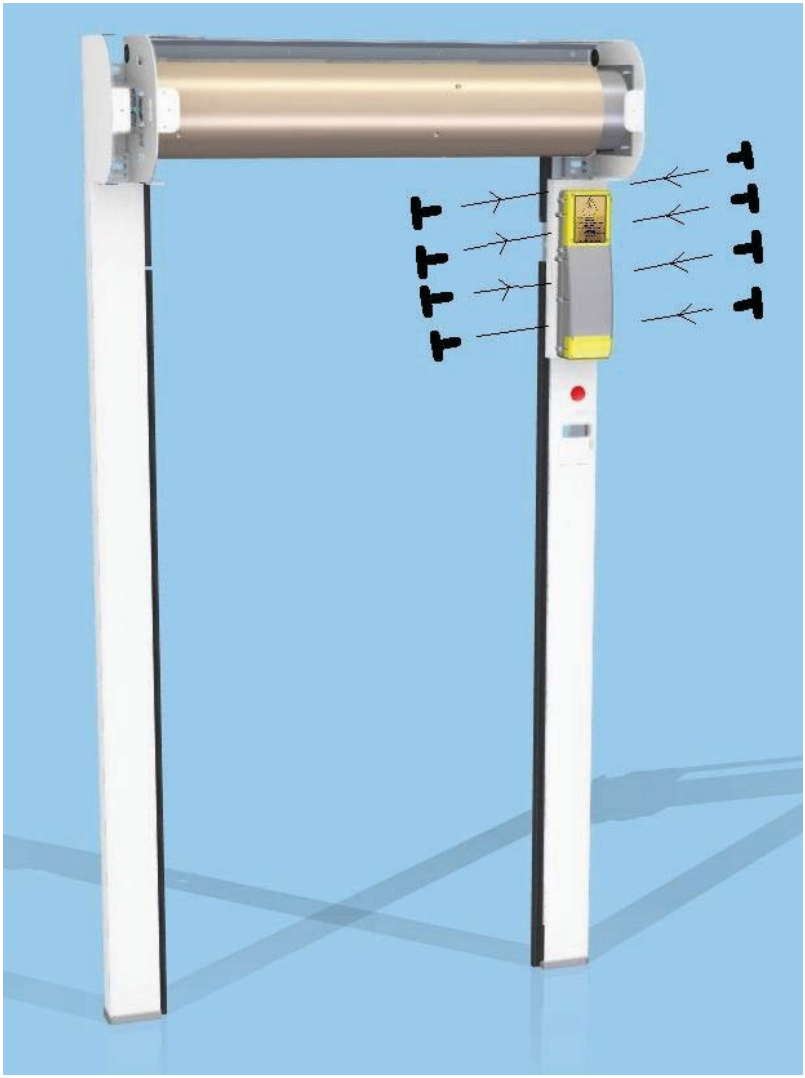
SIDE RIGHT COVER ASSEMBLY:



1 = RH upright cover fixed with schrew ,
2 = Winding shaft
3 – 4 = LH – RH winding shaft support

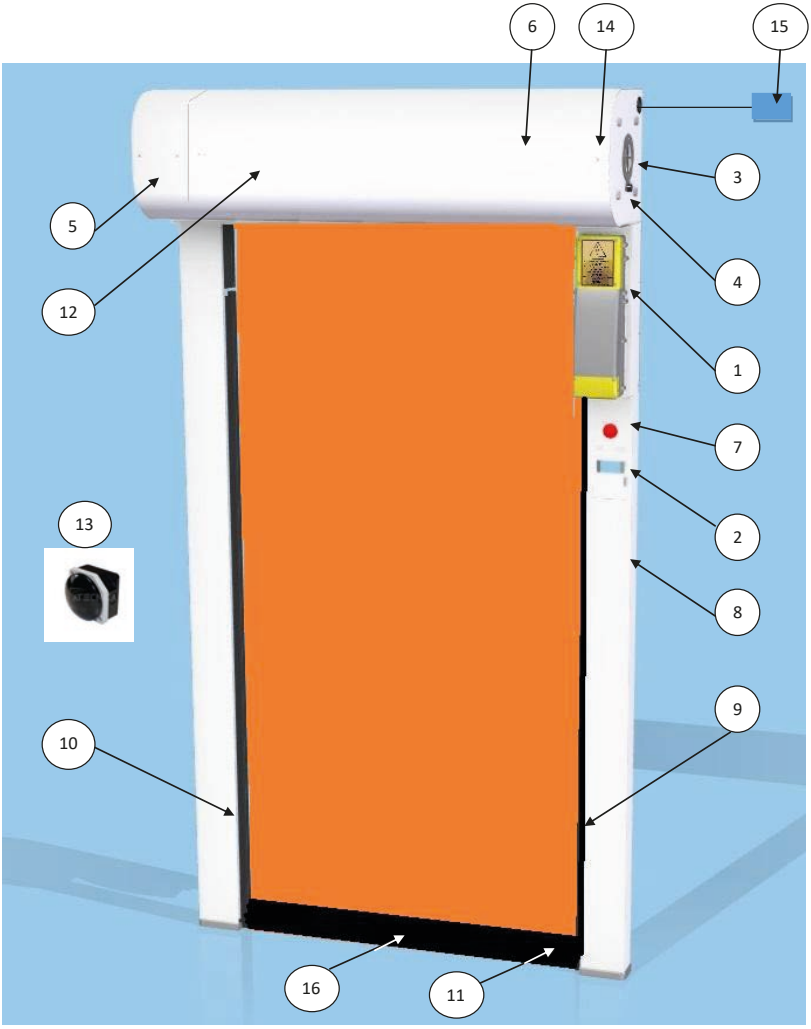
SIDE LEFT COVER ASSEMBLY:

Fixed the main board's base to the rh upright with the left and right screws



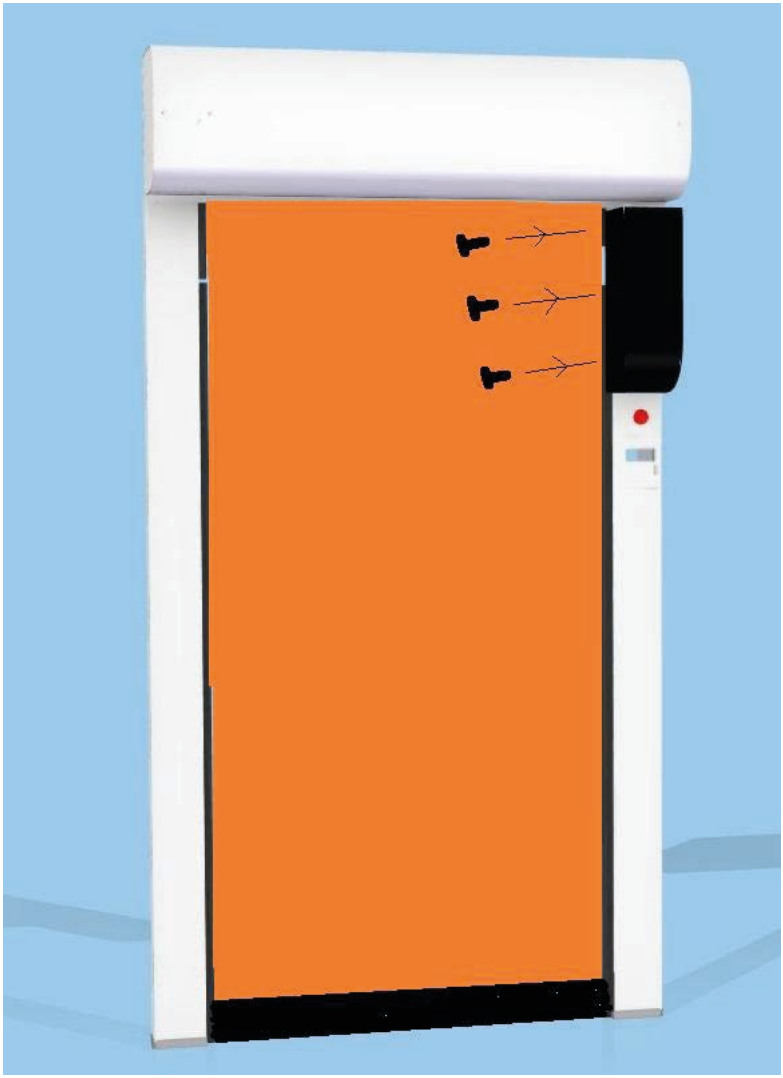
ASSEMBLY OF COVERS: CANOPY AND ENCODER

COMPONENTS POSITION:



1 = Main board
2 = Keypad
3 = Rotating access window for manual operation
4 = Magnet
5 =Encoder position
6 = Motor position
7 = Emergency button
8 = Removable cover
9 – 10 = Photocell TX – RX
11 = Safety edge trasmitter
12 = Canopy cover
13 = Internal button
14 = Safety edge receiver
15 = Electrical plug
16 = Safety dege

FIXING MAIN BOARD COVER WITH SCREWS ON THE INSIDE



3.4 ELECTRICAL CONNECTIONS

3.4.1 Component wiring

Connect:

- The cables of the optical barriers, the one with black plugs to synchronise the barriers, the one with the blue plug for connection to the cable exiting the motor
- The keypad cable with quick connector exiting the motor
- The 2-wire cable L = 5mt to the black opening mushroom (see wiring diagram)
- The 2-wire cable L = 10mt to the pulling cable (see wiring diagram)
- The power plug

