E1SL
SDK EVO
LK EVO
KS EVO

EN This document contains updated instructions starting from the FW versions indicated:

E1SL	FW 3.4
SDK EVO	FW 3.4
LK EVO	FW 1.3
KS EVO	FW 1.0

FAAC

CONTENTS

TABLES

FAAC

Translation of the original instructions

1. ELECTRONIC MODULE E1SL

The E1SL electronic module is designed to control FAAC automation models A1000, A1400 AIR, RKE 1400, SF1400, GBF1500. The installation instructions must be followed.

Motorised pedestrian doors fall within the scope of the type "C" harmonised European Standard EN 16005:2012. It is assumed that automation systems manufactured in accordance with this standard also comply with the essential safety requirements of the Directive 2006/42/EC.

This however does not exempt the manufacturer from carrying out a risk analysis in order to implement appropriate measures for those

risks that are not covered by the standard or by the manufacturers of the components. FAAC S.p.A. recommends that you always comply with the EN 16005:2012 standard and in particular that you adopt the criteria and safety devices indicated, without exception.

F1   **F2**

POWER SUPPLY UNIT

ELECTRONIC BOARD E1SL

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Fuses

F1	battery protection	8 A T (delayed)
F2	accessory protection	2 A F (quick)
F3	power supply unit primary protection	2.5 A T (delayed) 5x20 mm

Switching power supply 230 V~ +6% -10%
self-protected from overloads

F3
(removable support)

Mains power supply input
(230V~ +6% -10%)

✎ 1

BOARD E1SL

SW1
SETUP RESET

Display

Clock battery: lithium 3V CR2032
(NOT SUPPLIED)

DO NOT remove this cover

SW3 +   SW2 −   SW4 F

Buttons

SW1	SETUP / RESET
SW2	"-" (scrolls programming values)
SW3	"+" (scrolls programming values)
SW4	"F" (programming: scrolls functions/confirms values)

✎ 2

STATUS LEDS ON THE BOARD
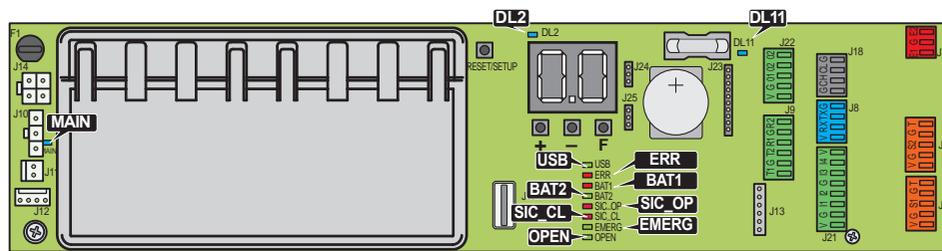
LED		Description
MAIN	BLUE	main power supply unit input
DL2	BLUE	board power +5V
DL11	BLUE	accessories power (+24 V ⎓)
USB	GREEN	USB storage device
ERR	RED	error or warning
BAT1	RED	battery status
BAT2	GREEN	battery charger status
SIC_OP	RED	safety in opening
SIC_CL	RED	safety in closing
EMERG	GREEN	emergency command
OPEN	GREEN	OPEN command

SIC_OP and SIC_CL lit simultaneously = safety STOP

✎ 3

TERMINAL BOARDS AND CONNECTORS
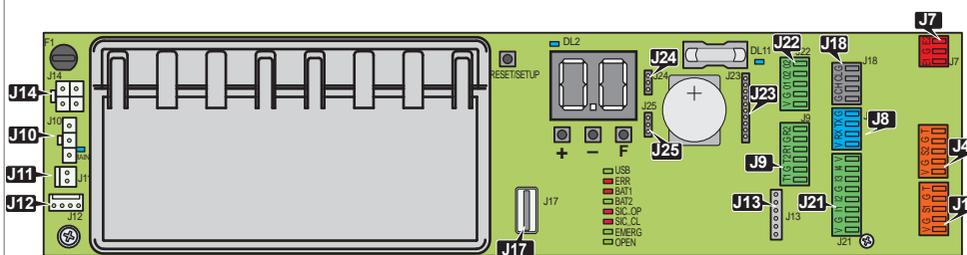
J1	Removable terminal board configurable inputs S1		**J14**	Connector for emergency battery
J4	Removable terminal board configurable inputs S2		**J17**	USB port
J7	Removable terminal board configurable inputs E1, E2		**J18**	Removable terminal board INTERCOM
J8	Removable terminal board keypad or EVO functions selector		**J21**	Removable terminal board configurable inputs I1, I2, I3, I4
J9	Removable terminal board for button photocells		**J22**	Removable terminal board configurable outputs O1, O2
J10	Connector for main power supply 36 V, 4 A		**J23**	
J11	Connector for motor M1		**J24**	Connectors for optional modules NOT USED
J12	Connector for motor M1 encoder		**J25**	
J13	Connector for motor block and monitoring			

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FAAC

2. DM BOARD

A DM board must be installed on automations fitted with a double motor.

INSTALLING THE DM BOARD

⚠️ Before proceeding, disconnect the mains power supply and disconnect the emergency battery (if present).

1. Remove the E1SL board: remove all the connections, the screw (**1**) and the screw with washer (**2**), then remove the board from the support (**3**).
2. Unscrew the 2 screws (**4**) and remove the plastic cap, pulling out the 2 pins (**5**).
3. **Install the DM** board   Refer to ✎ **6**, install the 4 posts (**6**) on the E1SL board and fasten them using the screws provided (**7**).   Insert the 2 comb connectors into the connectors of the E1SL board as far as the connector (**8**).   Insert the DM board (**9**) on the side opposite the comb connectors, as far as the connector (**8**).   Fasten the DM board onto the 4 posts using the screws provided (**10**).
4. Replace the plastic cap, inserting the 2 pins (**5**) into the board E1SL.   Fasten it using the 2 screws (**4**).
5. With reference to ✎ **5**, Reinstall the E1SL board into the seats (**3**).   Fix in position with the screw (**1**) and the screw with washer (**2**).   **IMPORTANT**: the washer provides the board's earth connection.
6. Restore all connections.

CONNECTING THE SECOND MOTOR

1. Extend the motor cable using the cable with connector and the terminal connector provided.
2. With reference to ✎ **7**, insert the connector (**11**) onto the board DM (**12**). Follow the colour coding of the wires.

ENABLING THE DM KIT

During programming:
- **from Board**, advanced programming: dM = Y

or

- **from SDK EVO**:

🔧 /PROGRAMMING/INSTALLATION/2ND ENGINE KIT = ENABLED

Removing/reinstalling the E1SL board
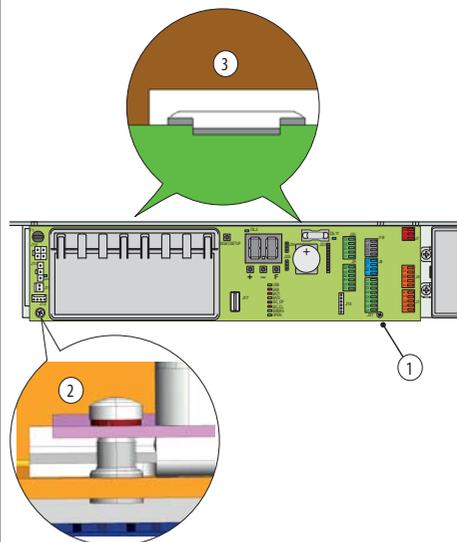
Removing/reinstalling the cap

✎ 5

FAAC
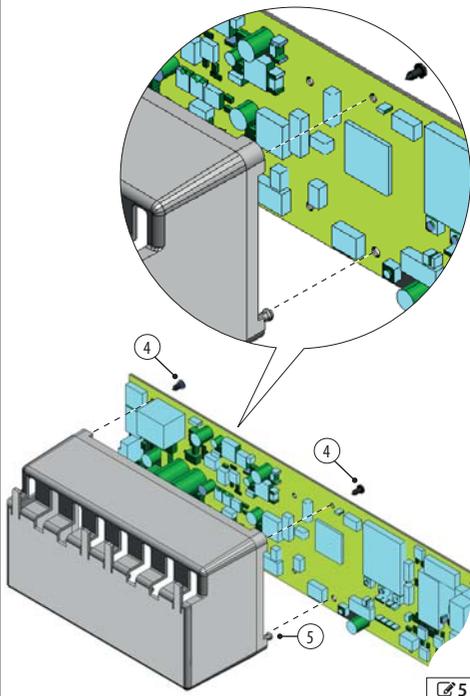
Installing the DM board
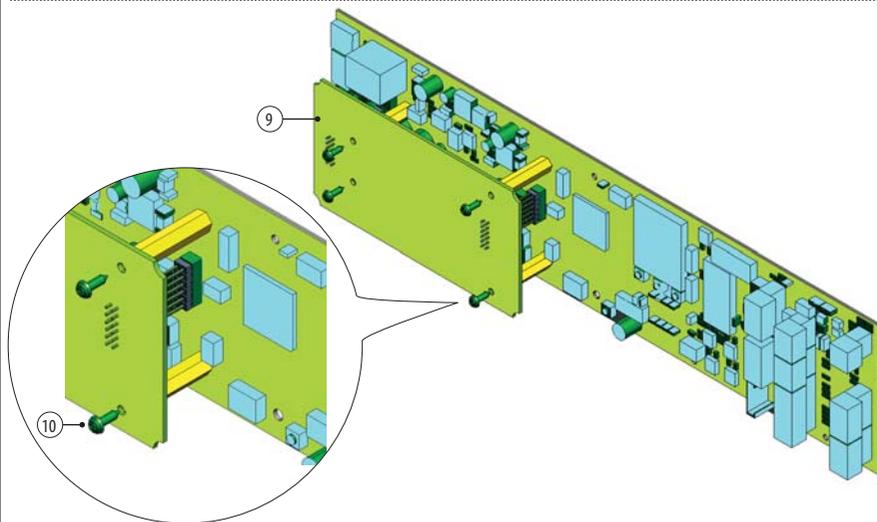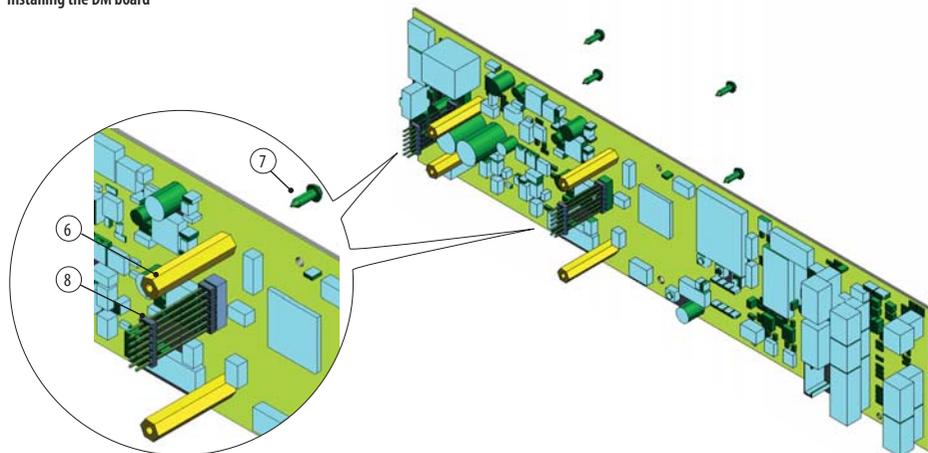
⎙ 6

2ⁿᵈ MOTOR connection

red

black

⎙ 7

FAAC
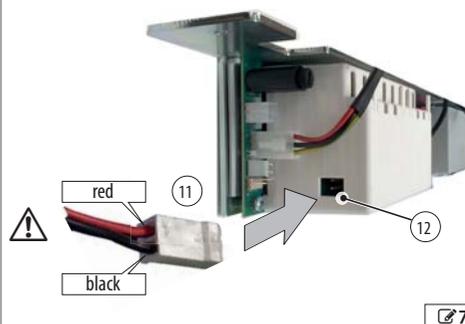
3. OPERATING MODE (MODFUN)

The operating mode of the automation can be assigned using the devices shown in the table on this page and from the TIMER (relative § Section). **Note:** the order of priority for assigning the mode is: TIMER, Configured input, Function selector (KS EVO, LK EVO, SDK EVO).

■ **AUTOMATIC mode**

The automation CLOSES AUTOMATICALLY after the programmed pause time.

TWO-DIRECTIONAL Two-directional transit is allowed (Internal Opening and External Opening enabled).

EXIT ONLY Only exiting is allowed (External open disabled).

ENTRY ONLY Only entry is allowed (Internal Open disabled).

■ **AUTO MANUAL mode**

The automation allows MANUAL OPENING and CLOSES AUTOMATICALLY after the set pause time.

■ **MANUAL mode**

The leaves are free to move and may only be manually operated. No command is active.

Before exiting from this mode, make sure that the leaves can be moved safely. When you exit from MANUAL mode, the board will carry out a RESET.

■ **OPEN mode**

The automation opens and remains open.

■ **NIGHT-TIME mode**

The automation closes and remains closed. External Opening is disabled. Internal Opening is enabled only in the time interval programmed as NIGHT-TIME MODE DELAY. It can only be opened via Key, Emergency Opening and Pharmacy open inputs (with automatic closing after the NIGHT PAUSE time).

■ **INTERLOCK mode**

The opening of one automation is subject to the closing of another (§ specific Section). INTERLOCK can be selected for TWO-DIRECTIONAL transit, ENTRY ONLY, or EXIT ONLY.

⊞ **1** Assigning the Operating mode

Function (✱) = NOT available for SF1400 and GBF1500		SDK EVO	LK EVO/KS EVO	Programming the configurable input
AUTOMATIC TWO-DIRECTIONAL	TOTAL	◀▶ ◆ 100%	↑↓	-
	PARTIAL (✱)	◀▶ ◆ %	❄	45
AUTOMATIC EXIT ONLY	TOTAL	◀▶ ▲ 100%	↑	41
	PARTIAL (✱)	◀▶ ▲ %	-	-
AUTOMATIC ENTRY ONLY	TOTAL	◀▶ ▼ 100%	-	42
	PARTIAL (✱)	◀▶ ▼ %	-	-
AUTO MANUAL	TOTAL	◀▶ 🖐 100%	-	47
	PARTIAL (✱)	◀▶ 🖐 %	-	-
MANUAL		🖐	🖐	44
OPEN	TOTAL	❚❚ 100%	↔	40
	PARTIAL (✱)	❚❚ %	-	-
NIGHT	TOTAL	☾ 100%	☾	43
	PARTIAL (✱)	☾ %	-	-
INTERLOCK TWO-DIRECTIONAL	TOTAL	⊞ ◆ 100%	-	46
	PARTIAL (✱)	⊞ ◆ %	-	-
INTERLOCK EXIT ONLY	TOTAL	⊞ ▲ 100%	-	-
	PARTIAL (✱)	⊞ ▲ %	-	-
INTERLOCK ENTRY ONLY	TOTAL	⊞ ▼ 100%	-	-
	PARTIAL (✱)	⊞ ▼ %	-	-

4. CONNECTIONS

RISKS

PERSONAL PROTECTIVE EQUIPMENT

REQUIRED TOOLS

⚡ Before working on the board, always turn off the mains power supply and disconnect the emergency battery (if present). Turn the power back on only after completing all the electrical connections and carrying out the preliminary start-up checks.

ⓘ The maximum total load of accessories connected to the board (+24 V ⎓) must not exceed 1A (except SDK EVO).

1. The motor M1 must be connected to connector J11.
2. The encoder must be connected to connector J12.
3. A DM board must be installed on automations fitted with a double motor in compliance with the instructions provided in the specific chapter.
4. For connecting additional devices, where present, please refer to the specific chapters:
   - XB LOCK or XM LOCK motor block
   - XFA button photocells
   - XV1 or XDT1 detectors, single or double, exit and entry, for opening and safety in closing
   - XBFA ON detectors for safety in opening
   - Configurable inputs
   - Configurable outputs
   - LK EVO, KS EVO, SDK EVO function selectors

Motor M1 and encoder connection

✎ 8

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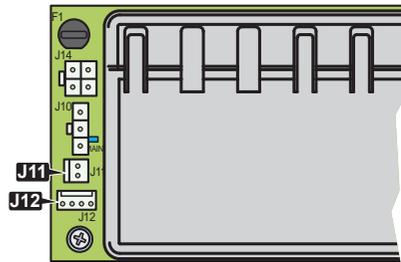
5. CONFIGURABLE INPUTS

These inputs have an assigned function (⊞ Configurable inputs), which are modifiable in programming.   Some functions vary if the Energy Saving is active (relative § Section).

PROGRAMMING

For the available options, see ⊞ Programming configurable Inputs and the following sections.   The input is activated according to how the contact logic is programmed: NO = the input activates when the contact closes,   NC = the input activates when the contact opens.

- **from Board**: Basic Programming for the inputs of terminal board J21. Advanced Programming for the inputs of terminal boards J1, J4 and J7.

The default contact logic can only be modified via the SDK EVO. The test (IF, 2F ...) is only available for the inputs configured as Opening Safety, Closing Safety and Safety STOP.

- **from SDK EVO:**

🔧 /PROGRAMMING/INPUTS/OUTPUTS . . .

. . .INPUTS I1-I4   or INPUTS S1-S2   or INPUTS E1/E2   (select the input)

. . .FUNCTION   (select no . . .61)

. . .NO/NC   (the contact logic must be programmed according to the type of contact of the device)

. . .TEST   (available for inputs configured as Safeties)

CONNECTIONS

Only connect devices with a volt free contact to configurable inputs. The contact of the device must be connected between the input and GND.

I1, I2, I3, I4 (TERMINAL BOARD J21)

V	+24 V ⎓ accessories power supply
I4	Configurable **input I4**
I3	Configurable **input I3**
G	**GND** Accessories power supply negative and Common contacts
I2	Configurable **input I2**
I1	Configurable **input I1**
G	**GND** Accessories power supply negative and Common contacts
V	+24 V ⎓ accessories power supply

S1 (TERMINAL BOARD J1), S2 (TERMINAL BOARD J4)

T	TEST
G	GND Power supply negative and Common contacts
S1	Configurable input S1
G	GND Power supply negative and Common contacts
V	+24 V ⎓ (accessories power supply)

T	TEST
G	GND Power supply negative and Common contacts
S2	Configurable input S2
G	GND Power supply negative and Common contacts
V	+24 V ⎓ (accessories power supply)

E1, E2 (TERMINAL BOARD J7)

E2	Configurable input E2
G	GND Accessories power supply negative and Common contacts
E1	Configurable input E1

⊞ **2** Configurable inputs

Input (terminal board)	Default Programming	Board function: (default)
I1	External OPENING (NO)	C1 (1)
I2	Internal OPENING (NO)	C2 (4)
I3 (J21)	KEY (NO)	C3 (10)
I4	Automatic Opening (NO)	C4 (7)
S1 (J1)	Closing Safety (NC)	P1 (20)
	TEST enabled	1F (4)
S2 (J4)	Closing Safety (NC)	P2 (20)
	TEST enabled	2F (4)
E1 (J7)	not enabled	E1 (no)
E2	not enabled	E2 (no)

⊞ **3** Configurable inputs programming

from SDK EVO	from Board
input NOT enabled	no
EXTERNAL OPENING	1 (NO)
INTERNAL OPENING	4 (NO)
AUTOMATIC OPENING	7 (NO)
SEMI-AUTOMATIC OPENING	8 (NO)
PHARMACY OPEN (NOT for SF1400 and GBF1500)	9 (NO)
KEY	10 (NO)
PARTIAL OPEN (NOT for SF1400 and GBF1500)	11 (NO)
CLOSING SAFETY (TEST available)	20 (NC)
OPENING SAFETY (TEST available)	21 (NC)
SAFETY STOP (TEST available)	23 (NC)
EMERGENCY OPENING	30 (NC)
EMERGENCY OPENING with MEMORY	31 (NC)
EMERGENCY STOP	32 (NC)
EMERGENCY STOP with MEMORY	33 (NC)
EMERGENCY CLOSING	34 (NC)
EMERGENCY CLOSING with MEMORY	35 (NC)
EMERGENCY BREAK OUT	37 (NC)
TOTALLY OPEN	40 (NO)
AUTOMATIC EXIT ONLY TOTAL	41 (NO)
AUTOMATIC ENTRY ONLY TOTAL	42 (NO)
NIGHT TOTAL	43 (NO)
MANUAL	44 (NO)
AUTOMATIC TWO-DIRECTIONAL PARTIAL (NOT for SF1400 and GBF1500)	45 (NO)
INTERLOCK TWO-DIRECTIONAL TOTAL	46 (NO)
AUTO MANUAL TOTAL	47 (NO)
TIMER	60 (NO)
RESET	61 (NO)
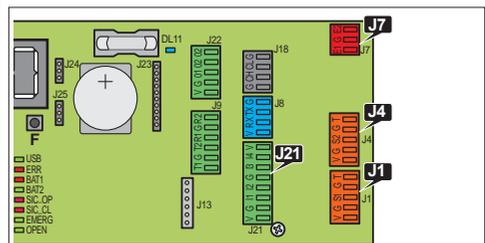
AUTOMATIC OPENING INPUTS

When one of the following inputs is activated, the automation opens and closes again after the pause time. The automation does not close as long as the input is active.

