

# INDEX

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***Further links are present and highlighted in red inside the instructions.***

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## TECHNICAL INFORMATION

Board E124 can be controlled and programmed from a PC, using a wireless connection or an A-B USB cable.

The compact **XCOM** module was designed for integration onboard the FAAC systems. It creates a wireless network via a proprietary protocol which controls the entire data exchange. It operates in the 868 MHz band with highly selective methods to increase insensitivity to environmental disturbances.



The E124 board is able to control standard devices and BUS devices, with the E124 software and the various onboard programming levels, you can program inputs and outputs.



The E124 program software enables access to all the functions of the E124 board, transferring from standard configurations to more advanced personalisations, to satisfy the end-customer's requirements.



***It is important to consult the board instructions before using this software.***

## SW REQUIREMENTS

- Operating system WINDOWS: 2000, XP, VISTA.
- Minimum graphic resolution 1024x768 Mpixel.

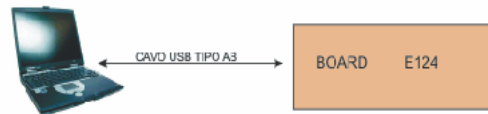
## OPERATING MODES

The E124 program software allows you to work in three modes:

### 1. Connection by an AB mod. USB cable



- HW REQUIREMENTS**
- MALE A/B USB CABLE



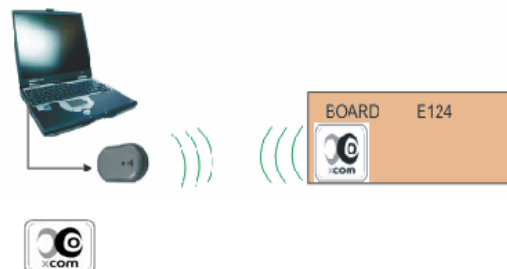
By using this mode you can:

- Check and monitor the operation of the E124 board
- Create, modify or save on a PC, an operational configuration of the system
- Update a firmware version of the E124 board

### 2. Wireless connection

**HW REQUIREMENTS**

- Wireless transmission devices XCOM and XCOM BOX.



By using this mode you can:

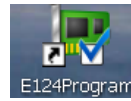
- Check and monitor the operation of the E124 board
- Create, modify or save on a PC, an operational configuration of the system

### 3. STAND ALONE

This operational mode enables you to make a new configuration or modify one saved on the PC, which can then be downloaded on the E124 board, using connections 1 or 2.

# START UP

Open the program by selecting icon



If you do not work in stand alone mode, when started up, the software recognises the presence of a communication device and therefore requests to set the type of communication.



If the connection is correct, the communication details appear low down on the dialogue window.

COM3, Baud Rate: 38400, Data Bits: 8, Stop Bits: 1, Parity: 0

If you use the XCOM communication , the following window opens – here you can search and select the XCOM board of the required system to establish the wireless connection.



To view the procedures dedicated to the [Xcom configuration](#), click here.

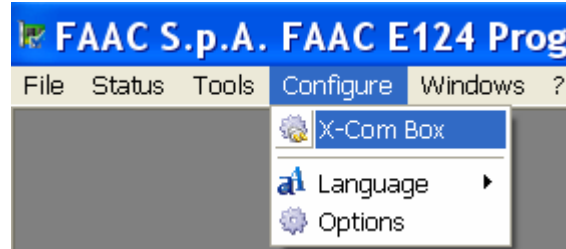
## PROGRAMMING STATUS

Signal **Programming Status** ■ is present in the Programming and Operating Status menus.

If the LED is red, this means that the PC is transferring a programming operation to the board. When the communication has been completed, the LED changes back to green.

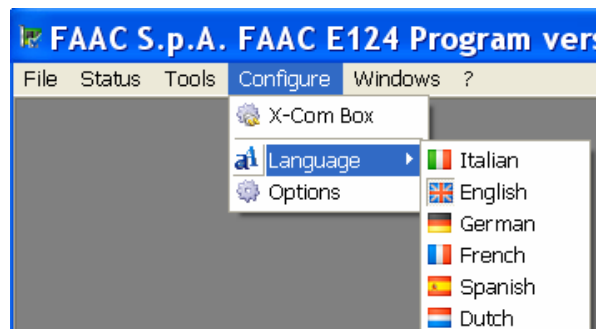
## CONFIGURE

The configure menu makes it possible to configure the [wireless settings \(X-Com\)](#), the printing options and the language.



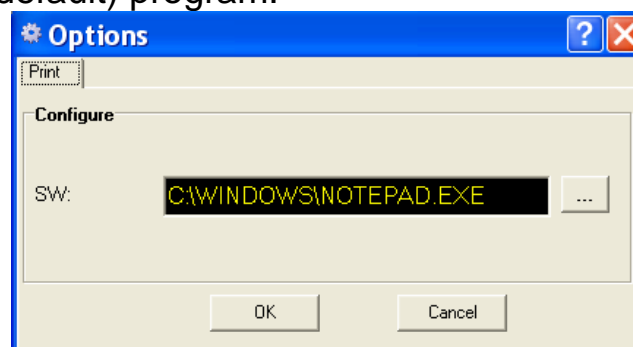
## LANGUAGE

To change the language, enter the [Configure](#) menu, select [Language](#) and select the setting you require.



## OPTIONS

From this menu you can select the program where you wish to set the print file. All settings are usually saved as txt, and therefore, to print you must select a **notepad** (default) program.



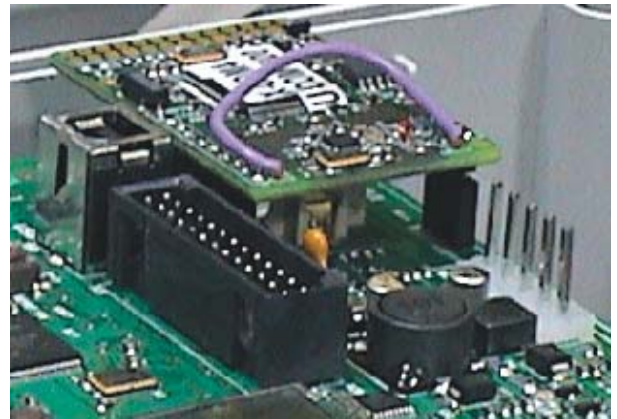


## WIRELESS CONFIGURATION

The E124 board can be controlled and configured from a PC, via a wireless or USB connection – the wireless connection procedures are illustrated below.

### Connections.

Cut power to the control unit and insert the XCOM board in its connector on the E124 board.