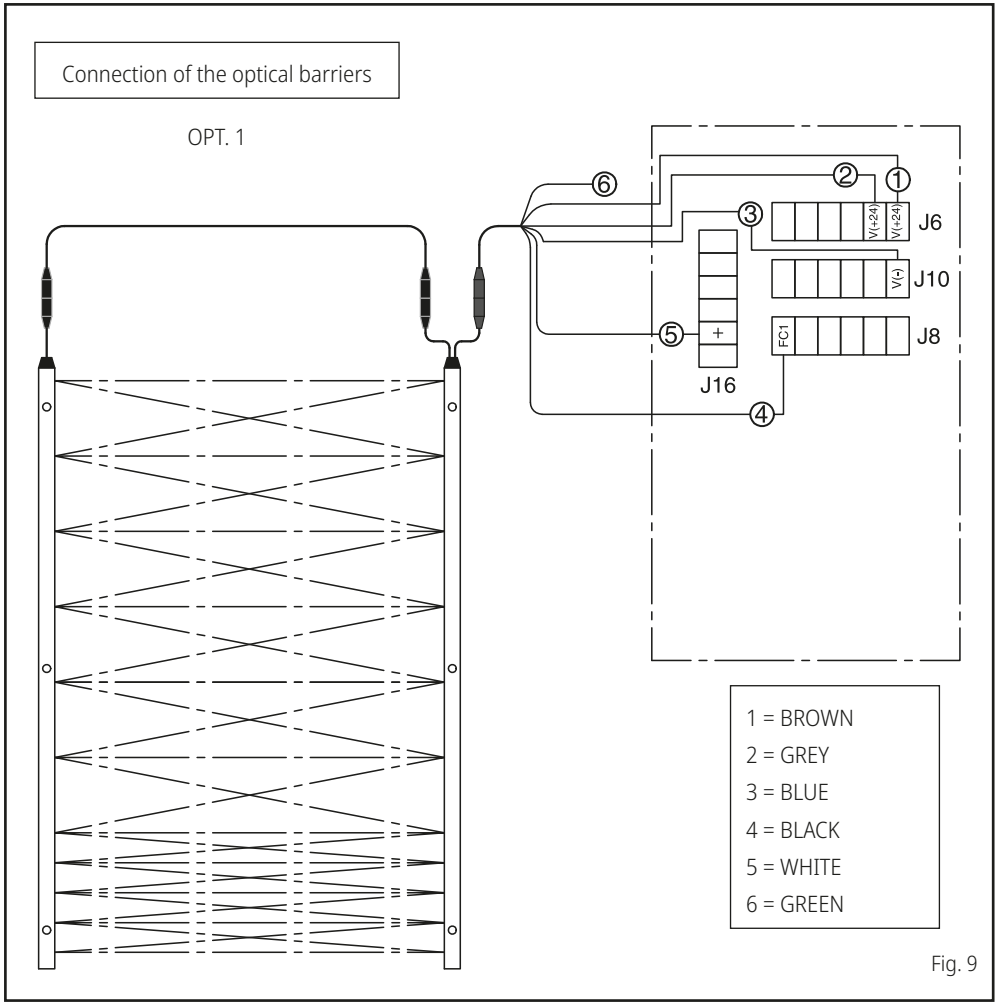
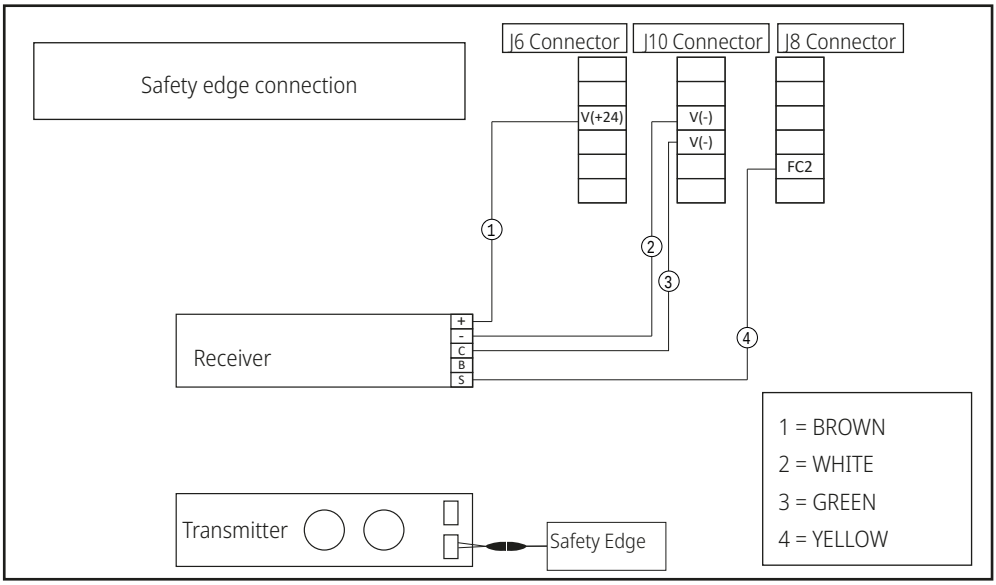
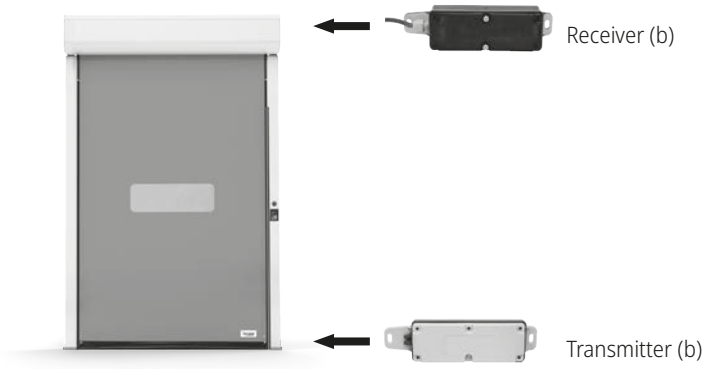


Fig. 9

SAFETY EDGE + PHOTOCELL WIRING OPT. 2

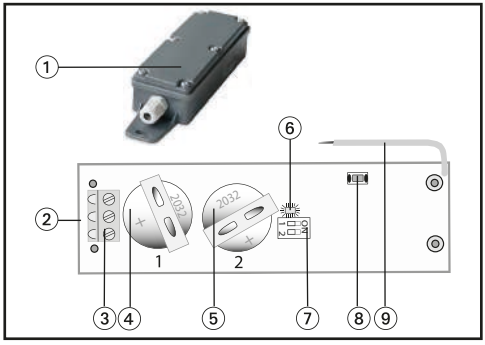


Version with safety edge (before January 2022)



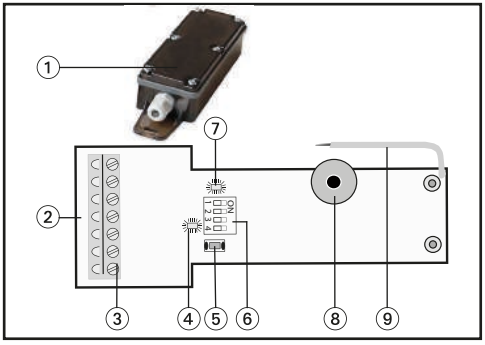
The door has a wireless radio transmission system to bring the signal coming from the safety edge to the main electrical panel. This system consists of a transmitter and a receiver. The transmitter needs to be powered by two supplied batteries (CR2032 type). It is recommended to replace the batteries as part of a scheduled annual maintenance of the door. It is necessary to insert the batteries and memorize the transmitter to make the door work.

Transmitter: is fastened above the movable leaf



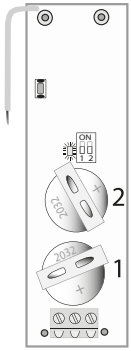
1. Transmitter
2. PCB Transmitter
3. Terminals
4. Battery 1 CR2032
5. Battery 2 CR2032
6. LED (activation)
7. DIP - Switch
8. Push button
9. Antenna

Receiver: is placed in the main electrical panel



1. Receiver
2. PCB Receiver
3. Terminals
4. LED 1 (system readiness)
5. Push button
6. DIP - Switch
7. LED 2 (programming mode)
8. Buzzer
9. Antenna

Insert the batteries in the transmitter placed on the sensitive edge of the leaf of the door, the receiver is placed inside the panel:



1. Remove the PCB from the housing.
2. Insert the anclosed batteries (type CR2032).

Important: Insert battery 1 first and then battery 2. Unless this order is observed, correct function is not guaranteed.

Initialisation:

Notice: The distance between the transmitter and receiver must be at least 1 m. Up to 10 trasmitters can be programmed. Transmitters can be learned in with or without a connected detector / switch. For reason of safety, memory mode is exited automatically 10 seconds after the last key pass.

Programming a transmitter

Enter the memory function:

1. Press the key of the receiver until a signal sounds. LED lights up red fot maximum 10 seconds (display memory readiness output 1). ✳

The transmitter must be activated within these 10 seconds:

2. Press the key of the transmitter until a signal sounds on the receiver.

Other transmitters can now also be programmed by pressing their keys.

Finishing programming: wait 10 seconds until two signals sound.

Reset: delete transmitter programming

Enter the memory function:

1. Press the key of the receiver until a long signal sounds.

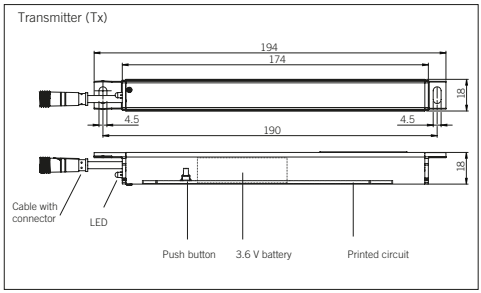
Signal sequence: 

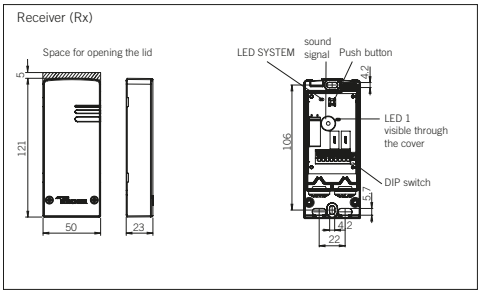
The transmitter memory is now deleted. After 10 seconds, two segnals sound and memory mode is exited automatically.

ATTENTION: REPLACING THE BATTERY ONCE A YEAR IS RECOMMENDED.

Version with safety edge (from January 2022)

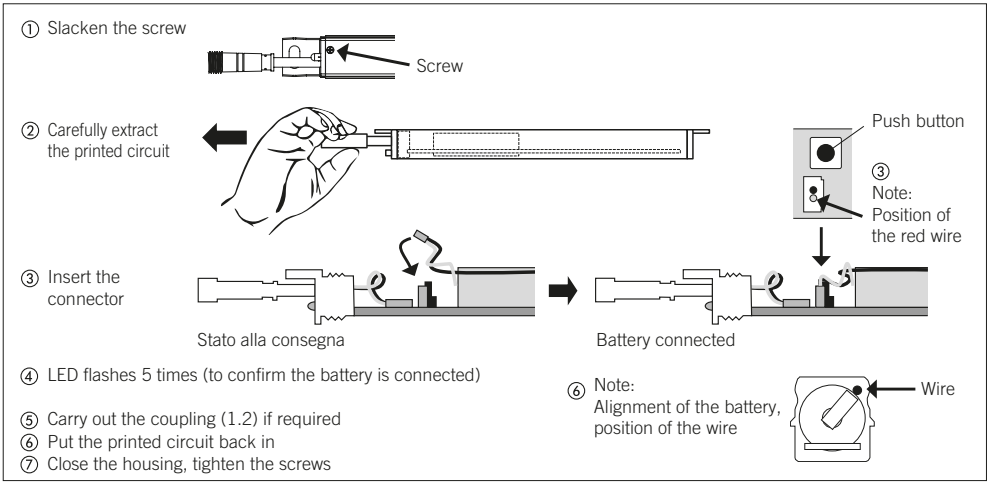
Note: Always check the status of the safety devices shown by the LED light on the receiver.





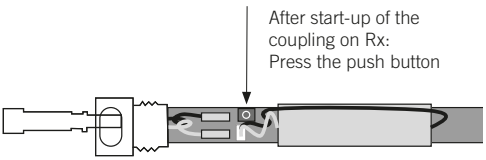
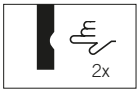
1. Transmitter configuration

- **Connect the battery**



- **Coupling**

Coupling is possible with the transmitter open or even after assembly.

a) Coupling with the cover open	b) Coupling after assembly
	After start-up of the coupling on Rx: By pressing the profile twice within 2 seconds 

- **System check (compulsory after every setting)**

Check the system by pressing the **safety profile**

The LED flashes when the sensor is activated (by pressing the sensitive edge) and flashes again when it is released. Does the door stop when the sensitive edge is activated?

