

# Hager KP-evo Tap-Programmer For the 8300 Low Energy Operator



The Hager Series 8300 Operator has been carefully designed, built, and tested to provide years of service.


The life of the operator package is directly related to how carefully the installation is accomplished and how accurately the instructions are followed. Installation of this operator package should be done by properly trained and knowledgeable installers with knowledge of local code requirements and the requirements of A156.19 Standards for Low Energy and Power Assisted Pedestrian Doors. The authorized service / installation dealer must perform all measurements for forces, speeds, and times to insure proper and safe operation.

Hager Companies is not responsible for improperly adjusted or maintained automatic doors or activation / safety systems and assumes no responsibility for damages caused by automatic door systems that have not been properly installed, tested, and adjusted.

**OWNER INFORMATION TO BE PROVIDED BY THE DISTRIBUTOR / INSTALLER**

- After the installation instruct the owner on the safe operation of the door.
- Location and proper use of the power switches.
- Location of the main cutoff breaker.
- Necessary warnings not covered in general instructions.
- Owner’s Manual and Daily Safety Checklist.
- Phone number(s) for the local servicing dealer.
- What to do in the event that a dangerous situation should occur and how to shut the doors down and call for service.

## TABLE OF CONTENTS

<b>1. KP EVO .....</b>	<b>3</b>	<b>3. UPLOAD / DOWNLOAD .....</b>	<b>19</b>
1.1 Installation and connections .....	3	<b>4. INTERCOM .....</b>	<b>20</b>
1.2 Switching on and the home screen ..	4	4.1 Intermode .....	21
1.3 SELECTION menu .....	5	4.2 Interlock .....	21
1.4 FUNCTIONS menu .....	6	Interlock with no memory .....	22
<b>2. DIAGNOSTICS .....</b>	<b>15</b>	Interlock with memory .....	22
2.1 LEDs check .....	15	4.3 2 Leaves .....	22
I/O board LEDs .....	15	4.4 2 Leaves + Interlock .....	22
Logic board LEDs .....	15		
2.2 Inputs and outputs status check .....	15	<b>KP EVO TABLES </b>	
2.3 Automation status check .....	15	<b>A - P EVO menu .....</b>	<b>07</b>
2.4 Warnings .....	16	<b>B - Access permissions and passwords .....</b>	<b>14</b>
2.5 Errors .....	17	<b>C - I/O board LEDs .....</b>	<b>15</b>
2.6 Other board data .....	18	<b>D - Logic board LEDs .....</b>	<b>15</b>
2.7 Firmware versions .....	18	<b>E - Status .....</b>	<b>15</b>
2.8 Log Data .....	18	<b>F - Warnings .....</b>	<b>16</b>
		<b>G - Errors .....</b>	<b>17</b>
		<b>H - Selecting the upload/download function ...</b>	<b>19</b>

## 1. KP evo

### 1.1 INSTALLATION AND CONNECTIONS



CARRY OUT THE FOLLOWING OPERATIONS WITH THE ELECTRICITY SUPPLY DISCONNECTED

1. Disassemble the parts (🔧 01).
2. Break the cable passage insert.



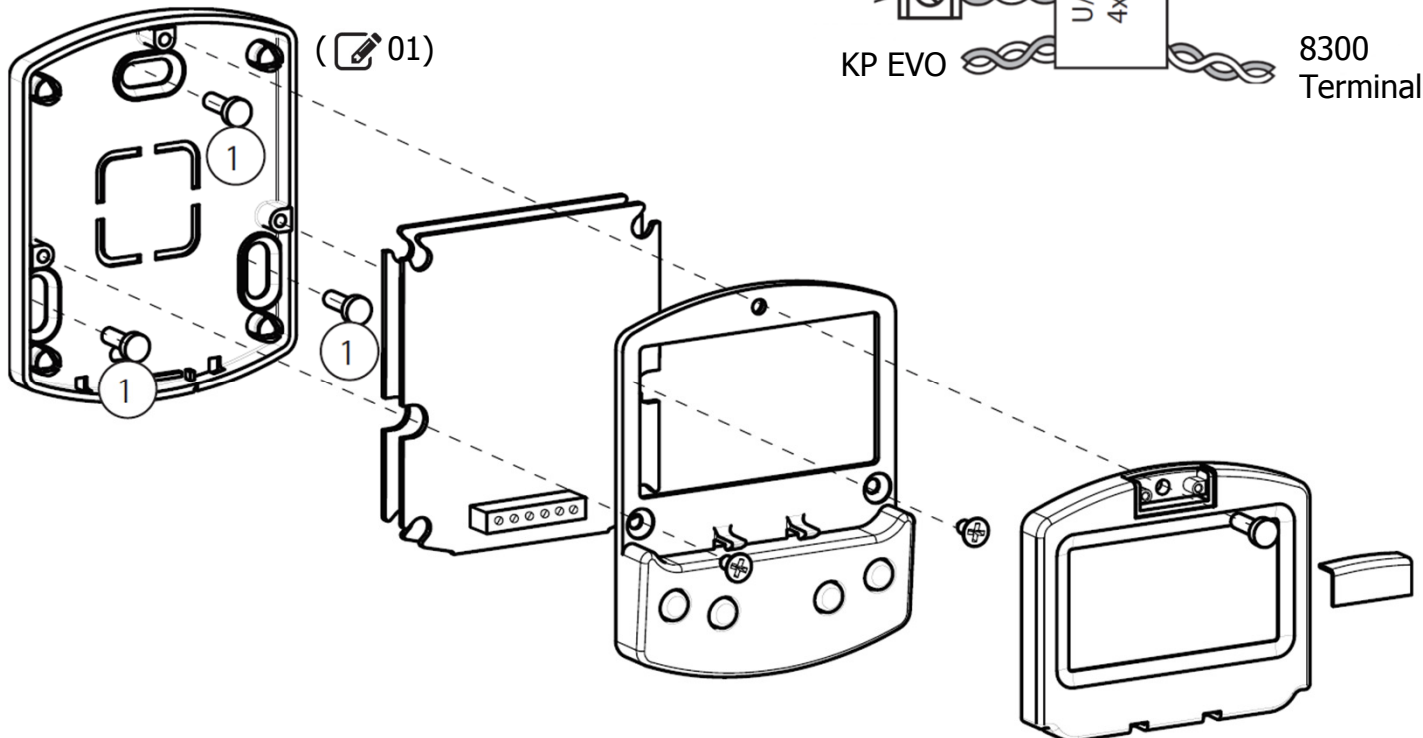
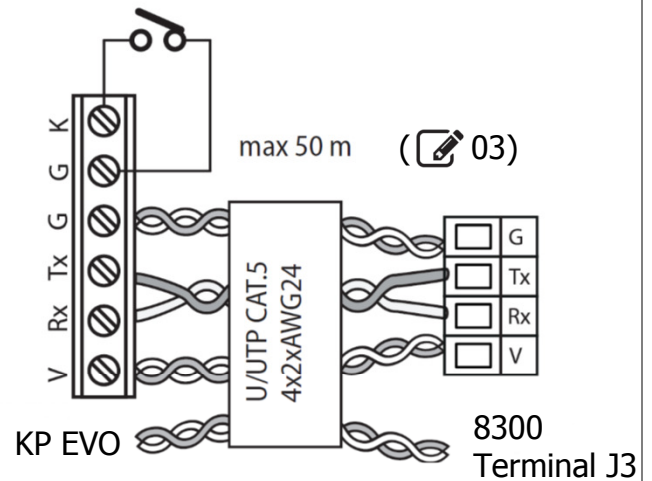
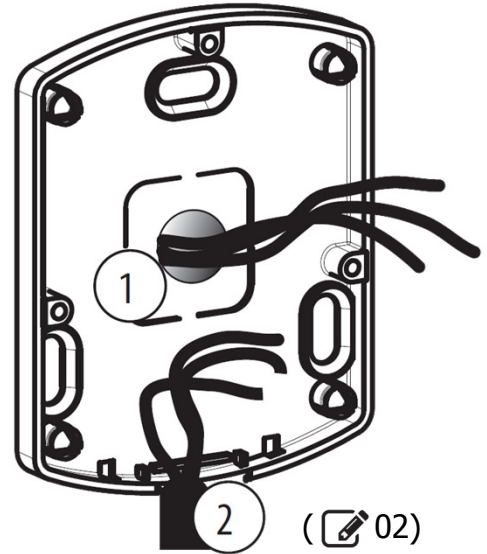
With reference to 🔧 02, the KP EVO is designed for the cables to enter from the back (1) or from underneath (2).