EXTERNAL OPENING (1) Input specifically for external control devices. The input is disabled in NIGHT-TIME or EXIT ONLY mode.

INTERNAL OPENING (4) Input specifically for internal control devices. The input is disabled in ENTRY ONLY mode. In NIGHT-TIME mode, the input is enabled only in the time interval programmed as NIGHT-TIME MODE DELAY.

AUTOMATIC OPENING (7) The input is disabled in NIGHT-TIME mode (it is enabled in EXIT ONLY and ENTRY ONLY mode).

PHARMACY OPEN (9) In NIGHT mode, the command opens the leaves to the percentage programmed in PARTIAL PHARMACY. The input opens the leaves automatically in the other operating modes.

KEY (10) Command also enabled in NIGHT-TIME mode.

PARTIAL OPEN (11) Partially opens the automation to the programmed percentage. It is NOT enabled in the NIGHT mode.

SEMI-AUTOMATIC OPEN INPUT

(8) When the input is activated with the automation closed, the automation opens (TOTAL or PARTIAL according to the operating mode selected) and remains open. When the input is activated with the automation open, it closes it.

The input is NOT active in NIGHT-TIME mode.

SAFETY INPUTS

⚠️ Use monitored safety devices that are compliant with standard EN 16005:2012 on inputs configured for safety functions.

On the inputs configured as Safeties, the Test to make sure that the automation works correctly must be enabled before movement takes place. If the test isn't passed, movement is inhibited (TEST ERROR). Alternatively, from SDK EVO it is possible to enable movement in Low Energy mode.

🔧/PROGRAMMING/MISCELLANEUS/TEST ERROR ENABLED = movement inhibited, DISABLED = movement in Low Energy mode.

CLOSING SAFETY (20) Connect the closing safety devices. When this input is activated:
- during closing, the automation reverses the movement
- when the automation is open, it prevents it from closing
- when the automation is paused, it resets the pause time

OPENING SAFETY (21) Connect the opening safety devices. When the input is activated during opening, the effect depends on the programming:
  STOP the movement stops until the safety in opening is disengaged; it then continues to open.
  Low Energy the movement slows down until fully open.
  - **from Board** Advanced Programming: ⊔Ł (1=STOP 2= Low Energy)
  - **from SDK EVO**: 🔧/PROGRAMMING/MISCELLANEUS/OPENING SAFETY FUNC.

SAFETY STOP (23) When this input is activated, the automation stops and remains stopped. When the input is deactivated, it starts to move again. In NIGHT-TIME mode, the movement stops, and when disengaged the automation closes.

- **EMERGENCY INPUTS**

The EMERGENCY inputs have priority over any other input, in any NON MANUAL operating condition and mode.

If more than one EMERGENCY input is activated that have different configurations, the order of priority is: Emergency Opening, then Emergency Stop, then Emergency Closing.
  - Programmed input WITH NO MEMORY: when the status of the input is restored, the automation starts to operate normally again.
  - Programmed input WITH MEMORY: when the status of the input is restored, a RESET has to be carried out in order for the automation to start operating normally again.

EMERGENCY OPENING (30, 31) When the input is activated, the automation opens (always TOTAL opening) and remains open as long as the emergency is active.

EMERGENCY STOP (32, 33) When the input is activated, the automation stops and remains stopped as long as the emergency is active.

EMERGENCY CLOSING (34, 35) When the input is activated, the automation closes and remains closed as long as the emergency is active.

EMERGENCY BREAK OUT (37) When the input is activated following the breakout of the APN, an automation reset is activated: slow opening and re-engagement of the leaves. After 10 s, the board restores the operation of the automation.

OPERATING MODE INPUTS

These inputs allow an operating mode to be selected (§ specific Section). When the input is deactivated, the automation reverts to the mode that was previously selected.

Operating mode order of priority: Manual **(44)**, Night Total **(43)**, Open Total **(40)**, Automatic Exit Only Total **(41)**, Automatic Entry Only Total **(42)**, Automatic Two-directional Partial **(45)**, INTERLOCK Two-directional Total **(46)**, Auto Manual Total **(47)**.

TIMER INPUT

(60) When the input is activated, TIMER programming is enabled, which automatically assigns the operating mode to the programmed time bands. When the input is deactivated, the TIMER programming is disabled.

RESET INPUT

(61) This input carries out a RESET (specific § Section).

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6. CONFIGURABLE OUTPUTS

The configurable outputs allow warnings to be generated from the board under certain conditions. These outputs have an assigned function (⊞ Configurable outputs), which are modifiable in programming. Carry out the programming, then make the connections.

PROGRAMMING

For the available options, see ⊞ Programming configurable Outputs and the following sections.   The output is activated according to how the contact logic is programmed: NO = the contact closes when the output is active,   NC = the contact opens when the output is active.

 - **from Board** Advanced Programming: o1, o2. The contact logic is assigned by Default.

or

 - **from SDK EVO**:   🔧 /PROGRAMMING/INPUTS/OUTPUTS . . .

   . . .OUTPUTS 01/02 (select the output)

   . . .FUNCTION (select no. . .15)

   . . .NO/NC (the output contact logic has to be programmed)

GONG (1)   indicates that at least one input configured as safety in closing/Stop is active. Indicated at 1 s intervals.

ERROR (2)   indicates an error, or INTRUSION in NIGHT-TIME mode, or a LOCK fault in NIGHT-TIME mode event is active.

BATTERY (3)   indicates that the automation is operating on the battery, as there is no mains power.

EMERGENCY ACTIVE (4)   indicates that at least one input configured as emergency is active.

SAFETIES TEST (5)   carries out a test on the devices connected to the inputs configured as Safeties and with TEST enabled.

DOOR NOT CLOSED (6)   indicates that the automation is NOT closed.

DOOR OPEN (7)   indicates that the automation is open.

DOOR MOVING (8)   indicates that the automation is moving.

LIGHT (9)   switches on the courtesy light when the automation starts to open. The output remains active for 60 s (time can be modified via the SDK EVO up to 240 s).

INTRUSION ACTIVE (10)   when the automation is closed, indicates an unexpected opening (the encoder detects a movement of more than 1 cm).

CLOSING SAFETY (11)   indicates that at least one Safety in Closing is active.

SAFETIES (12)   indicates that at least one Safety in Closing or Opening is active.

AIRSLIDE SP1 (13)   indicates that the air is activated at speed SP1 when the AIRSLIDE is in manual.

AIRSLIDE SP2 (14)   indicates that the air is activated at speed SP2 when the AIRSLIDE is in manual.

LOCK (15)   indicates that the Motor block is on.

CONNECTIONS

Do not exceed the maximum load indicated. If you use output 01, connect the device to 01 and V.

01, 02 (TERMINAL BOARD J22)

	02 **02**	Relay contact output OUT2 Max load 2A +24 V ⎓
	01	Open Collector output OUT1 Max load 100 mA
	G	**GND** Accessories power supply negative and Common contacts
	V	+24 V ⎓ accessories power supply

⊞ **4** Configurable outputs

Exit (terminal board)	Default programming	Board function and (default):
01 (J22)	AUTOMATION NOT CLOSED (NO)	o1 (6)
02	BOARD ERROR/FAULT (NO)	o2 (2)

⊞ **5** Programming Configurable Outputs

SDK EVO function	Board value and (default):
Output NOT enabled	no
GONG	1 (NO)
ERROR	2 (NO)
BATTERY	3 (NO)
EMERGENCY ACTIVE	4 (NO)
SECURITIES TEST	5 (NC)
DOOR NOT CLOSED	6 (NO)
DOOR OPEN	7 (NO)
DOOR MOVING	8 (NO)
LIGHT	9 (NO)
INTRUSION ACTIVE	10 (NO)
CLOSING SAFETY DEVICE	11 (NO)
SAFETIES	12 (NO)
AIRSLIDE SP1	13 (NO)
AIRSLIDE SP2	14 (NO)
LOCK	15 (NO)

7. START-UP

PERSONAL PROTECTIVE EQUIPMENT

SET-UP PROCEDURE

Preliminary checks   disconnect the mains power supply and disconnect the emergency battery (if present) as well as the motor(s). Move the leaves manually. Make sure that the leaves slide smoothly, uniformly and without friction. When finished, reconnect the motor(s).

Carry out the start-up procedure, referring to the relative sections.

1. Turn the power on, connect the emergency battery (if present) and check the status of the inputs.
2. Set the model of the automation:
- **from board**   Basic programming: CF
- **from SDK EVO**:   🔧 /PROGRAMMING/DOOR TYPE...

FHE SLIDING   select the model RKE 1400

SF1400   requires you to set the Leaf number and passage opening:
- **from board**   Basic programming: CF=4 Ln=Io2 e Lt=Io2o3
- **from SDK EVO**:   🔧 /PROGRAMMING/DOOR TYPE SF1400
  ...1 LEAF or 2 LEAVES
  ...SELECT PASSING SPACE

DOUBLE MOTOR   for automations with a double motor, enable the Double Motor Kit:
- **from board**   Advanced Programming: dM=Y
- **from SDK EVO**:   🔧 /PROGRAMMING/INSTALLATION/2ND ENGINE KIT   Enabled
3. Perform **SETUP**.
4. Complete the programming according to the required operating characteristics.
5. Make sure that the automation works correctly in all the operating modes with all the devices installed (control devices, safety detectors, function selectors and devices connected to the inputs and outputs...).
 - For doors in Low Energy mode, make sure that the forces generated by the leaf are within the limits permitted by legislation. Use an impact force tester in accordance with standard EN 12453: 2017. For non-EU countries, if there are no specific local regulations, the static force must be less than 67 N.
 - For doors that are not in Low Energy mode, make sure that the test object is detected in all areas affected by the door movement.
6. Once the set-up has been completed, we recommend that you save the complete configuration for the automation by using the DOWNLOAD option (§ Menu Upload/Download).

■ INTERCOM

Complete the start-up procedure for each automation before setting up an INTERCOM network. Only connect the boards to the network, carry out the programming and enable INTERCOM after doing this (§ specific section).

7.1 TURN THE POWER ON

1. Turn the mains power back on. The board turns on.
   - The following are displayed on the main board and the SDK EVO (if used):

Board display	SDK EVO display
bo	Bootloader x.x
(Bootloader phase)	(SDK EVO bootloader version)

Board display	SDK EVO display
x.x	x.x version
(E1SL FW version)	(SDK EVO FW version)
LO flashing light	SETUP
(SETUP request)	(SETUP request)

   - If there are ERRORS, see § Diagnostics Section.
2. Check the input status LEDs on the board (§ Diagnostics Section).

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7.2 SETUP

The board acquires the movement space of the leaves via the SETUP.

WHEN IS SETUP NECESSARY?

- when the automation is first put into operation or after replacing the board
- after a change in the model of the automation, or the direction of rotation of the motor, or the DM KIT has been enabled/disabled
- following any travel variation
- following a change in the number of leaves or the passage opening for the SF1400
- after a reset to factory settings
- when the display indicates error ∃9

Impediments to SETUP The following are reasons for the SETUP procedure NOT being carried out or being interrupted (error 15):

- emergency inputs active
- MANUAL mode selected
- NIGHT-TIME operating mode
- the automation is operating on the battery, as there is no mains power.

Activation of the safeties does not prevent SETUP from being performed

PERFORM SETUP

⚠️ The inputs configured as safeties are ignored during SETUP. To prevent any hindrance to motion, keep at a distance and prevent anyone from going near the system.

1. Make sure that there is nothing that can prevent the SETUP procedure from being carried out and that the correct automation model has been set.
2. Bring the leaf to its halfway position.
3. Start the SETUP procedure:

- **from board**: press and hold the SW1 button for approximately 5 s, until L0 appears on the display

- **from SDK EVO**: 🔧 /PROGRAMMING/INSTALLATION/START SETUP   OK

4. The display shows the phases of the SETUP (L0…L2) and the status of the automation when it has been completed.

If at the start of the SETUP procedure, the automation OPENS instead of CLOSING, reverse the direction of rotation of the motor:

- **from board** Basic programming: r⊓

- **from SDK EVO**: 🔧 /PROGRAMMING/INSTALLATION/MOTOR ROTATION   select STANDARD or NON STANDARD

7.3 RESTORING FACTORY SETTINGS

The procedure:

- deletes the SETUP data, the board LOG files and any TIMER programming
- restores all the programming defaults, including the model of the automation
- resets the cycle counters
- causes the time and date to be lost
- restores the default password (0000)

1. Turn off the mains power supply and disconnect the emergency battery (if present), then turn the mains power back on.
2. Within the first 4 s after switching on (while the display is showing the FW version), press the **+ − F** buttons simultaneously for about 5 s

- The display indicates – –

3. Release the buttons: the display will indicate the status of the automation.

After restoring the factory settings, carry out the set-up procedure again.

To restore programming defaults ONLY:

- **from board** Basic programming: dF   select Y
- **from SDK EVO**: 🔧 /PROGRAMMING/MISCELLANEUS/CONFIG. DEFAULT   select OK

if NO appears, select OK   the following question appears:

…DO YOU WANT TO LOAD DEFAULT CONFIG ?   select OK or ESC

SETUP from board

⏳ 5 s

SW1
SETUP/RESET

L0…L1…L2

L0   start SETUP
L1   close the automation
L2   open the automation

✏️ 9

Restoring factory settings

3.4   – –

+ − F ⏱ 5 s

within 4 s of switching on

✏️ 10

7.4 PROGRAMMING THE BOARD

Programming can be carried out **from the BOARD**, using the buttons **+**, **−**, **F**, or **from the SDK EVO**.

- Programming from the **SDK EVO** offers a wider number of options. If values have been programmed from the SDK EVO that are not available on the board, the display indicates them all with the **value EP** (External Program). EP values can, in any case, be modified via board programming.

- The **SDK EVO** also allows programming from the board to be disabled:

🔧 /PROGRAMMING/MISCELLANEUS/BOARD'S DISPLAY   BLOCKED or NOT BLOCKED

PROGRAMMING FROM THE BOARD

The E1SL has two Programming Menus: Basic and Advanced (relative ⊞ Table).

■ BASIC programming

1. When the display indicates the status of the automation, press and hold down the **F** button: the display shows the first function (CF).

 Each function will be displayed for as long as button F remains pressed.

2. Release button **F**: the display shows the value of the function.

3. When the display indicates the value of the function, press the **+** or **−** button to modify it.

4. Press button **F** to confirm and go to the next function. The modified value becomes effective immediately.

Follow the same procedure for all functions until you reach the last one (St).

5. When St appears on the display, release the button **F** and select:
   Y = save the set-up
   no = DO NOT save the set-up

6. Press the **F** button to confirm.
   - The display reverts to the automation status view.

■ ADVANCED programming

1. When the display indicates the status of the automation, press and hold down the **F** button, then press the **+** button as well: the display shows the first function (PI).

 Each function will be displayed for as long as button F remains pressed.

2. Release the buttons: the display shows the value of the function.

3. When the display indicates the value of the function, press the **+** or **−** button to modify it.

4. Press button **F** to confirm and go to the next function. The modified value becomes effective immediately.

Follow the same procedure for all functions until you reach the last one (St).

5. When St appears on the display, release the button **F** and select:
   Y = save the set-up
   no = DO NOT save the set-up

6. Press the **F** button to confirm.
   - The display reverts to the automation status view.

NOTE   Each modified value is effective immediately, but when you exit from programming mode you must decide whether to save the changes.

UNSAVED changes UNSAVED changes are saved if the power supply is interrupted while programming is being carried out or after 10 minutes if no buttons are pressed.