- **Replacing the batteries**

① Order a new battery (with pre-assembled connector)!
② Extract the printed circuit
③ Disconnect the connector and remove the battery
④ Put the new battery in, insert the connector
⑤ Insert the printed circuit
⑥ Close the cover
⑦ Compulsory system test!
⑧ Dispose of the battery in accordance with the local provisions

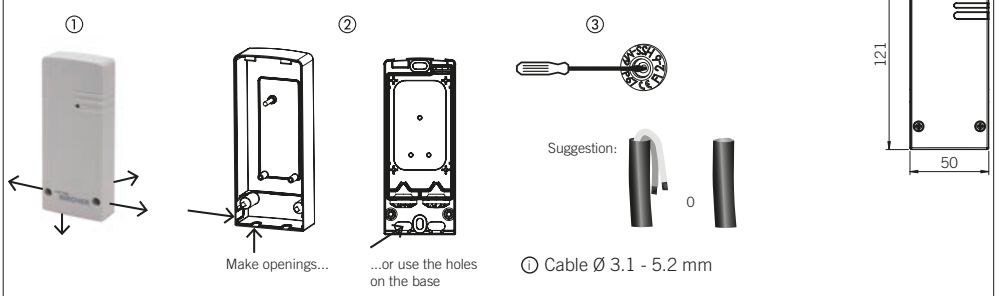
2. Receiver configuration

- **Assembly**

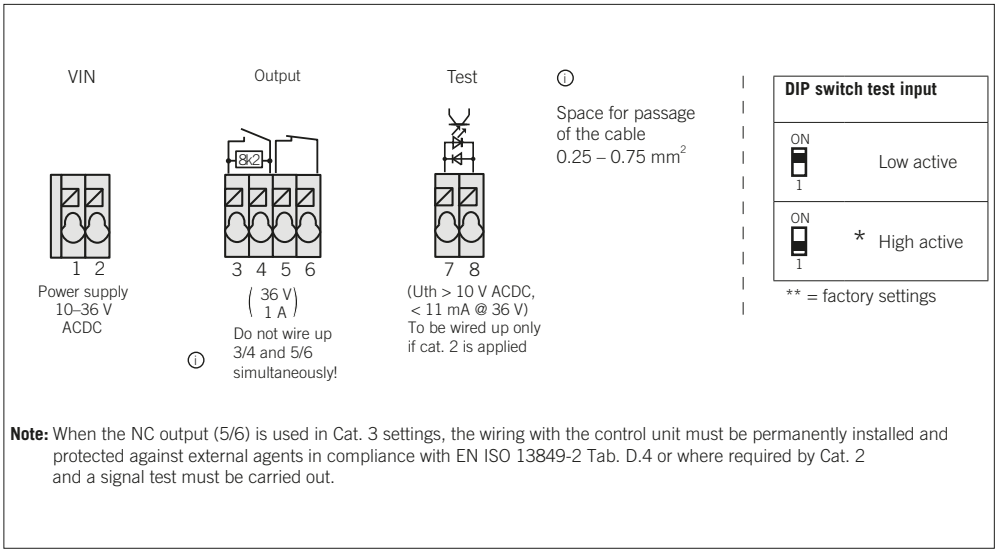
Cable path, traction discharge

① Set a cable path
② If necessary, make an opening in the respective part of the cover
③ Make a hole in the washer
④ Insert the cable

Space for opening the lid

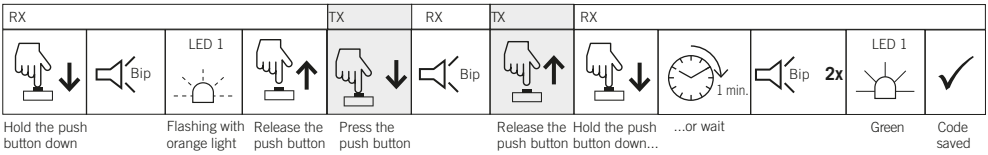


- **Wiring**

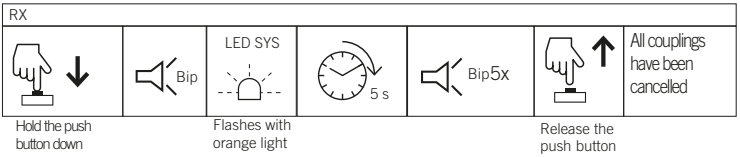


Note: When the NC output (5/6) is used in Cat. 3 settings, the wiring with the control unit must be permanently installed and protected against external agents in compliance with EN ISO 13849-2 Tab. D.4 or where required by Cat. 2 and a signal test must be carried out.

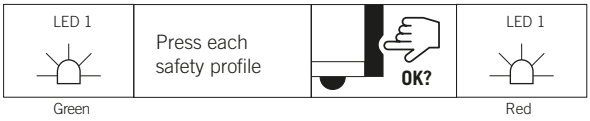
- **Coupling the transmitter with the receiver**



- **Cancelling couplings**



- **System test, compulsory after every set-up!**



Does the door stop when the sensitive edge is activated?

- **LED output status**

	SYSTEM LED	LED 1	Output 1 3-4	Output 1 5-6	Bip
No power supply	-	-	closed	open	
System ready, no sensor pressed	green	green	8k2	closed	
Sensor pressed (edge of main closure)	orange	red	closed	open	
Small pedestrian door open (XRF - TW)	orange	red	closed	open	
Configuration (coupling)	orange flashing	orange flashing	closed	open	if activated
Configuration mode, full memory	orange flashing	orange flashing	closed	open	10x
Low battery	green	green	8k2	closed	3x every min.
Active input test	green	red	closed	open	
Error a = cable damaged between the sensitive edge and input, resistor out of capacity b = Tx lost or flat battery c = system error	a = red b = red c = red	red	closed	open	

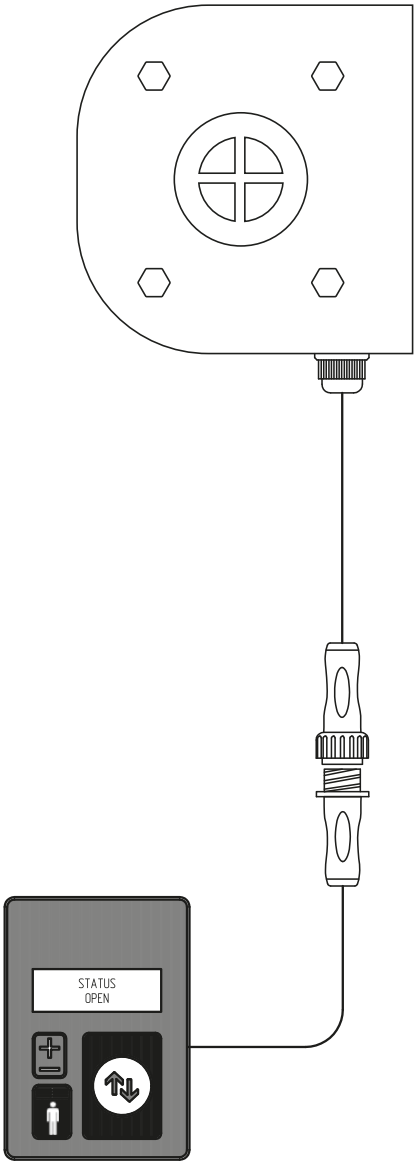
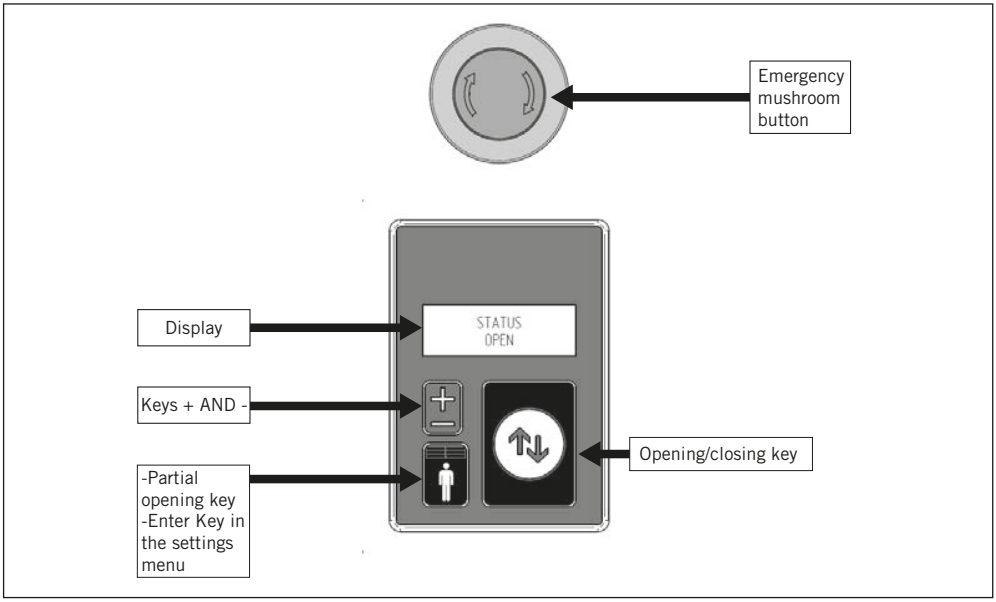


Fig. 10

3.4.2 Control keypad



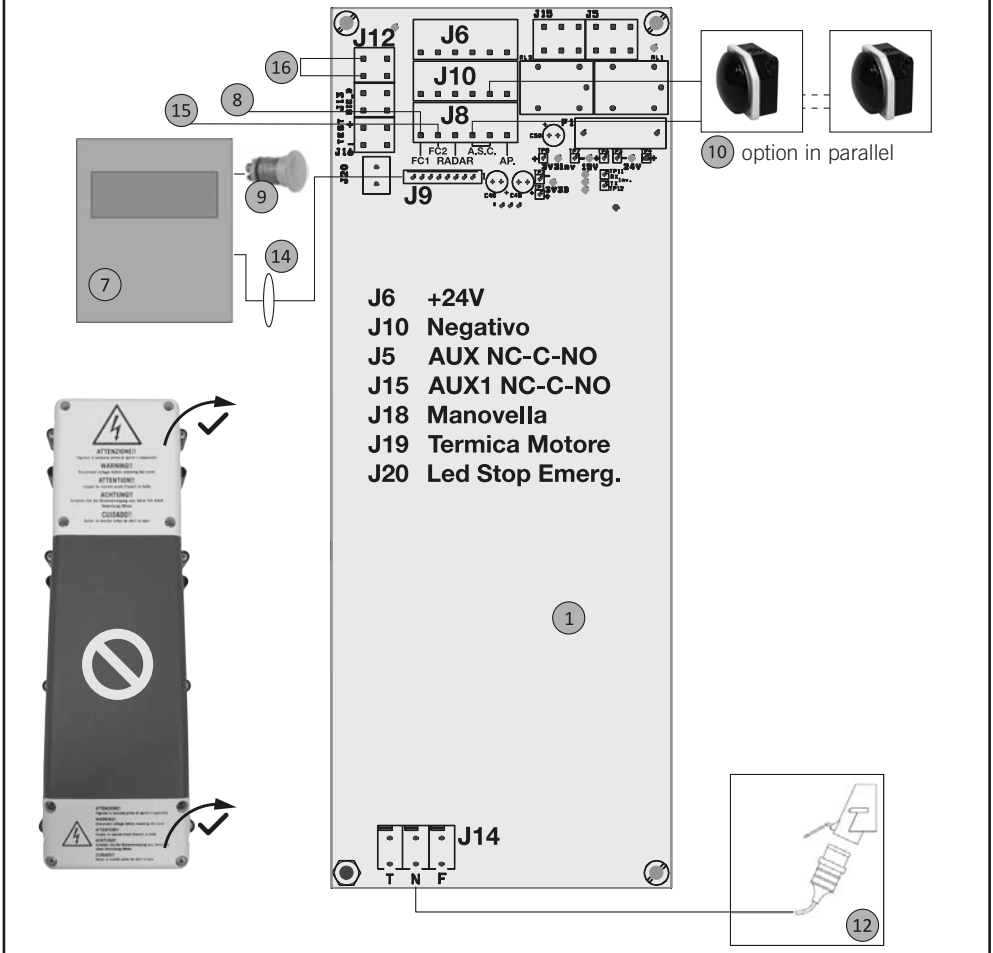
3.4.3 Alarms management

Connect:
During the normal operating and calibration phases of the door travel, a check is performed on any alarms that may occur and an alarm appears if an error is detected.
If an alarm is present, it can be reset by holding the key – and entering the password 3333. There are 3 attempts to correctly enter the alarm reset password and a 60" timeout for keypad inactivity.
If the same alarm occurs again, contact the Incold technical assistance office.