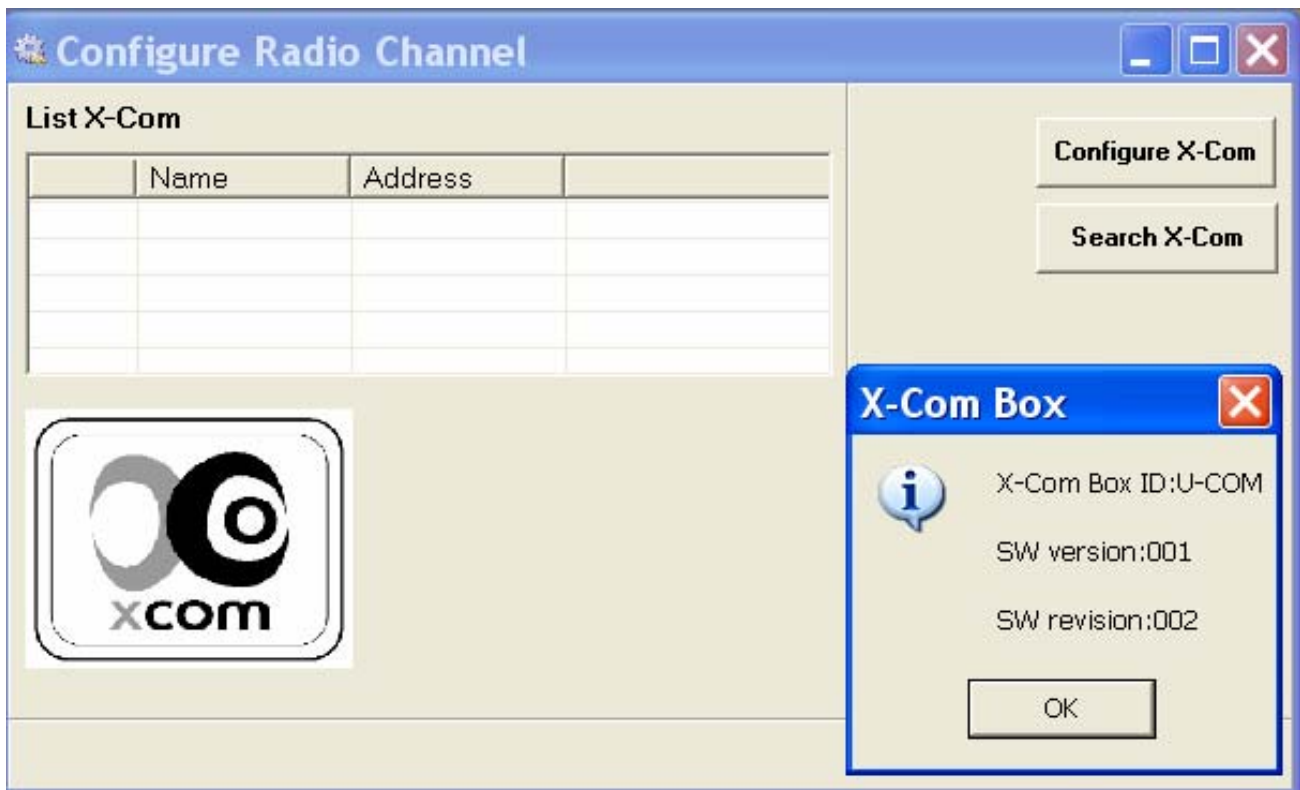
Connect the X-COM BOX module via the USB cable to the PC



When you have connected all the devices, select X-Com box from the Configure menu.

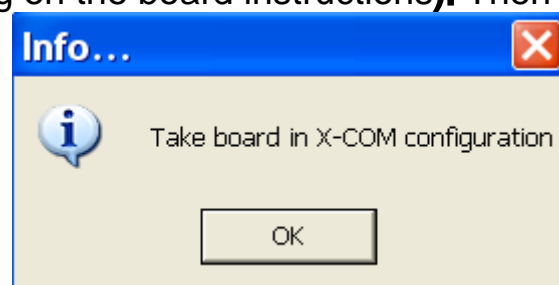


The window underneath appears – press **OK** on the **Xcom Box** window (which indicates the characteristics of the device connected to the PC).



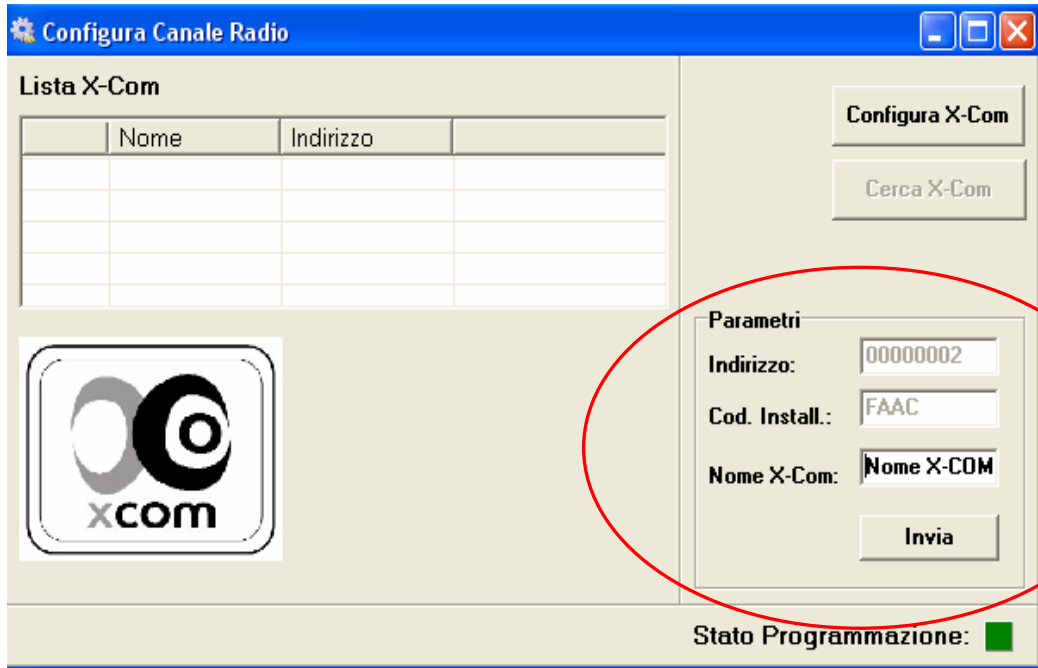
At this point, you can proceed in two modes depending on whether the **XCOM** module has or has not been installed on the E124 control board:

1. If we are concerned with a new installation, click **Configure Xcom** and take the E124 board into X-COM configuration (see 2<sup>nd</sup> level programming on the board instructions). Then press **OK**



The system recognises the address of the Xcom module installed on the board.

Type a name in the appropriate field and press **Enter**.