Access BASIC programming
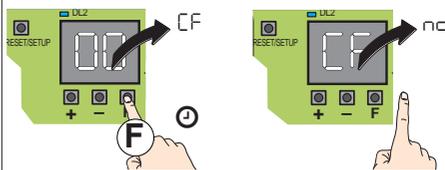
Access ADVANCED programming
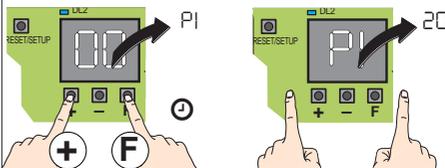
Modify a setting
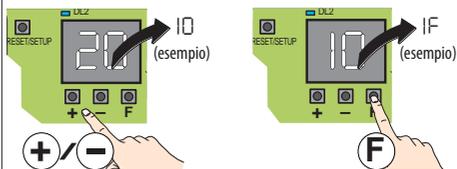
End of programming (St)

Save

DO NOT save
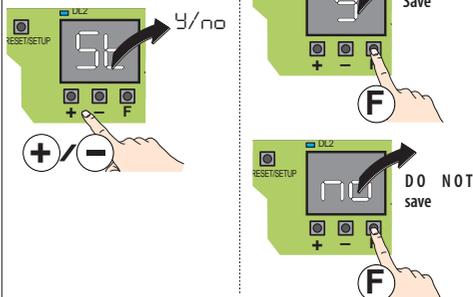
Go immediately to St:
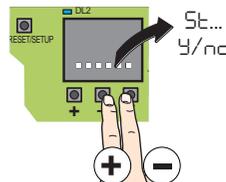
⊞ **6** BASIC Programming

BASIC Function	Default:	A1000	A1400 AIR	RKE 1400	SF1400	GBF1500
⊏⌐ **Automation model** If this parameter is modified, the relative default configuration is loaded. ⌐⌐ = no selection (factory default) ∃ = RKE 1400 (for SLIDING FHE) ∣ = A1000 ५ = SF1400 ट = A1400 AIR ५ = GBF1500		∣	ट	∃	५	५
⌐⌐ **DEFAULT configuration** Indicates whether the programming corresponds to the default settings for the automation model and allows you to reload the defaults. ⌐⌐ = at least 1 parameter has been modified. If you wish to reload the default values, select ५ ५ = programming corresponds to the default settings		५	५	५	५	५
∟⌐ **Leaf number** - displayed only for SF1400 (⊏⌐ = ५) If modified you have to perform the SETUP. ∣ = 1 leaf ट = 2 leaves		–	–	–	ट	–
∟∟ **Select passage opening** - displayed only for SF1400 (⊏⌐ = ५) ∣ = narrow opening width: max 65 cm (with 1 leaf), max 130 cm (with 2 leaves) ट = average opening width: 65…75 cm (with 1 leaf), 130…150 cm (with 2 leaves) ∃ = wide opening width: greater than 75 cm (with 1 leaf), greater than 150 cm (with 2 leaves)		–	–	–	ट	–
⌐⌐ **Direction of rotation of the motor** If it is modified you have to perform the SETUP. ∣ = STANDARD rotation ⁻∣ = NON STANDARD rotation		∣	∣	∣	∣	∣
⌐⌐ **Partial Open** - NOT displayed for SF1400 (⊏⌐ = ५) or for GBF1500 (⊏⌐ = ५) ⌐⌐ = 100% ट⌐…95 % Adjustment step = 5%		50	50	50	–	–
⌐⌐ **Pause time** before closing again in automatic operation mode ⌐…∃⌐ s Adjustment step = 1 s		ट	ट	ट	ट	ट
⌐⌐ **Energy Saving** ⌐⌐ = not enabled ५ = enabled		⌐⌐	⌐⌐	⌐⌐	⌐⌐	⌐⌐
⌐⌐ **Night pause time** In Night mode, after being opened via the Key command, the door remains open for the length of time set (⌐ s … ५.⌐ min) ⌐…58 s Adjustment step = 2 s ∣.⌐…५.⌐ min Adjustment step = 10 s (e.g. ∣.ट = 1 min and 20 s)		∣⌐	∣⌐	∣⌐	∣⌐	∣⌐
⌐⌐ **Closing speed** level ∣…∣⌐		5	5	5	5	∣
⌐⌐ **Opening speed** level ∣…∣⌐		∣⌐	8	8	5	∃
⌐⌐ **Closing force** level ∣…∣⌐		5	5	5	5	5
⌐⌐ **Opening force** level ∣…∣⌐		8	8	∣⌐	8	5
⌐⌐ **Force time on obstacle for CF and OF** ⌐.∣…∃.⌐ s Adjustment step = 0.1 s		∣.⌐	∣.⌐	ट.⌐	∣.⌐	∣.⌐
⌐⌐ **Deceleration ramp when OP and CL** level ∣…∣⌐		6	6	6	५	5
⌐⌐ **Acceleration ramp when OP and CL** level ∣…∣⌐		8	8	5	8	5

BASIC Function	Default:	A1000	A1400 AIR	RKE 1400	SF1400	GBF1500
`CI` **INPUT I1 configuration** The contact logic can be programmed from the SDK EVO (section § Configurable inputs).		`I`	`I`	`I`	`I`	`I`

Options for `CI`:

`no` = input not enabled
`I` = External Opening (NO)
`4` = Internal Opening (NO)
`7` = Automatic Opening (NO)
`8` = Semi-Automatic Opening (NO)
`9` = Pharmacy Open (NOT for SF1400 and GBF1500) (NO)
`I0` = KEY (NO)
`II` = Partial Open (NOT for SF1400 and GBF1500) (NO)
`20` = Closing Safety (NC)
`2I` = Opening Safety (NC)
`23` = Safety STOP (NC)
`30` = Emergency Opening (NC)
`3I` = Emergency Opening with memory (NC)
`32` = Emergency STOP (NC)
`33` = Emergency STOP with memory (NC)
`34` = Emergency Closing (NC)
`35` = Emergency Closing with memory (NC)
`37` = Emergency Break OUT for APN (NC)
`40` = operating mode OPEN (NO)
`4I` = operating mode EXIT ONLY (NO)
`42` = operating mode ENTRY ONLY (NO)
`43` = operating mode NIGHT-TIME (NO)
`44` = operating mode MANUAL (NO)
`45` = operating mode PARTIAL (NOT for SF1400 and GBF1500) (NO)
`46` = operating mode INTERLOCK (NO)
`47` = operating mode AUTO MANUAL (NO)
`60` = TIMER
`6I` = RESET

BASIC Function	Default:	A1000	A1400 AIR	RKE 1400	SF1400	GBF1500
`IF` **INPUT I1 TEST** Displayed only if the input is configured as Safety (`CI = 20` or `2I` or `23`) `9` = TEST enabled `no` = TEST not enabled		`no`	`no`	`no`	`no`	`no`
`C2` **INPUT I2 configuration** (see options `CI`)		`4`	`4`	`4`	`4`	`4`
`2F` **INPUT I2 TEST** Displayed only if the input is configured as Safety (`C2 = 20` or `2I` or `23`) `9` = TEST enabled `no` = TEST not enabled		`no`	`no`	`no`	`no`	`no`
`C3` **INPUT I3 configuration** (see options `CI`)		`I0`	`I0`	`I0`	`I0`	`I0`
`3F` **INPUT I3 TEST** Displayed only if the input is configured as Safety (`C3 = 20` or `2I` or `23`) `9` = TEST enabled `no` = TEST not enabled		`no`	`no`	`no`	`no`	`no`
`C4` **INPUT I4 configuration** (see options `CI`)		`7`	`7`	`7`	`7`	`7`
`4F` **INPUT I4 TEST** Displayed only if the input is configured as Safety (`C4 = 20` or `2I` or `23`) `9` = TEST enabled `no` = TEST not enabled		`no`	`no`	`no`	`no`	`no`
`PF` **PARTIAL PHARMACY** - NOT displayed for SF1400 (`CF = 4`) or for GBF1500 (`CF = 5`) - Displayed if a configurable input is pharmacy OPEN. `5…95` % Adjustment step = 5%		`20`	`20`	`20`	`–`	`–`
`SE` **Exit PROGRAMMING** Allows you exit from programming and decide whether to save the changes. `9` = save `no` = do not save After exit, the display shows automation status.		`9`	`9`	`9`	`9`	`9`

`00` CLOSED
`0I` OPENING
`02` OPEN
`03` in PAUSE
`04` in NIGHT PAUSE
`05` CLOSING
`06` OPEN or STOPPED or CLOSED in EMERGENCY
`07` in MANUAL operating mode
`08` in NIGHT-TIME operating mode
`I0` System TEST in progress
`II` STOPPED
`I2` safeties TEST in progress
`I3` Door ERROR (Press + and − simultaneously to display the active ERROR)
`L0-L2` SETUP in progress - phases `L0`, `L1`, `L2`
`.` in SLEEP mode (flashing dot)

ENGLISH

Translation of the original instructions

FAAC

⊞ **7** ADVANCED programming

ENGLISH
Translation of the original instructions

ADVANCED Function	Default:	A1000	A1400 AIR	RKE 1400	SF1400	GBF1500
P1 **INPUT S1 configuration** (see options C1)		20	20	20	20	20
1F **INPUT S1 TEST** Displayed only if the input is configured as safety (P1 = 20 or 21 or 23) Y = TEST enabled no = TEST not enabled		Y	Y	Y	Y	4
P2 **INPUT S2 configuration** (see options C1)		20	20	20	20	20
2F **INPUT S2 TEST** Displayed only if the input is configured as Safety (P2 = 20 or 21 or 23) Y = TEST enabled no = TEST not enabled		Y	Y	Y	Y	4
Ot **OPERATION OF SAFETIES IN OPENING** 1 = STOP (stops the opening) 2 = Low Energy (slow movement)		2	2	2	2	2
bP **BUTTON PHOTOCELLS** The TEST is NOT available for these photocells. no = no photocell 1 = 1 pair of photocells 2 = 2 pairs of photocells		no	no	no	no	no
E1 **INPUT E1 configuration** (see options C1)		no	no	no	no	no
1F **INPUT E1 TEST** Displayed only if the input is configured as Safety (E1 = 20 or 21 or 23). Y = TEST enabled no = TEST not enabled		no	no	no	no	no
E2 **INPUT E2** configuration (see options C1)		no	no	no	no	no
2F **INPUT E2 TEST** Displayed only if the input is configured as Safety (E2 = 20 or 21 or 23) Y = TEST enabled no = TEST not enabled		no	no	no	no	no
bA **BATTERY KIT** Operation of the emergency battery NOT in NIGHT-TIME mode. no = not enabled 1 = OPENS immediately 2 = CLOSES immediately 3 = with flat battery last movement OPENING 4 = with discharged battery last movement CLOSING		no	no	no	no	no
bn **NIGHT BATTERY KIT** Operation of the emergency battery in NIGHT-TIME operating mode. Displayed only if the Battery Kit is enabled (bA other than no). (see options bA)		Y	Y	Y	Y	Y
EL **MOTOR BLOCK XB LOCK / XM LOCK** XM LOCK options not displayed for A1000 (CF = 1) no = not enabled 1 = XB LOCK closed in NIGHT-TIME mode 6 = XM LOCK closed in NIGHT-TIME mode 2 = XB LOCK closed in ENTRY ONLY, EXIT ONLY, NIGHT-TIME mode 7 = XM LOCK closed in ENTRY ONLY, EXIT ONLY, NIGHT-TIME mode 3 = XB LOCK closed in NIGHT-TIME mode and with leaves open 8 = XM LOCK closed in NIGHT-TIME mode and with leaves open 4 = XB LOCK closed in NIGHT-TIME mode and with leaves closed 9 = XM LOCK closed in NIGHT-TIME mode and with leaves closed 5 = XB LOCK closed at the end of each movement 10 = XM LOCK closed at the end of each movement		no	no	no	no	no
SU **MONITORING of XB LOCK / XM LOCK** no = not enabled Y = enabled		no	no	no	no	no
dM **DOUBLE MOTOR KIT ACTIVATION** no = second motor kit not enabled Y = second motor kit enabled - NOT displayed for SF1400 (CF = 4) or for GBF1500 (CF = 5)		–	no	no	no	–
nd **NIGHT-TIME MODE DELAY** 0 … 90 s Adjustment step = 1 s		10	10	10	10	10

ADVANCED Function	Default:	A1000	A1400 AIR	RKE 1400	SF1400	GBF1500
o1 **OUTPUT OUT1 configuration** (J22)		6	6	6	6	6
no = not enabled 　　　　　　　8 = DOOR MOVING (NO)						
1 = GONG (NO) 　　　　　　　9 = LIGHT (NO)						
2 = BOARD ERROR/FAULT (NO) 　10 = INTRUSION ACTIVE (NO)						
3 = battery operation (NO) 　　11 = CLOSING SAFETY (NO)						
4 = EMERGENCY active (NO) 　　12 = SAFETIES (NO)						
5 = SAFETIES TEST configured on I1, I2, I3, I4 (NC) 　13 = AIRSLIDE SP1 (NO)						
6 = DOOR NOT CLOSED (NO) 　14 = AIRSLIDE SP2 (NO)						
7 = DOOR OPEN (NO) 　　　　15 = LOCK (NO)						
o2 **OUTPUT OUT2 configuration** (J22) 　(see options o1)		2	2	2	2	2
In **Inputs status** 　The segments of the display corresponding to the input that is active light up:	See figure					
St **Exit PROGRAMMING** 　Allows you exit from programming and decide whether to save the changes.		Y	Y	Y	Y	Y
Y = save						
no = do not save						
After exit, the display shows automation status. 　(See St in Basic programming)						

INPUTS status 　shown on the Advanced Programming display, function In
segment lit = input active
(OFF = segment always off)

Manual Release

Safeties TEST

FAAC
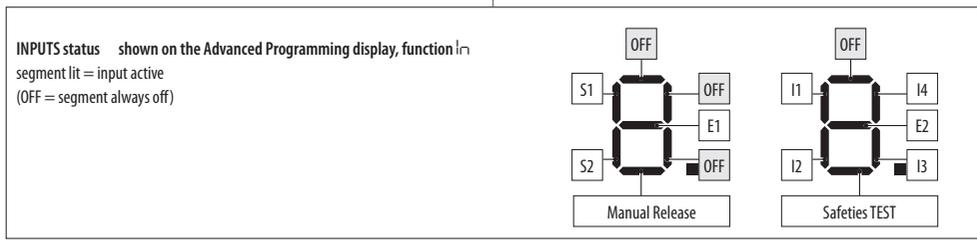
7.5 MOVEMENT PARAMETERS

The movement parameters can be adjusted via the programming function.

- **from board** Basic programming:

    cS = closing speed (level 1…10)

    oS = opening speed (level 1…10)

    cF = closing force (level 1…10)

    oF = opening force (level 1…10)

    tF = MAX push time on obstacle during closing and opening (0.1 s … 3 s)

    dr = opening and closing deceleration ramp (level 1…10)

    Ar = opening and closing acceleration ramp (level 1…10)

- from **SDK EVO** (allows further adjustments to be made):

    🔧 /PROGRAMMING/MOTION…

    …OPENING

    SPEED (level 1…10)

    SLOWDOWN deceleration space at end of travel (0…200 cm)

    OP. SLOWDOWN SPEED Deceleration speed at end of travel (level 1…3)

    STRENGTH (level 1…10)

    STRENGTH DURATION (0.1 … 3.0 s)

    ACCELERATION (level 1…10)

    DECELERATION (level 1…10)

    …CLOSING (same options as for OPENING)

    …BRAKING Deceleration for reverse movement

    (level 1… 5)

    …STOP MOV Moves the stop position forwards with respect to the opening stop

    (level 1…10) 0 = minimum distance

7.6 OBSTACLE DETECTION

The sensitivity of the obstacle detection system is adjusted by setting the opening force, closing force and the maximum push time (§ Movement parameters). When an obstacle causes the movement to stop, the automation exerts the set static force on the obstacle. Once the set force time on the obstacle has elapsed, if it still cannot move, the programmed operation is activated:

Obstacle during closing If an obstacle is detected during CLOSING it causes the leaves to reverse and subsequently they attempt to close.

Obstacle during opening If an obstacle is detected during OPENING it causes the movement to stop and after 5 s attempts to attempt opening again.

Obstacle during opening in NIGHT-TIME mode If an obstacle is detected during opening it causes the leaves to reverse.

Number of consecutive obstacle detections The count of the number of consecutive obstacle detections can only be enabled via the SDK EVO. The automation stops when the count exceeds the set number (error 24: obstacles during CLOSING or error 31: obstacles during OPENING).

- from **SDK EVO**: 🔧 /PROGRAMMING/MISCELLANEUS/CONSECUTIVE OBST.

    …CLOSING DISABLED (no count) or 1…10 detections

    …OPENING (as above)

7.7 LOW ENERGY

As a guideline only, in order to protect against risks related to moving parts, the standard EN 16005:2012 requires that the opening and closing movement must take place in Low Energy mode, which means that the kinetic energy of the leaf must not exceed 1.69 joule and the maximum static force must not exceed 67 N.

Alternatively, for doors that open onto heavy traffic areas or when any contact with the user is unacceptable because many of the users are elderly, sick, disabled or children, additional protective devices are to be used.

Among the possible solutions provided, the installation of ESPE equipment compliant with EN 12978 CAT.2 (per EN 954-1 and / or EN 13849) is recommended, to monitor the full width of the door in both directions of movement.

To set up the Low Energy, mode, program the values for force and kinetic energy by applying standard EN 16005:2012.

- **from board** Basic programming:

    cS and oS = speed established by applying the standard

    cF , oF and Ar = l

- from **SDK EVO**:

    🔧 /PROGRAMMING/MOTION…

    …OPENING

    SPEED = speed established by applying the standard

    STRENGTH = 1

    ACCELERATION = 1

    …CLOSING (as above)

7.8 INTRUSION

When the automation is closed, the board detects if there is an attempt to open it manually (INTRUSION). The response to this can be defined via the SDK EVO: KEEP CLOSED or PULL & GO.

- **from SDK EVO**: 🔧 /PROGRAMMING/MISCELLANEUS/INTRUSION …

    …KEEP CLOSED

    STRENGTH KEEP CLOSED (level 1 …10)

    Or

    … PULL & GO

KEEP CLOSED

The motor starts, counteracts the manual opening with an adjustable force and keeps the automation CLOSED (with Warning 63). **Note**: in NIGHT-TIME operating mode with battery operation, KEEP CLOSED is not active.

PULL & GO

The motor starts up to complete the opening. **Note**: in NIGHT-TIME operating mode with battery operation, PULL & GO is not active.

7.9 ENERGY SAVING

Energy Saving allows you to decrease the opening/closing times and to limit the number of "false openings" by recognising the pedestrian's transit direction (approaching, leaving, cross traffic). Opening is via external or internal radar. When radars and presence sensors are disengaged, it closes immediately, even if the opening movement has not been completed. It also closes immediately when an input configured as Closing safety is deactivated.

Obligatory requirements:

- mode of operation AUTOMATIC TWO-DIRECTIONAL
- use of the one-direction radar detectors (Energy Saving is active only on INTERNAL OPENING and EXTERNAL OPENING inputs)

Programming:

- **from board** Basic programming: $ES = y$
- **from SDK EVO**: 🔧 /PROGRAMMING/Energy Saving ENABLED

7.10 TIMING AND PARTIAL OPENING

The following can be programmed:

PAUSE TIME

- **from Board** Basic Programming: PA
- **from SDK EVO**: 🔧 /PROGRAMMING/TIMING/ PAUSE TIME

NIGHT PAUSE TIME

- **from Board** Basic Programming: Pn
- **from SDK EVO**: 🔧 /PROGRAMMING/TIMING/NIGHT PAUSE TIME

PARTIAL OPEN

- **from Board** Basic Programming: PO
- **from SDK EVO**: 🔧 /PROGRAMMING/MISCELLANEUS/PARTIAL OPEN

PARTIAL PHARMACY

- **from Board** Advanced Programming: PF

- **from SDK EVO**: 🔧 /PROGRAMMING/MISCELLANEUS/PARTIAL PHARMACY

NIGHT-TIME MODE DELAY

- **from Board** Advanced Programming: ⊓⊔
- **from SDK EVO**: 🔧 /PROGRAMMING/TIMING/DELAY SENSOR DELAY

7.11 DATE AND TIME

Enter the Date and Time in order for the LOG files to be recorded correctly (§ FW Updates and File download - USB) and for programming the TIMER.

- **from SDK EVO**: 🔧 /PROGRAMMING/DATE/TIME...
  ...SET DATE   DD : MM
  ...SET TIME   HH : mm

It is possible to automatically update the time to European summer (daylight savings) time:

  ...DAYLIGHT SAV TIME   ENABLED/DISABLED

7.12 CYCLE COUNTER - SCHEDULED MAINTENANCE

SDK EVO allows the ABSOLUTE and RELATIVE cycle counters to be managed and to program the maintenance request based on the number of cycles carried out. If the date is also entered (optional), a maintenance request is made when the first event is reached: cycles or date.

- **from SDK EVO**: 🔧 /CYCLES COUNT...
  ...CYCLES NUMBER   displays the cycles counters **ABSOLUTE** and **RELATIVE**

  ...MAINTENANCE   (technician PSW required) **ENABLED**

  ...MAINTENANCE CYCLES   programs the **RELATIVE** cycles counter for maintenance (1000...1000000, modifiable in steps of 10000 cycles)

  ...DATE   (optional) 00/00/00 = disabled

  ...CYCLES RESET   (technician PSW required)   Resets the RELATIVE cycles counter   OK

The ABSOLUTE cycles counter can only be reset using the Restore Factory Defaults procedure.

7.13 TIMER

The TIMER function allows the operating mode of the automation to be activated for programmed time bands. The operating mode activated automatically by the TIMER cannot be changed manually, unless you disable the TIMER.