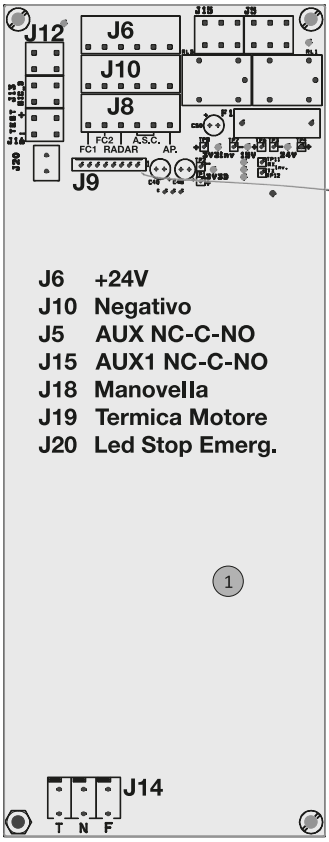
- Alarm 01: inverter overcharge.
- Alarm 02: inverter short-circuit.
- Alarm 03: too high continuous inverter voltage.
- Alarm 04: too low continuous inverter voltage.
- Alarm 05: motor overcharge.
- Alarm 06: motor thermal issue.
- Alarm 07: encode chain ("crank stop" is displayed).
- Alarm 08: inverter driver temperature.
- Alarm 09: PFC not started.
- Alarm 11: failed photocell 1 test.
- Alarm 12: failed photocell 2 test.
- Alarm 17: communication with the inverter.
- Alarm 18: roll-up opening/closing timeout.
- Alarm 19: roll-up calibration data error (loss of data saved in the memory).
- Alarm 20: roll-up position data error (roll-up position not coherent with the calibration data).
- FTC - "RADAR": Damaged photocell or safety edge

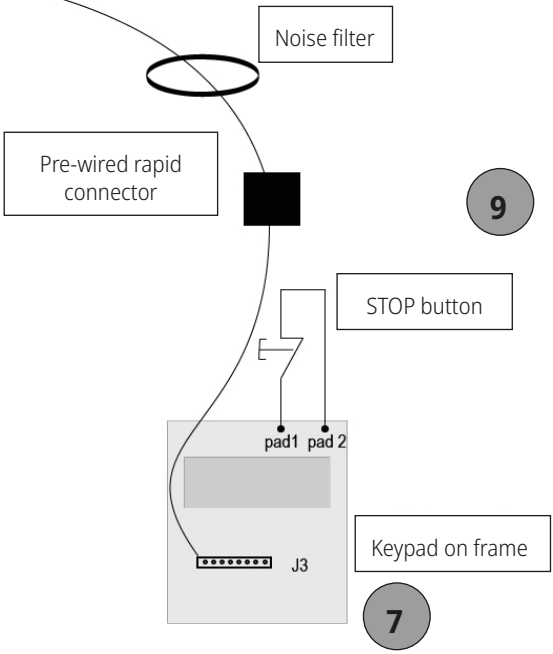
3.4.4 Wiring diagrams

Topographic diagram

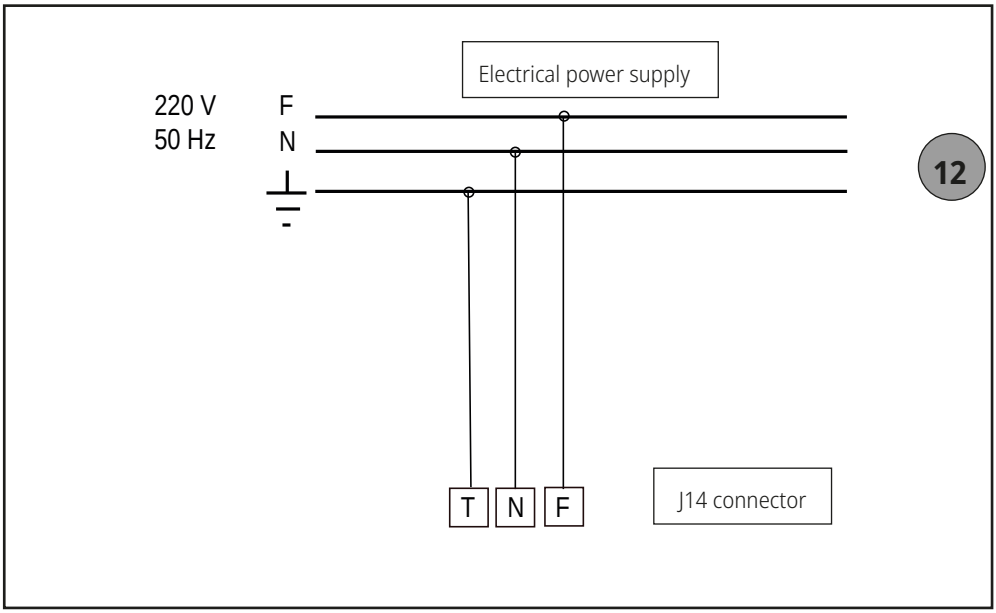


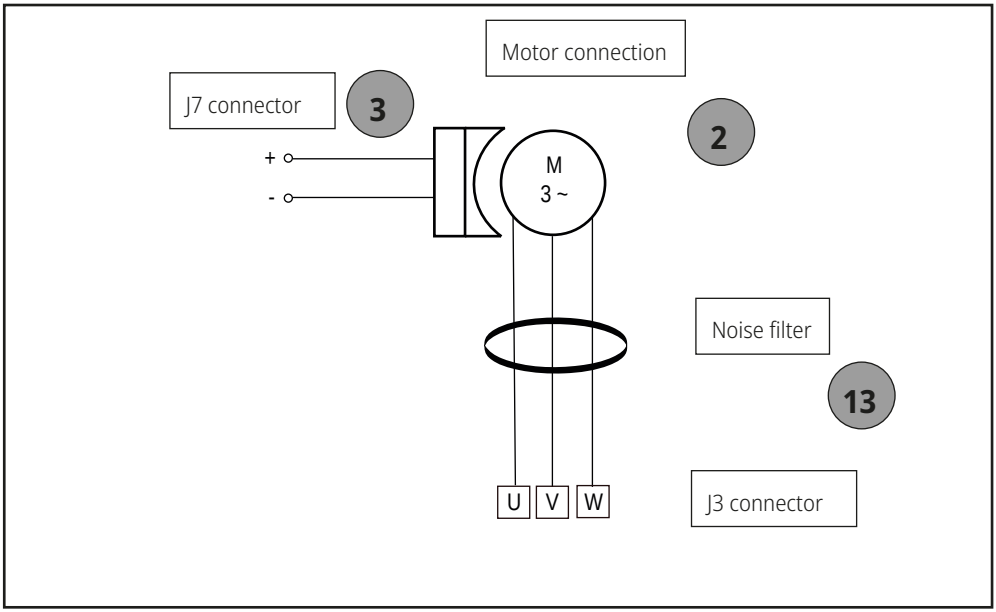
1. Main electronic diagram	9. Emergency button
2. Electric motor*	10. Interior opening button
3. Motor brake*	11. Braking resistance*
4. Thermal protection device*	12. Power plug
5. Handle insertion protection*	13. Noise filter*
6. Absolute encoder*	14. Noise filter
7. Control keypad	15. TX - RX photocells
8. Safety edge	*Parts that cannot be reached by the user


J12
J6
J10
J8
FC2
A.S.C.
FC1 RADAR
AP.
J9
J6 +24V
J10 Negativo
J5 AUX NC-C-NO
J15 AUX1 NC-C-NO
J18 Manovella
J19 Termica Motore
J20 Led Stop Emerg.
1
J14
T N F


Noise filter
Pre-wired rapid connector
9
STOP button
pad1 pad 2
J3
Keypad on frame
7