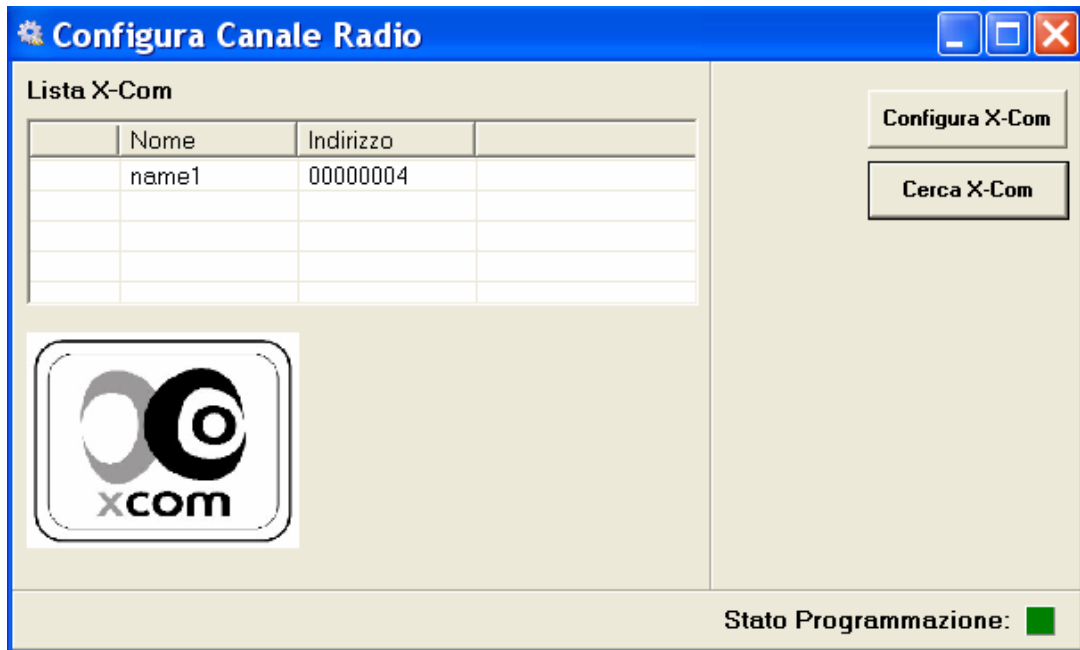


X-Com connected, type OK





2. If we are dealing with an E124 control unit with the XCOM board already installed, select [Search Xcom](#). In the [X-COM list](#), a device appears, with which you wish to start communicating – select it with a double click.

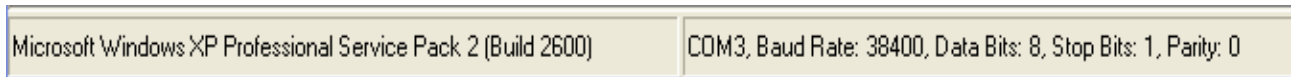


XCOM connected, press [OK](#).



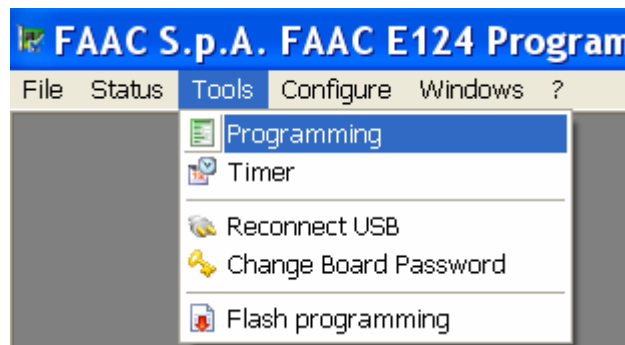
# TOOLS

From this menu, you can access the main personalisation items of the system, i.e. enter programming or configure the weekly timer. The Tools menu enables you to **reconnect** between PC and board, or between PC and X-Com box. If one of these 2 connections is active, low down on the dialogue window the connection data appear.



To view the instructions for the **Tools** menu, click on link :

- programming
- timer
- change password



Moreover, you can update the *firmware* version of the E124 board, by entering the **flash programming** menu.

We advise you to perform this procedure only if instructed to do so by FAAC technical personnel.

To program, you must have the file containing the firmware not present in this software packet (*the updates can be downloaded from site*

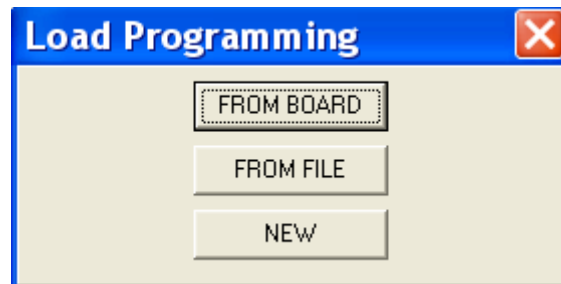
[www.faacgroup.com](http://www.faacgroup.com) entering the section *Products/manuals/software*).

To view the procedure, click on the following link: [Flash Programming](#)

## PROGRAMMING

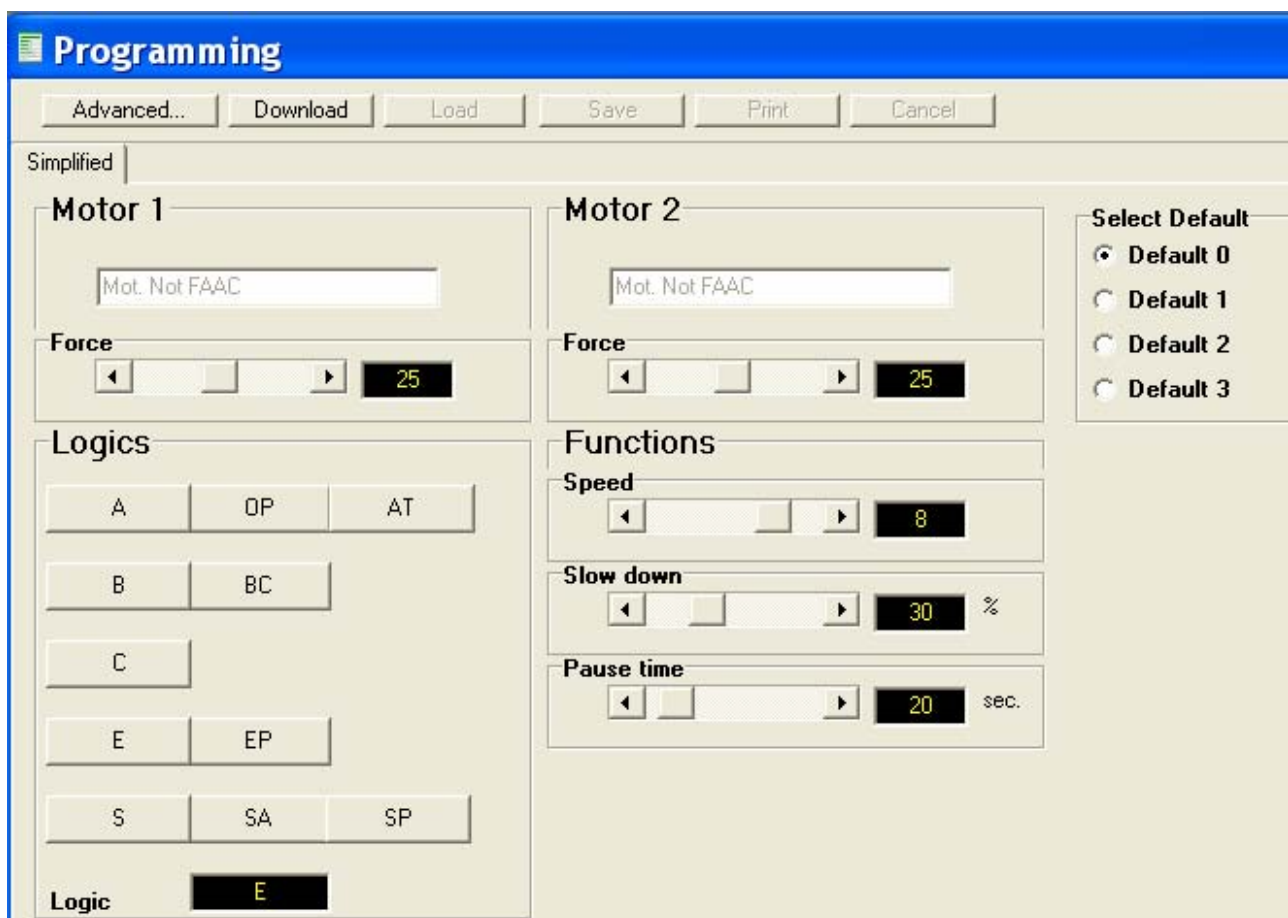
From the Tools menu, enter programming.