3. Decide where to position the support and fix it using suitable screws (🔧 01 -1).
4. Connect the KP EVO to the 8300 using a 4 pair twisted U/UTP AWG24 cable with a maximum length of 50m (🔧 03).



An optional key device can be connected between terminals G and K in order to enable/disable the KP EVO.

5. Reassemble the parts indicated in (🔧 01).



**1.2 SWITCHING ON AND THE HOME SCREEN**

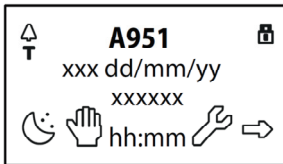
1. Turn power on to the 8300
2. The display will show the following in sequence:




in which the Bootloader version appears, then








in which the Firmware version appears, and lastly



The content of this home screen, including the fixed icons and those that may appear under certain circumstances, is explained in  04.

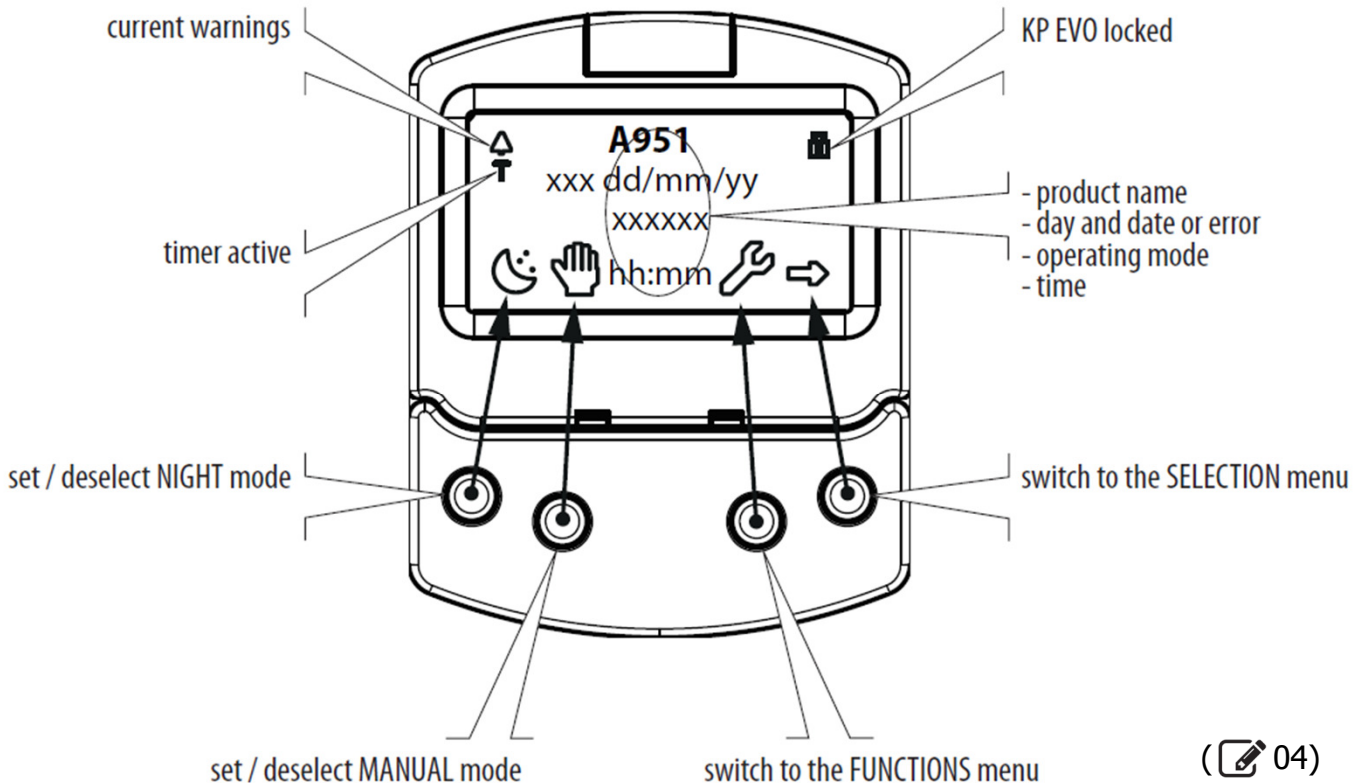
3. The 4 buttons are used to select controls that, depending on the screen, appear on the display above them.

4. By pressing the relative button on the home screen ( 04) you can:

-  = set the NIGHT mode
-  = set the MANUAL mode
-  = switch to the FUNCTIONS menu that includes all the 8300 configuration parameters.
-  = switch to the SELECTION menu that includes additional operating modes.



By pressing the button to set the NIGHT or MANUAL mode, the relative icon is highlighted and the description of the operating mode is updated on the display. Once MANUAL mode has been set by pressing the relative button, press it again to return to the previous mode.



 04

### 1.3 SELECTION MENU

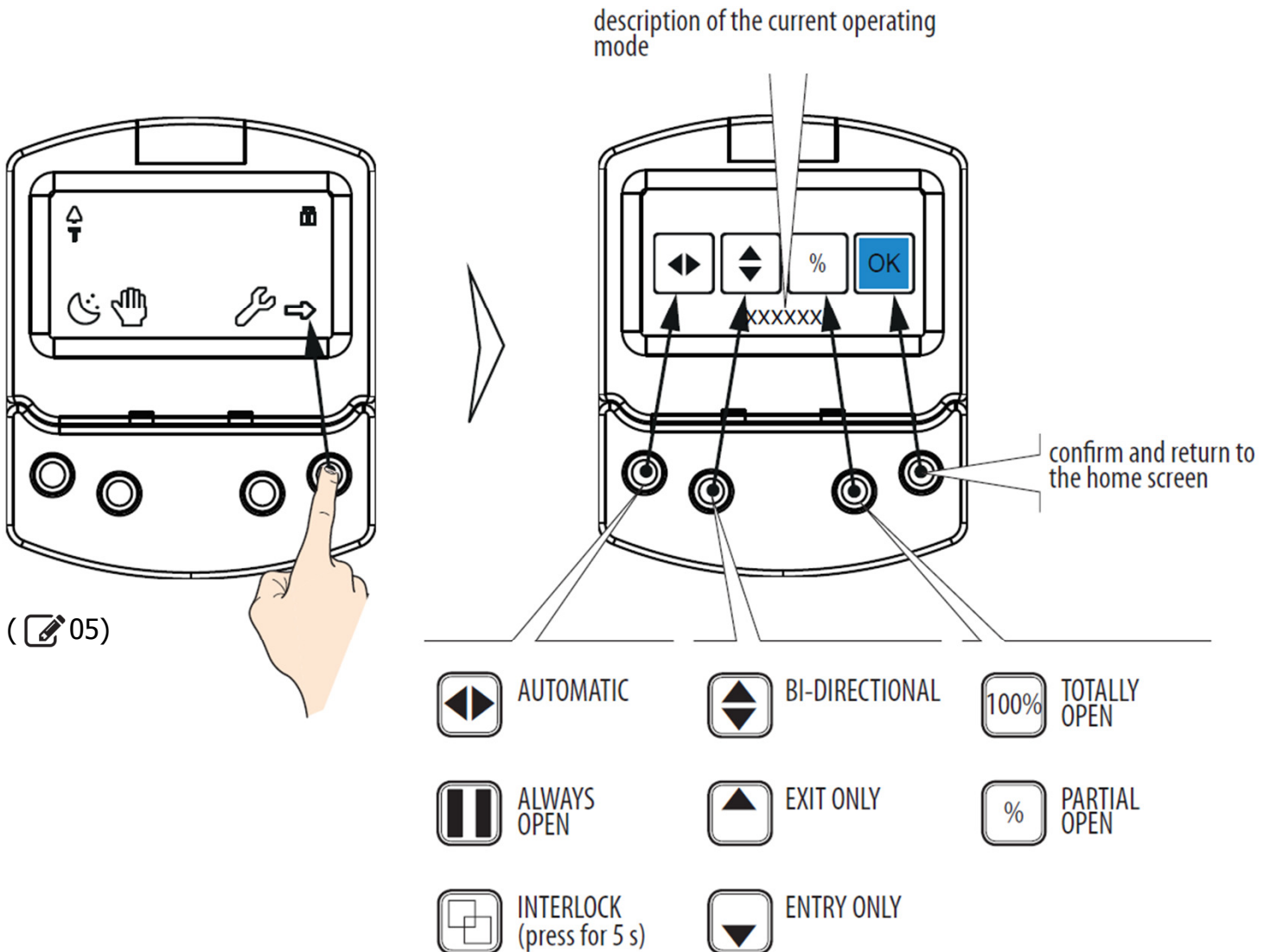
To access the SELECTION menu from the home screen, press the → button (🔧05).