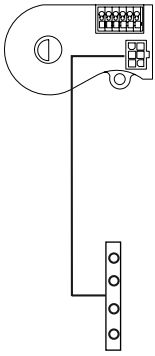
Control devices





Encoder connection

6



J11 connector

Handle contact

J18 connector

5

Motor circuit breaker contact

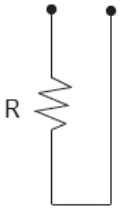
4

J19 connector

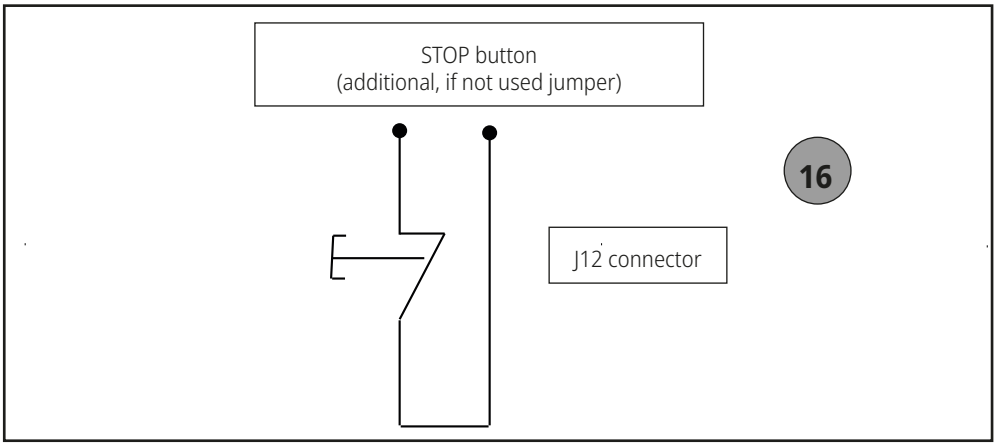
Braking resistance

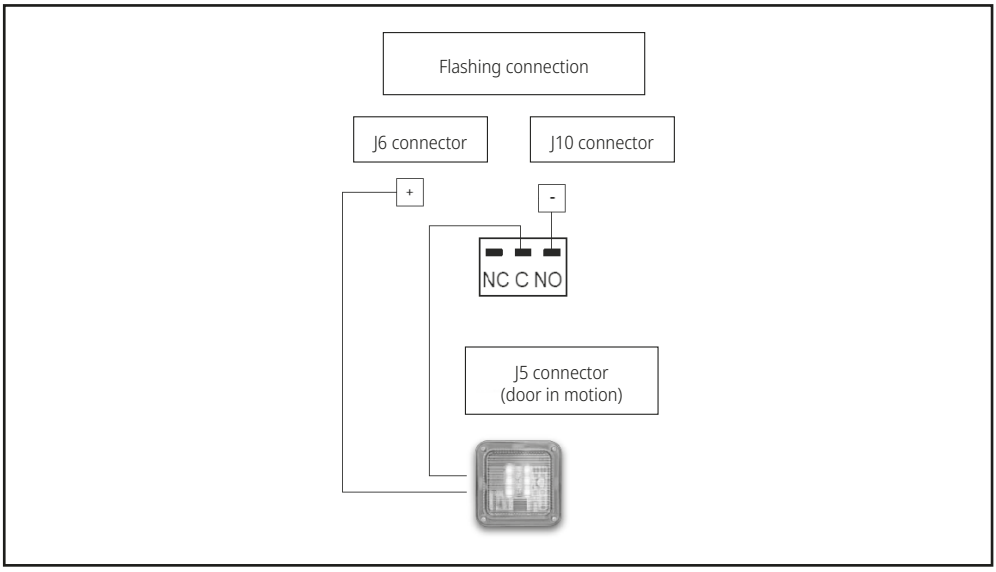
11

J7 connector

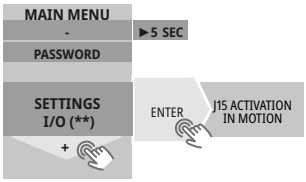


Safety devices

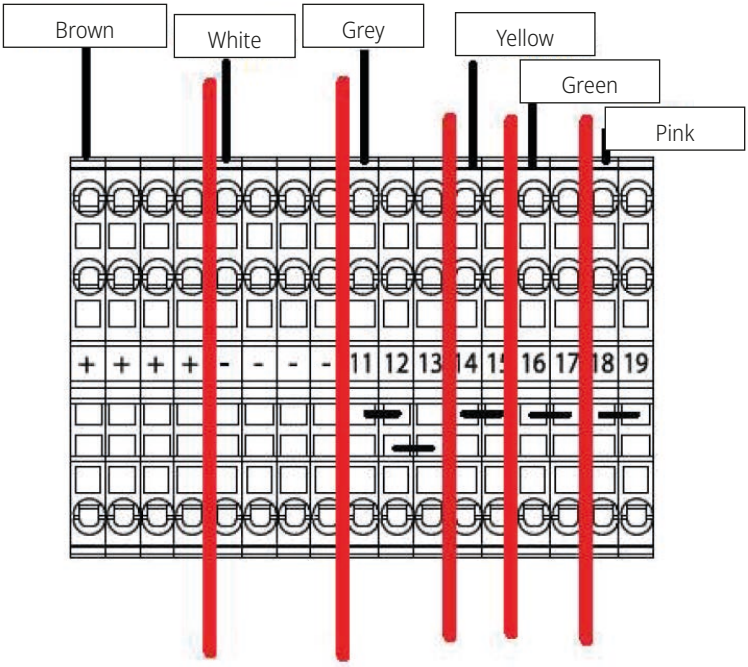


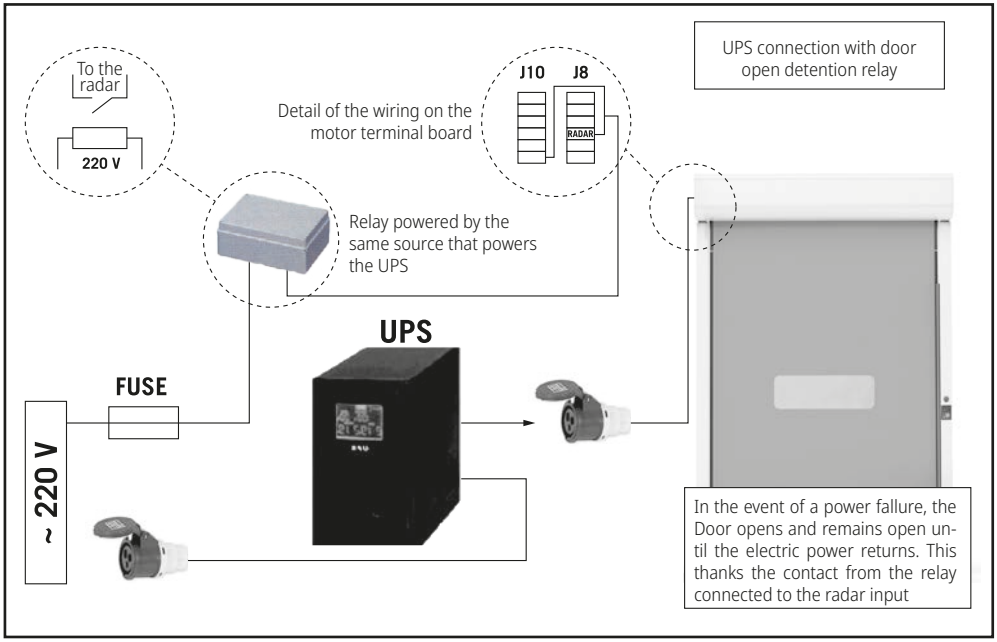


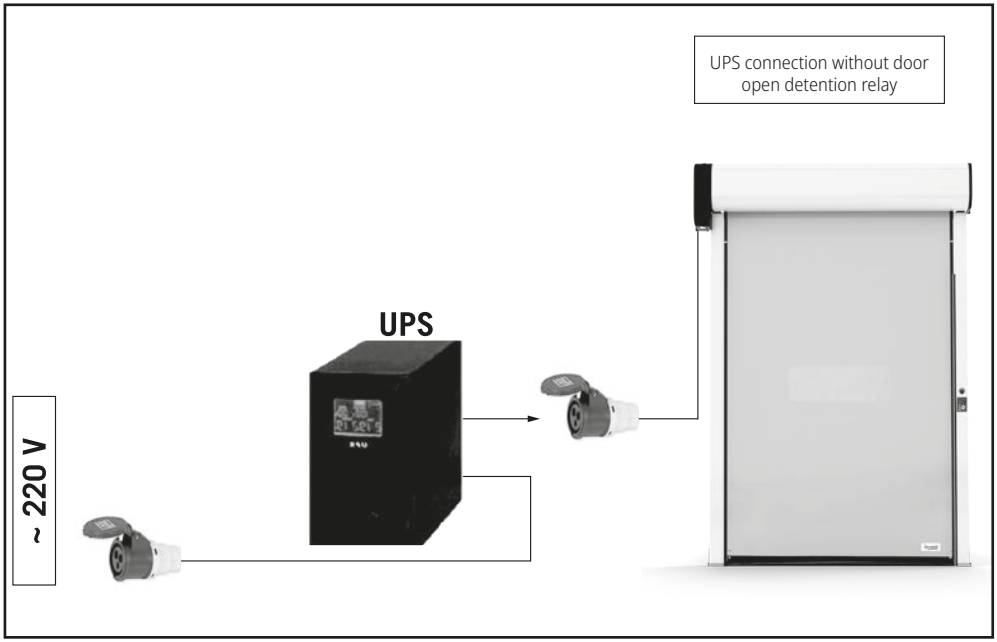
Set the operation of J5 in motion through:



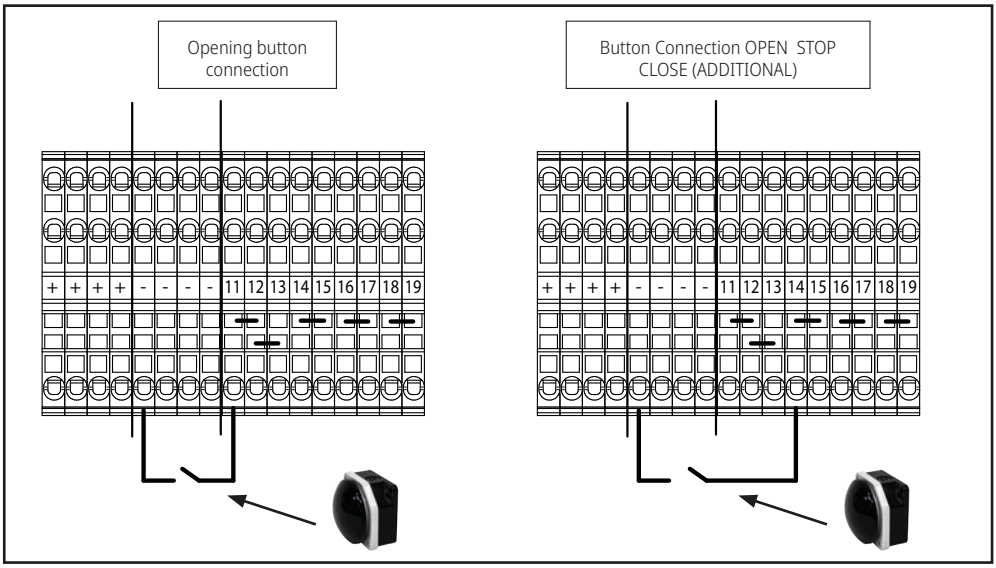
Junction box with flashing



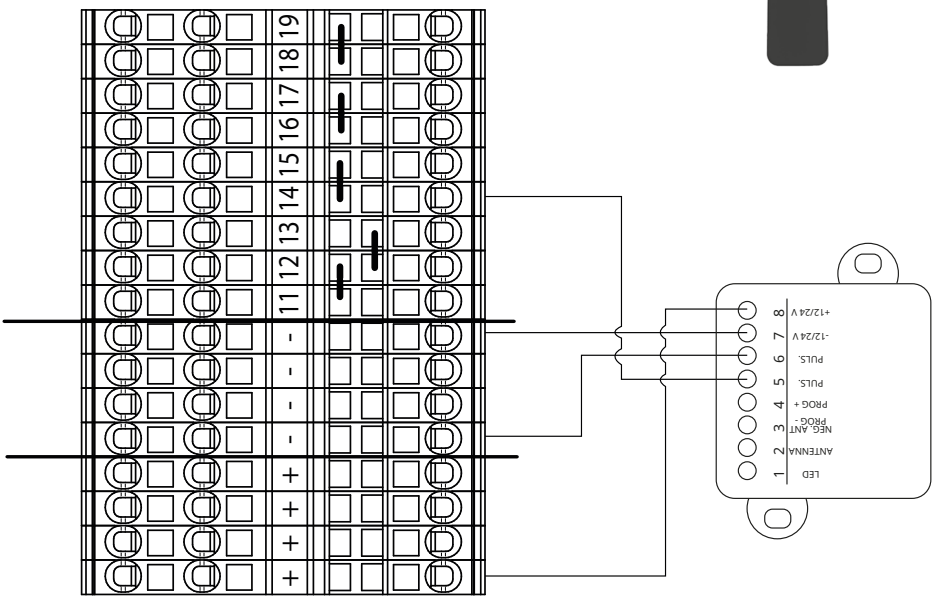

UPS connection with door open detention relay
To the radar
220 V
Detail of the wiring on the motor terminal board
J10
J8
RADAR
Relay powered by the same source that powers the UPS
UPS
FUSE
~ 220 V
In the event of a power fallure, the Door opens and remains open until the electric power returns. This thanks the contact from the relay connected to the radar input

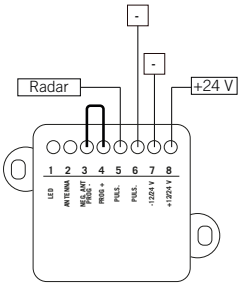

UPS connection without door open detention relay
UPS
~ 220 V

Opening devices



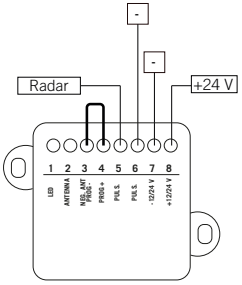
Radio remote control connection





Programming procedure:

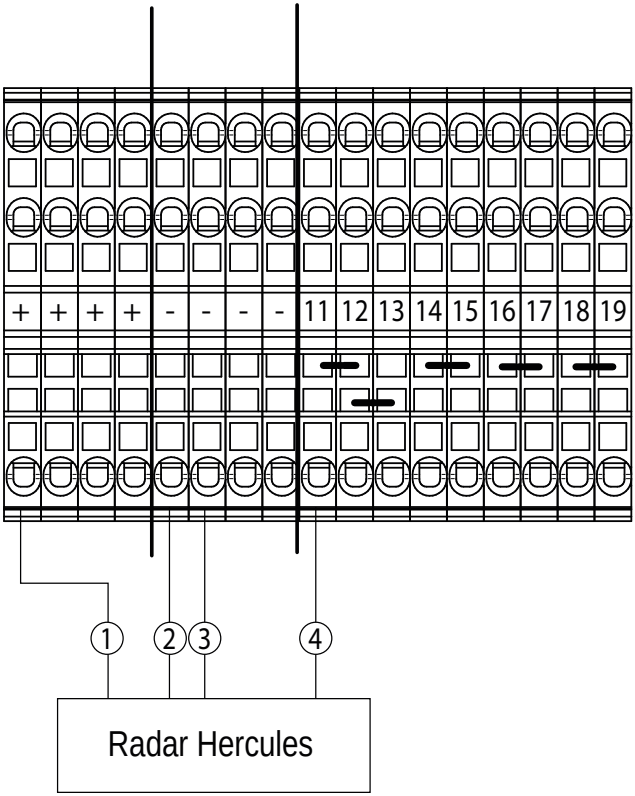
- The LED flashes on start-up and then goes out
- As soon as inputs 3 and 4, which are dedicated to programming, are jumped, the LED emits single flashes for 20 seconds
- Press a key on the remote control within the 20 second interval to associate it
- It stays lit for 3 seconds, as receiver feedback
- Disconnect the jumper from the receiver



Reset procedure for all remote controls:

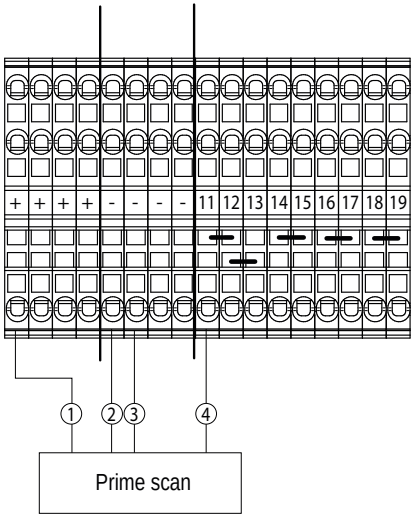
- Power the receiver with 12V/24V
- The LED flashes and then goes off
- Bridge inputs 3 and 4, dedicated to programming, the LED emits single flashes for a duration of 20 seconds
- At the end of 20 seconds, the LED emits longer flashes for a further 90 seconds, indicating an alert situation
- It is no longer possible to programme a remote control at this time
- At the end of 90 seconds the memory is reset
- All memorised remote controls have been deleted
- The LED flashes 4 times repeatedly until the bridge is removed
- If the bridge is put back on, the programming procedure starts again, starting from 20 seconds

Hercules 2E radar connection



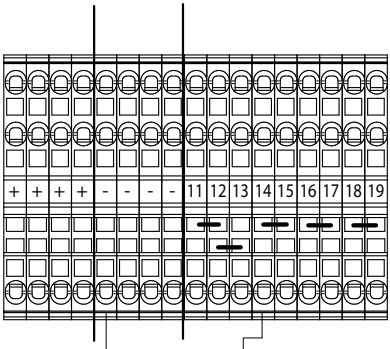
1 = BROWN
2 = WHITE
3 = YELLOW
4 = GREEN

Connection of the
Prime scan



1 = BROWN
2 = WHITE
3 = GREEN
4 = YELLOW

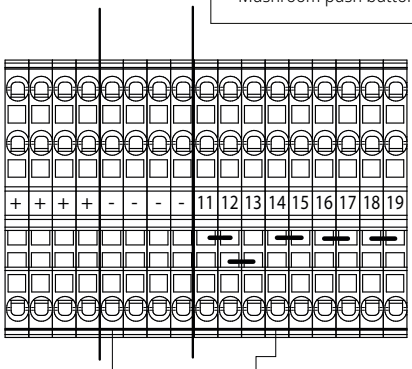
Cable switch connection



Note:
If connected to Open-stop-close, with each pulse the gate performs one of the operations in sequence.