Programming is carried out via the SDK EVO, it requires a clock battery to be installed on board E1SL (✎2) and the date and time to be set correctly.

Programming can be done by day of the week (WEEKLY) and/or by calendar date (JOLLY), e.g: for holidays, company closure... If both have been programmed, in the event of an overlap, the JOLLY has priority.

A TIME BAND is programmed with:
- START time - END time (HH:mm)
- Operating mode

TIMER operating mode	
0	NO FUNCTION
1	AUTO BIDIR (auto bidir total)
2	AUTO OUT (automatic exit only total)
3	AUTO BIDIR PARTIAL
4	AUTO OUT PARTIAL (automatic exit only partial)
5	TOTALLY OPEN
6	PARTIAL OPEN
7	AUTO IN (automatic entry only total)
8	AUTO IN PARTIAL (automatic entry only partial)
9	NIGHT (night total)
10	PARTIAL NIGHT
11	INTERLOCK (INTERLOCK bidirectional total)
12	INTERLOCK OUT (INTERLOCK exit only total)
13	INTERLOCK IN (INTERLOCK entry only total)
14	AUTO MANUAL (auto manual total)

1 or more TIME BANDS can be programmed (max 6) in 24 h.

When it exits from a programmed TIME BAND, if there is no subsequent time band, the automation goes into AUTOMATIC TWO-DIRECTIONAL TOTAL mode. Outside of the programmed time bands, the Operating mode can be changed manually (from a Configured input or Function selector).

WEEKLY PROGRAMMING

Program the required days with the required time bands. To quickly program one or more time bands for a group of days, program the group MON - SUN or MON - FRI. Next, each time band can be reprogrammed for a single day.

🔧 /TIMER…

…MONDAY…SUNDAY/MON-SUN/MON-FRI   Select the day or group of days

…SLOT1…SLOT6   Select the time band

…FUNCTION: 0…14   Assign the operating mode from the TIMER

…BEGINNING 00:00   Set the TIME SLOT start time.

…END 00:00   Set the TIME SLOT end time.

If you are programming a group of days, after entering the END time of the time band, the following question appears:

…DO YOU WANT TO APPLY MON - FRI ?   OK

Carry out the same procedure for any other time bands. DO NOT program overlapping time bands. Complete the weekly programming for all the required days.

JOLLY PROGRAMMING

Program the JOLLY time bands. The JOLLY programming must be applied to the dates specified in JOLLY SLOTS.

A JOLLY SLOT is defined by the START and END date of the slot. A maximum of 6 JOLLY SLOTS can be programmed. A slot consisting of one day has the same start and end date. A slot consisting of several days cannot extend beyond December 31st. E.g. the period from December 25th to January 6th is covered by two slots: 25…31/12 + 01…06/01.

🔧 /TIMER…

…JOLLY

…SLOT1…SLOT6   Select the time band

…FUNCTION: 0…14   Assign the operating mode from the TIMER

…BEGINNING 00:00   Set the start time of the TIME BAND

…END 00:00   Set the end time of the TIME BAND

Carry out the same procedure for any other time bands. DO NOT program JOLLY time bands that overlap.

…JOLLY SLOTS…   Select the SLOT

Select DISABLED if you wish to delete the slot. Select ENABLED to specify the dates for the slot:

…BEGINNING 00:00   day:month

…END 00:00   day:month

■ **EXAMPLE Programming the TIMER for a shop open from Monday to Saturday between the hours of 08:00 and 13:00 and 15:00 to 19:30. Closed on: Thursday. Closed for holidays from 1st to 15th August.**

Program the weekly TIMER :

🔧 /TIMER…

… MON - SUN

SLOT 1 / FUNCTION: 1 / BEGINNING 08:00 / END 12:59

SLOT 2 / FUNCTION: 9 / BEGINNING 13:00 / END 14:59

When the automation exits from TIME BAND 2 it goes into AUTOMATIC TWO DIRECTIONAL TOTAL mode and the mode can be changed from a configured input or from a function selector.

SLOT 3 / FUNCTION: 4 / BEGINNING 19:30 / END 19:44

SLOT 4 / FUNCTION: 9 / BEGINNING 19:45 / END 23:59

SLOT 5 / FUNCTION: 9 / BEGINNING 00:00 / END 07:59

Apply MON - SUN, then reprogram THURSDAY and SUNDAY (deleting the bands that are not used):

…THURSDAY / SLOT1 / FUNCTION: 9 / BEGINNING 00:00 / END 23:59

…SUNDAY / SLOT1 / FUNCTION: 9 / BEGINNING 00:00 / END 23:59

Program the holiday closure:

…JOLLY

SLOT1 / FUNCTION: 9 / BEGINNING 00:00 / END 23:59

…JOLLY SLOTS

SLOT 1 / ENABLED / BEGINNING 01:08 / END 15:08

ENABLING/DISABLING THE TIMER

Enable the TIMER in order to use the programmed time bands. Use the input configured as TIMER, if present on the board. If there is NO input configured as TIMER, the SDK EVO can be used.

🔧 /TIMER/1 TIMER STATE   select ENABLED/DISABLED

- When TIMER is enabled, T is indicated on the HOME PAGE of the SDK EVO.

- The time bands are remembered even if the TIMER is disabled.

8. ACCESSORIES

EMERGENCY BATTERY

The battery kit allows the automation to operate in case of mains power failure.

To conserve battery power, the board activates the LOW POWER mode: it turns off power to the accessories apart from the SDK EVO (to which it disables the backlighting), it DOES NOT carry out the PULL & GO function, if enabled. The board maintains the battery charge, but does not charge batteries that are completely discharged.

1. Connect the emergency battery kit.

Emergency battery connection

J14

2. Enable the battery, specifying the IMMEDIATE movement performed (then the operation stops) or that is performed as the LAST MOVEMENT (the automation continues to operate as long as the battery has sufficient charge. If the battery discharges, it performs this movement and then stops).

- **from Board**, Advanced Programming:

bH in all Operating Modes apart from NIGHT-TIME

no = not enabled

1 = OPENS IMMEDIATELY

2 = CLOSES IMMEDIATELY

3 = LAST MOVEMENT OPENING

4 = LAST MOVEMENT CLOSING

bn in NIGHT-TIME mode (see options bH)

or

- **from SDK EVO**:

🔧/PROGRAMMING/BATTERY KIT…

…FUNCTION: DISABLED, UNTIL LAST MOVEMENT, LAST MOVEMENT ONLY

…LAST MOVEMENT: OPENING, CLOSING

NIGHT MODE: LAST MOVEMENT ONLY, UNTIL LAST MOVEMENT

…LAST MOVEMENT NIGHT: OPENING, CLOSING

XB LOCK MOTOR BLOCK AND MONITORING (OPTIONAL)

The motor block allows the leaves to be locked mechanically.

The motor block is never engaged in MANUAL mode.

If there is a power failure, the position of the XB LOCK remains unchanged. When the automation is operating on battery, the motor block is only active in NIGHT mode (operation can only be modified via the SDK EVO).

⚠️ Always turn off the mains power supply and disconnect the emergency battery (if present) before connecting or disconnecting the motor block.

1. Install the motor block following the installation instructions.
2. Connect the motor block to the E1SL board using the connector (**A**).
3. If installed, connect the monitoring device (**B**) to the terminal board of the motor block.
4. During programming, assign the motor block function and enable monitoring, if installed.

- **from Board**, Advanced Programming:

$EL = 1...5$; $SU = 4$ (if monitoring is installed)

or

- **from SDK EVO**:

🔧/PROGRAMMING/KIT LOCK…

…TYPE XB LOCK

…FUNCTION

…SURVEILLANCE KIT

…BATT. FUNCTION

MOTOR BLOCK FUNCTION:

DISABLED ($EL=0$): not active

NIGHT ($EL=1$): with the automation in NIGHT mode, locks the closed leaves and the open leaves with the Pharmacy Open command

NIGHT + MONODIR ($EL=2$): NIGHT + with the automation in ENTRY ONLY / EXIT ONLY mode, locks the closed leaves

NIGHT + OPENED ($EL=3$): NIGHT + with the automation in any mode (apart from MANUAL), always locks the open leaves

NIGHT + CLOSED ($EL=4$): NIGHT + with the automation in any mode (apart from MANUAL), always locks the closed leaves

ALWAYS ($EL=5$): with the automation in any mode (apart from MANUAL), locks the leaves after any opening / closing movement

Motor block operation when the automation is operating on battery:

- from SDK EVO …**KIT LOCK/ BATT. FUNCTION**

NIGHT: active only as NIGHT (DEFAULT)

STANDARD: maintains the programmed function (EL or …**KIT LOCK/FUNCTION**)

ALWAYS OPEN: the automation never locks the leaves irrespective of the mode

---

XB LOCK and monitoring connection (optional)
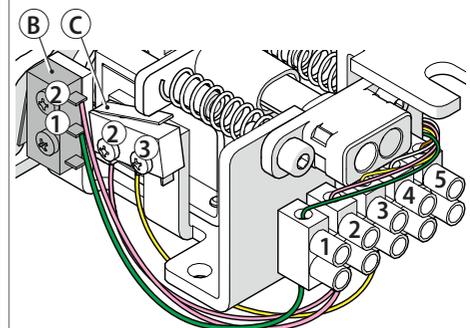
1	green	**B**	Motor block monitoring (IF INSTALLED)
2	pink	**C**	Manual release microswitch
3	yellow		
4	white	**D**	Motor block coil (connected at the factory)
5	brown		

📝 11
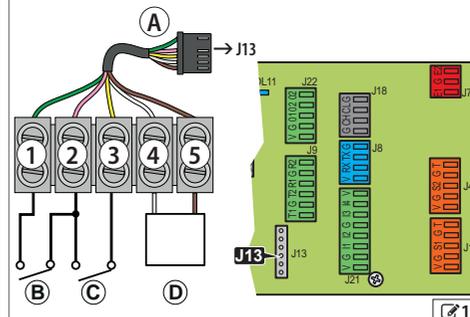
XM LOCK MOTOR BLOCK AND MONITORING

The motor block allows the leaves to be locked mechanically.

The motor block is never engaged in MANUAL mode.

If there is a power failure, the XM LOCK disengages (unlocks the leaves). When the automation is operating on battery, the motor block is only active in NIGHT mode (operation can only be modified via the SDK EVO).

⚠️ Always turn off the mains power supply and disconnect the emergency battery (if present) before connecting or disconnecting the motor block.

1. Install the motor block following the installation instructions.
2. Connect the motor block to the E1SL using the connector (**A**).
3. If installed, connect the monitoring device (**B**) to the terminal board of the motor block.
4. During Programming, assign the motor block function and enable monitoring, if installed.
   - **from Board**, Advanced Programming:

$EL = 6...10$; $SU = 4$ (if monitoring is installed)

   or
   - **from SDK EVO**:
   🔧 /PROGRAMMING/KIT LOCK...
   ...TYPE   XM LOCK
   ... FUNCTION
   ...SURVEILLANCE KIT
   ...BATT. FUNCTION

MOTOR BLOCK FUNCTION:

DISABLED ($EL = 0$): not active

NIGHT ($EL = 6$): with the automation in NIGHT mode, locks the closed leaves and the open leaves with the Pharmacy Open command

NIGHT + MONODIR ($EL = 7$): NIGHT + with the automation in ONLY IN / EXIT ONLY mode, locks the closed leaves

NIGHT + OPENED ($EL = 8$): NIGHT + with the automation in any mode (apart from MANUAL), always locks the open leaves

NIGHT + CLOSED ($EL = 9$): NIGHT + with the automation in any mode (apart from MANUAL), always locks the closed leaves

ALWAYS ($EL = 10$): with the automation in any mode (apart from MANUAL), locks the leaves after any opening / closing movement

Motor block operation when the automation is operating on battery:
   - from SDK EVO ...KIT LOCK/ BATT. FUNCTION

NIGHT: active only as NIGHT (DEFAULT)

STANDARD: maintains the programmed function (EL or ...KIT LOCK/FUNCTION)

ALWAYS OPEN: the automation never locks the leaves irrespective of the mode

ELASTIC KIT

(NOT available for SF1400 and GBF1500)

The elastic anti-panic kit XDEK allows the leaves to be opened in the event of a power failure.

1. Install and adjust the XDEK following the instructions.
2. Enable the XDEK and KEEP CLOSED during programming.

Only from the **SDK EVO**:

🔧 /PROGRAMMING/MISCELLANEUS...
... ELASTIC KIT   (enabled)   OK
... MISCELLANEUS/INTRUSION/KEEP CLOSED   OK
... KEEP CLOSED   (force KEEP CLOSED 1...10)

XM LOCK and monitoring connection (optional)
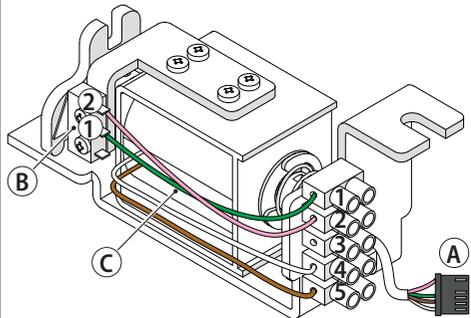
1	green	**B**	Motor block monitoring (if installed)
2	pink		
3	not used		
4	white	**C**	Motor block coil (connected at the factory)
5	brown		
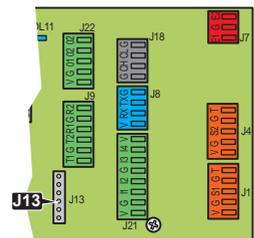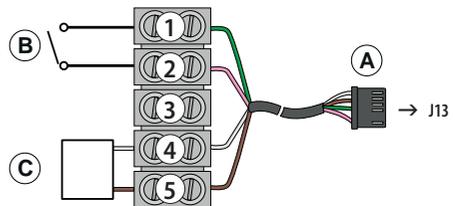
✏️ 12

ONE DUAL TECHNOLOGY ENTRY AND EXIT DETECTOR

⚠️ It is obligatory to install protective barriers in the movement areas in the event contact with persons is not allowed.

The dual technology detectors allow radar detection to be used for opening and infrared detection to be used for safety. Use the XV1 or XDT1 exit and entry detector in compliance with EN 16005:2012 and DIN18650.

The **default programming of the E1SL** corresponds to the typical example configuration shown in the figure.

from Board	from SDK EVO
PI=20 IF=4 P2=20 2F=4	**INPUTS S1-S2**
	S1 Function = Closing Safety (infrared safety)
	S1 Test = Enabled
	S1 NO/NC = NC
	S2 Function = Closing Safety (infrared safety)
	S2 Test = Enabled
	S2 NO/NC = NC
CI=I C2=4	**INPUTS I1-I2**
	I1 = External sensor contact (radar detection)
	I1 NO/NC = NO
	I2 = Internal sensor contact (radar detection)
	I2 NO/NC = NO

1. With the board switched off, connect the external detector and the internal detector. Follow the colour coding of the wiring shown in the figure.
2. Turn power on to the automation board. The detectors turn on.
3. Carry out the SETUP procedure for each detector (see the device instructions).

ⓘ It is recommended not to activate the "narrow pavement" function which combines radar and infrared detection for opening.

4. If necessary, program the configurable inputs on the automation board differently.

 - **from Board**: Basic Programming for the inputs of terminal board J21. Advanced Programming for the inputs of terminal boards J1 and J4.
 or
 - **from SDK EVO**:
 🔧 /PROGRAMMING/INPUTS OUTPUTS…
 …INPUTS I1-I4
 …INPUTS S1-S2
 …INPUTS E1-E2

5. Check for correct operation.
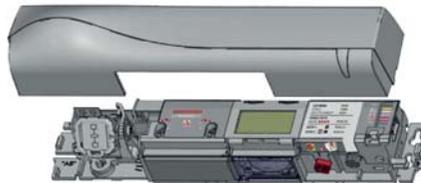
Example: configuration with dual technology entry and exit detectors. This configuration corresponds to the default programming of the board. XV1 or XDT1 detectors can be used, on both the outside or inside.
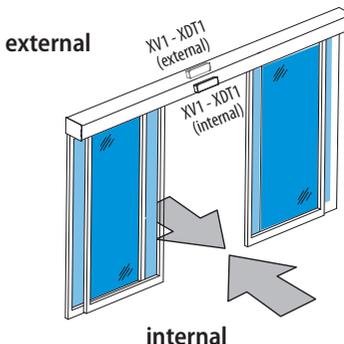
external

XV1 - XDT1 (external)

XV1 - XDT1 (internal)

internal

☑ 13

Dual technology radar/infrared detector connection

J21
- yellow } INTERNAL radar
- white
- yellow } EXTERNAL radar
- white

J1
- blue
- brown
- pink
- grey
- red
- green

EXTERNAL infrared

J4
- blue
- brown
- pink
- grey
- red
- green

INTERNAL infrared

☑ 14

FAAC
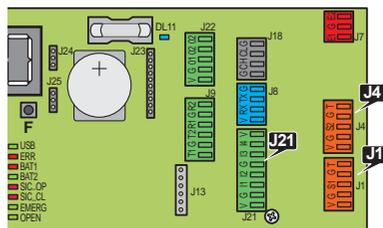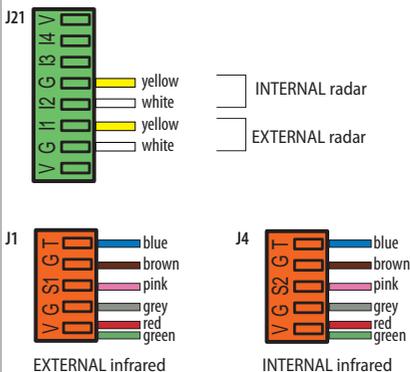
2 DUAL TECHNOLOGY ENTRY AND EXIT DETECTORS

⚠️ It is obligatory to install protective barriers in the movement areas in the event contact with persons is not allowed.

The XDT1 dual technology detectors allow radar detection to be used for opening and infrared detection to be used for safety. Install 2 entry and 2 exit radar detectors to cover large accesses, in compliance with EN 16005:2012 and DIN18650.

from Board	from SDK EVO
PI =20 IF =Y P2 =20 2F =Y	**S1-S2 safeties** **S1 Function** = Closing Safety **S1 Test** = Enabled **S1 NO/NC** = NC **S2 Function** = Closing Safety **S2 TEST** = Enabled **S2NO/NC** = NC
CI = 1 C2 = 4	INPUTS I1-I2 **I1** = External sensor contact **I2** = Internal sensor contact **I1 NO/NC** = NO **I2 NO/NC** = NO

1. With the board switched off, connect the external and internal detectors. Follow the colour coding of the wiring shown in the figure.
   - Connect the 2 external infrared detectors and the 2 internal infrared detectors in series (see figure).
2. Turn power on to the automation board. The detectors turn on.
3. Carry out the **SETUP** procedure for each detector (see the device instructions).

ⓘ It is recommended not to activate the "narrow pavement" function which combines radar and infrared detection for opening.