4 New icons appear on the display that define the operating modes that can be set.



The possible combinations can be obtained by pressing the corresponding buttons (🔧05).


After having set the operating mode, press the OK button to confirm and return to the home screen.





**i** The description of the operating mode on the display is updated with the description of the one that has been set.




### 1.4 FUNCTIONS MENU

To access the FUNCTIONS menu from the home screen, press the  button ( 06). The display prompts for a 4-digit password to be entered.

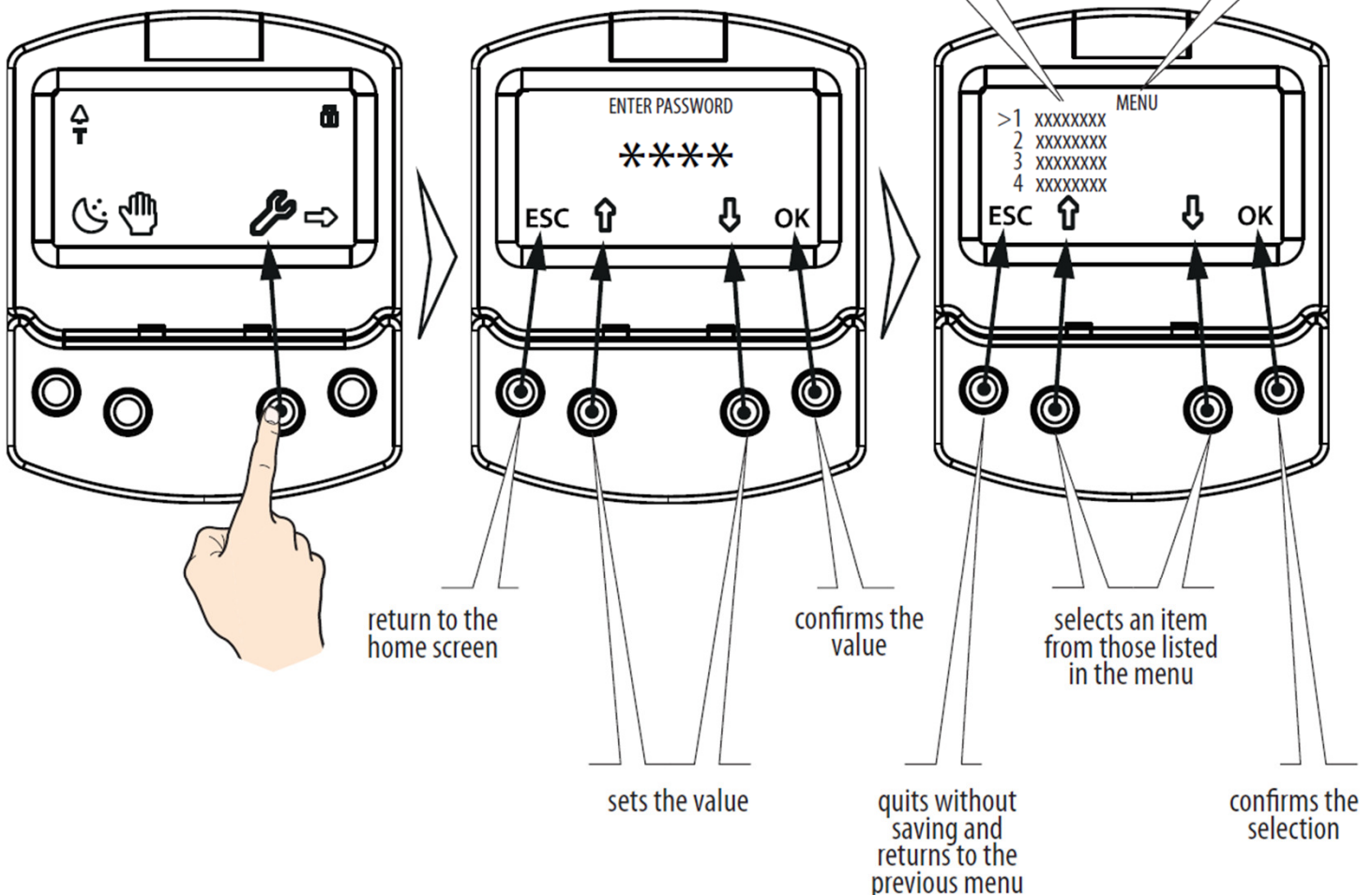
 The factory-set password is: 0000

- Set the first digit using the  and  buttons.
- Confirm using the OK button to move to the next digit.
- When all 4 digits have been entered, if the password is correct, access the FUNCTIONS menu as a USER or a TECHNICIAN.
- Select the item from the menu using the  and  buttons.
- Confirm using the OK button to enter.

 Press ESC at any time to return to the home screen.

- |                |
|----------------|
| 1. LANGUAGE    |
| 2. PROGRAMMING |
| 3. ERRORS      |
| 4. WARNINGS    |
| 5. CYCLE COUNT |
| 6. DATE/TIME   |
| 7. TIMER       |
| 8. PASSWORD    |
| 9. INFO        |

( 06)





**A KP EVO menu**

**1 LANGUAGE**

- 1 ITALIANO
- 2 ENGLISH
- 3 FRANCAIS
- 4 DEUTSCH
- 5 ESPANOL
- 6 NEDERLANDS

**2 PROGRAMMING**

1 INPUTS / OUTPUTS

1 INPUTS I1-I8

I1...I8

- 0 DISABLED NORMALLY OPENED / NORMALLY CLOSED
- 1 EXTERNAL OPEN NORMALLY OPENED / NORMALLY CLOSED
- 4 INTERNAL OPEN NORMALLY OPENED / NORMALLY CLOSED
- 7 AUTOMATIC OPEN NORMALLY OPENED / NORMALLY CLOSED
- 8 SEMIAUTOM. OPEN NORMALLY OPENED / NORMALLY CLOSED
- 10 KEY NORMALLY OPENED / NORMALLY CLOSED
- 11 PARTIAL OPEN NORMALLY OPENED / NORMALLY CLOSED
- 20 CLOSING SAFETY NORMALLY OPENED / NORMALLY CLOSED
- 21 OPENING SAFETY NORMALLY OPENED / NORMALLY CLOSED
- 22 OVERHEAD PRES. SENS NORMALLY OPENED / NORMALLY CLOSED
- 30 EMERGENCY OPEN NORMALLY OPENED / NORMALLY CLOSED
- 31 EMERGENCY OPEN WITH MEM NORMALLY OPENED / NORMALLY CLOSED
- 34 EMERGENCY CLOSE NORMALLY OPENED / NORMALLY CLOSED
- 35 EMERGENCY CLOSE WITH MEM NORMALLY OPENED / NORMALLY CLOSED
- 36 FIRE ALARM NORMALLY OPENED / NORMALLY CLOSED
- 40 ALWAYS OPEN NORMALLY OPENED / NORMALLY CLOSED
- 41 EXIT ONLY NORMALLY OPENED / NORMALLY CLOSED
- 42 ONLY IN NORMALLY OPENED / NORMALLY CLOSED
- 43 NIGHT NORMALLY OPENED / NORMALLY CLOSED
- 44 MANUAL NORMALLY OPENED / NORMALLY CLOSED
- 45 PARTIAL NORMALLY OPENED / NORMALLY CLOSED
- 46 INTERBLOCK ON NORMALLY OPENED / NORMALLY CLOSED
- 60 TIMER NORMALLY OPENED / NORMALLY CLOSED