If connected to Radar, with each switch pulse the door only opens. Reclosing can only take place automatically after elapse of the time set for re-closing.

Mushroom push button connection

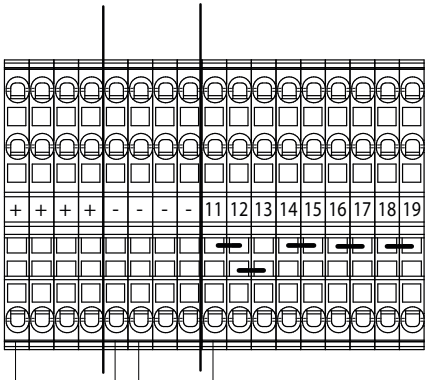


Mushroom push button

Note:
If connected to Open-stop-close, with each pulse the gate performs one of the operations in sequence.

If connected to Radar, with each switch pulse the door only opens. Reclosing can only take place automatically after elapse of the time set for re-closing.

Infrared touchless sensor connection



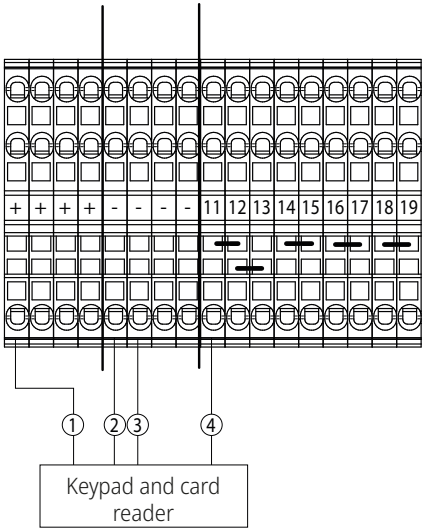
Infrared touchless sensor

1 = RED
2 = WHITE
3 = GREEN
4 = BLUE

Note:
If connected to Open-stop-close, with each pulse the gate performs one of the operations in sequence.

If connected to Radar, with each switch pulse the door only opens. Reclosing can only take place automatically after elapse of the time set for re-closing.

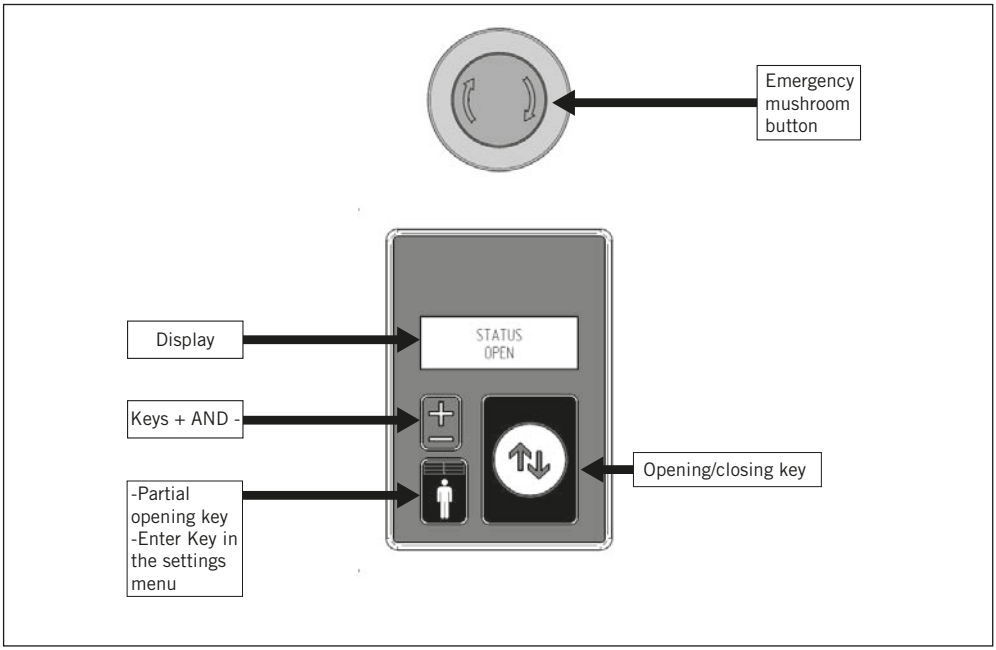
Keypad and card reader



1 = RED
2 = BLACK
3 = YELLOW
4 = WHITE

Programming flowchart:
Enter: 000
Enter: B (1small beep + 1 long Beep+Yellow led on : if is correct)
Enter: 0
Enter: 001
Enter: 123 (or your password)
Enter: A (wait 2 second)
Enter: B
The led yellow is off END.

Keyboard integrate in the upright



• **Key +:**
- from the main screen, with a long press, access the user settings menu
- in a menu without settable parameters, select the next item
- in a menu with a settable parameter, increase the value

• **Key -:**
- from the main screen, with a long press, access the password menu for supervisor settings or reset the alarms
- in a menu without settable parameters, select the previous item
- in a menu with a settable parameter, decrease the value

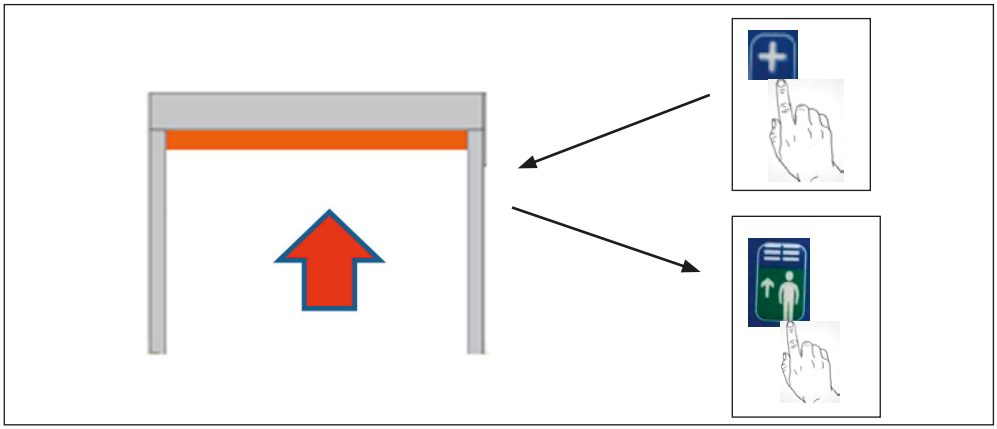
• **Partial opening key:**
- partially open the roll-up, if closed; with the door partially opened, the rollup is completely opened; close the roll-up is partially opened
- in a menu with settable parameter, save the value of the parameter and select the next item

• **Opening/closing key:**
starts the opening or closure of the roll-up or blocks the movement, if active; once the active movement is blocked, the roll-up is pending a next start-up control and, in the meantime, the automatic closure (if set up) is prohibited.

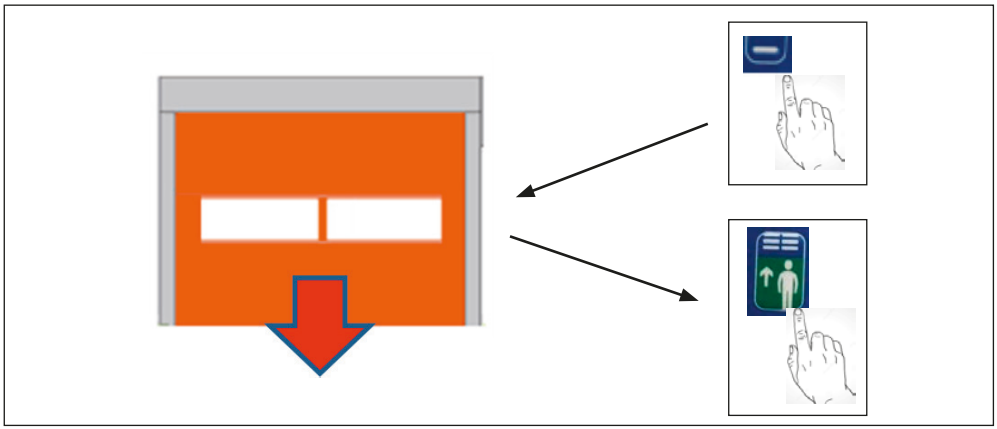
3.4.5 First start-up

Upon the first start-up, the display language of the messages is requested, to be changed using the keys +, - and confirm using the partially opening key. Once confirmed, the password screen appears for accessing the initial calibration menu. In order to set the password, change the unique digit using the keys +, - and confirm it using the partially opening key. The calibration menu password is 1234.
As long as the initial calibration is not completed, upon each next start-up, the menu for setting the language and then the password for initial calibration will reappear. Moreover, it is not possible to navigate outside this screens.

The menu is composed of the following items, in this order:
• **Opening position**: it is used to store the position with the roll-up completely opened. The displayed parameter is the current position of the motor encoder. Move the roll-up until completely opened using the keys +, - and save the position using the partial opening key.



• **Closing position:** it is used to store the position with the roll-up completely closed. The displayed parameter is the current position of the motor encoder. Move the roll-up until completely closed using the keys +, - and save the position using the partial opening key.



At the end of the procedure, the complete calibration message is shown and the display goes to the operation screen. Upon the next start-ups, the display will go directly to the operation screen skipping the calibration screen.

The manual movement of the roll-up during calibration (and in manual mode, please see below) will be blocked near the full scale of the encoder, so as to avoid calibrations at values out of scale which might cause the roll-up to function abnormally. Hereinafter, we present the operation areas related to the value of the encoder:

• **Free movement area (encoder between 250 and 7942 points):** the movement of the roll-up is free in both directions.

• **One direction inhibition area (encoder between 100 and 250 points or between 7942 and 8092 points):** the movement in the direction that caused the exceeding of limits is blocked. Therefore, if, for example,
by pressing the key + , the value of 7942 points is exceeded, this key no longer causes movement, while the key - causes a movement which will decrease the value of the encoder.

• **Total inhibition area (encoder between 0 and 100 points or between 8092 and 8192 points):** the movement of the encoder is completely blocked. The situation is reported on the display with the blinking message "manually unlock". In this case, it will be necessary to mechanically move the roll-up after releasing the brake.
In order to simplify any setting of the partial opening and minimum opening parameters to enable the photocell (only roll-up), upon the calibration, it is recommended to write down the values of the encoder corresponding to the desired positions.

