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.
- 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.

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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:
   - Bootloader version
   - Firmware version
   - Home screen

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 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.
1.3 SELECTION MENU
To access the SELECTION menu from the home screen, press the \( \rightarrow \) 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.

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 up and down 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 up and down buttons.
  - Confirm using the OK button to enter.

Press ESC at any time to return to the home screen.
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 TEST ENABLED / DISABLED
21 OPENING SAFETY NORMALLY OPENED / NORMALLY CLOSED TEST ENABLED / DISABLED
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
01…O2
01...02
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 TIME 1...90 S
10 INTRUSION ACTIVE NORMALLY OPENED / NORMALLY CLOSED
11 CLOSING SAFETY NORMALLY OPENED / NORMALLY CLOSED
12 SAFETIES NORMALLY OPENED / NORMALLY CLOSED
0 DISABLED NORMALLY OPENED / NORMALLY CLOSED
1 NIGHT
2 OPENED
3 EXIT ONLY
4 MANUAL

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...30s
   4 NIGHT SENSOR NIGHT 0...30s
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

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>E950E</td>
<td>BOOT</td>
<td>VER.<em>.</em></td>
</tr>
<tr>
<td>E950E</td>
<td>APP</td>
<td>VER.<em>.</em></td>
</tr>
<tr>
<td>KP EVO</td>
<td>APP</td>
<td>VER.<em>.</em></td>
</tr>
</tbody>
</table>

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 the 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.

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 ( Technician [B] User )

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

#### Access permissions and passwords

<table>
<thead>
<tr>
<th>Function</th>
<th>Technician PSW</th>
<th>User PSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANGUAGE</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>PROGRAMMING</td>
<td>X</td>
<td>(-)</td>
</tr>
<tr>
<td>ERRORS</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>WARNINGS</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>CYCLES COUNT</td>
<td>X</td>
<td>X (*)</td>
</tr>
<tr>
<td>DATE/TIME</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>TIMER</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>PASSWORD</td>
<td>X</td>
<td>X (*)</td>
</tr>
<tr>
<td>INFO</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

* with restrictions

The user is only allowed to modify the user password.
2. DIAGNOSTICS

2.1 LEDS CHECK

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

<table>
<thead>
<tr>
<th>LED</th>
<th>I/O board LEDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DL1</td>
<td>accessories power on</td>
</tr>
<tr>
<td>DL2-DL9</td>
<td>open contact</td>
</tr>
</tbody>
</table>

LOGIC BOARD LEDS
There are 4 LEDs on the Logic board:

<table>
<thead>
<tr>
<th>LED</th>
<th>Logic board LEDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DL1</td>
<td>green</td>
</tr>
<tr>
<td>DL2</td>
<td>red</td>
</tr>
<tr>
<td>DL3</td>
<td>blue</td>
</tr>
<tr>
<td>DL4</td>
<td>yellow</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Warnings</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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 |
| 53       | Number of maintenance cycles on Eprom corrupted  
- 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  
- 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)  
- 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  
- Check the connections  
- Check the ID  
- If the alarm persists, replace the Logic board |
| 72       | Slave Error/Alarm  
Interlock alarm  
- 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.

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

<table>
<thead>
<tr>
<th>Error</th>
<th>Action required</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 Consecutive obstacles in closing</td>
<td>- Remove the obstacle in closing.</td>
</tr>
<tr>
<td></td>
<td>- Make sure that the leaf has been mounted correctly and that it moves smoothly, remove any friction</td>
</tr>
<tr>
<td>26 Lock failure</td>
<td>- Check the wiring of the lock</td>
</tr>
<tr>
<td></td>
<td>- Check that the maximum load of the lock has not been exceeded</td>
</tr>
<tr>
<td></td>
<td>- Replace the lock</td>
</tr>
<tr>
<td></td>
<td>- Replace the Logic board</td>
</tr>
<tr>
<td>27 Motor rotation fault</td>
<td>- Check the polarity of the motor cable</td>
</tr>
<tr>
<td>31 Consecutive obstacles in opening</td>
<td>- Remove the obstacle in closing.</td>
</tr>
<tr>
<td></td>
<td>- Make sure that the leaf has been mounted correctly and that it moves smoothly, remove any friction</td>
</tr>
<tr>
<td>39 Setup data missing or corrupted</td>
<td>- Perform Setup</td>
</tr>
<tr>
<td></td>
<td>- Replace the Logic board</td>
</tr>
</tbody>
</table>

### 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 ₹, 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 (lasting) board lights up steadily.
5. The available functions are selected by briefly pressing button SW1 on the Logic board (lasting). 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 ₹.
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

<table>
<thead>
<tr>
<th>Green LED DL1</th>
<th>Function</th>
<th>File Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 flash</td>
<td>950N2 firmware update</td>
<td>950N2.hex</td>
</tr>
<tr>
<td>2 flashes</td>
<td>KP EVO firmware update, including menu translation</td>
<td>KP EVO.hex e KP EVO_L.bin</td>
</tr>
<tr>
<td>3 flashes</td>
<td>950N2 and timer configuration upload</td>
<td>files required:</td>
</tr>
<tr>
<td>4 flashes</td>
<td>950N2, timer and LOG data configuration download</td>
<td>files written: 950N2.prg, 950N2.tmr, 950N2.log</td>
</tr>
</tbody>
</table>
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.

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.
**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.

![Diagram of interlock with no memory]

<table>
<thead>
<tr>
<th></th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 closed A2 closed</td>
<td>A1 opens</td>
<td>A1 opens</td>
<td>A2 opens</td>
<td>A2 opens</td>
</tr>
<tr>
<td>A1 NOT closed A2 closed</td>
<td>A1 opens</td>
<td>A1 opens</td>
<td>[request opening of A2]</td>
<td>[request opening of A2]</td>
</tr>
<tr>
<td>A1 closed A2 Not closed</td>
<td>Request opening of A1</td>
<td>Request opening of A1</td>
<td>A2 opens</td>
<td>A2 opens</td>
</tr>
</tbody>
</table>

**INTERLOCK WITH MEMORY**
With 2 sensors or buttons: the second opening is automatic.

![Diagram of interlock with memory]

<table>
<thead>
<tr>
<th></th>
<th>S1</th>
<th>S2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 closed A2 closed</td>
<td>A1 opens, then A2</td>
<td>A2 opens, then A1</td>
</tr>
<tr>
<td>A1 NOT closed A2 closed</td>
<td>A1 opens and request opening of A2</td>
<td>A2</td>
</tr>
<tr>
<td>A1 closed A2 Not closed</td>
<td>Request opening of A1</td>
<td>A2 opens and request opening of A1</td>
</tr>
</tbody>
</table>

**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.

**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.