TEST ENABLED / DISABLED  
TEST ENABLED / DISABLED

2 OUTPUTS O1/O2

O1...O2

- 0 DISABLED NORMALLY OPENED / NORMALLY CLOSED
- 1 GONG NORMALLY OPENED / NORMALLY CLOSED
- 2 ERROR NORMALLY OPENED / NORMALLY CLOSED
- 4 EMERGENCY ACTIVATE NORMALLY OPENED / NORMALLY CLOSED
- 5 TEST NORMALLY OPENED / NORMALLY CLOSED
- 6 DOOR NOT CLOSED NORMALLY OPENED / NORMALLY CLOSED
- 7 DOOR OPENED NORMALLY OPENED / NORMALLY CLOSED
- 8 DOOR OPENING NORMALLY OPENED / NORMALLY CLOSED
- 9 LIGHT NORMALLY OPENED / NORMALLY CLOSED
- 10 INTRUSION ACTIVE NORMALLY OPENED / NORMALLY CLOSED
- 11 CLOSING SAFETY NORMALLY OPENED / NORMALLY CLOSED
- 12 SAFETIES NORMALLY OPENED / NORMALLY CLOSED

TIME 1...90 S

3 OP/CLRELAY

NORMALLY OPENED / NORMALLY CLOSED

4 EXTERNAL SELECTOR

POSITION 1...POSITION 2

- 0 DISABLED
- 1 NIGHT
- 2 OPENED
- 3 EXIT ONLY
- 4 MANUAL

2 MOTION

1 OPENING...2 CLOSING

- 1 SPEED 1...10s
- 2 SLOWDOWN SLOWDOWN SPACE 0°...90° SLOWDOWN SPEED 1...3s
- 3 STRENGTH 1...10s
- 4 STRENGTH DURATION 0.1...3.0s
- 5 ACCELERATION 1...10s
- 6 DECELERATION 1...10s

3 TIMING

- 1 PAUSE TIME 0...30s
- 2 PAUSE TIME 0...30s
- 3 NIGHT PAUSE TIME] 0...30 s
- 4 NIGHT SENSOR NIGHT 0...30 s

4 MOTOR LOCK KIT

- 1 FUNCTION
  - DISABLED
  - NIGHT
  - EXIT ONLY
  - NIGHT + MONODIR
  - ALWAYS
- 2 LOCK DELAY 0...60 tenths of a second
- 3 RELEASE TYPE
  - WHEN OPENING
  - CLOSED

5 INSTALLATION

- 1 ARM TYPE
  - SKID
  - ARTICULATE
- 2 SENSOR TYPE
  - DOOR MOUNTED SYSTEM
  - OPS AND BEAM
- 3 START SETUP ARE YOU SURE ?
- 4 PUSH AND GO
  - 0 DISABLED
  - 1 ENABLED
  - 2 FAST FOOD
- 5 PARTIAL STOP SEC.
  - DISABLED
  - ENABLED
- 6 LEAF DELAY 0#...90#
- 7 SCP
  - DISABLED
  - ENABLED
- 8 REVERSE STROKE
  - DISABLED
  - ENABLED
- 10 INOUT STATE IN1...IN8 01...02
- 11 DOOR STATUS
- 12 OTHER BOARD DATA V\_MAIN V\_ACC POS I\_MOT

6 INTERCOM

- 1 FUNCTION
  - DISABLED
  - INTERMODE
  - INTERLOCK WITH MEMORY / WITHOUT MEMORY
  - 2 LEAVES
  - 2 LEAVES + INTERBLOCK WITH MEMORY / WITHOUT MEMORY
- 2 MASTER/SLAVE NR.
- 3 INTERCOM REG.
- 4 NODE LIST



- 7 MISCELLANEOUS
  - 1 DEFAULT DEFAULT  
ACTIVATE  
NO DO YOU WANT TO LOAD DEFAULT CONFIG ?
  - 2 BOARD'S DISPLAY  
STOPPED  
NOT BLOCKED
  - 3 INTRUSION  
DISABLED  
ENABLED
  - 4 KPEVO KEY  
WITHOUT USER PSW  
BLOCK
  - 5 CONSECUTIVE OBST.  
CLOSING 0...10  
OPENING 0...10
  - 6 TEST ERROR  
DISABLED  
ENABLED

**3 ERRORS**

The display shows any current errors

**4 WARNINGS**

the display shows any current warnings

**5 CYCLES COUNT**

- 1 CYCLES NUMBER  
ABSOLUTE  
RELATIVE
- 2 MAINTENANCE  
MAINTENANCE DATE MAINTENANCE CYCLES
- 3 CYCLES RESET ARE YOU SURE ? resets the number of cycles

**6 DATE/TIME**

- 1 SET DATE
- 2 SET TIME
- 3 DAYLIGHT SAV TIME  
DISABLED  
ENABLED

**7 TIMER**

- 1 TIMER STATE  
DISABLED  
ENABLED
- 2 MONDAY
- 3 TUESDAY
- 4 WEDNESDAY
- 5 THURSDAY
- 6 FRIDAY
- 7 SATURDAY
- 8 SUNDAY
- 9 MON - SUN
- 10 MON - FRI
- 11 JOLLY
- 12 JOLLY SLOTS  
SLOT 1  
SLOT 2  
SLOT 3  
SLOT 4  
SLOT 5  
SLOT 6  
APPLY (appears only if selected LUN - SUN or LUN - FRI)

FUNCTION: 0	NO FUNCTION	
FUNCTION: 1	AUTO BIDIR TOTAL	
FUNCTION: 2	AUTO OUT TOTAL	
FUNCTION: 3	AUTO BIDIR PARTIAL	
FUNCTION: 4	AUTO OUT PARTIAL	
FUNCTION: 5	TOTALLY OPEN	
FUNCTION: 6	PARTIAL OPEN	
FUNCTION: 7	AUTO IN TOTAL	
FUNCTION: 8	AUTO IN PARTIAL	
FUNCTION: 9	NIGHT	
FUNCTION: 10	PARTIAL NIGHT	
	BEGINNING	hh:mm
	END	hh:mm

**8 PASSWORD**


1 TECHNICIAN PSW		
CHANGE TEC PSW	REINSERT TEC PSW	NEW PSW INSERTED
2 USER PSW		
CHANGE USER PSW	REINSERT USER PSW	NEW PSW INSERTED

**9 INFO**

E950E	BOOT	VER *.*
E950E	APP	VER *.*
KP EVO	APP	VER *.*

**PROGRAMMING INPUTS/OUTPUTS  
INPUTS**

The inputs on terminal board J5 of the I/O board can be configured with the following functions

 Each input can be set to NC or NO according to the device connected to it.

**Disabled**

No associated function.

**External open**

When activated, the door opens and remains open as long as the input is active. When released, the door waits for the pause time to elapse and then closes.

This has no effect in the EXIT ONLY or NIGHT modes.

**Internal open**

When activated, the door opens and remains open as long as the input is active. When released, the door waits for the pause time to elapse and then closes.

This has no effect in the ONLY IN or NIGHT modes.

**Automatic open**

When activated, the door opens and remains open as long as the input is active. When released, the door waits for the pause time to elapse and then closes.

Active in the BI-DIRECTIONAL, EXIT ONLY and ONLY IN modes.

This has no effect in the NIGHT mode.

**Semiautom. open**

When activated:

- if the door is not already open, it opens and remains open
- if the door is already open, it closes

Active in the BI-DIRECTIONAL, EXIT ONLY and ONLY IN modes.

This has no effect in the NIGHT mode.

**Key**

When activated, the door opens and remains open as long as the input is active. When released, the door waits for the night pause time to elapse and then closes.