You must decide whether to do **NEW** programming, directly load the configuration already on the **BOARD** or open a **FILE** saved on your PC, containing a customised configuration.



## SIMPLE PROGRAMMING

From this panel, you can configure the basic settings for any type of system. You can change over to **Advanced programming** or, by selecting the **Download** push button, transfer to the E124 board the parameters set on the PC.



**Default Selection:**

Board E124 manages automated systems for 24V FAAC swing leaves or for other makes. To set the type of motor, you have to select a Default. Defaults are programming items already designed for given operators.

- **DEFAULT 0**  
Configures the parameters with DEFAULT values corresponding to an installation with **non-FAAC** operators.
- **DEFAULT 1**  
Configures the parameters with DEFAULT values corresponding to an installation with **FAAC operators 412, 413/415, 770, 390**
- **DEFAULT 2**  
Configures the parameters with DEFAULT values corresponding to an installation with **FAAC 391** operators.
- **DEFAULT 3**  
Configures the parameters with DEFAULT values corresponding to an installation with **FAAC S700H** operators.

***N.B. For non-FAAC motors or operators, we refer to operators for swing leaves powered on 24 V.***

***On all 24 V motors which do not entail use of an encoder, the anti-crushing system is controlled by a virtual encoder.***

From this window, you can adjust the **Power** of every single motor, as well as **Speed**, **Pause Time**, and **Slow-down** spaces.

The function **logics** reflect the standard FAAC logics, and are described in the board manual.

According to the selected motor power, the E124 board automatically configures the current limit for motor operation.

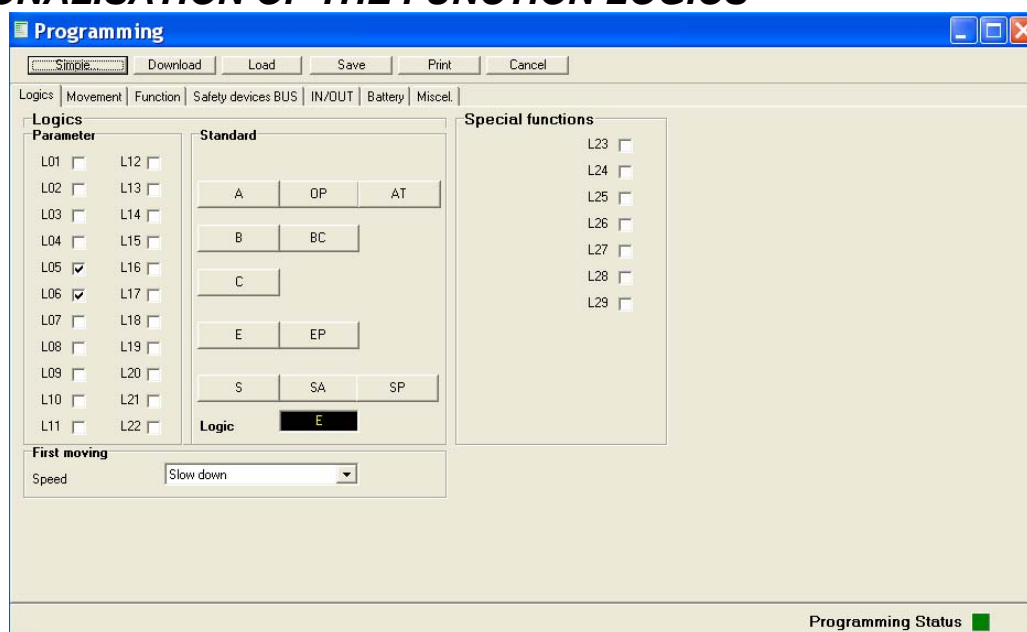
## ADVANCED PROGRAMMING

This menu is used for perfecting all the control parameters of the E124 control unit.

- The **Simple** push button is used for returning to the simple programming menu (*ATTENTION: if you change the menu, the data will be lost*)
- The **Download** push button enables you to **SAVE on the board the parameters set on the PC.**
- The **Load** push button is used for displaying the parameters on the board.
- The **Save** push button enables you to save your programming on the PC.
- The **Print** push button, according to the configuration effected by the **Configure**, menu, makes it possible to print the current PROGRAMMING.

**Before starting to personalise the system, we advise you to select a DEFAULT configuration from the simple programming menu.**

### PERSONALISATION OF THE FUNCTION LOGICS



#### STANDARD:

You can select one of the following logics (function logics are described in the manual of the board):

**E** Semi-automatic

**A** Automatic

**EP** Semi-automatic "Step-by-step"

**SA** Automatic with in-pause reversing

**AP** Automatic "Step-by-step"

**A** Automatic "Safety devices"

**SP** Automatic "Step-by-step safety devices"

**B** Semiautomatic "b"

**BC** Mixed (AP at impulse/CL dead-man)

**C** Dead-man

**AT** Automatic with timer function.

The selected logic is shown on the display.

## Index

### LOGIC FUNCTIONS:

The corresponding **L functions (function logics)** are associated with every **Standard** logic. These functions can be further personalised, i.e. several **L** functions can be selected (see table **Logic Functions and special functions**). If the Standard logic is changed, it will be shown on the logic **CU** (customer) display.



***An incorrect configuration can create conflicting situations and thus create functioning errors – for this reason ,before you modify the registers, we advise you to read the descriptive TABLE [\(click here to view the table\)](#)***