4. If necessary, program the configurable inputs on the automation board differently.
   - **from Board**: Basic Programming for the inputs of terminal board J21. Advanced Programming for the inputs of terminal boards J1 and J4.
   or
   - **from SDK EVO**:
   🔧 /PROGRAMMING/INPUTS OUTPUTS…
   …INPUTS I1-I4
   …SAFETIES S1-S2
5. Check for correct operation.
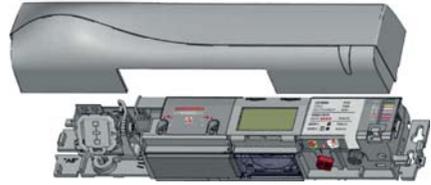
Example: configuration with 2 dual technology detectors at the entrance and 2 at the exit. This configuration corresponds to the default programming of the board.
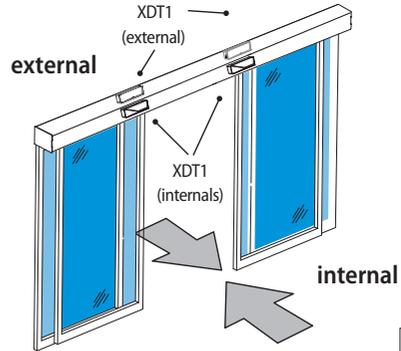
XDT1 (external)

external

XDT1 (internals)

internal

📝 16

Dual technology radar/infrared detector connection

J21

yellow — white — 2 x INTERNAL radars
yellow — white — 2 x EXTERNAL radars

J1 — blue, brown, pink, grey, red, green — 2 x EXTERNAL infrared

J4 — blue, brown, pink, grey, red, green — 2 x INTERNAL infrared
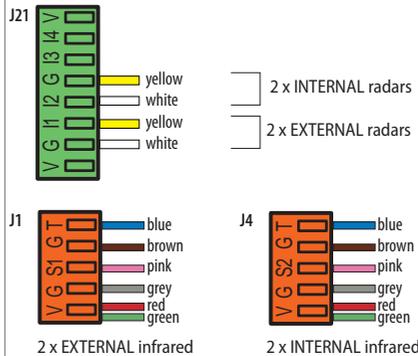
SERIES connection of 2 external infrared detectors and 2 internal infrared detectors.

External — XDT1 — pink — S1 — grey — XDT1 — pink — grey — G

Internal — XDT1 — pink — S2 — grey — XDT1 — pink — grey — G

📝 15
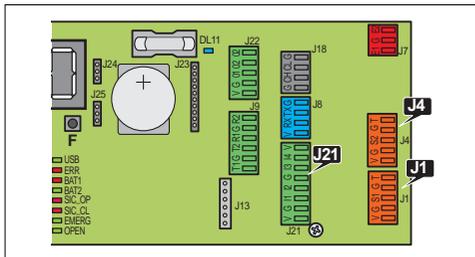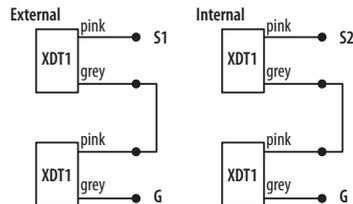
INFRARED DETECTOR FOR SAFETY IN OPENING

⚠️ It is obligatory to install protective barriers in the movement areas in the event contact with persons is not allowed.

ℹ️ Use this configuration to protect the opening movement space by means of safety detectors.

The XBFA ON infrared detectors allow safety in opening in compliance with EN 16005:2012 and DIN18650.
The **default programming of the E1SL** corresponds to the typical example configuration shown in the figure.

from Board	from SDK EVO
oI = 5	**Inputs O1**
	O1 Function = TEST
	O1 NO/NC = NO (only via the SDK EVO)
C3 = 21	**INPUTS I3-I4**
3F = 4	**I3** = Safety on opening
	I3 NO/NC = NC
	I3 TEST = Enabled
C4 = 21	**I4** = Safety on opening
4F = 4	**I4 NO/NC** = NC
	I4 TEST = Enabled

1. With the board switched off, connect the detectors. Follow the colour coding of the wiring shown in the figure.
2. Turn power on to the automation board. The detectors turn on.
3. Carry out the SETUP procedure for each detector (see the device instructions).
4. If necessary, program the configurable inputs on the automation board differently.

   - **from Board**:   Basic Programming for the inputs of terminal board J21.   Advanced Programming for the inputs of terminal board J22.

or

   - **from SDK EVO**:

   🔧 /PROGRAMMING/INPUTS OUTPUTS…

   …OUTPUTS O1-O2

   …INPUTS I1-I4

5. Check for correct operation.
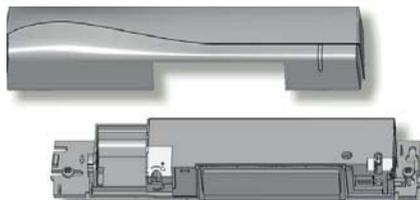
Example: configuration with 2 infrared detectors at the exit.

external

XBFA

XBFA

internal

☑ 17
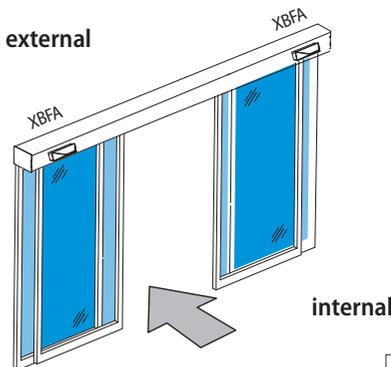
Infrared technology detectors connection

J21

pink
pink
grey

grey

infrared 1 and 2

J22

blue 1 and 2
brown 1 and 2
red 1 and 2
green 1 and 2

infrared 1 and 2

☑ 18

FAAC
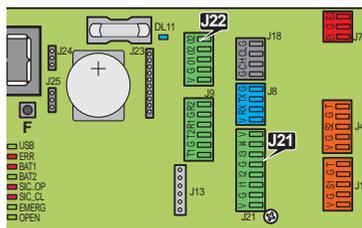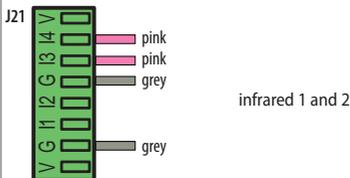
XFA BUTTON PHOTOCELLS

⚠️ Photocells are not permitted as safety devices in European Community countries in which the EN 16005:2012 standard is in force. Specifically, photocells are considered as auxiliary devices, complementary to safety.

Button photocells are monitored by the electronic board, which controls correct operation at each movement.

1. Connect the photocells.

	CABLE colour
TX - transmitter	grey and blue (grey sheath)
RX - receiver	black and blue (black sheath)

Note: leave the inputs of the connector free if button photocells are not used.

2. Enable the photocells.
- **from Board**: advanced programming

$bP = 1$ 1 pair

$bP = 2$ 2 pairs

or

- **from SDK EVO:**

🔧 /PROGRAMMING/INPUTS OUTPUTS/PHOTOCELLS XFA 1 PAIR or 2 PAIRS

Translation of the original instructions

1 Pair of button photocells connection
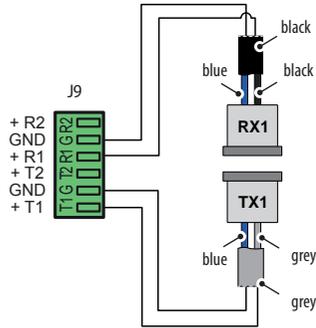
2 Pairs of button photocells connection
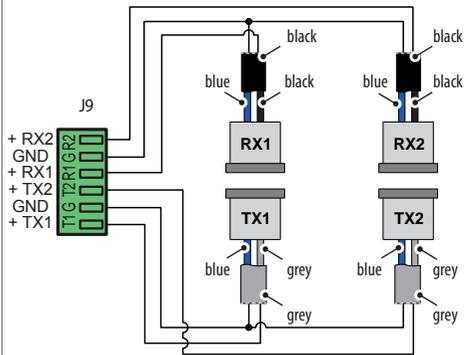
J9		
	R2	2nd pair receiver connection
	G	GND Receiver negative
	R1	1st pair receiver connection
	T2	2nd pair transmitter connection
	G	GND Transmitter negative
	T1	1st pair transmitter connection

✏️ 19

9. INTERCOM

INTERCOM is the network made up of interconnected boards that are programmed via the SDK EVO. INTERCOM manages up to 15 boards (referred to as NODES) that are identified by different ID numbers. See the example of a typical INTERCOM configuration (✏20).

INTERCOM allows you to:
- select the operating mode for the entire network

In addition, INTERCOM allows you to create:
- **INTERLOCK**: 2 interlocked automations: the opening of one automation is subject to the closing of the other and vice versa
- **INTERLEAVES** 2 automations that work simultaneously to cover an access (simultaneous opening / closing)
- **AIRSLIDE** an automation with an AIRSLIDE device

INSTALLING INTERCOM

1. Connect all the boards together using 3 wires in a cascade configuration, in any order, to the dedicated connectors.
2. Connect the SDK EVO to each individual board (**NODE**) to assign the ID and enable INTERLOCK, INTERLEAVES, AIRSLIDE where required (relative § Sections).
   - It is important to specify which is the MASTER board (ID1).
3. Connect the SDK EVO to the MASTER board to register all the network IDs.

ASSIGNING AN ID

- 🔧/PROGRAMMING/INTERCOM/ID: select ID 1 - 15

Assign a different ID to each board. There must be a board with ID1 (MASTER). If INTERLOCK, INTERLEAVES, or AIRSLIDE operation is required, keep to the pre-set ID associations (tables in ✏22), otherwise they can be assigned as you choose.

OPERATION

Using the MASTER board via the SDK EVO or a configured input, it is possible to:
- set the operating mode for the entire network
- enable/disable INTERLOCK

TEMPORARILY DISABLING A BOARD

A board can be temporarily excluded from the network operating mode via the MASTER board:
- 🔧/PROGRAMMING/INTERCOM/NODE LIST . . . (select the ID)
- . . . MAINTENANCE select:

LOCAL: you can set the operating mode on the selected board (not possible for ID1)

MANUAL: the selected board goes into MANUAL operating mode.

DISABLED: the selected board resumes the operating mode of the network

INTERCOM DIAGNOSTICS

Each board in the network can be checked using the MASTER board.
- 🔧/PROGRAMMING/INTERCOM/NODE LIST (registered IDs)
- select an ID and press OK to display INFO, ERRORS, WARNINGS, CYCLES NUMBER.

ID…(*) = ID temporarily excluded from the network

ID…(!) = ID error

Example of INTERCOM network on 2 accesses (A and B) that both require 2 INTERLEAVES automations. The automatons on access B, that faces the outside, are fitted with AIRSLIDE. A and B are interlocked (INTERLOCK mode): one access can open only when the other is closed.
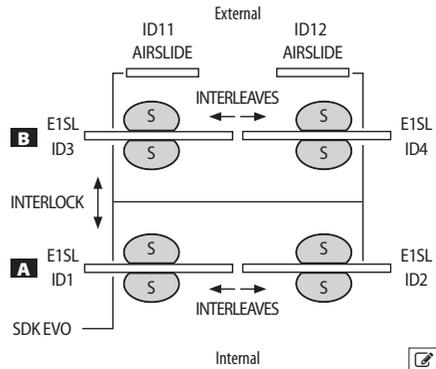
✏20

INTERCOM connection with boards in a cascade configuration
J18 E1SL, E1RD
J2 AIRSLIDE
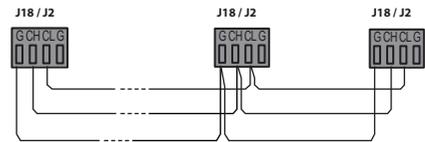
J18

G	**GND**	Accessories power supply negative and Common contacts
CH	**INTERCOM**	
CL	**INTERCOM**	
G	**GND**	Accessories power supply negative and Common contacts
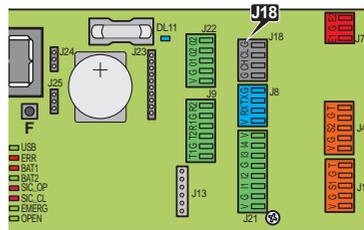
✏21

8 Pre-set ID associations

INTERLOCK

E1SL	E1SL
1	3

INTERLEAVES

E1SL	E1SL
1	2
3	4
5	6
7	8

AIRSLIDE

E1SL	E1AS (DIP switch)
1	9
2	10
3	11
4	12
5	13
6	14
7	15

✏22

FAAC

9.1 INTERLOCK

INTERLOCK allows 2 interlocked accesses to be created: the opening of one access is subject to the closing of the other and vice versa.

- Both accesses must be closed in order for a detector or button to OPEN the access. If this condition is not met, the OPEN command is not executed and an "OPEN-request" is generated. The "OPEN-request" it is carried out as soon as both accesses are closed again.

Use one-direction radar detectors (see relative section).

ⓘ INTERLOCK is not available on E1RD boards.

INTERLOCK can be with or without memory:

■ INTERLOCK WITH NO MEMORY

OPEN detectors must be installed both outside and inside each access. The opening is always controlled by the detectors and it is opened only if both accesses are closed.

■ INTERLOCK WITH MEMORY

The detector that opens the first access generates the command to open the second access automatically. This command remains in memory to be carried out after the first access has closed.

Set INTERLOCK with memory when OPEN detectors are NOT installed in the area between the two accesses (even if OPEN BUTTONS are installed to prevent entrapment).

INSTALLING INTERLOCK

INTERLOCK can only be programmed between nodes ID1 and ID3.
1. With both boards switched off, connect the boards together (connectors J18) via 3 wires in a cascade configuration, then turn power on to the boards.
2. Connect the SDK EVO to the first board, assign the ID, then enable INTERLOCK.
- 🔧/PROGRAMMING/INTERCOM…
- …ID = 1 (MASTER)
- …INTERLOCK WITH MEMORY or NO MEMORY (associated ID)
3. Connect the SDK EVO to the second board and carry out the operations as in step 2, assigning ID 3.
Program any other NODES in INTERCOM.
4. Register all the network IDs using the MASTER:
- 🔧/PROGRAMMING/INTERCOM/NODES ENTRY
When finished, NODE LIST appears. Make sure that all the nodes have been registered.
5. Press ESC repeatedly until you return to the main menu.

ENABLING / DISABLING INTERLOCK

Activate the appropriate input command configured on the MASTER, or via the SDK EVO connected to the MASTER:

→/MODFUN press ⬌ or ⏸ until ⊞ (INTERLOCK active) appears.

INTERLOCK WITH NO MEMORY: OPEN SENSORS inside and outside on access A and also on access B.
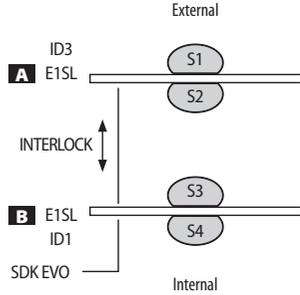
	S1	S2	S3	S4
accesses A and B closed	opens A	opens A	opens B	opens B
access A not closed access B closed	opens A	opens A	OPEN B requested	OPEN B requested
access A closed access B not closed	OPEN A requested	OPEN A requested	opens B	opens B

S1,S2,S3,S4 one-direction radar detectors

INTERLOCK WITH MEMORY: access A with an OPEN SENSOR on the outside, access B with an OPEN SENSOR on the inside.
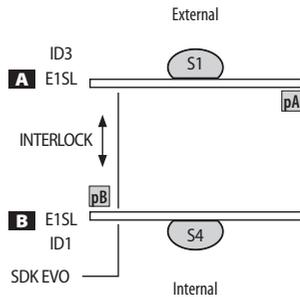
pA, pB OPEN button access A, access B

	S1	S4	pA	pB
accesses A and B closed	opens A then B*	opens B then A*	opens A	opens B
access A not closed access B closed	opens A then B*	OPEN-requested B then A*	----	----
access A closed access B not closed	OPEN-requested A then B*	opens B then A*	----	----

* automatic opening after the first access has closed
S1,S4 one-direction radar detectors

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9.2 AIRSLIDE

INTERCOM allows the operation of the AIRSLIDE to be synchronised with the connected automation (refer to the AIRSLIDE instructions):   it activates when the door is opening / closing / open (status other than "closed") and deactivates when the door is closed.

The fan speed can be adjusted automatically: the speed is decreased when when people are detected (via safety detectors) in the access.

INSTALLING AIRSLIDE

1. Make the connections with the boards switched off:
   - connect the boards together (connectors J18-E1SL and J2-E1AS) using 3 cascade connected-wires
   - connect the inputs of E1AS (J1) to the outputs of E1SL (J22) as in Example 1 in the figure.
2. Turn power on to the boards.
3. Using SDK EVO on the E1SL board connected to AIRSLIDE, assign the ID and then enable AIRSLIDE.
   - 🔧/PROGRAMMING/INTERCOM …
   … ID   keep to the pre-set IDs (✏ 24)
   … AIRSLIDE   select ENABLED   (assign the associated AIRSLIDE ID)
   Then program the outputs:
   O2   activates operation at normal speed (V2) when the automation is in any condition other than "closed"
   O1   activates reduced speed (V1) when people are detected in the access.
   - 🔧/PROGRAMMING/INPUTS/OUTPUTS/OUTPUTS O1/O2 …
   …O2 = DOOR NOT CLOSED (6) with contact logic NORMALLY OPENED
   …O1 = CLOSING SAFETY (11) with contact logic NORMALLY OPENED
4. On AIRSLIDE, assign the pre-set ID using the DIP switches on board E1AS (follow the instructions provided).
5. Register all the network IDs using the MASTER board.
   - 🔧/PROGRAMMING/INTERCOM/NODES ENTRY
   When finished NODE LIST appears (displays all the registered IDs). Make sure that all the nodes have been registered. The data of the AIRSLIDE that has been registered can be checked / modified:
   … NODE LIST   select the ID AIRSLIDE and press OK
   … INFO   displays the FW version on AIRSLIDE
   … FUNCTION   enabled / disabled (modifiable)
   Adjust the two speeds:
   … SPEED1 1…4 e.g. = 1 (reduced speed V1)
   … SPEED2 1…4 e.g. =3 (normal speed V2)
   Lastly, press ESC repeatedly until you return to the main menu of SDK EVO.

6. If you do not require a variable speed, connect the inputs to E1AS (J1) to the outputs of E1SL (J22) as in Example 2 in the figure. In this case, the programming of output O1 is not relevant for the operation of the fan.

Example of an automation with AIRSLIDE device.
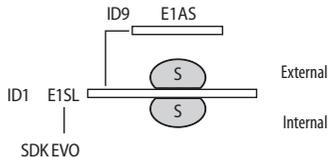
Pre-set IDs for AIRSLIDE:

E1SL ID	E1AS (AIRSLIDE) Associated ID	DIP switch SW4 1 2 3 4
1	9	1 0 0 1
2	10	1 0 1 0
3	11	1 0 1 1
4	12	1 1 0 0
5	13	1 1 0 1
6	14	1 1 1 0
7	15	1 1 1 1

With the SDK EVO connected to the E1SL:
- 🔧/PROGRAMMING/INTERCOM…
…ID   1
…AIRSLIDE   ENABLED   (ID = 9)
On board E1AS, assign ID = 9

Example 1: connection of AIRSLIDE inputs for operating automatically at 2 variable speeds.
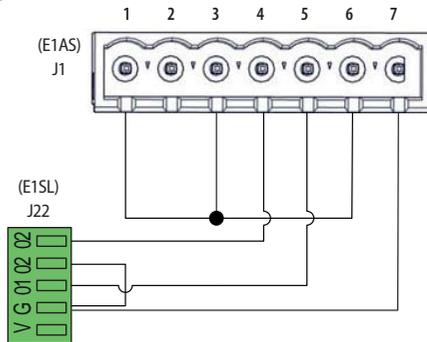
Example 2: connection of AIRSLIDE inputs for operating at 1 speed.