Active in the BI-DIRECTIONAL, EXIT ONLY, IN ONLY and NIGHT modes.

**Partial open**

Only opens the master door when activated in the "2 leaves" mode.

### **Closing safety**

When activated:

- If the door is closing, it reopens
- If the door is already open, it prevents it from closing
- If the door is opening, it has no effect

### **Opening safety**

When activated:

- If the door is opening, it stops until it is released
- If the door is already closed, it prevents it from opening
- If the door is closing, it has no effect

### **Emergency open**

When activated, the door opens (always total) and remains open as long as the input is active. When released, the door waits for the night pause time to elapse and then closes.

Also active in NIGHT mode.

### **Emergency open with memory**

When activated, the door opens (always total) and remains open as long as the input is active. When released, the door remains open until it is Reset

### **Emergency close**

When activated, the door closes and remains closed as long as the input is active. When released, the door returns to normal operation.

### **Emergency close with memory**

When activated, the door closes and remains closed as long as the input is active. When released, the door remains closed until it is Reset

### **Fire alarm**

When activated, the door closes, regardless of the operating mode that has been set, with the lock kept in the released position. It has priority over any commands that may be active.

### **Always open**

When activated, the ALWAYS OPEN mode is set.

### **Exit only**

When activated, the EXIT ONLY mode is set.

### **Entry only**

When activated, the ONLY IN operating mode is set.

### **Night**

When activated, the NIGHT mode is set.

### **Manual**

When activated, the MANUAL mode is set.

### **Partial**

When activated, the PARTIAL mode is set.

### **Interblock ON**

When activated, the INTERLOCK mode is set.

### **Timer**

When activated, the TIMER mode is set.

### **OUTPUTS**

The outputs on terminal board J5 of the I/O board can be configured with the following functions



Each input can be set to NC or NO according to the device connected to it.

### **Disabled**

No associated function.

### **Gong**

The output is activated and deactivated at 1-second intervals when the safety devices are engaged.

### **Error**

The output is activated if there is an error.

### **Emrg. active**

The output is activated when an Emergency is triggered.

### **Test**

The output commands a FAILSAFE test on the inputs that are configured as safety devices on which the option of running a TEST before movement has been enabled.

### **Door not closed**

The output remains active until the door is closed.

### **Door open**

The output remains active as long as the door is open.

### **Door opening**

The output remains active as long as the door is moving.

### **Light**

The output is activated, for a programmable length of time, when the door is open in NIGHT mode.

### **Intrusion active**

The output is activated when an intrusion is in progress (i.e. when an unexpected movement of the door from its closed position is detected).

### **Closing safety**

The output is activated when a closing safety device is active.

### **Safeties**

The output is activated when a closing or opening safety device is engaged.

## OP/CL RELAY

Specifies the logic of the door status relay (NC/NO).

## EXTERNAL SELECTOR

Specifies the operating mode associated with positions 1 and 2 of the selector on the side of the unit.

## ■ PROGRAMMING MOTION

### OPENING/CLOSING

#### Speed

Sets the speed of movement.

#### Deceleration

Specifies the space (in degrees of rotation of the 950N2 shaft) and the deceleration speed (on 3 levels) of the door before reaching the final open / closed positions.

#### Strength

Specifies the maximum crushing force.

#### Strength duration

Specifies the maximum thrust time before an obstacle is recognized.

#### Acceleration

Specifies how quickly the door reaches the set opening speed when starting from stop.

#### Deceleration

Specifies how quickly the door stops.

## ■ PROGRAMMING TIMING

### PAUSE TIME

Defines the pause time of the door when opened by a command, before closing automatically.

### PAUSE TIME P&G

Sets the door pause time when opened by a Push & Go command, before closing automatically.

### Night PAUSE TIME

Sets the door pause time when opened by a command in NIGHT mode, before closing automatically.

### NIGHT SENSOR DELAY

When NIGHT mode is set, the internal detector remains active for the amount of time set in this parameter, to allow it to be opened only once. The internal detector is disabled immediately after opening and in any case upon expiry of the set delay.

## ■ PROGRAMMING MOTOR BLOCK KIT FUNCTION

Specifies the operating mode in which the lock is activated.

### LOCK DELAY

Specifies the opening delay time of the door to allow the lock to be released, particularly motorized locks.

### RELEASE TYPE

Specifies when power is disconnected from the lock after it has been mechanically released:

**Opening** = during the opening phase

**Closed** = when the door is closed again

## ■ PROGRAMMING INSTALLATION

### ARM TYPE

Specifies the type of transmission arm installed (shoe or articulated)

### START SETUP

Carries out a Setup cycle after confirmation.

### PUSH AND GO

Sets the function that commands the automatic opening of the door after an initial manual push:

**Disabled** = Push & Go not enabled

**Enabled** = Push & Go enabled

**Fast food** = Push & Go enabled in "FAST FOOD" mode (manual opening, motorized closing)

### PARTIAL STOP SEC.

Specifies the detection area of safety in opening:

**Disabled** = obstacle detection active over the entire opening stroke

**Enabled** = obstacle detection NOT active in proximity to the opening stop

### LEAF DELAY

Specifies the opening delay between the doors of 2 leaf models.

### SCP

Specifies the function that pushes the door with a greater force in the final section of the closure. It is useful to activate this function if there is high friction, if the seals are particularly rigid or if locks have a stiff latch.



Because activating the SCP function also reduces the sensitivity of the electronic anti-crushing system in the final section of closing, DO NOT activate the SCP function in "low energy" mode.

### **REVERSE STROKE**

Sets the function that makes the door carry out a short reverse stroke before opening to make it easier to release the lock.

### **2 EASY REG.**

Registration of BUS 2easy devices.

### **INOUT STATE**

The display indicates the status (on / off) of inputs I1-I8 and outputs O1-O2 in real-time.

### **DOOR STATUS**

The display indicates the status of the automation in real-time.

### **OTHER BOARD DATA**

The display indicates useful diagnostics information in real-time.

### **■ PROGRAMMING INTERCOM FUNCTION**

Sets the operating mode.

### **MASTER/SLAVE NR.**

Sets the network ID of the unit.

### **INTERCOM REG.**

Registers the units of the network (to be performed only on the 8300 with ID1).

### **NODE LIST**

Shows the ID of the units registered (on the master).

### **■ PROGRAMMING MISCELLANEOUS CONFIG. DEFAULT**

Shows whether the parameters have been modified, and if so, resets the factory defaults after confirmation.

### **BOARD'S DISPLAY**

Not active.

### **INTRUSION**

Sets the function in which the door resists attempts to open it manually.

### **KPEVO KEY**

You can choose between:

**Block** = the user must enter the user password in order to access the menus that he is authorized to use.

**Without user psw** = the user doesn't need to enter the user password in order to access the menus that he is authorized to use.

### **CONSECUTIVE OBST.**

Specifies the maximum number of consecutive obstacle detections in the same direction of movement, before stopping in an error condition.

### **TEST ERROR**

Specifies the effect that the TEST will have when it detects a safety device fault:

**Disabled** = the door will remain stationary in an error condition

**Enabled** = the door will continue to operate at minimum speed

### **■ ERRORS**

In this menu, the display indicates any current errors that there may be in real time.

### **■ WARNINGS**

In this menu, the display indicates any current alerts that there may be in real time.

### **■ CYCLE COUNTER**

The 8300 has two counters:

- total, non-resettable
- partial, resettable

This menu allows you to view the cycles performed by the automation and reset the partial counter.

It is also possible to set a deadline for scheduled maintenance according to:

- date (optional)
- number of cycles (from 1000 to 1000000)

Alert 60 will be displayed as soon as one of the two settings (date or number of cycles) is reached.




Logging in with the user password only allows data to be viewed.

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### **■ DATE/TIME**


This menu allows you to set or modify the date, time and turn European summer time on / off.

 To keep the settings even if there is no mains power, which is necessary for the TIMER to work correctly, a battery must be installed on the Logic board.

**■ TIMER**

This menu includes all the parameters for configuring the TIMER function. When the TIMER is enabled, the operating mode of the door during the programmed time bands is set automatically. A maximum of 6 daily time bands can be defined, and an operating mode, selected from those available, assigned to each one. Each time band has a start time and an end time. The time bands must not overlap.