### First moving:

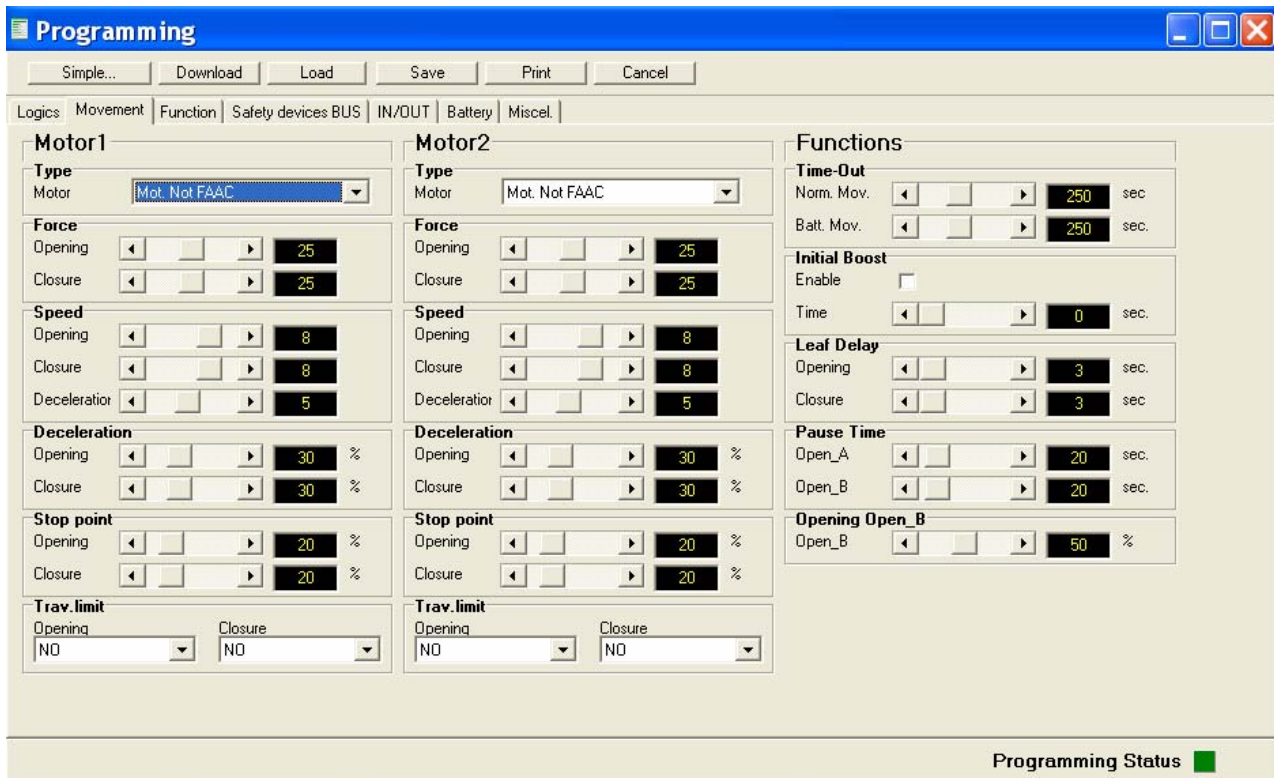
From this panel you can set the speed of the first movement. The setting can be adjusted at normal speed or at slow down.

| First moving |  |
|--------------|--|
| Speed        | <input type="text" value="Slow down"/>                                   |
|              | <ul style="list-style-type: none"><li>Normal</li><li>Slow down</li></ul> |

| LOGIC FUNCTIONS AND SPECIAL FUNCTIONS |   |
|---------------------------------------|---|
| <b>L01</b>                            | Activate this function for automatic closure after pause time.  |
| <b>L02</b>                            | Activate this function for operation on two separate inputs: OPEN for opening and CLOSE for closing.  |
| <b>L03</b>                            | Activate this function for recognition of the levels of the OPEN and CLOSE inputs (command maintained). i.e. the board recognises the level (e.g. if you press STOP while OPEN is maintained, when the latter is released, the automated system continues to open). If L03 is disabled, the board commands a manoeuvre only if there is a variation on the input. |
| <b>L04</b>                            | Activation of DEAD-MAN opening (command always pressed) If you release the OPEN command, the operation is disabled.   |
| <b>L05</b>                            | If you activate this function, the OPEN command stops movement during opening, if parameter L06 is disabled the system is ready for opening.<br>If parameter 06 is active, the system is ready for closing.   |
| <b>L06</b>                            | If you activate this function, the OPEN command reverses movement during opening.<br>If the L05 and L06 parameters are not active, OPEN has no effect during opening.   |
| <b>L07</b>                            | If you activate this function, the OPEN command stops operation during the pause.<br>If parameters 07 and 08 are disabled, OPEN recharges pause time.   |
| <b>L08</b>                            | If you activate this function, the OPEN command causes closure during the pause, if parameters L07 and L08 are disabled, OPEN recharges pause time.   |
| <b>L09</b>                            | If you activate this function, the OPEN command stops operation during closure, otherwise it reverses movement.   |
| <b>L10</b>                            | Activation of DEAD-MAN closure (command always pressed). If you release the CLOSE command, the operation is stopped.  |
| <b>L11</b>                            | If you activate this function, the CLOSE command has priority over OPEN, otherwise OPEN has priority over CLOSE.  |
| <b>L12</b>                            | If you activate this function, the CLOSE command causes closure when it is released. As long as CLOSE is active, the unit remains in closing pre-flashing.  |
| <b>L13</b>                            | If you activate this function, the CLOSE command stops operation during opening, otherwise the CLOSE command commands reversing immediately or at end of opening.<br>(also see parameter L14)   |
| <b>L14</b>                            | If you activate this function, and if parameter 13 is disabled, the CLOSE commands immediate closure at the end of the opening cycle (saves CLOSE), if parameters L13 and L14 are disabled, CLOSE commands immediate closure.   |
| <b>L15</b>                            | If you activate this function while the system is blocked by a STOP, a subsequent OPEN moves in the opposite direction.<br>If parameter L15 is disabled, it always closes.  |
| <b>L16</b>                            | If you activate this function, during closure, the CLOSURE SAFETY DEVICES block, enabling resumption of movement when released, otherwise they reverse immediately into opening.  |
| <b>L17</b>                            | If you activate this function, the CLOSURE SAFETY DEVICES command closure when released (also see parameter L18).   |
| <b>L18</b>                            | If you activate this function and if parameter L17 is active, the automated system waits for the end of the opening cycle, before giving the closure command supplied by the CLOSURE SAFETY DEVICES.  |
| <b>L19</b>                            | NOT USED  |
| <b>L20</b>                            | NOT USED  |
| <b>L21</b>                            | NOT USED  |
| <b>L22</b>                            | If you activate this function: in case of a power cut, when power returns and if an OPEN command is not active, the automated system re-closes immediately.   |
| <b>L23</b>                            | NOT USED  |
| <b>L24</b>                            | If you activate this function, an opening or closing command is executed only if the safety devices are released.   |
| <b>L25</b>                            | ADMAP: If you activate this function, the safety devices will operate in conformity to French standard NFP /25/362.   |
| <b>L26</b>                            | If you activate this function, during closure, the SAFETY DEVICES block and reverse movement when released, otherwise they reverse immediately.   |
| <b>L27</b>                            | NOT USED  |
| <b>L28</b>                            | NOT USED  |
| <b>L29</b>                            | NOT USED  |

## PERSONALISATION OF MOVEMENT PARAMETERS

From the *Movement* panel, you can configure the movement parameters of 2 motors and therefore adjust the functions of every single leaf.



### TYPE of motor:

The type of motor to use must be selected.

### Force:

Motor power can be adjusted in the range from 1 to 50 for opening and closure. ***Adjustments inadequate for the type of system (type of motor and weight of leaf) can cause malfunctions.***

### Speed.

Speed can be configured at opening, closure, and during deceleration on values from 1 to 10.

### Deceleration:

You can adjust the deceleration spaces. This adjustment is expressed as a % and takes into consideration a complete 100% opening



**Stop point:**

This parameter sets the search for the stop point. The value, as a percentage, represents the angle where the control unit recognises the mechanical stop (or a possible obstacle) as the **stop point**.

This function can be configured at both opening and closure.

**Travel limit devices:**

The operation of the travel limit devices can be personalised for both motors at both opening and closure

- NO not used.
- MODE 1 when the travel limit device is engaged, it stops immediately.
- MODE 2 when the travel limit device is engaged, it searches the stop point.