Operating screen

Normally, the status of the roll-up which can undertake one of the following positions is displayed:
• open
• close
• partially opened

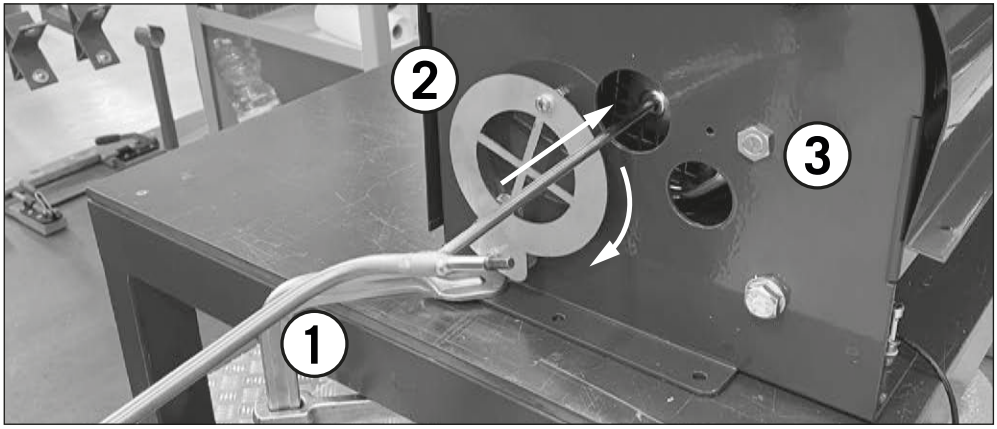
Instead, during the movement, the new position will be displayed:
• opening
• closing
• partial opening

In order to move the roll-up:
• **Opening/closing key:** starts the opening or closure of the roll-up or blocks the movement, if active; once the active movement is blocked, the roll-up is pending a next start-up control and, in the meantime, the automatic closure (if set up) is prohibited
• **Partial opening key:** partially open the roll-up, if closed; with the door partially opened, the roll-up is completely opened; close the roll-up is partially opened
N.B : if the roll-up movement is stopped before the position is reached with the open / close key, upon the next pressing, the movement will always be in open mode. If the emergency button is pressed, the message "emergency stop" is displayed. If the movement is blocked with the manual stop, the message "manual stop" is displayed.
Moreover, from this screen, the following actions are possible:
• **Key + long press:** access the user settings menu

Operation with emergency hand crank

During maintenance works or in the case of an electrical fault, the door can be moved towards the OPEN or CLOSED positions with the help of the emergency operation equipment.

WARNING:
- Emergency operation must only be carried out from a safe standing position
- Emergency operation must only be carried out when the motor is stationary.
- The system must be disconnected from the power supply during emergency operation



1 - Crank handle for manual operation	3 - Automation lock sensor if crank is engaged
2 - Protection grid	

- Rotate the protective grille.
- Insert the crank until a click is heard.
- Turn crank in OPEN or CLOSE direction.
- Pull out the crank once the emergency operation is complete. The control voltage is reactivated and the door can be operated electrically.

3.4.6 Instructions for using the panel

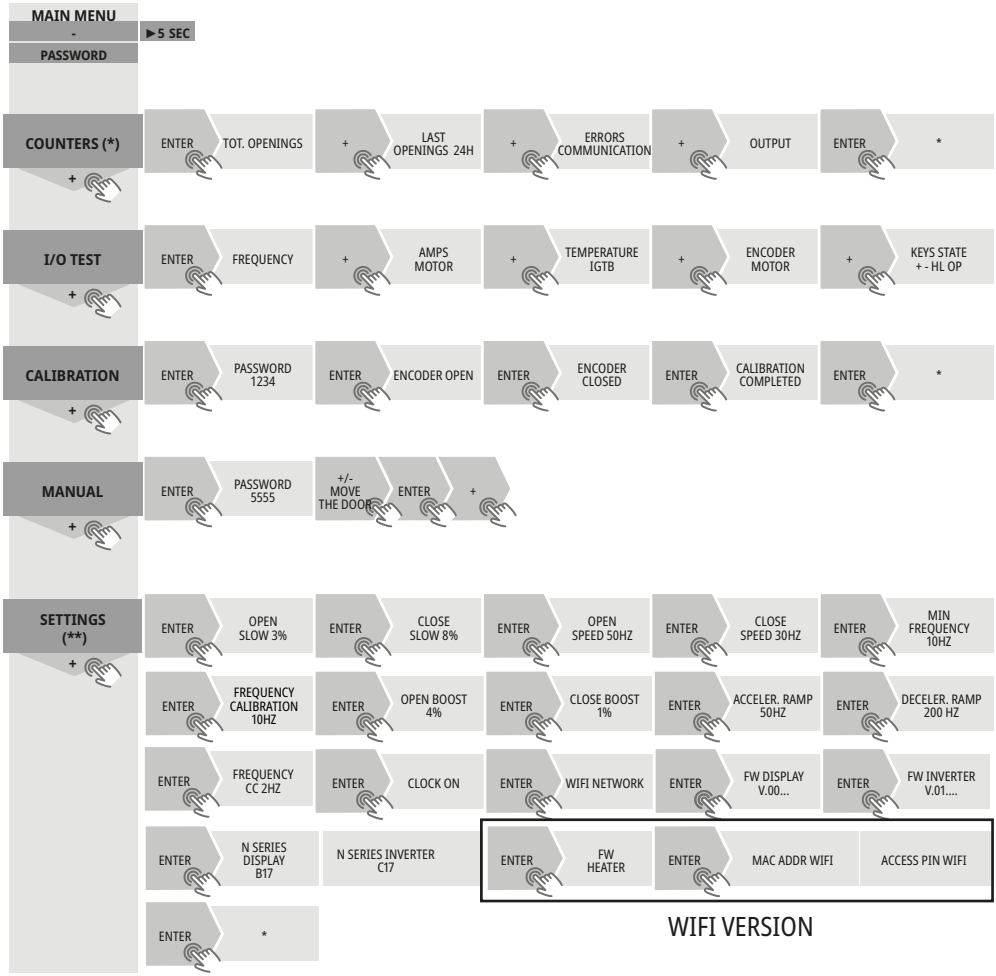
FROM FW DISPLAY 22
FROM FW INVERTER 1.10

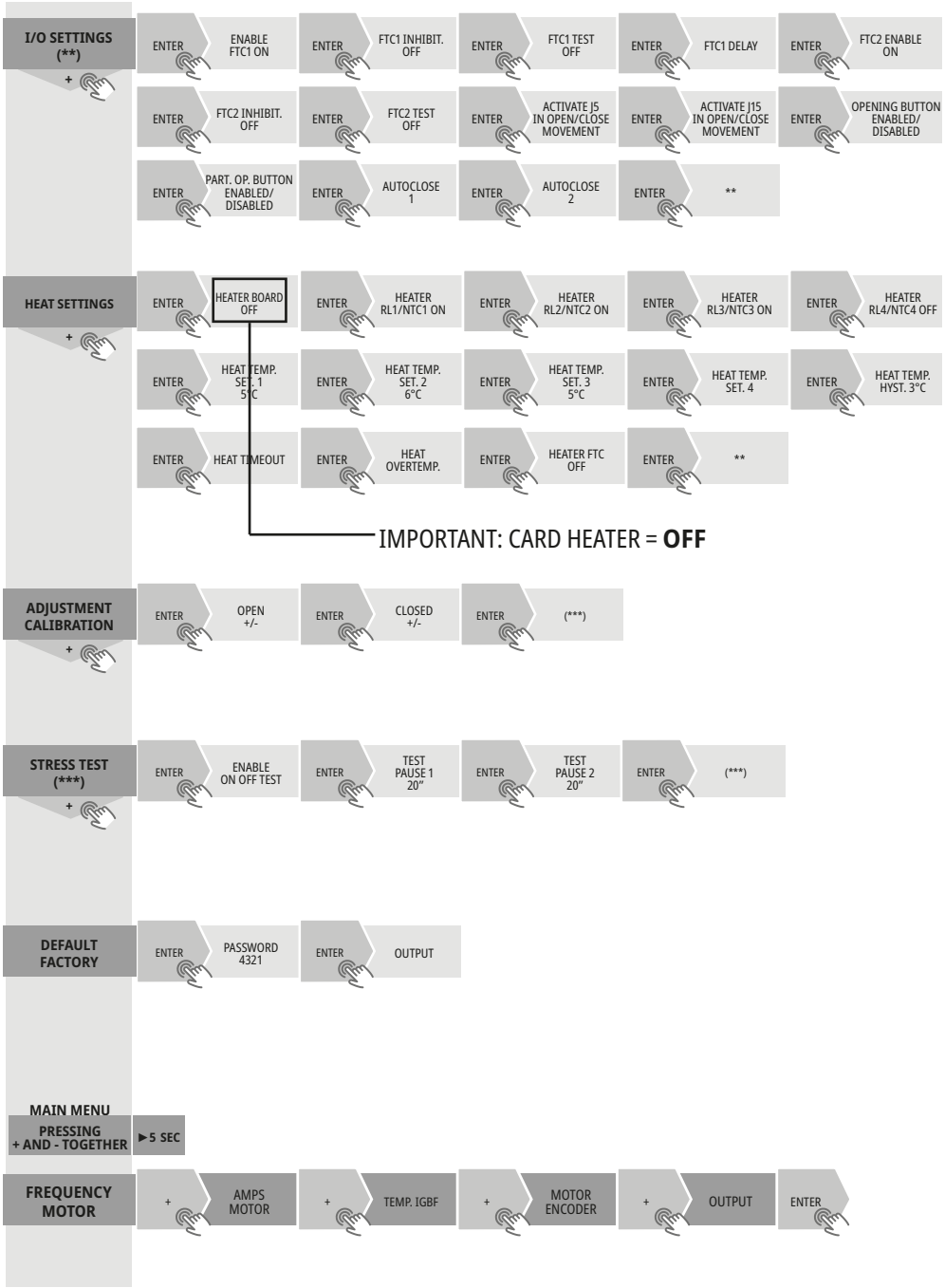
USER INSTRUCTIONS OF THE INTEGRATED PANEL

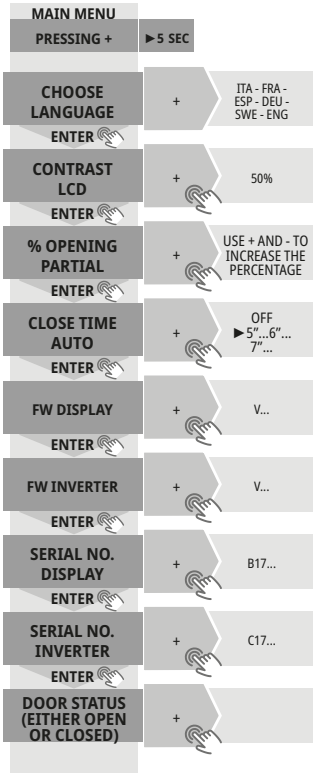
To scroll through the MAIN MENU items, press the + button
To enter the MAIN MENU items, press the ENTER button
To return to the main menu, press the ENTER key.