When the TIMER is enabled, the T icon appears on the home screen.


 To manually change the operating mode set by the TIMER, it first has to be disabled. In order for the TIMER to work correctly, a battery must be installed on the Logic board.


In order to quickly program groups of days of the week with the same time bands, it is possible to simultaneously select all the days of the week (MON - SUN) and all weekdays (MON - FRI). Once the time bands that have been defined here have been confirmed using the APPLY option, they will overwrite any time bands that have already been programmed for individual days.

If it is necessary to program specific days or periods (e.g. recurring holidays), you may use the JOLLY function.

A maximum of 6 JOLLY time bands can be specified and an operating mode, selected from those available, assigned to each one. Each time band has a start time and an end time. The time bands must not overlap. The JOLLY time bands are then assigned to a maximum of 6 INTERVALS. An interval can be a single day or a series of days.

**■ PASSWORD**


This menu allows passwords to be set or modified. To access the FUNCTIONS menu you are prompted to enter a 4-digit password. The 8300 has two passwords available, with different access rights (  B )

 Logging in with user password only allows data to be viewed.

 B Access permissions and passwords

	TECHNICIAN PSW	USER PSW
LANGUAGE	X	X
PROGRAMMING	X	(-)
ERRORS	X	X
WARNINGS	X	X
CYCLES COUNT	X	X (*)
DATE/TIME	X	X
TIMER	X	X
PASSWORD	X	X (*)
INFO	X	X

\* with restrictions

 The user is only allowed to modify the user password.



## 2. DIAGNOSTICS

### 2.1 LEADS CHECK

#### I/O BOARD LEADS

Each input on the I/O board, has a LED that indicates the physical state of the contact:



#### C I/ O board LEDs



LED		
DL1	accessories power on	accessories power off
DL2-DL9	open contact	closed contact

#### LOGIC BOARD LEADS

There are 4 LEDs on the Logic board:

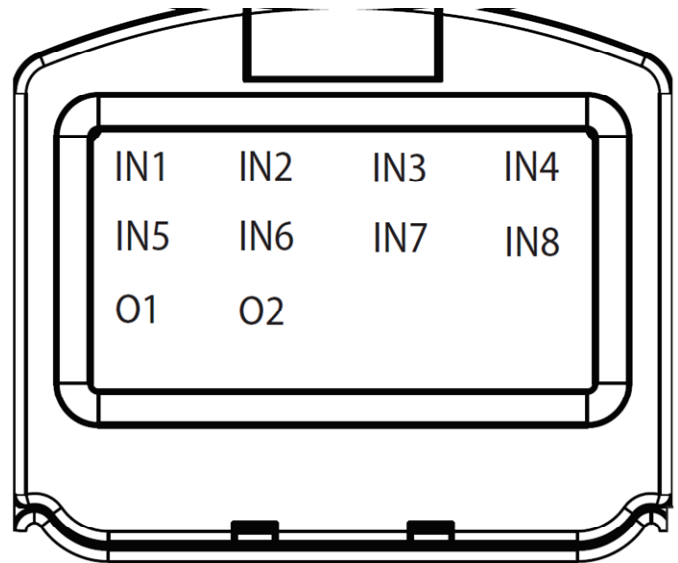
#### D Logic board LEDs

LED			x	*
DL1 green	no USB	USB connected		
DL2 red	normal condition	error	setup requested	Setup in progress
DL3 blue	no power or board failure	/	normal condition	/
DL4 yellow	board parameters the same as trimmer and DIP switch values	board parameters different to Button trimmer and pressed DIP switch values	Button Pressed	/

 off  
 on  
 x flashing  
 \* fast flashing

#### E Status

- CLOSED
- OPENING
- OPEN
- PAUSE
- NIGHT PAUSE
- CLOSING
- EMERGENCY ACTIVATE
- MANUAL
- NIGHT PAUSE
- STOP
- SECURITIES TEST
- ERROR
- SETUP in progress



( 07)

### 2.2 INPUTS AND OUTPUTS STATUS CHECK

The status of each input and output can be checked via the KP EVO.

Go to menu 2.5.9. The display indicates the status of the logic as shown in  07. Example:

- IN1 = input active
- IN1 = input not active

### 2.3 AUTOMATION STATUS CHECK

The current status of the automation system can be checked via the KP EVO.

Go to menu 2.5.10. The display shows information regarding the status of the automation.

## 2.4 WARNINGS

Alerts provide information regarding the status or current phase of the automation and errors that do not prevent it from operating. It is possible to check any current alerts via the KP EVO.

Go to menu 4 to view the list of current alerts.

If there is at least one alert, an icon appears on the home screen.

### F Warnings

- 41 Date and time missing  
- reset date/time via the KP EVO
- 42 Clock battery discharged or missing
- 44 Emergency active (including command memory)
- 45 Timer active
- 46 Timer function in progress
- 48 Night mode operation
- 49 Manual mode operation
- 50 Partial mode operation
- 51 Obstacle detected during closure
- 52 Obstacle detected during opening
- Number of maintenance cycles on Eprom corrupted
- 53 - Carry out a Reset.  
- If the alarm persists, replace the Logic board
- 58 Searching for strike on closing
- 60 Maintenance requested  
KP EVO Fault  
- Check that the correct device is connected and check the connections
- 61 - If the alarm persists, update the firmware  
- If the alarm persists, replace the Logic board
- 63 Intrusion in progress
- 65 Setup in progress  
TEST alarm (only if the "test error" parameter is enabled)
- 68 - Check the operation of the connected devices  
- If the alarm persists, replace the device  
- If the alarm persists, replace the Logic board  
In this condition, the door moves at a slower speed.
- 69 Door opened by a semi-automatic command
- 71 Slave Intercom mode  
Intercom alarm
- 72 - Check the connections  
- Check the ID  
- If the alarm persists, replace the Logic board
- 73 Slave Error/Alarm  
Interlock alarm
- 74 - Check the connections  
- Check the ID  
- If the alarm persists, replace the Logic board
- 80 Non-standard programming



## 2.5 ERRORS

Errors are malfunctions that prevent the automation system from working. They are indicated by a steady red LED on the Logic board.

After every 5 minutes in which a fault condition persists and for a maximum of 20 consecutive times, the 8300 will perform a Reset to attempt to restore normal operation so as not to require any action if the condition that caused the error was temporary.

If the fault persists, remove the cause in order to restore normal operation.

The type of error can be identified via the KP EVO The error code appears on the home page. Go to menu 5; the display provides information regarding the current error.

### G Errors

When an error occurs:

1. Check all the electrical connections
2. Carry out a reset.
3. If the problem persists, carry out the operations described in the table one at a time until the problem is resolved.

Error	Action required
01 Board failure	- Replace the Logic board
02 E2prom failure	- Replace the Logic board
03 Motor driver failure	- Replace the Logic board - Replace the motor
04 accessories power supply fault	- Check that the accessories power supply is not short circuited - Check that maximum load of the accessories has not been exceeded - Replace the Logic board - Replace the I/O board
05 Microcontroller error	- Reload/update the Logic board firmware - Replace the Logic board
07 Motor Failure	- Replace the Logic board - Replace the motor
09 Board voltage anomaly	- Replace the Logic board - Replace the I/O board
11 Closing safety TEST failed	- Check the connections of the safety device - Check that the safety device is working - Replace the Logic board
12 Opening safety TEST failed	- Check the connections of the safety device - Check that the safety device is working - Replace the Logic board
15 Setup inhibited	- Make sure that Night or Manual mode has not been set. - Make sure that an Emergency command has not been activated
16 Encoder fault	- Replace the Logic board
18 Firmware not compatible	- Update with the correct firmware
19 High mechanical friction	- Make sure that the leaf has been mounted correctly and that it moves smoothly, remove any friction - Replace the Logic board - Replace the gearmotor
22 Programming data corrupted	- Reprogram the board or upload the program files that were saved to the USB storage device - Replace the Logic board