**Time out:**

Time out is the limit operation time, after which the board stops the motors.

This parameter can be configured in seconds.

**Initial boost**

If you activate this function with the appropriate flag, the motors work at maximum power (ignoring the selected power level) for the set initial boost **time**.

**Leaf delay:**

The delay of motor 2 leaf during opening and motor 1 leaf during closure can be configured.

**Pause time:**

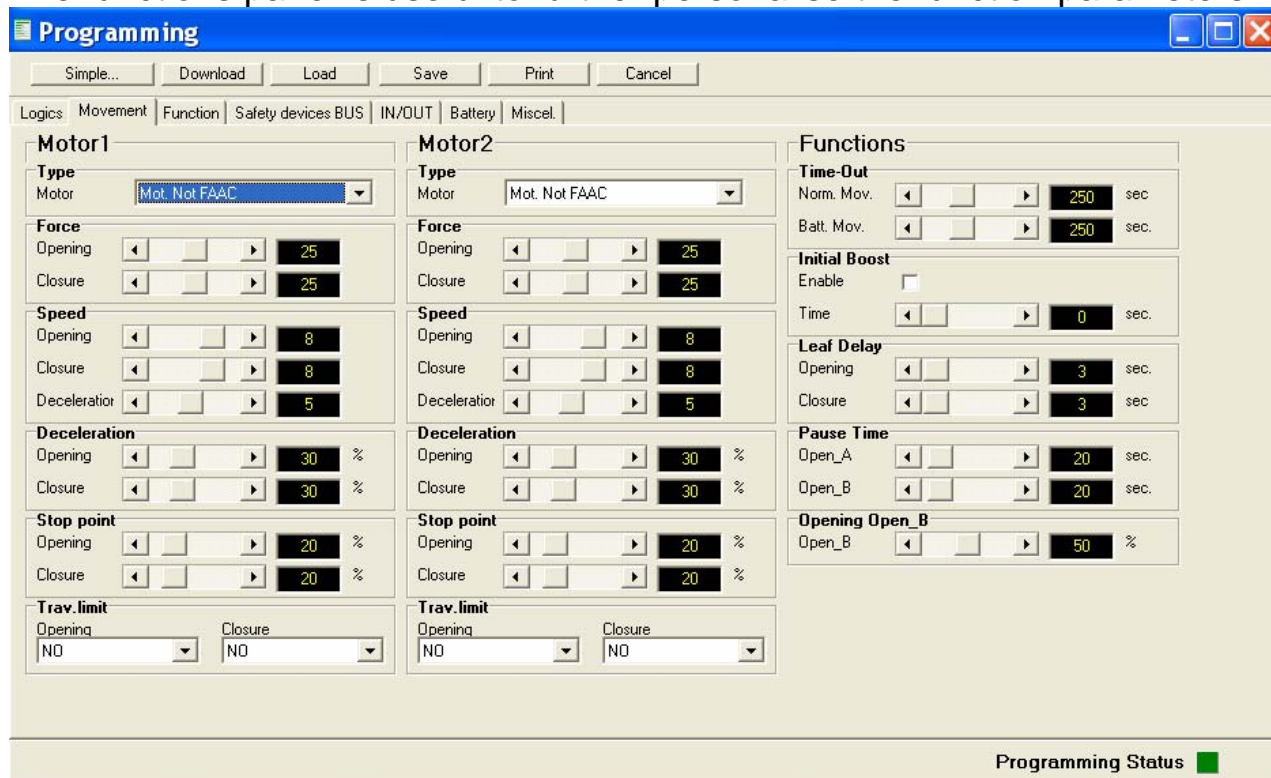
Can be adjusted by distinguishing the type of command Open\_A, or Open\_B, in order to command total or partial openings with different pause times.

**Opening Open\_B:**

The degree of opening of the released leaf can be adjusted. This adjustment is shown as a % of total opening.

## FUNCTIONS

The functions panel is useful to further personalise the function parameters.



### Encoder sensitivity:

If the **encoder** or **gatecoder** is used, you can select its sensitivity.

If present, “deceleration” and “partial opening” are managed by the encoder or gatecoder. These devices operate as anti-crush and stop point recognition devices.

If, during opening or closing, the gate strikes an obstacle, the encoder or gatecoder causes movement to reverse. **(also see number of obstacles)**

During deceleration, when the leaf reaches the stop point, the encoder commands the motors to stop.

The sensitivity of the encoder or gatecoder can be configured on every single motor, distinguishing adjustment during the three movement phases: **initial boost, deceleration and normal movement (In mov.)** adjusting the time when the board recognises the stop point or obstacle.

*Function only active with FAAC encoder or gatecoder*

## Index

### Soft-touch :

After touching the stop point, the leaves reverse and then rest gently.  
To enable this function, the **Enable** flag must be ticked.

It is important to adjust the following:

- pressure **Time** on the stop point.
- **T.inv.**reversal time.
- **Force** used in the soft-touch.

*This function can be useful to respect the impact curve specified by current legal regulations.*

*Function only active with FAAC operators*

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### Reverse stroke:

Reverse stroke, when gate closed or open.

Before the commanded movement, the motors thrust in the opposite direction for sufficient time to **release the electric lock**. This function can be configured both in opening and closing and therefore to enable it, the reversal **time** must be adjusted.

Reversal force can be adjusted on Motor 1 and 2.

### Over pushing stroke:

The over pushing stroke is set by ticking the **Enable** flag, useful for **connecting the electric lock**.

You can adjust this function on both motors, according to where the electric lock is situated. Furthermore, the over pushing stroke can be configured both at opening and closing.

Important: set a power higher than the one selected for the motor, and a time sufficient to connect the electric lock.

### Anti-wind:

Adjusts intervention time of the anti-wind function, which enables the gate to operate even if there are gusts of wind. The motors continue to run even if there are gusts of wind – an obstacle is recognised after the set time and the board commands reversal of movement.

This function can be adjusted from 0 to 2 minutes at 1-second steps.

### Pre-flashing:

Pre-flashing can be programmed by configuring the movement on which to apply this function, i.e.: all movements, closing movements, opening movement or in pause.

Pre-flashing time can be adjusted in seconds.



## BUS SAFETY DEVICES

From the bus safety devices panel, you can configure the function of the photocells or other **BUS** safety devices.