BUTTON ENTER


BUTTON +
BUTTON -



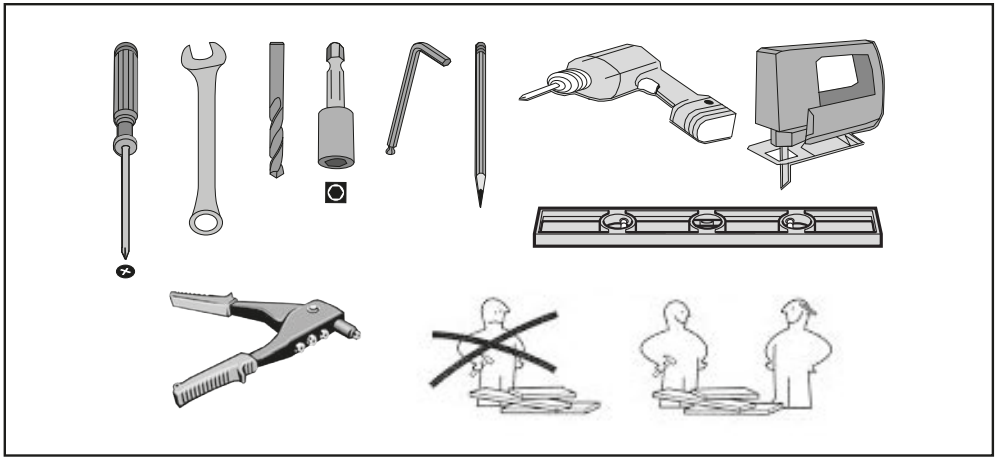

I/O SETTINGS (**)
+
ENTER
ENABLE FTC1 ON
ENTER
FTC1 INHIBIT. OFF
ENTER
FTC1 TEST OFF
ENTER
FTC1 DELAY
ENTER
FTC2 ENABLE ON
ENTER
FTC2 INHIBIT. OFF
ENTER
FTC2 TEST OFF
ENTER
ACTIVATE J5 IN OPEN/CLOSE MOVEMENT
ENTER
ACTIVATE J15 IN OPEN/CLOSE MOVEMENT
ENTER
OPENING BUTTON ENABLED/ DISABLED
ENTER
PART. OP. BUTTON ENABLED/ DISABLED
ENTER
AUTOCLOSE 1
ENTER
AUTOCLOSE 2
ENTER
**
HEAT SETTINGS
+
ENTER
HEATER BOARD OFF
ENTER
HEATER RL1/NTC1 ON
ENTER
HEATER RL2/NTC2 ON
ENTER
HEATER RL3/NTC3 ON
ENTER
HEATER RL4/NTC4 OFF
ENTER
HEAT TEMP. SET. 1 5°C
ENTER
HEAT TEMP. SET. 2 6°C
ENTER
HEAT TEMP. SET. 3 5°C
ENTER
HEAT TEMP. SET. 4
ENTER
HEAT TEMP. HYST. 3°C
ENTER
HEAT TIMEOUT
ENTER
HEAT OVERTEMP.
ENTER
HEATER FTC OFF
ENTER
**
IMPORTANT: CARD HEATER = OFF
ADJUSTMENT CALIBRATION
+
ENTER
OPEN +/-
ENTER
CLOSED +/-
ENTER
(***)
STRESS TEST (***)
+
ENTER
ENABLE ON OFF TEST
ENTER
TEST PAUSE 1 20"
ENTER
TEST PAUSE 2 20"
ENTER
(***)
DEFAULT FACTORY
ENTER
PASSWORD 4321
ENTER
OUTPUT
MAIN MENU
PRESSING + AND - TOGETHER
►5 SEC
FREQUENCY MOTOR
+
AMPS MOTOR
+
TEMP. IGBF
+
MOTOR ENCODER
+
OUTPUT
ENTER



DISPLAYS WHEN THE DOOR IS NORMALLY OPERATIONAL

Open status	**THE DOOR IS OPEN**
Closure status	**THE DOOR IS IN CLOSING MOTION**
Closed status	**THE DOOR IS CLOSED**
Opening status	**THE DOOR IS IN INITIAL OPENING MOTION**
Partial opening status	**THE DOOR IS IN MOTION IN THE PARTIAL OPENING POSITION**
Partial open status	**THE DOOR IS STOPPED IN THE PARTIAL OPENING POSITION**
Emergency stop status	**THE DOOR IS STOPPED BY THE RED MUSHROOM BUTTON HAVING BEEN PRESSED**

4. EQUIPMENT



5. DISPOSAL

Follow the local regulations for the disposal of packaging materials.
The packaging material (plastic bags, polystyrene parts, etc.) must be kept out of the reach of children as they are potentially dangerous.
Disposal must be in compliance with the relevant waste disposal regulations. For further information on the treatment, recovery and recycling of this product, contact the local office of competence or the companies specialised in the waste collection service.

The manufacturer declines all responsibility if the conventional accident-prevention regulations and the afore-mentioned instructions are not complied with.

USER INFORMATION
pursuant to art. 14 of the 2012/19/EU DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on waste electrical and electronic equipment (WEEE)

The crossed bin symbol on the appliance or on its packaging indicates that the product at the end of its useful life must be collected separately from other waste.

The end-of-life management of the equipment must be carried out in compliance with current waste management regulations.
In particular, it is specified that the door consists of the following materials:
1. Sheeting: PVC
2. Frame: Aluminium
3. Casing: Stainless steel, S250GD+Z100 painted steel
4. Electrical components: copper, plastic, rubber, etc.
5. Gearmotor group

The user who wishes to dispose of this equipment may contact the manufacturer and implement the system that it has adopted to allow the separate collection of equipment at the end of its life or can select a supply chain authorised for this management.

If management of the end-of-life of the equipment is entrusted to independent third parties, it is advisable to use companies that are authorised to recover and dispose of the type of waste comprising this equipment once it has reached the end of its life.

Appropriate management of the decommissioned equipment for the purposes of recycling, treatment and environmentally compatible disposal helps to avoid possible negative effects on the environment and on human health and promotes the reuse and/or recycling of the materials comprising the equipment.

The manufacturer assumes no responsibility for damage to persons, animals or property resulting from the reuse of individual parts of the machine for functions or assembly situations different from the original ones.

6. MAINTENANCE AND CLEANING

6.1 CLEANING

It is advised to prepare the hygiene plan taking into account the resistance to aggressive agents and the risks of corrosion of the materials of which the doors are made. Carefully follow the instructions provided on cleaning products; do not change the doses and use the concentrations envisaged or recommended for the various types of material.

DO NOT use pressurised water jets on the following components: photocells, keypad and gearmotor. The components could become irreversibly damaged.

6.2 ORDINARY MAINTENANCE

PERIODIC INSPECTIONS / MAINTENANCE:		
IMPORTANT: Daily at the beginning of each work shift to check the correct operation of the door and its emergencies, in case of any anomaly it is necessary to promptly contact the person responsible		
Check the operation of the safety devices	Check that the safety devices in the doors are working properly: sensitive edge at the bottom of the fabric ; Photocell system; Photocell barrier system (if fitted) and operation of the stop button located on the main panel.	Daily at the beginning of each work shift
Checking the state of the gear reducer gaskets	Visual inspection of any oil leakage.	Semester / no later than every 50,000 opening
Checks on the motor and bearings	Check if the engine moves freely. If necessary, lubricate the bearings.	Semester / no later than every 50,000 opening
Engine Brake Checks	Removing the plastic frame from the brake engine and checking the brake disc. If worn to replace.	Semester / no later than every 100,000 opening
Check shaft and relevant support	Visual inspection of the shaft and checking of correct tightening of the nuts and bolts.	Semester / no later than every 50,000 opening
Coated fabric cover	Checking for tears, wear, etc. .	Semester / no later than every 50,000
Photocells	Checking the proper operation, during the door closing	Daily at the beginning of each work shift
Electrical controls and wiring	Checking the conditions of electrical wires and connections.	Semester / no later than every 50,000 opening
Movement and operation of the door	Checking the proper operation of the door: Opening, closing, and partial opening	Daily at the beginning of each work shift
Number of cycles (opening and closing)	Periodically check the number of maneuvers to schedule proper maintenance . IMPORTANT: The maximum number of door maneuvers is 45 open-close cycles per hour	
Wireless system	Replacement of batteries	1 or 2 years (depends on usage)

Only use original spare parts Incold

7. MAINTENANCE REPORT

Installation		Start of maintenance	
Date	Stamp/Signature	Date	Stamp/Signature
Door model and installation site			
Model			
Location		Door n	
VERIFICATION OF THE UNLOCKING CAPACITY AFTER FIRST INSTALLATION			
After installation, it is necessary to perform a door ability to move and return to initial position. The outcome of this check, performed on the date shown above, is: [ ] POSITIVE [ ] NEGATIVE If the test fails, report it in the NOTES field the countermeasures adopted, indicating the resolution timing of the failure and record the result of the following check.			

Register of the scheduled checks					
Date	Result	Stamp/ Signature	Date	Result	Stamp/ Signature

NOTE: after **10 years** from the installation date by the Maintenance technician, ensure operational suitability of the product. Complete replacement is also recommended.

Note:

Register of the scheduled checks					
Date	Result	Stamp/ Signature	Date	Result	Stamp/ Signature

NOTE: after **10 years** from the installation date by the Maintenance technician, ensure operational suitability of the product. Complete replacement is also recommended.

Note:

8. CHECKLIST FOR INSTALLATION

Order number :
Customer :
Type of door / serial number :
Installer (Company Name) :
Date of installation :

Check the following points and write the answers:

☐ 1 Delivery

The door was delivered without damage due to transport : YES ☐ NO ☐

If no, please specify why : .....

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☐ 2 Security devices (check which ones are installed and if they work properly):

1.1	The door is protected by a differential switch *	YES ☐	NO ☐	NOT INSTALLED ☐
1.2	Safety edge (wireless system)	YES ☐	NO ☐	NOT INSTALLED ☐
1.3	Safety edge (with spiral cable)	YES ☐	NO ☐	NOT INSTALLED ☐
1.4	One photocell in the frame : RX + TX	YES ☐	NO ☐	NOT INSTALLED ☐
1.5	Optical barrier in the frame : RX + TX	YES ☐	NO ☐	NOT INSTALLED ☐
1.6	System with photocell to detect the proper unrolling of the sheet	YES ☐	NO ☐	NOT INSTALLED ☐
1.7	Emergency push button	YES ☐	NO ☐	NOT INSTALLED ☐
1.8	Other			

* the differential switch, is excluded from the supply and is by the customer.

Note: .....

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☐ 3 Opening devices (check which ones are installed and if they work properly):

1.9	Touch screen display	YES ☐ NO ☐	NOT INSTALLED ☐
1.10	Opening black mushroom button Ø 90 (inside)	YES ☐ NO ☐	NOT INSTALLED ☐
1.11	Opening black mushroom button Ø 90 (outside)	YES ☐ NO ☐	NOT INSTALLED ☐
1.12	Crank for manual opening	YES ☐ NO ☐	NOT INSTALLED ☐
1.13	Pull cord switch (inside)	YES ☐ NO ☐	NOT INSTALLED ☐
1.14	Pull cord switch (outside)	YES ☐ NO ☐	NOT INSTALLED ☐
1.15	Motion radar (outside)	YES ☐ NO ☐	NOT INSTALLED ☐
1.16	Motion radar (inside)	YES ☐ NO ☐	NOT INSTALLED ☐
1.17	Has the door successfully performed 10 cycles?	YES ☐ NO ☐	
1.18	Other		

Note: .....

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☐ 4 Components of the door (check if they work properly) :

1.19	Motorgear, works properly without strange noises	YES ☐ NO ☐
1.20	Correct operation of the emergency mouvement	YES ☐ NO ☐
1.21	The door moves and stops regularly on the setted points, slowing down before reaching the lock point	YES ☐ NO ☐
1.22	By pressing the button  the door open and closed properly	YES ☐ NO ☐
1.23	The PVC fabric is well-tightened when the door is closed	YES ☐ NO ☐
1.24	The towel goes well and does not jamming on the guides	YES ☐ NO ☐

Note: .....

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☐ 5 Mechanical mounting :

1.25	The vertical uprights are firmly fixed to the wall	YES ☐ NO ☐
1.26	The top cross is well secured to the vertical uprights	YES ☐ NO ☐
1.27	The top cross once fixed is perfect horizontal	YES ☐ NO ☐
1.28	The vertical uprights once fixed are perfect verticals	YES ☐ NO ☐
1.29	here is visible damage to the chassis or other covers	YES ☐ NO ☐

Note: .....

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☐ 6 Documentation

1.30	Have you found the installation and maintenance manual in the packaging	YES ☐ NO ☐

☐ 7 Warranty

The warranty is valid on condition that the door is propertly used and the maintenance cycles are respected by specialized technicians.

Installation/maintenance must be carried out by a company authorised by the manufacturer and using solely INCOLD spare parts.

Date: ..... Installer (visible name - signature) .....

Date: ..... Customer (visible-signature name).....

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