Error	Action required
24 Consecutive obstacles in closing	<ul style="list-style-type: none"> <li>- Remove the obstacle in closing.</li> <li>- Make sure that the leaf has been mounted correctly and that it moves smoothly, remove any friction</li> </ul>
26 Lock failure	<ul style="list-style-type: none"> <li>- Check the wiring of the lock</li> <li>- Check that the maximum load of the lock has not been exceeded</li> <li>- Replace the lock</li> <li>- Replace the Logic board</li> </ul>
27 Motor rotation fault	<ul style="list-style-type: none"> <li>- Check the polarity of the motor cable</li> <li>- Remove the obstacle in closing.</li> </ul>
31 Consecutive obstacles in opening	<ul style="list-style-type: none"> <li>- Make sure that the leaf has been mounted correctly and that it moves smoothly, remove any friction</li> </ul>
39 Setup data missing or corrupted	<ul style="list-style-type: none"> <li>- Perform Setup</li> <li>- Replace the Logic board</li> </ul>

## 2.6 OTHER BOARD DATA

Go to menu 2.5.11 of the KP EVO. The display provides information on the following parameters:

- V MAIN : input voltage to the Logic board (Volts)
- V ACC : output voltage for accessories (Volts)
- POS : position of the rotating shaft (degrees)
- I MOT : current drawn by motor (Amperes)

## 2.7 FIRMWARE VERSIONS

Go to menu 9 of the KP EVO to view the firmware versions of the bootloader, the Logic board and the KP EVO.

## 2.8 LOG DATA


The 8300 records the last 512 system events. A battery must be installed on the Logic board in order to save the list of events in memory even if the system is switched off.



To download the data as a text file, see .




### 3. UPLOAD / DOWNLOAD

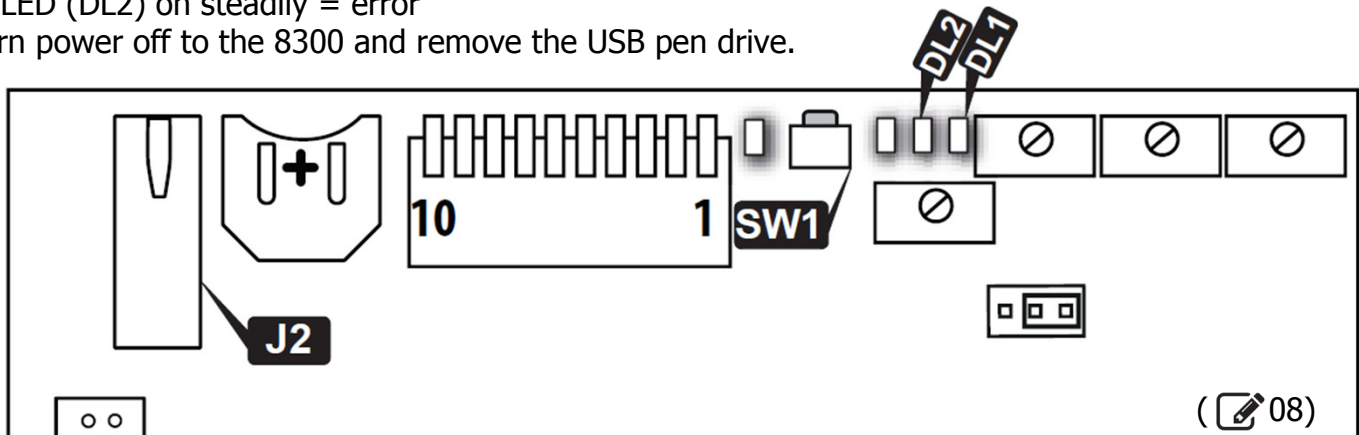
There is a USB port on the Logic board via which the following operations can be carried out:

- Load data from a USB pen drive (UPLOAD).
- Save data to a USB pen drive (DOWNLOAD).

 For both operations, the USB pen drive must be formatted with the FAT or FAT 32 file system. The NTFS format is not recognized.

 In order to upload, the files required, the names of which are indicated in  **H** must be present in the root directory of the USB pen drive.

1. Turn power off to the 8300.
2. Insert the USB pen drive in the USB port (J2) on the Logic board.
3. Turn power on to the 8300.
4. If the device is detected correctly, the green LED DL1 of the Logic ( 08) board lights up steadily.
5. The available functions are selected by briefly pressing button SW1 on the Logic board ( 08). The operation to be carried out is indicated by the number of ashes of the green LED. Each time the button is pressed, the operations selected are indicated in  **H**.
6. Press and hold the SW1 button for at least 3 seconds to use the function. The green LED ashes more quickly while the procedure is being carried out. When finished, the result is signaled by the status of the following LEDs:
  - green LED ( DL1 ) on steadily = completed successfully
  - red LED (DL2) on steadily = error
7. Turn power off to the 8300 and remove the USB pen drive.



#### **H** Selecting the upload/download functions

Green LED DL1	Function
1 flash	950N2 firmware update file required: 950N2.hex
2 flashes	KP EVO firmware update, including menu translation files required: KP EVO.hex e KP EVO_L.bin
3 flashes	950N2 and timer configuration upbad files required:
4 flashes	950N2, timer and LOG data configuration download files written: 950N2.prg, 950N2.tmr, 950N2.log

## 4. INTERCOM

### ■ DESCRIPTION

The 8300 is capable of communicating with other 8300 units via an Intercom network connection. This enables the following modes of operation to be used (KP EVO menu 2.6.1):

- INTERMODE: a master door from which to set the operating mode for all the other doors that are connected to the network.
- INTERLOCK: two single doors, where the opening of one is subject to the closing of the other and vice versa.
- 2 LEAVES: access consisting of a double leaf.
- 2 LEAVES + INTERLOCK: two interlocked accesses, each consisting of a double leaf.

Every network connected 8300 should be programmed for the same Intercom mode.

### ■ CONNECTION

The units in the network are connected via 3 cascade connected-wires between the J8 connectors of the I/O boards (✎9).

The sequence in which the units are wired is unimportant, but it is essential that a CASCADE connection is used.

The 2 DIP switches on the I/O board must be set as follows:

- On the first and last units of the cascade connection: both ON.
- On intermediate units (if any): both OFF.

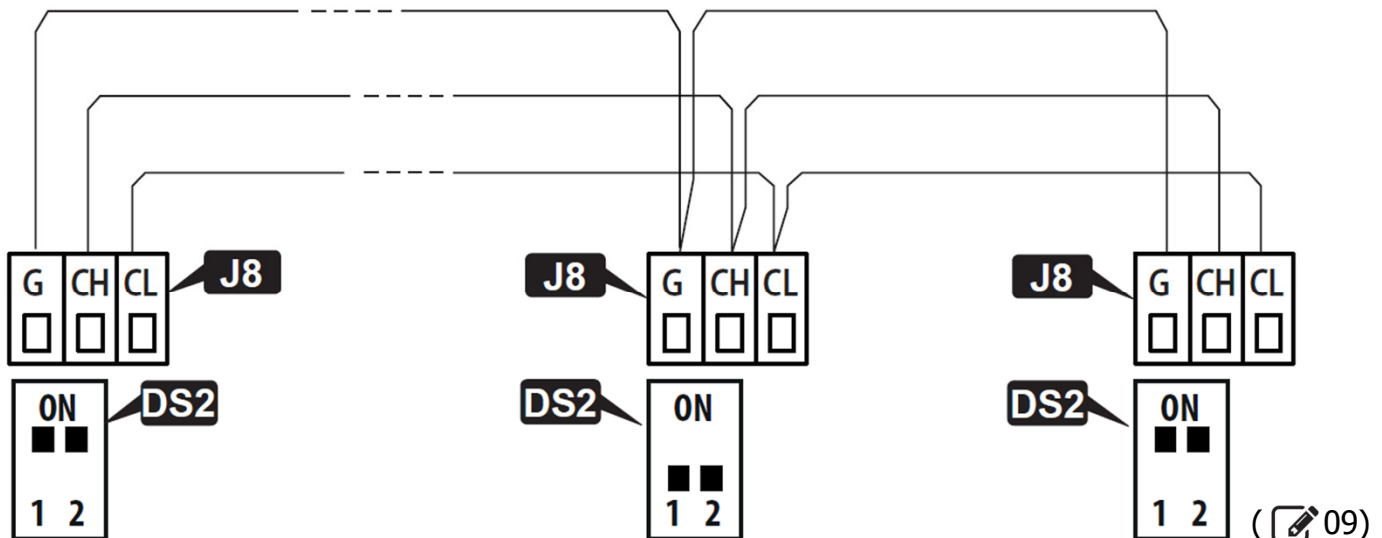
### ■ ADDRESSING

A unique ID (KP EVO menu 2.6.2) must be assigned to each 8300 in the network as indicated below.