### ADDRESSING BUS-2 EASY PHOTOCELLS

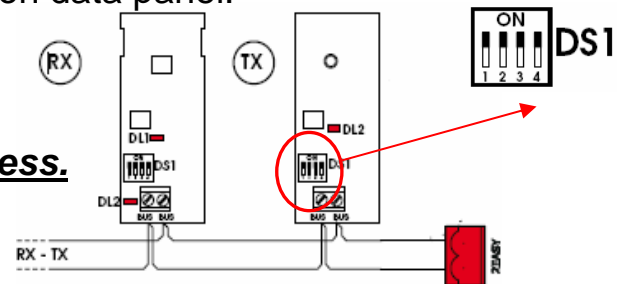
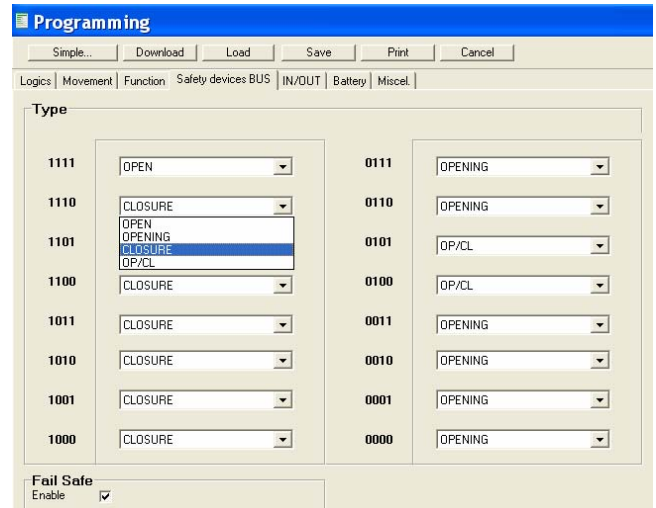
The E124 board is designed for the connection of Bus 2easy photocells. The 2EASY devices are connected by 2 polarity-free cables to a single connector. This is why you must assign a different address to every pair of photocells. Addressing should be effected directly on the photocell's DS1.

The microswitch located on ON is considered 1, OFF is considered 0, the example in the figure is the address 1111.

Every time you add a Bus device, you must save it, by pressing the 2EASY Registration push button located on the function data panel.

**It is important to assign the same address both to the transmitter and the receiver. Make sure that there are not two or more photocell pairs with the same 2EASY address.**

**We advise you to consult the instructions of the control board.**



### Functions of the safety devices:

When you have configured the addresses you can assign to each bus device its function.

You can assign the following commands to every address:

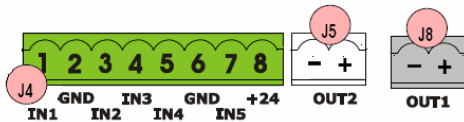
- OP/CL the safety device intervenes during the closing and opening phase
- OPEN safety device enabled to give an opening command
- OPENING the safety device intervenes during opening
- CLOSING the safety device intervenes during closing

### Fail safe:

Activation of this function enables a control of the photocells before all movement of the gate. If the test fails (photocells out of service), the gate does not start moving. Tick the relevant flag to **Enable** the function.

# IN / OUT

From the panel below, you can personalise inputs, outputs and radio channels. These configurations apply therefore to terminal boards J4,5,8.



The tables below show the functions associated with inputs and outputs.

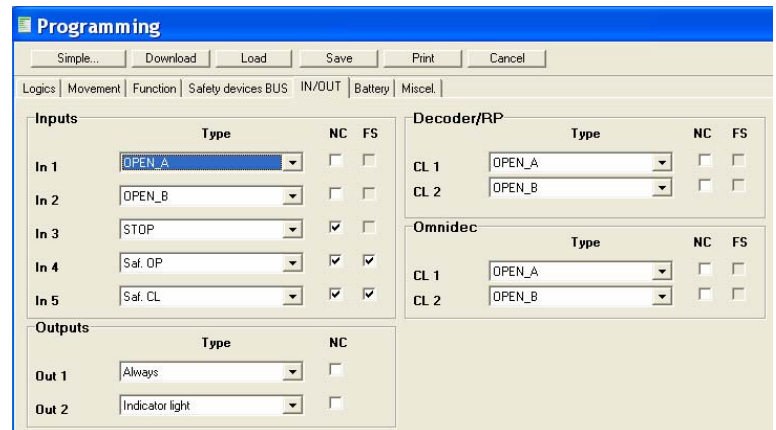
OUT 1-2 are configurable 24V outputs.

In4 and In5 can be used for safety devices inputs, i.e. standard photocells and therefore, these inputs can be associated with the FS Fail Safe control (photocells test).

Power feed on the OUT1 or OUT2 output must be set as Fail Safe.

All inputs and outputs can be configured as NC – normally closed.

Some examples of connection of standard photocells and other devices are available in the manual of the control board.



## CONFIGURATION OF OUTPUTS OUT1 AND OUT 2

| OUTPUTS OUT1-2    | DESCRIPTION OF THE FUNCTION  |
|-------------------|--|
| ALWAYS            | Output always enabled 24 V   |
| Fail Safe         | Activation of this function enables a functioning test of the standard photocells before all movements of the gate. If the test fails (photocells out of service), the gate does not start moving. |
| Indicator light   | The output operates like a standard indicator light (ON during opening and pause, flashing during closure, and OFF when the gate is closed).   |
| Courtesy light    | The output operates as a courtesy light <b>see MISCEC programming</b>  |
| OP or pause       | 24V power feed active during opening and pause   |
| closed            | 24V power feed active when gate is closed  |
| Batt.funct.       | 24V power feed active when the emergency battery is in operation.  |
| movement          | 24V power feed active when the gate is moving  |
| emergency         | 24V power feed active when the system is in emergency status   |
| opening           | 24V power feed active during the opening movement  |
| closure           | 24V power feed active during the closing movement  |
| Lock ahead of CL1 | 24V power feed active before closing leaf 1 (useful for electric locks when opening).  |
| Lock ahead of CL2 | 24V power feed active before closing leaf 2 (useful for electric locks when opening).  |
| Safety dev Active | 24V power feed active when a safety device intervenes  |
| “Traffic lights”  | 24V power feed enabled during opening or pause.  |

MEANING AND FUNCTION OF PERSONALISED INPUTS

| INPUTS<br>IN1-2-3-4-5  | RADIO<br>CHANNELS<br>Dec/Rp Omnidec | DESCRIPTION OF THE FUNCTION   |
|------------------------|-------------------------------------|---|
| Emerg.CL Mem           | Emerg.CL Mem                        | Enables a closure with memory – the leaves close and remain shut. The system exits the emergency only after a Reset.  |
| Emerg.OP Mem           | Emerg.OP Mem                        | Enables an opening with memory – the leaves open and remain open. The system exits the emergency only after a Reset.  |
| Emerg.CL No Mem        | Emerg.CL No Mem                     | Enables a closure, the leaves close and stay shut until the command is released.  |
| Emerg.OP NoMem         | Emerg.OP NO Mem                     | Enables an opening, the leaves open and remain open until the command is released.  |
| Open A                 | Open A                              | Command of opening A (total)  |
| Open B                 | Open B                              | Command of opening B (released leaf)  |
| Close                  | Close                               | Closing command   |
| Open A_A               | Open A_A                            | Command of opening A in automatic logic. If the system is set with other logics, this command enables an opening with pause time configurable from the Movement menu. |
| Open B_A               | Open B_A                            | Command of opening B in automatic logic. If the system is set with other logics, this command enables an opening with pause time configurable from the Movement menu. |
| Close Prio             | Close Prio                          | Priority closing command, enables closure (see priority commands)   |
| Open A Prio            | Open A Prio                         | Command of priority opening A (see priority commands)   |
| Open B Prio            | Open B Prio                         | Command of priority opening B (see priority commands)   |
| Pulse gener. saf. dev. | N/A                                 | Standard photocell configured as pulse generator, commands an opening (important: configure NC input)   |
| OP safety dev.         | N/A                                 | Input configured as opening safety device (important: if you use standard photocells, configure NC input).  |
| CL safety dev.         | N/A                                 | Input configured as closing safety device (important: if you use standard photocells, configure NC input).  |
| OP/CL saf. dev.        | N/A                                 | Input configured as opening and closing safety device (important: if you use standard photocells, configure NC input)   |
| Timer ACTIVE           | N/A                                 | Enables the timer function, important: the command must not be on impulses. (see timer instructions)  |
| Timer close            | N/A                                 | Enables the input to execute a close command. Useful for applications of external timers.   |
| Timer open A           | N/A                                 | Enables the input to execute an open A command. Useful for applications of external timers..  |
| Timer open B           | N/A                                 | Enables the input to execute an open B command. Useful for applications of external timers..  |
| Disabled               | N/A                                 | Disables input  |

N/A = function not applicable

## BATTERY

Board E124 is designed to operate on a battery (two 12 v Ah batts), the panel below enables you to personalise this function.