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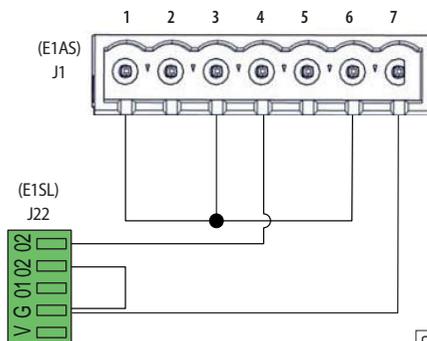
9.3 INTERLEAVES

INTERLEAVES allows 2 automations that work simultaneously to cover an access (simultaneous opening / closing) to be created.

If an automation has an ERROR, or is under MAINTENANCE or NOT registered, or NOT configured correctly, or in any case is not communicating, the individual automations operate independently, but NOT in INTERLEAVES mode.

PULL & GO If activated on both boards, it operates both: if it opens one leaf, it also opens the other.

Obstacle has an effect on both. If an obstacle is detected on a closing leaf, both leaves reopen.

RESET is carried out on both boards.

OPEN and **SAFETY inputs** The OPEN and SAFETY inputs (from 1 to 29) are transmitted from one board to the other and have a simultaneous effect on both leaves in INTERLEAVES.

EMERGENCY inputs The EMERG inputs (from 30 to 39) must be connected to an odd numbered ID if you want them to have simultaneous effect on the pair of INTERLEAVES. E.g. EMERG OPEN connected to ID1 for the simultaneous emergency opening of ID1 and ID2. If connected to even numbered IDs, the EMERG inputs only activate the board that is connected. E.g. EMERG OPEN connected to ID2 for the emergency opening of ID2 only.

MODFUN input The MODFUN is set on the MASTER (ID1).

TIMER input The TIMER is set on the MASTER (ID1).

INSTALLING INTERLEAVES

1. With both boards switched off, connect the boards together (connectors J18) via 3 wires in a cascade configuration, then turn power on to the boards.
2. Connect the SDK EVO to the first board, assign the ID, then enable INTERLEAVES:
   - 🔧 /PROGRAMMING/INTERCOM…
   …ID   pre-set IDs (�🖉 **25**)
   …INTERLEAVES   select **ENABLED**   (associated INTERLEAVES ID)
3. Connect the SDK EVO to the second board and carry out the operations as in step 2, assigning the associated INTERLEAVES ID.

Program any other NODES in INTERCOM.

4. Register all the network IDs using the MASTER:
   - 🔧 /PROGRAMMING/INTERCOM/NODES ENTRY
   When finished, NODE LIST appears. Make sure that all the nodes have been registered.
5. Press ESC repeatedly until you return to the main menu.

Example of 2 automations in INTERLEAVES mode covering one access.
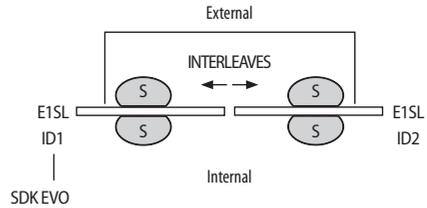
Pre-set IDs for INTERLEAVES:

E1SL	E1SL Associated INTERLEAVES ID
1	2
3	4
5	6
7	8

With SDK EVO connected to the first E1SL:
- 🔧 /PROGRAMMING/INTERCOM…
…ID   1
…INTERLEAVES   ENABLED   (ID = 2)

With SDK EVO connected to the second E1SL:
- 🔧 /PROGRAMMING/INTERCOM…
…ID   2
…INTERLEAVES   ENABLED   (ID = 1)

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10. FW UPDATES AND FILE DOWNLOAD - USB

FAAC provides updated firmware in a package called ZIPACK, which contains the files in versions that are compatible with one another. In order to be used, the files must be saved to the root directory of a USB storage device (not in a folder or zip file and without the original names being changed).

ⓘ Use a USB memory device that has a maximum power consumption of 500 mA and formatted with the FAT or FAT 32 file system. The NTFS format is not recognised by the board.

AUTOUPDATE

This procedure is available starting from Bootloader version 2.0.

For boards with previous versions, carry out the manual update procedure from the Upload / Download Menu.

1. With the board switched on, insert the USB memory device into connector J17, then press and release the RESET button.
   (alternatively, with the board switched off, insert the USB memory device into connector J17 and then switch on the board).
2. ㅂㅁ will appear on the display: the board automatically loads all the files that are needed to update the board and all the connected accessories from the USB storage device.
   - ‐‐ appears on the display while the board is being updated, then, when the update has finished, it reverts to displaying ㅂㅁ; the display then switches to the FW version and then to the door status display. (It is possible to access the Upload/Download menu by pressing and releasing the **F** button within 3 s from when ㅂㅁ appears on the display).

It is not necessary to remove the USB storage device.

UPLOAD/DOWNLOAD MENU

1. With the board switched on, insert the USB memory device into connector J17, then press and release the RESET button.
   (alternatively, if the board is switched off, insert the USB memory device into connector J17 and then switch on the board).
2. ㅂㅁ appears on the display and the USB led turns on.
3. Press and release the **F** button to scroll through the Upload / Download Menu options (see relative table).

Upload operations (updating or loading settings)

Press and hold the **+** and **−** buttons simultaneously for at least 3 seconds in order to carry out the procedure displayed.
   - the update starts: ‐‐ flashes on the display. Release the buttons.
   - The procedure is complete when ㅂ appears on the display.

If there are errors ㅁㅁ appears on the display and the red ERR led is lit. To display the error code, press the **+** and **−**buttons simultaneously. The errors are described in the Diagnostics Section.
   - Press **F** to return to the menu.

When finished, remove the USB storage device.

Download operations (saving files from board to USB)

Press and hold down the **+** and **−** buttons simultaneously for at least 3 seconds in order to run the function displayed, until ㅁㄱ appears on the display.

Release the buttons and use the **+** or **−** buttons to select the method for saving the file to the root of the USB storage device: ㅁㄱ (overwrite) or ㅃㅁ (add).

Press **F** to confirm.
   - The procedure is complete when ㅂ appears on the display.

If there are errors ㅁㅁ appears on the display and the red ERR led is lit. To display the error code, press the **+** and **−**buttons simultaneously. The errors are described in the Diagnostics Section.
   - Press **F** to return to the menu.

When finished, remove the USB storage device.

Files in the ZIPACK	Bootloader 1.0 and later	Bootloader 0.5
board firmware (ㅂㄱ)	E1SL_xx.hex	1400.hex
KS EVO firmware (ㅂㅌ)	KS_xx.hex	KS EVO.hex
LK EVO firmware (ㅂㅌ)	LK_xx.hex	LK EVO.hex
SDK EVO firmware (ㅂㅌ)	SDK_xx.hex	SDK EVO.hex
SDK EVO languages (ㅂㅌ)	SDKL_xx.bin	SDK EVO_L.bin

Files saved from the board	Bootloader 1.0 and later	Bootloader 0.5
programming (ㅂㄷ ㅁㄷ)(*)	E1SL.prg	1400.prg
programming TIMER (ㅂㅌ ㅁㅌ(*))	E1SL.tmr	1400.tmr
LOG file (ㅁㄴ)(*)	E1SL.log	1400.log

(*) The ㅁㄱ mode saves the file without a suffix and overwrites any existing file with the same name in the USB memory (e.g. E1SL.prg).

The ㅃㅁ mode saves the file by adding a 2-digit suffix to the name (e.g. E1SL00.prg) and if there is already a file with the same name in the root of the USB storage device, the number of the suffix is incremented (e.g. E1SL01.prg and so on). **Note**: the suffix must be deleted if you wish to load the file from the UPLOAD MENU.

The .LOG file contains the record of board events, it can be read using a text editor.

Files saved from a board with bootloader version 0.5 cannot be loaded onto a board with bootloader 1.0 or later, and vice versa.

BOOTLOADER AND FW VERSIONS

SDK EVO allows the firmware versions (APP) of the SDK EVO, the E1SL board, the DM board, if the DM KIT is installed, and the installed devices to be displayed.

SDK EVO: 🔧/INFO

⊞ **9** Upload/Download Menu

ㅂㄱ	Board FW update
ㅂㅌ	SDK EVO, LK EVO, KS EVO firmware update including translations of messages displayed by the device
ㅂㄷ	Load the E1SL board programming.
ㅂㅌ	Load the TIMER programming
ㅁㄷ	Save the board programming
ㅁㅌ	Save the board's TIMER configuration (*)
ㅁㄴ	Save the LOG file of the board (event records, Warnings, Errors)

FAAC

11. DIAGNOSTICS

LEDS ON THE BOARD

Key to LEDs

● on		○ off	
✳ flashing		❅ in sleep mode: off with flashing every 5 s	
(←) indicates the condition of the LEDs with the board powered and in standby

■ **MAIN (BLUE)   Main power supply unit input**
- ● main power supply ON   ←
- ○ no main power supply

■ **DL2 (BLUE)   Board power +5V**
- ● board power ON   ←
- ○ no board power

■ **DL11 (BLUE)   Accessories power supply (+24 V ⎓)**
- ● accessories power on   ←
- ○ no accessories power

■ **USB (GREEN)   USB storage device**
- ● device present
- ○ device not present   ←

■ **ERR (RED)   Error/Warning in progress**
- ● error
- ○ no error/warning   ←
- ✳ warning

■ **BAT1 (RED)   Battery status**
- ● battery discharged
- ○ battery charged   ←
- ✳ battery in use
- ❅ battery discharged with no mains power supply

■ **BAT2 (GREEN)   Battery charger status**
- ● battery charger at rest
- ○ battery charger not working due to mains power failure or fault
- ✳ battery charger in use

■ **SIC_OP (RED)   Safety in opening input**
- ● input active (sensors engaged)
- ○ input not active (sensors not engaged)   ←

■ **SIC_CL (RED)   Safety in closing input**
- ● input active (sensors engaged)
- ○ input not active (sensors not engaged)   ←

■ **SIC_OP (RED) + SIC_CL (RED)   Lit simultaneously = Safety Input STOP**
- ● input active (sensors engaged)
- ○ input not active (sensors not engaged)   ←

■ **EMERG (GREEN)   Emergency Input**
- ● input active (door opened in emergency)
- ○ input not active   ←

■ **OPEN (GREEN)   Open INPUT**
- ● input active
- ○ input not active   ←

LEDs on the board

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AUTOMATION AND CONFIGURED INPUTS STATUS

The STATUS of the automation is displayed in real time on the board display and on the HOME PAGE of the SDK EVO (⊞ Automation status).
The STATUS of the configured inputs can be seen:
- **from board** Advanced Programming: function In
- **from SDK EVO**: 🔧 /PROGRAMMING/INSTALLATION/INPUTS STATUS

```
         INPUT STATUS
  IN1    IN2     IN3    IN4
  S1     S2
                  O1    O2
  MR     E1      E2    FSW
                              OK
```

ERRORS AND WARNINGS

The errors prevent the automation from operating.
The presence of errors is indicated by:
- RED ERR LED steadily on
- status 13 on the display

The warnings refer to the operating mode and current phases.
Warnings are indicated by:
- flashing RED ERR LED

To view the code of the current error/warning
- **from Board**: simultaneously press and hold ✚ and ➖, the display shows:
  Er alternating with the error Code
  AI alternating with all the active warning Codes

See ⊞ Errors and Warnings. If there are multiple errors at the same time, the one that has priority is displayed. The display is updated after it has been resolved.
- **from SDK EVO**: 🔧 . . .
. . .ERRORS
. . .WARNINGS

FW VERSIONS

The FW version of the board appears when switched on. SDK EVO allows the FW versions of the SDK EVO, the E1SL board, the DM board, if the DM KIT is installed, and the installed devices to be displayed.
- **from SDK EVO**: 🔧 /INFO
. . .SDK EVO
  SDK EVO BOOT VER x.x BOOTLOADER NOT updatable
  SDK EVO APP VER x.x FIRMWARE (updatable)
  SDK EVO LAN VER x.x LANGUAGE file (updatable)
. . .E1SL
  E1SL BOOT VER x.x BOOTLOADER NOT updatable
  E1SL APP VER x.x FIRMWARE (updatable)
. . .

⊞ **10** Status of the automation

00	CLOSED
01	OPENING
02	OPEN
03	in PAUSE
04	in NIGHT-TIME PAUSE
05	CLOSING
06	OPEN or STOPPED or CLOSED in EMERGENCY
07	in MANUAL mode
08	in NIGHT-TIME mode
10	System TEST in progress
11	STOPPED
12	Safety TEST in progress
13	Door ERROR (Press ✚ and ➖ simultaneously to display the ERROR)
L0-L2	PHASES L0, L1, L2 of SETUP in progress (flashing)
.	in SLEEP mode (point flashing)

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ENGLISH

Translation of the original instructions

E1SL 35 53225804 - Rev. B

FÆC

⊞ **11** Errors and Warnings

Errors (AUTORESET): after the error has been active for 30 s the board attempts to RESET (maximum 5 attempts).

Errors and Warnings (codes on grey background = warnings)	Required action (perform RESET after the intervention)
1 BOARD FAILURE (AUTORESET)	Perform RESET. If the problem persists, replace the control board.
4 VACC FAULT Accessories power supply fault (VACC)	Make sure that there is not a short circuit between pins V and G on the terminal board. Make sure that the current drawn by the accessories connected to the board is within the permitted limits. Check fuse F2 Perform RESET. If the problem persists, replace the control board.
5 UC FAULT Microcontroller error (AUTORESET)	Make sure that there are NO sources of electromagnetic interference that are too close to the board. Update the board with the latest FW version available.
7 MOTOR FAILURE (AUTORESET)	Make sure that the automation type has been selected correctly. Make sure that the motor has been connected properly. If the problem persists, replace the motor.
9 VMAIN FAULT	With the Emergency battery connected, make sure that the battery has been enabled via the board or the SDK EVO. Check the mains voltage and the switching power supply unit.
10 BATTERY DISCHARGED (Deep Sleep)	With the emergency battery connected, if the battery charge level is low, it does not allow any movement. Turn the mains power back on.
11 TEST on S1 configured as SAFETY failed (AUTORESET)	Check the connection and operation of the safety device.
12 TEST on S2 configured as SAFETY failed (AUTORESET)	Check the programming of input S1- S2.
15 SETUP INHIBITED	Make sure that the automation type has been selected correctly, or that Night or Manual operating mode has not been selected, or that an emergency input is not active, or that the automation is NOT operating with the battery due to a mains power failure.
16 ENCODER FAILURE (AUTORESET)	Make sure that the encoder is connected properly. If the fault persists, replace the motor or the board.
18 FIRMWARE NOT COMPATIBLE	During the update, an incompatible FW has been detected. Check and update the automation board FW via the USB storage device.
19 HIGH MECHANICAL FRICTION (AUTORESET)	Check the leaves slide smoothly with power supply, battery and motors disconnected. Remove any friction. Check the counter wheel.
20 TEST on Inputs configured as SAFETY failed (AUTORESET)	Check the connections and the programming of the inputs and the safety devices.
22 BOARD CONFIGURATION DATA NOT VALID	Program the Model of the automation from the board (CF) or the SDK EVO.
23 POWER UNIT FAILURE	Switching power supply unit failure. Replace the power supply.
24 NUMBER OF CONSECUTIVE OBSTACLES DURING CLOSING	Check for and remove the obstacle. Check the leaves slide smoothly with power supply, battery and motors disconnected.
26 LOCK FAILURE (AUTORESET)	Make sure that the motor block has been installed, connected and configured correctly. If warning 59 appears, make sure that the SURVEILLANCE KIT has been installed and connected correctly. If warning 54 appears, replace the board or the motor block.
27 MOTOR ROTATION FAULT	Check belt connection to the leaves.
29 DM BOARD FAULT (AUTORESET)	Check the DM errors table via the SDK EVO.
31 NUMBER OF CONSECUTIVE OBSTACLES DURING OPENING	Check for and remove the obstacle. Check the leaves slide smoothly with power supply, battery and motors disconnected.
32 MOTION TIMEOUT	Motor without limit switch reference positions; check that it is installed correctly and the mechanical stops. Check the motor wiring. If the problem persists, replace the board or motor.
38 CONFIGURATION ERROR	Programming has been carried out that requires a new SETUP. Perform SETUP. Check the programming.
39 SETUP DATA NOT VALID/MISSING	Perform SETUP. If the problem persists, replace the board or motor.
41 DATE / TIME MISSING	Reset the time and date via the SDK EVO.
42 DATE / TIME BATTERY DISCHARGED or MISSING	Replace the clock battery
43 SYSTEM TEST IN PROGRESS	The system TEST is running.
44 EMERGENCY ACTIVE	Emergency input is active.
45 TIMER ACTIVE	The TIMER is enabled.
46 TIMER ACTIVE IN PROGRESS	A TIMER function is running.
47 LAST MOVEMENT CARRIED OUT WITH BATTERY	The automation has carried out the last programmed movement using the battery.
48 NIGHT-TIME MODE IN PROGRESS	Night-time mode operation.
49 MANUAL MODE IN PROGRESS	Manual mode operation.
50 PARTIAL MODE IN PROGRESS	Partial mode operation.
51 OBSTACLE DETECTED WHEN CLOSING	Check for and remove the obstacle.
52 OBSTACLE DETECTED WHEN OPENING	Check for and remove the obstacle.

Errors and Warnings (codes on grey background = warnings)	Required action (perform RESET after the intervention)
53 CYCLES NUMBER CORRUPTED	Replace the board and carry out maintenance on the system.
54 LOCK HW FAULT	Perform RESET. Check the motor block.
55 PHARMACY MODE IN PROGRESS	PHARMACY OPEN is in progress.
56 BATTERY OPERATION	The warning remains as long as the automation operates on the battery with mains power supply down.
57 SEARCHING FOR OPENING STOP IN PROGRESS	The indication remains as long as the stage is ongoing.
58 SEARCHING FOR CLOSING STOP IN PROGRESS	The indication remains as long as the stage is ongoing.
59 LOCK FAULT (SURVEILLANCE KIT)	Perform RESET. If the problem persists, replace the motor block.
60 MAINTENANCE REQUEST	Carry out ordinary or periodic scheduled maintenance.
61 SDK EVO / LK EVO/ KS EVO FAULT	Check it is the correct device and check the SDK EVO / LK EVO/KS EVO connections. Update FW. If the problem persists, replace the SDK EVO / LK EVO / KS EVO.
62 BATTERY CHARGER FAILURE	Perform RESET. If the problem persists, replace the board.
63 INTRUSION	An attempt to open the automation is in progress.
65 SETUP IN PROGRESS	SETUP is in progress.
66 MOVEMENT WITH MOTOR2 IS IN PROGRESS	The second Motor is in operation.
67 SLEEP	Low power mode is in progress: to prevent the emergency battery from being discharged, power to the accessories is switched off apart from to the SDK EVO.
68 SAFETIES TEST FAILED	The TEST on inputs configured as safeties has failed. In this condition, the automation moves at a slower speed. Check that the safety detector is working. If the problem persists, replace the device.
69 DOOR OPEN SEMI-AUTOMATIC OPEN	Door is open from SEMI-AUTOMATIC OPEN input.
70 BATTERY DISCHARGED	The emergency battery has a low charge level.
71 INTERCOM	The automation is in INTERCOM mode.
72 INTERCOM FAULT	No communication between the Master and Slave nodes.
73 INTERLOCK FUNCTION ACTIVE	The automation is in INTERLOCK mode.
74 INTERLOCK FUNCTION IN PROGRESS	MODFUN INTERLOCK is running.
75 INTERCOM SLAVE NODE in MAINTENANCE MANUAL/LOCAL	The INTERCOM board has been put in maintenance mode.
77 INTERCOM REGISTRATION IN PROGRESS	The automation is the MASTER and is registering the nodes.
78 AIRSLIDE IN PROGRESS	The automation is in AIRSLIDE mode.
79 INTERLEAVES IN PROGRESS	The automation is in INTERLEAVES mode.
80 NON-STANDARD PROGRAMMING	Non Standard configuration in use.
81 UPDATE FILES MISSING FROM USB	Check for files on the USB memory device.
82 FILE WRITING ERROR	Download the files to the USB storage device again.
83 DEVICE BEING UPDATED INCORRECT OR MISSING	The connected device on which you are attempting to update the FW is not compatible or not connected.
84 FW UPDATE ERROR	File read error. Repeat update from USB.
88 FILE READ ERROR	File corrupted or not the right one, device to be updated.
90 PASSWORD ERROR	Password file different to the one on the board.
91 BOARD FAILURE	Replace board.
96 Microcontroller fault	Replace board.
97 USB ERROR	USB device not recognised, not formatted with the FAT or FAT 32 file system, or faulty.
99 BOARD DATA DELETION IN PROGRESS	Wait for the data deletion procedure to finish.
101 FW FAULT SDK EVO	Carry out the RESET procedure. If the error persists, replace the SDK EVO.
102 SDK EVO FAILURE	Carry out the RESET procedure. If the error persists, replace the SDK EVO.
103 SDK EVOLANGUAGE LOADING ERROR	Carry out the RESET procedure. If the error persists replace the SDK EVO.
104 SDK EVO FW ERROR	Update the SDK EVO firmware.
105 BOARD COMMUNICATION ERROR	Check the connections. If the error persists, the communication channel of the board, the SDK EVO, or both are damaged. Replace the board or the SDK EVO.
106 SDK EVO CONNECTED TO A BOARD THAT IS NOT RECOGNISED	Check the type of board.