Do not assign the same ID to more than one unit in the network.

### ■ REGISTRATION


After having wired up and assigned an address to each unit, registration (KP EVO menu 2.6.3), must only be carried out on the 950N2 that has been assigned ID1.



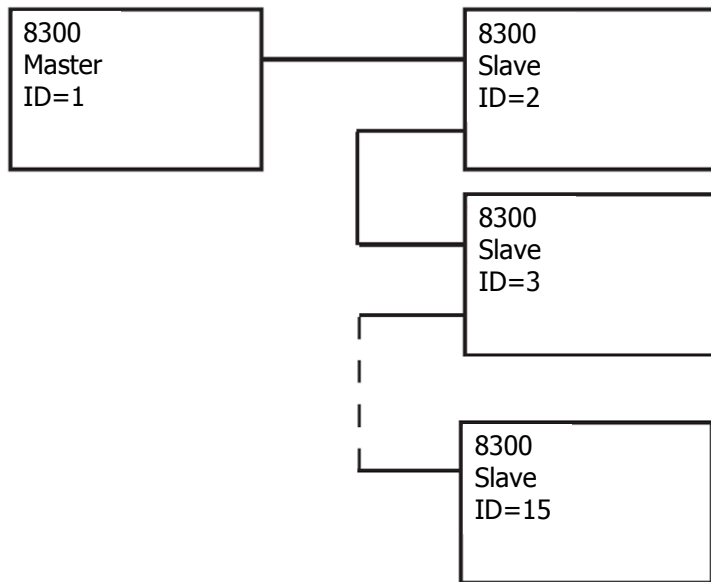
#### 4.1 INTERMODE

 10 shows the ID to assign to the 8300 units in the network.

The system consists of a Master unit and a maximum of 14 Slave units. The 8300 Master unit is the only one on which the operating mode should be set, which is then also applied immediately to all the Slave units.


 With INTERMODE, it is not possible to change the operating mode of an individual unit.

The Master must be assigned ID1 and the Slave units with ID from 2 to 14.





 10

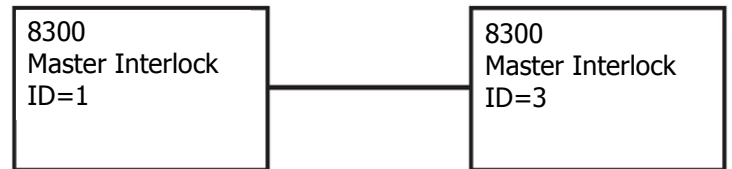
#### 4.2 INTERLOCK

 11 shows the ID to assign to the 8300 units in the network.

Either of the two units can be designated as the Master and the other as the Slave. In INTERLOCK mode, one door can open only if the other is closed. The available variations are shown below.

If the PARTIAL mode is associated with INTERLOCK, only the Master leaf opens.

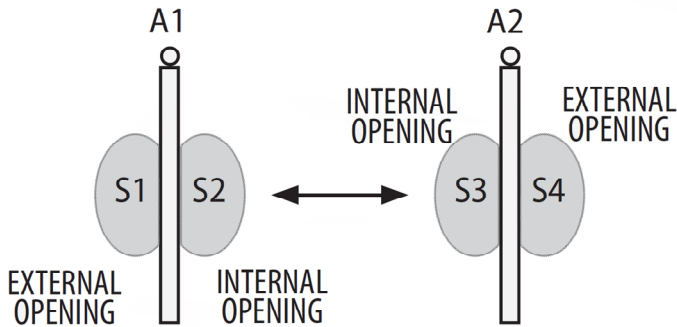
 Connect the devices and carry out the programming and Setup of the individual 8300 units before configuring the INTERLOCK using KP EVO. Select  on the Master unit to activate the INTERLOCK.



 11

**INTERLOCK WITH NO MEMORY**

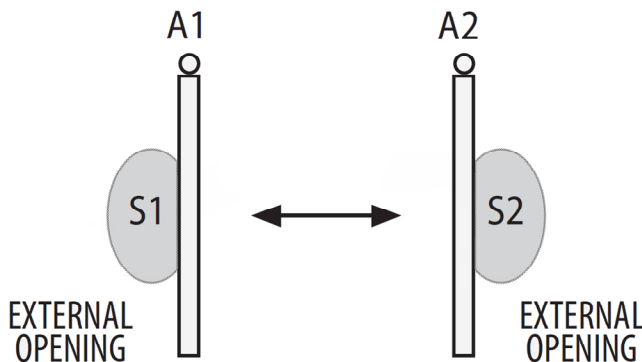
With 4 sensors: the second opening is not automatic. In order to open the door, the internal/external sensor must be triggered when the other door is closed. If the sensor is activated while the door is not yet closed, it has no effect.



	S1	S2	S3	S4
A1 closed A2 closed	A1 opens	A1 opens	A2 opens	A2 opens
A1 NOT closed A2 closed	A1 opens	A1 opens	request opening of A2	request opening of A2
A1 closed A2 Not closed	Request opening A1	Request opening A1	A2 opens	A2 opens

**INTERLOCK WITH MEMORY**

With 2 sensors or buttons: the second opening is automatic.



	S1	S2
A1 closed A2 closed	A1 opens, then A2	A2 opens, then A1
A1 NOT closed A2 closed	A1 opens and request opening A2	Request opening of A2
A1 closed A2 Not closed	Request opening of A1	A2 opens and request opening A1

**4.3 2 LEAVES**

12 shows the ID to assign to the 8300 units in the network.

If the two doors overlap, the one that opens first is designated as the Master. If there is no overlap, either of the two units can be designated as the Master and the other as the Slave.

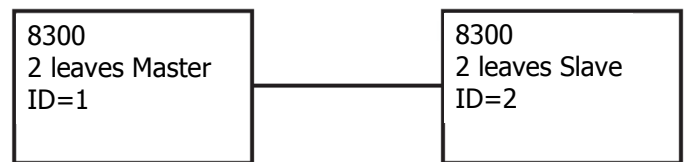
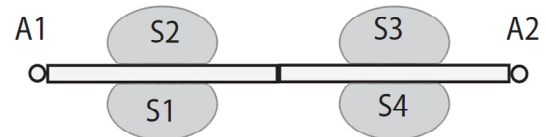
The movement of the leaves 2 is synchronized.

The internal / external door sensors and safety devices must be connected to their own unit; all other devices are connected only to the Master.

Connect the devices and carry out the programming and Setup of the individual 8300 units before activating the 2 LEAF function.

Only use the Master 8300 to change the operating mode.

The leaf opening / closing delay can be set in menu 2.5.5 of the KP EVO.



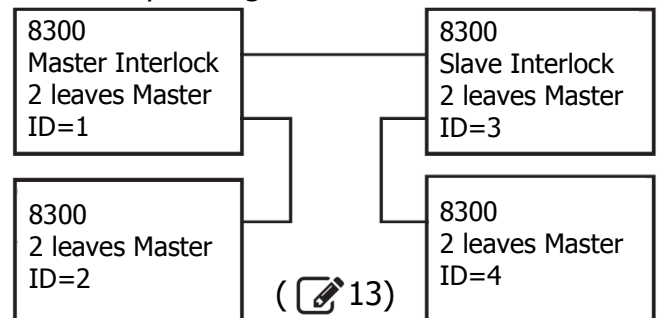
12

**4.4 2 LEAVES + INTERLOCK**

13 shows the ID to assign to the 8300 units in the network.

This configuration integrates the 2 LEAVES function (on two double-leaf accesses) with the interlock function.

Refer to the operating modes described above.



13