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Errors and Warnings (codes on grey background = warnings) DM Errors	Required action (perform RESET after the intervention)
200 UC FAILURE (Corrupted FW or Corrupted RAM)(DM)	RESET the board. If the error persists, replace the board.
201 MOTOR FAILURE (DM)	Check the motor wiring. RESET the board. If the error persists, replace the DM motor.
202 HIGH MECHANICAL FRICTION (DM)	Manually check smooth sliding of the leaves along the entire space acquired during setup.
203 BOARD FAILURE (DM)	RESET the board. If the error persists, replace the board.
204 BOARD FW NOT COMPATIBLE (DM)	UPDATE BOARD FW DM.
205 MOTOR ROTATION (DM)	INVERT THE DM MOTOR CONNECTION.
208 209 COMMUNICATION ERROR (DM)	If necessary, update the FW of the automation board
210 RESET IN PROGRESS (DM)	RESET is in progress.
216 COMMUNICATION ERROR BETWEEN THE 2 BOARDS (DM)	RESET the board. If the error persists, replace the board.
217 POSITION ERROR (DM)	Incorrect Opening Position. RESET the board. If the error persists, replace the board.
218 OBSTACLE (DM)	Check for obstacles.
219 BOARD ID ERROR	Replace the board.
220 BOARD POWER SUPPLY FAULT (DM)	RESET the board. If the error persists, replace the board.
221 TIMEOUT (DM)	RESET the board. If the error persists, replace the board.
222 BOARD TEST ERROR (DM)	Replace the board.
223 COMMUNICATION ERROR (DM)	Replace the board.
224 FW NOT COMPATIBLE (DM)	UPDATE BOARD FW DM.

11.1 RESET

A Reset has to be carried out to restart the board when the automation is blocked due to an ERROR or an EMERGENCY WITH MEMORY.

It can be Reset in one of the following ways:
- from the button on the board: press the RESET button briefly
- from a configured input: activate the specially configured input
- from the SDK EVO: press the two buttons simultaneously
- from the LK EVO: press the two buttons simultaneously

RESET from button on the board
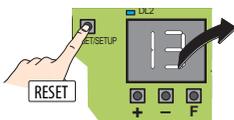
RESET from configured input

Input	Terminal board	Button	
I1		C1	
I2	J21	C2	
I3		C3	
I4		C4	61
S1	J1	P1	RESET
S2	J4	P2	
E1	J7	E1	
E2		E2	

RESET from SDK EVO

HOME PAGE

🖐 + 🔧 (⏱ 5 s)
Release when the flashing Error message disappears.

RESET from LK EVO

↑ + ❄ (⏱ 5 s)
After 5 s the corresponding LEDs (↑ and ❄) start to flash.
Release when the Error LEDs turn off.

⊞ 12 Troubleshooting guide

This guide refers to any situations not included in the Errors and Warnings table.

CONDITION	SUGGESTION
SDK EVO off	There is no mains voltage, the board is operating on battery in NIGHT-TIME mode and energy saving mode.
	Connection to the board has been interrupted: check the cables and wiring between the SDK EVO and the board.
	The board is not working correctly: replace the board.
All LEDs are off	Make sure that the primary protection fuse in the power supply unit has not tripped.
	Make sure that connector J1 has been correctly connected to the board.
	Check the connection to the power supply unit.
	The board is not working correctly: replace the board.
MAIN LED off LED 24 V ⎓ on	No mains power and the board is working on battery.
the door DOES NOT CLOSE	The safeties in closing are busy.
	The emergencies are active.
	Make sure that OPEN mode has not been activated.
	Make sure that MANUAL mode has not been activated.
	Check the motor connection.
	Make sure that the motor block is not blocked.
	Check presence of motor power supply voltage.
The door DOES NOT OPEN	The safeties in opening are busy.
	The emergencies are active.
	Make sure that MANUAL mode has not been activated.
	Make sure that NIGHT-TIME mode has not been activated.
	Check the motor connection.
	Make sure that the motor block is not blocked.
	Check presence of motor power supply voltage.
The door CLOSES instead of OPENING and vice versa	Check the belt fitting on the board and perform SETUP.
The door only moves for short stretches	Check correct insertion of the encoder connector.
	Check the condition of the encoder.
	Check the condition of flat encoder connection cable.
The door performs movements at very low speed	Ensure the selected speed levels are as desired.
	Ensure the selected slowing down spaces are as desired.
The door accelerates or slows down suddenly during an acceleration in opening and/or closing.	Modify the values cF and tF on the display.
The door does not perform SETUP	Automation in NIGHT-TIME mode.
	Automation in MANUAL mode.
	Active internal or external release.
	The emergencies are active.
	Motor or encoder not connected, not powered or faulty.

ENGLISH

Translation of the original instructions

FAAC

12. LK EVO

The LK EVO allows you to select the operating mode by pressing the corresponding button.

INSTALLATION AND CONNECTION

1. To separate the parts use a flat-head screwdriver to prise them apart.
2. Break the cable knockout.
3. Mark the points on the wall and fasten the support using suitable screws.

⚠ Before connecting the device, disconnect the mains power supply and the emergency battery of the automation system (if present).

4. Connect the automation board:

J8

G	GND Accessories power supply negative and Common contacts
TX	Data transmission
RX	Data reception
V	+24 V ⎓ (accessories power supply)

- use a 4 twisted pair U/UTP AWG24 cable with a maximum length of 50 m
5. Assemble the parts by pressing lightly.

SWITCHING ON

Turn the power to the automation board on.
- The LEDs turn on and off in sequence, then the LED corresponding to the active operating mode remains on.

If the ☾ ❄ LEDs are both lit at the same time, it indicates that the automation is in an operating mode that is NOT available on the KS EVO.

OPERATION

To select the operating mode, press the corresponding button. For special functions, press the 2-button combinations indicated.

ERRORS In the event of errors, the combination of LEDs corresponding to the active error flashes for a few seconds (⊞ **13**).

Icons   Led (operating mode active)
Buttons

Operating mode
Total two-direction automatic
Door open
Automatic total one-direction
Automatic partial two-direction
Night
Manual
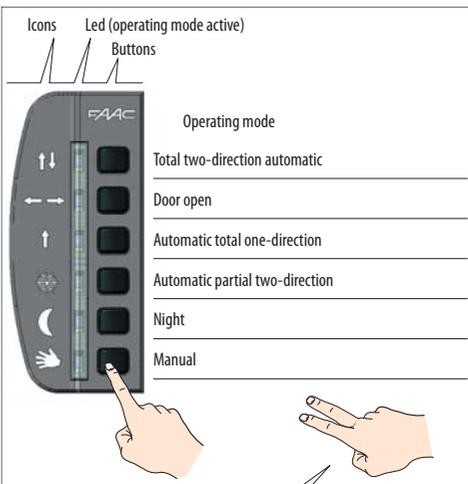
2-button combinations:

←→ + ☾ (◔5 s)	**LOCK / UNLOCK** Press for approximately 5 s to Lock/Release the keypad (the LEDs turn on and then off)
↑ + ❄ (◔5 s)	**RESET** (the LEDs corresponding to the Error flash until the buttons are pressed, release when they turn off)
↑↓ + ←→ (◔...)	**WARNINGS** To display the active warnings, press and hold the buttons (the LEDs corresponding to the warning flash as long as the buttons are pressed, release when they turn off) (see ⊞ LED Warning coding)
☾ + ✋ (◔...)	**FW VERSION LK EVO** press and hold the buttons to display the FW version of the LK EVO (⊞ LED FW version coding)

📝30

Assembling the LK EVO   TX RX G K G V

LK EVO connection   Connect to the terminals as shown.

E1SL/E1RD   J8

V RX TX G

U/UTP CAT.5
4x2xAWG24

TX RX G K G V
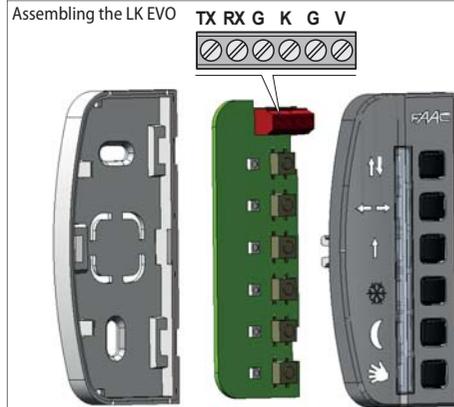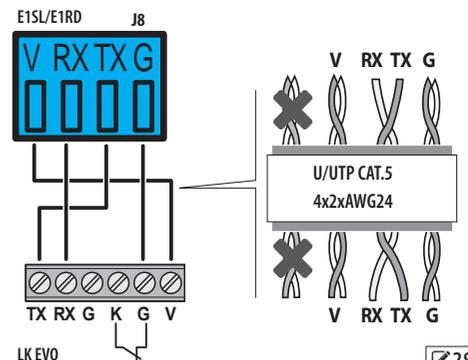
LK EVO

📝29

LK EVO LOCK DEVICE

The lock device is optional. Connect a key command with an NC contact to terminals G and K.

⊞ 13 LED Error Coding on Function selectors

Errors		↑↓	←→	↑	❄	☾
1	Board failure	*				
4	Accessories power supply fault			*		
5	Microcontroller error	*		*	*	
7	Motor failure	*	*	*		
9	VMAIN fault		*			
10	Battery discharged		*		*	
11 12 13 14 20	TEST on Inputs configured as safeties failed	*	*		*	
15	Set-up inhibited	*	*	*	*	
16	Encoder Fault					*
17	Double contact inputs fault	*	*			
18	Firmware (FW) not compatible		*			*
19	High mechanical friction	*	*			*
21	Movement time not compliant with standard EN 16005:2012	*		*		
22	Corrupted data	*		*		
24 31	Number of consecutive obstacles reached				*	*
26	Motor block failure		*		*	*
27	Motor rotation error	*	*		*	*
29	DM board fault	*		*	*	*
30	Serious error		*	*	*	*
32	Motor time out				*	
38	Configuration error	*				*
39	SETUP data missing or corrupted		*	*	*	
99	Total deletion of board data	*	*	*	*	*

⊞ 14 LED Warning coding - LK EVO

Warnings		↑↓	←→	↑	❄	☾	✋
44	Emergency active					*	*
51	Obstacle detected during closure	*				*	*
52	Obstacle detected during opening		*			*	*
54	Motor block absorption fault			*		*	*
56	Battery operation	*		*		*	*
59	Motor block fault (only with Surveillance Kit)	*	*	*		*	*
60	Maintenance requested				*	*	*
68	TEST on inputs configured as safeties failed		*		*	*	*

⊞ 15 FW version LED coding - LK EVO

FW version	↑↓	←→	↑	❄	☾	✋
FW 1.0		*		*		
FW 1.1	*	*		*		
FW 1.2			*	*		
FW 1.3	*		*	*		
FW 1.4		*	*	*		
FW 1.5	*	*	*	*		
FW 1.6					*	
FW 1.7	*				*	
FW 1.8		*			*	
FW 1.9	*	*			*	
FW 2.0			*		*	
FW 2.1	*		*		*	
FW 2.2		*	*		*	
FW 2.3	*	*	*		*	
FW 2.4				*	*	
FW 2.5	*			*	*	
FW 2.6		*		*	*	
FW 2.7	*	*		*	*	
FW 2.8			*	*	*	
FW 2.9	*		*	*	*	
FW 3.0		*	*	*	*	
FW 3.1	*	*	*	*	*	

FAAC

13. KS EVO

KS EVO allows you to select the operating mode by turning the key to the corresponding icon.

INSTALLATION AND CONNECTION
1. Separate the parts (use a flat screwdriver to prise them apart).
2. Break the cable knockout.
3. Mark the points on the wall and fasten the support using suitable screws.

⚠ Before connecting the device, disconnect the mains power supply and the emergency battery of the automation system (if present).

4. Connect the automation board:

J8

	G	GND Accessories power supply negative and Common contacts
	TX	Data transmission
	RX	Data reception
	V	+24 V === (accessories power supply)

- use a 4 twisted pair U/UTP AWG24 cable with a maximum length of 50 m
5. Assemble the parts and fix it in place with the screws provided.

SWITCHING ON
Turn power to the automation board on.
- The LEDs turn on and off in sequence, then the LED corresponding to the active operating mode remains on (apart from manual mode).

ERROR WARNINGS In the event of errors, the combination of LEDs corresponding to the active error flashes for a few seconds (⊞ LED Error Codes).

↑↓	Total two-direction automatic
←→	Door open
↑	Automatic total one-direction
❄	Automatic partial two-direction
☾	Night
✍	Manual

If the ☾ ❄ LEDs are both lit at the same time, it indicates that the automation is in an operating mode that is NOT available on the KS EVO.

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Assembling the KS EVO

KS EVO connection   Connect to the terminals as shown.

E1SL / E1RD

U/UTP CAT.5
4x2xAWG24

V   RX   TX   G

KS EVO
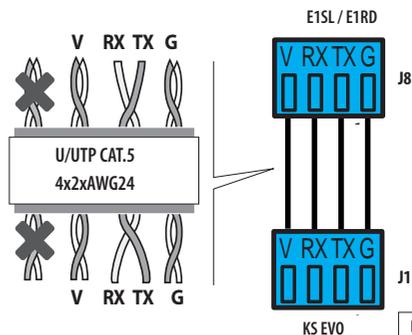
✎ 32

14. SDK EVO

The SDK EVO allows you to select the operating mode of the automation using buttons and menus. The active operating mode is indicated on the display.

The SDK EVO allows the automation to be programmed with wider number of options compared to programming via the board.

SDK EVO LOCK DEVICE

SDK EVO has a safety feature that protects the buttons via a PASSWORD. Alternatively, it is possible to connect a key command with an NC contact to terminals G and K.

The lock device is optional. The lock device can be programmed from the menu:

🔧 /PROGRAMMING/MISCELLANEUS/SDK EVO KEY

INSTALLATION AND CONNECTION

1. To separate the parts, remove the 2 screws (**1**).
2. Break the cable knockout (**2**).
3. Mark the points (**3**) on the wall and fasten the support using suitable screws.

⚡ Before connecting the device, disconnect the mains power supply and the emergency battery of the automation system (if present).

4. Connect the automation board:

J8

G	GND Accessories power supply negative and Common contacts
TX	Data transmission
RX	Data reception
V	+24 V ⎓ (accessories power supply)

- use a 4 twisted pair U/UTP AWG24 cable with a maximum length of 50 m
5. Assemble the parts and fix in place with the screws (**1**).
6. Fasten the display using the screw (**4**) and insert the screw cover (**5**).

SWITCHING ON

Turn power on to the automation board. The device turns on and displays a series of screens:
- power-on screen
- Bootloader: displays the Bootloader version (x.x)
- Firmware: displays the FW version (x.x)
- HOME PAGE: ready

Note: if no buttons are pressed, after 2 minutes the display reverts to the HOME PAGE.

Assembling the SDK EVO

SDK EVO connection   Connect to the terminals as shown.

E1SL/ E1RD

U/UTP CAT.5
4x2xAWG24

V RX TX G G K
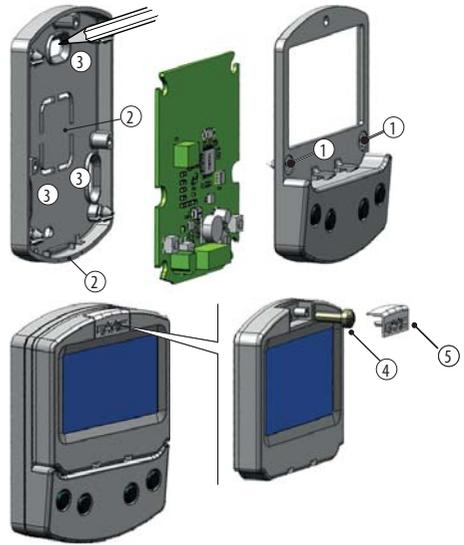
SDK EVO   ✐ 34
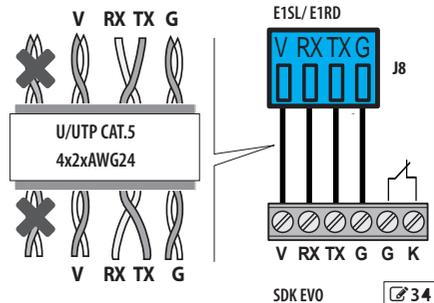
Screen sequence when switched on

SDK EVO
FAAC
BOOTLOADER x.x   SDK EVO BOOTLOADER version

SDK EVO
FAAC
VERSION x.x   SDK EVO FW version

XXXX
THUR 20/03/14
AUTO BIDIR   HOME PAGE
14:30 🔧 ➡

✐ 33

FAAC
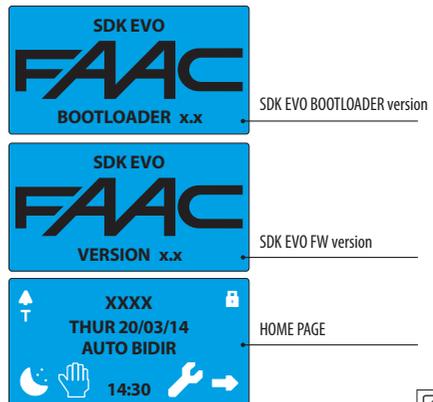
HOME PAGE

The 4 buttons activate the commands associated with the icons above:

☾ = sets the NIGHT mode

✋ = sets MANUAL mode

🔧 = accesses the MENU in order to configure all the board parameters

➜ = switches to MODFUN: additional operating modes

Each time the NIGHT or MANUAL button is pressed, the mode is enabled (icon highlighted on the display) and disabled.

Every time it is changed, the mode that is enabled is immediately updated on the display.

Symbols on the HOME PAGE:

🔔	current indications
T	TIMER active
🔒	SDK EVO locked
✱	USER PASSWORD disabled

RESET - LOCK/RELEASE

2-button combinations on the HOME PAGE:

☾ + ➜	(⏱ 5 s)	**LOCK / UNLOCK** Press for approximately 5 s to Lock/Release the keypad (the 🔒 icon appears)
✋ + 🔧	(⏱ 5 s)	**RESET** (press for approximately 5 s, until the flashing Error message disappears. After a series of screens it reverts to the HOME PAGE)

PASSWORD (PSW)

When the **PASSWORD** screen appears, a 4-digit password must be entered. There are 2 passwords: **USER PSW** and **TECHNICIAN PSW**. By default, both are: 0000.

The technician password gives access to the restricted functions (PROGRAMMING), but also to those of the user.

No password is required to select the NIGHT, MANUAL or MODFUN operating modes via a button.

Entering the PSW

- select (↑ ↓) and confirm (**OK**) each digit of the PSW in succession
- the device recognises the **USER PSW** or **TECHNICIAN PSW**

If a PASSWORD IS NOT RECOGNISED "WRONG PASSWORD" appears on the display. Press OK to go back to the HOME PAGE.

Changing the PSW:

🔧 /PASSWORD

Changing the PSW is recommended when you carry out programming for the first time.

- select and confirm the password to be modified: **USER PSW** or **TECHNICIAN PSW**
- select (↑ ↓) and confirm (**OK**) the digits of the PSW one by one, then confirm the complete PSW

HOME PAGE

- name of the door
- current day and date
- operating mode (**MODFUN**)
- time

XXXX

THUR 20/03/14

AUTO BIDIR TOTAL

14:30

NIGHT
(PSW)

MANUAL
(PSW)

MENU
(PSW)

MODFUN

PASSWORD

PSW

0000

ESC ↑ ↓ OK
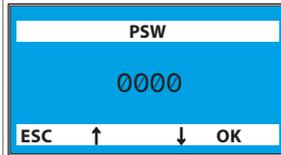
Default password:

0000
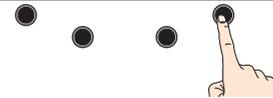
	☾	✋	🔧	➜
USER	without PSW	without PSW	PSW*	without PSW
INSTALLER	without PSW	without PSW	PWD	without PSW

* the TECHNICIAN PSW is required to access the programming functions in the MENU 🔧

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FAAC

MODFUN

1. Access MODFUN by pressing the ➔ button on the HOME PAGE.
2. Using the ↑↓ buttons, select the operating mode, the direction (Two-directional, EXIT Only, ENTRY Only) and the opening percentage (Total or Partial).
3. Confirm the MODFUN using the **OK** button, this then takes you back to the HOME PAGE.

MENU 🔧

1. Access the functions menu by pressing the 🔧 button on the HOME PAGE.
2. Enter the USER or TECHNICIAN PSW.
3. The display shows the functions. Select the available functions using the ↑↓ buttons:
   - LANGUAGE
   - PROGRAMMING (TECHNICIAN PSW required)
   - ERRORS
   - WARNINGS
   - INTERCOM (only available on the MASTER board specified in PROGRAMMING/INTERCOM)
   - CYCLES COUNT
   - DATE/TIME
   - TIMER
   - PASSWORD
   - INFO
4. Press the **OK** button to access the selected function and then the ↑↓ and **OK** buttons to display it or set it.
5. Confirm by pressing the OK button, it takes you back to the MENU. Press the ESC button to go back to the HOME PAGE.

PROGRAMMING

🔧/PROGRAMMING
1. Access the functions menu by pressing the 🔧 button on the HOME PAGE. Select PROGRAMMING and press **OK**.
2. The list of programmable functions appears. Select and set the individual options using the ↑↓ and **OK** buttons.
3. Press the **OK** button repeatedly to return to the list of programmable functions and then to the MENU. Press the **ESC** button to go back to the HOME PAGE.

MODFUN examples

Automatic Two-directional, with Partial opening:

Door open, with Total opening:

INTERLOCK, EXIT only, with Total opening:

MODFUN

100% | OK

XXX XXX

AUTOMATIC TWO-DIRECTIONAL | TWO-DIRECTIONAL | 100% TOTAL
TOTALLY OPEN | EXIT ONLY | % OPENING
INTERLOCK | ENTRY ONLY
| AUTO MANUAL

To select INTERLOCK press and hold ◄► or ▌▌ for at least 3s.
Available on the MASTER board, if enabled (Section INTERCOM).

MENU
- the selected function is indicated with >
- ↑↓ buttons to select the function
- **ESC** button to go back to the HOMEPAGE
- **OK** button to access the function/confirm the programming and go back to the MENU

MENU
- > 1 LANGUAGE
- 2 PROGRAMMING
- 3 ERRORS
- 4 WARNINGS

ESC | ↑ | ↓ | OK

🖉36

FAAC

```
🔧
    LANGUAGE
    PROGRAMMING
    ERRORS
    WARNINGS
    CYCLES COUNT
    DATE / TIME
    TIMER
    PASSWORD
    INFO
```

1 LANGUAGE OK →
- ITALIANO OK
- ENGLISH OK
- FRANÇAIS OK
- DEUTSCH OK
- ESPANOL OK
- NEDERLANDS OK
- SVENSKA OK

2 PROGRAMMING OK → see specific diagram

3 ERRORS OK → see § Diagnostics

4 WARNINGS OK → see § Diagnostics

5 CYCLES COUNT OK →
- CYCLES NUMBER OK
- MAINTENANCE OK
- CYCLES RESET OK

6 DATE/TIME OK →
- SET DATE OK
- SET TIME OK
- DAYLIGHT SAV TIME OK

7 TIMER OK →
- TIMER STATE OK
- MONDAY OK
- …
- SUNDAY OK
- MON-SUN OK
- MON-FRI OK
- JOLLY OK
- JOLLY SLOTS OK

8 PASSWORD
- TECHNICIAN PSW OK
- USER PSW OK

9 INFO OK →
- SDK EVO OK
- E1SL OK
- ---- DM (*) OK

```
┌──────────────┐        ┌──────────────┐            ┌──────────────┐             ┌──────────────┐
│      2       │ OK →   │  DOOR TYPE   │ OK          │    TIMING    │ OK →        │  PAUSE TIME  │ OK
│ PROGRAMMING  │        └──────────────┘             └──────────────┘             └──────────────┘
└──────────────┘                                                                  │ NIGHT PAUSE TIME │ OK
                        │ INPUTS / OUTPUTS │ OK                                    └──────────────────┘
                        └──────────────────┘                                      │ NIGHT SENSOR DELAY │ OK
                        │    MOTION    │ OK
                        └──────────────┘
                        │    TIMING    │ OK                                        ┌──────────────┐             ┌──────────────┐
                        └──────────────┘             │ ENERGY SAVING │ OK →        │   DISABLED   │ OK
                        │ ENERGY SAVING │ OK          └──────────────┘             └──────────────┘
                        └──────────────┘                                          │   ENABLED    │ OK
                        │  BATTERY KIT │ OK
                        └──────────────┘
                        │   KIT LOCK   │ OK           ┌──────────────┐             ┌──────────────┐
                        └──────────────┘             │  BATTERY KIT │ OK →        │   FUNCTION   │ OK
                        │ INSTALLATION │ OK           └──────────────┘             └──────────────┘
                        └──────────────┘                                          │ LAST MOVEMENT │ OK
                        │   INTERCOM   │ OK
                        └──────────────┘                                          │ NIGHT-TIME FUNCTION │ OK
                        │ MISCELLANEOUS │ OK                                       │ LAST MOV. (NIGHT) │ OK
```

INSTALLATION	OK →	MOTOR ROT.	OK
		2ND ENGINE KIT	OK
		START SETUP	OK
		INPUTS STATUS	OK
		DOOR STATUS	OK
		OTHER BOARD DATA	OK

INTERCOM	OK →	ID	OK
		INTERLOCK	OK
		INTERLEAVES	OK
		AIRSLIDE	OK
		NODES ENTRY	OK
		NODE LIST	OK

DOOR TYPE	OK →	A1000	OK
		A1400 AIR	OK
		RKE 1400	OK
		SF1400	OK
		GBF1500	OK

KIT LOCK	OK →	TYPE	OK
		FUNCTION	OK
		SURVEILLANCE KIT	OK
		FUN. BATTERY	OK

MISCELLANEOUS	OK →	CONFIG. DEFAULT	OK
		PARTIAL OPEN	OK
		BOARD'S DISPLAY	OK
		OP.SAFETY FUNC.	OK
		INTRUSION	OK
		PARTIAL PHARMACY	OK
		SDK EVO KEY	OK
		CONSECUTIVE OBST.	OK
		TEST ERROR	OK
		BACKLIGHT DISPLAY	OK
		ELASTIC KIT	OK

INPUTS / OUTPUTS	OK →	INPUTS I1- I4	OK
		OUTPUTS O1/O2	OK
		INPUTS S1- S2	OK
		INPUTS E1- E2	OK
		PHOTOCELLS XFA	OK

MOTION	OK →	OPENING	OK
		CLOSING	OK
		MOVEMENT DAMP.	OK
		STOP MOV	OK

F/A/A/C

MENU 1 LANGUAGE
Select from the list provided.

MENU 2 PROGRAMMING

ⓘ The menu is only accessible if the TECHNICIAN password has been entered.
If a different password has been inserted, it is indicated: WRONG PASSWORD.

■ **1 DOOR TYPE**
Select the model of the automation from the list provided.
SF1400 opens 2 additional menus:
LEAF NUMBER: 1 LEAF, 2 LEAVES
PASSING SPACE.
with 1 LEAF selection: >= 75 cm, <= 65 cm, >65 cm and <75 cm
with 2 LEAVES selection: >= 150 cm, <=130 cm, >130 cm and <150 cm

■ **2 INPUTS / OUTPUTS**
Allows the input or output to be selected from the list provided, assign the configuration and select the type of contact (NO, NC).
INPUTS I1, I2, I3, I4
If an input is configured as a SAFETY, you are required to set the TEST:
ENABLED, DISABLED
OUTPUTS O1/O2
The LIGHT option requires the time to be set: 1...240 s
INPUTS S1-S2
As Inputs I1- I4.
INPUTS E1 / E2
As Inputs I1- I4.
PHOTOCELLS XFA
Allows you to select: DISABLED, 1 PAIR, 2 PAIRS

■ **3 MOTION**
OPENING
Allows you to program:
OPENING SPEED: level 1...10
SLOWDOWN: level 0...200
STRENGTH: level 1...10
STRENGTH DURATION: 0.1...3.0 s
ACCELERATION: level 1...10
DECELERATION: level 1...10
CLOSING
Allows you to set the same parameters as found under OPENING.
BRAKING.
Allows you to program the deceleration for the reverse movement: level 1...5
STOP MOV
Allows you to bring the stop position forwards with respect to the opening stop: level 1...10 (0 = minimum distance)

■ **4 TIMING**
Allows you to program:
PAUSE TIME 0...30 s
NIGHT PAUSE TIME: 0...240 s
NIGHT SENSOR DELAY: 0...240 s

■ **5 ENERGY SAVING**
Allows the Energy Saving function to be enabled/disabled (relative § Section).

■ **6 BATTERY KIT**
Allows the emergency battery kit to be enabled, specifying the movements carried out in the various operating modes.

FUNCTION:
DISABLED, UNTIL LAST MOVEMENT, LAST MOVEMENT ONLY
LAST MOVEMENT: OPENING, CLOSING
NIGHT MODE:
LAST MOVEMENT ONLY, UNTIL LAST MOVEMENT
LAST MOVEMENT NIGHT: OPENING, CLOSING

■ **7 KIT LOCK**
Allows you to program the way the motor block operates (if installed).
TYPE: XB LOCK, XM LOCK
FUNCTION
Defines operating modes in which motor block is activated:
DISABLED, NIGHT, NIGHT+MONODIR, NIGHT+OPENED, NIGHT+CLOSED ALWAYS
SURVEILLANCE KIT
ENABLED, DISABLED the surveillance kit on the motor block must be disabled if it is not installed
FUN. BATTERY
Defines the way the motor block operates when the automation is operating on the battery:
NIGHT, STANDARD, ALWAYS OPEN

■ **8 INSTALLATION**
Menu specific to operations carried out during start-up.
MOTOR ROT.
Allows the direction of rotation of the motor to be reversed:
STANDARD, NOT STANDARD (factory setting = STANDARD)
2ND ENGINE KIT
ENABLED, DISABLED enables the double motor kit, if installed
START SETUP
Follow the instructions in the § SETUP section. Confirm to carry out the SETUP.
INPUTS STATUS
Allows the active inputs to be displayed (see § Diagnostics).
DOOR STATUS
Allows the status of the door to be displayed (e.g. SETUP IN PROGRESS).
OTHER BOARD DATA
Allows the following data to be displayed:
V_MAIN input voltage to the board in Volts
V_BATT battery voltage in Volts
V_ACC accessories voltage in Volts
I_MOT motor current draw in Amperes
POS leaf position in cm

■ **9 INTERCOM**
Program the NODE from the INTERCOM network if provided (relative § Section).
ID
Identifies the NODE:
DISABLED, 1...15
INTERLOCK
Allows INTERLOCK to be enabled (relative § Section):
DISABLED, NO MEMORY, WITH MEMORY
INTERLEAVES
Allows INTERLEAVES to be enabled (relative § Section):
ENABLED, DISABLED
AIRSLIDE
Allows AIRSLIDE to be enabled (relative § Section):
ENABLED, DISABLED
NODES ENTRY
This is available if the SDK EVO is connected to the board ID=1 and allows all the boards in the network to be recognised.
NODE LIST

Available if the SDK EVO is connected to the board ID=1. Displays the NODES that have been registered and the relative information for each one:

INFO, ERRORS, WARNINGS, CYCLES NUMBER, MAINTENANCE.

MAINTENANCE allows the NODE to be set to MANUAL or LOCAL. Selecting DISABLED restores the NODE in INTERCOM (§ Section INTERCOM).

■ 10 MISCELLANEOUS

CONFIG. DEFAULT

ACTIVE = the programming corresponds to the DEFAULT settings

NO = the programming does not correspond to the DEFAULT settings Press OK to reload the DEFAULT settings. The following question appears:

DO YOU WANT TO RELOAD DEFAULT CONFIG? Press OK to confirm.

PARTIAL OPEN (NOT for SF1400 and GBF1500)

Defines the opening percentage in PARTIAL OPEN mode: 20…100%

BOARD'S DISPLAY

Allows programming from the board to be enabled/disabled.

NOT BLOCKED programming from the board is enabled

BLOCKED disabled

OP.SAFETY FUNC.

Defines the way one or more inputs configured as an OPENING SAFETY operate.

Low Energy carries out movement at low speed

STOP stops the automation

INTRUSION

Defines the operation in response to an attempt to open the automation manually.

DISABLED does not actuate the motor

KEEP CLOSED actuates the motor in order to keep closed

PULL & GO the motor completes the opening (NOT active with battery operation)

PARTIAL PHARMACY (NOT for SF1400 and GBF1500)

It defines the opening percentage of the PHARMACY OPEN command in NIGHT-TIME mode): 1…95%

SDK EVO KEY

Defines the operation of a key switch connected to the SDK EVO:

BLOCK SDK EVO works with password when the contact is open and is locked when the contact is closed.

WITHOUT USER PSW SDK EVO works without a password when the contact is open and with a password when the contact is closed (* is indicated on the HOME PAGE)

CONSECUTIVE OBST.

Defines the number of consecutive obstacle detections after which the automation stops in an error state.

CLOSING no…10 (no = no count)

OPENING no…10 (no = no count)

TEST ERROR

Allows the movement to be activated in Low Energy mode (as opposed to movement inhibited) if there is a TEST ERROR on an input configured as SAFETY.

ENABLED = movement inhibited

DISABLED = movement in Low Energy mode

BACKLIGHT DISPLAY

Allows the backlighting of the SDK EVO to be enabled/disabled.

ALWAYS Backlighting is always active.

DISABLED The backlighting is activated when the buttons are pressed (it turns off after 2 min if no buttons are pressed).

ELASTIC KIT (NOT for SF1400 and GBF1500)

Allows the elastic anti-panic kit to be enabled/disabled. ENABLED, DISABLED

MENU 3 ERRORS

The display shows current errors (§ Diagnostics Section).

MENU 4 INDICATIONS

The display shows current alerts (§ Diagnostics Section).

MENU 5 CYCLE COUNTER

■ 1 CYCLES NUMBER

The display shows the number of cycles performed: ABSOLUTE RELATIVE

■ 2 MAINTENANCE

Technician PSW required. Allows the maintenance request to be specified when a number of cycles has been reached. If a date is also entered, a maintenance request is made when the first event is reached: cycles or date.

MAINTENANCE CYCLES 1000…1000000 counting the RELATIVE cycles

DATE optional 00/00/00 = disabled

■ 3 CYCLES RESET

Technician PSW required. It resets the RELATIVE cycle counter to zero. This command requires confirmation The ABSOLUTE cycles counter can only be reset using the restore factory defaults procedure (relative § Section).

MENU 6 DATE / TIME

■ SET DATE

Set date in dd/mm/yy.

■ SET TIME

Set time in HH:mm.

■ EUROPEAN DAYLIGHT SAVING TIME

Allows the European summer (daylight savings) time to be updated automatically.

MENU 7 TIMER

Refer to the § TIMER Section.

Programming allows the operating mode to be set for the required TIME SLOTS for one or more days of the week. Set any JOLLY slots that may be required. When the TIMER is active, the operating mode is set automatically according to the set time bands and the warning T appears on the HOME PAGE. To change the operating mode manually that was activated by the TIMER, it must be disabled.

■ 1 TIMER STATUS

Allows the TIMER to be enabled/disabled: ENABLED, DISABLED (the programming carried out remains in memory but is not executed).

■ 2 MONDAY... 8 SUNDAY

Allows the days of the week to be programmed: select the day, select the TIME SLOT, assign the operating mode and set the BEGINNING and the END time of the TIME SLOT. Carry out the same procedure for the other TIME SLOTS required.

■ 9 MON-SUN, 10 MON-FRI

Allows groups of days to be programmed quickly with the same TIME SLOTS: select a group of days (from MON-SUN or from MON-FRI). Select the TIME SLOT, set the BEGINNING and END time and assign the operating mode. Carry out the same procedure for the other TIME SLOTS required. Apply the programming to the group of days by selecting APPLY; any settings already made for individual days will be overwritten.

■ 11 JOLLY

Allows the operation of the TIMER to be set in the JOLLY slots (one or more days that require a different programming): program the required JOLLY TIME SLOTS (operating mode and the BEGINNING and END) time.

■ 12 JOLLY SLOTS

To apply the JOLLY programming to individual days or to SLOTS of multiple days: enable a SLOT, specify the BEGINNING and END date for the SLOT. Carry out the same procedure for the other INTERVALS required.

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MENU 8 PASSWORD

The personnel allowed to use the password, to select the automation's operating modes (USER) must keep the password confidential.

The USER is ONLY allowed to modify the USER PSW. The TECHNICIAN may edit both passwords.

■ **TECHNICIAN PSW**

Allows the TECHNICIAN PSW to be modified.

Enter the current TECHNICIAN PSW, then the new NEW PSW and press OK. Re-enter the NEW PSW and confirm with OK. If the PSW is not repeated correctly, the SDK EVO continues to request confirmation.

■ **USER PSW**

Allows the USER PSW to be modified.

Enter the TECHNICIAN PSW or the current USER PSW , then follow the same procedure as for the TECHNICIAN PASSWORD.

MENU 9 INFO

Allows the firmware versions (APP) of the SDK EVO, the E1SL board, the DM board, if the DM KIT is installed, and the installed devices to be viewed.

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