### Battery:

If you intend to use a battery, you must enable its operation by ticking flag [Present](#).

### Operation:

Operation can be configured in 2 modes:

- [Norm. up to discharge](#): during a power cut, the unit operates until the battery is discharged.
- [Execute last mov.](#) if the gate is moving during the power cut, the board executes the last movement (opening or closing – see below).

### Last moving:

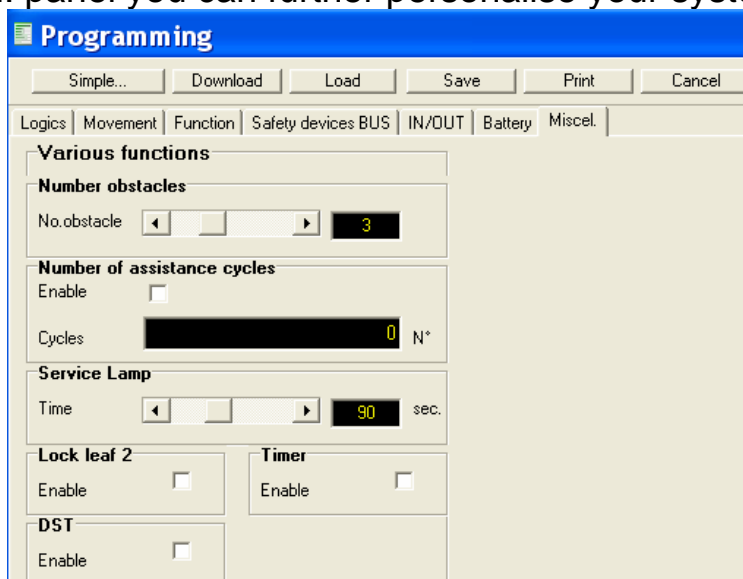
Combined with the type of **operation**, before the battery is definitively discharged, the system executes the last movement. Configurable as [Opening or Closing](#).

### Recharge:

Battery recharge is managed by the board – if you want to disable it, tick the [Disable](#) flag.

## MISCELLANEOUS

From the Miscel. panel you can further personalise your system.



### Number obstacles

If the leaves meet an obstacle while moving, thanks to the encoder system, they can reverse movement and then return to perform the commanded movement. If the leaves meet the obstacle again, **the board repeats the procedure for the number of configured times** and then stops (default 3).

### Number of assistance cycles:

This is activated by ticking the [Enable](#) flag.

At the end of the count-down, programmed in the [number of cycles](#) field, it pre-flashes for 8s at every Open pulse (summed to the already configured pre-flashing) thus signalling the request for routine maintenance.

### Service lamp:

If one of the two [OUT programmable](#) outputs has been configured as a courtesy light, you can connect a 24Vdc light, which may stay lighted for the set number of seconds.

### Lock leaf 2:

Enables the electric lock on the second leaf.

### Timer:

If you tick the Enable flag, you can enable the timer function - for further programming, [view the complete procedure](#).

### Summer Time:

It enables automatic adjustment of summer time, useful if using the TIMER function.



## TIMER

The timer is an additional function of the board and can be configured to manage an entire week. This application can be activated by enabling it from the **Miscel. programming**, or it can be configured a **programmable input** as **TIMER ACTIVE**. The **TIMER ACTIVE** command can be configured in one of the five programmable inputs **In 1-5** and must be specified as a switch.

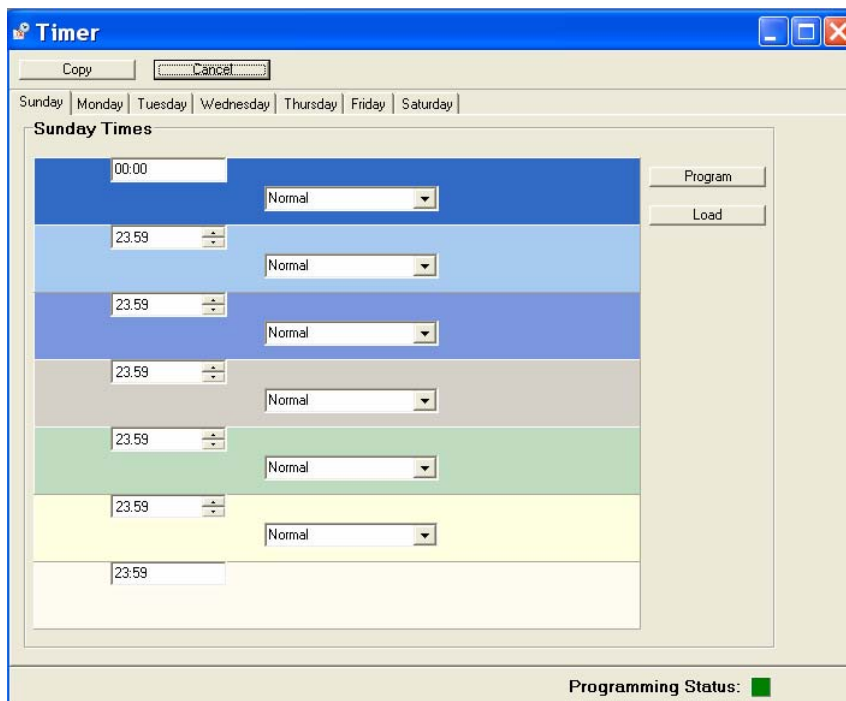
### Timer configuration:

The TIMER panel can be personalised in 7 time bands for every day of the week, what is more, every time band can activate 4 different commands:

1. normal operation
2. always closed
3. always open Open A (total opening)
4. always open open B (released leaf open).

The time bands must be programmed consecutively (see example in figure). By using the **COPY** button you can copy the same configuration on all days. **To activate the modifications on the panel, click **Program** on all the daily screen masks.**

If you click the **Load** button, you can view programming already on the board.



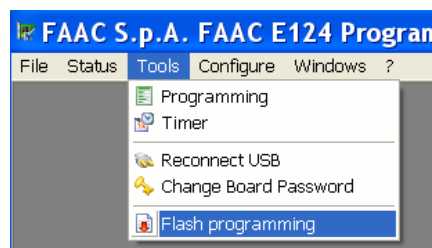
# FLASH PROGRAMMING

We advise you to perform this procedure only if instructed to do so by FAAC technical personnel. To program, you must have the file containing the firmware not present in this software packet (*the updates can be downloaded from site [www.faacgroup.com](http://www.faacgroup.com)*).

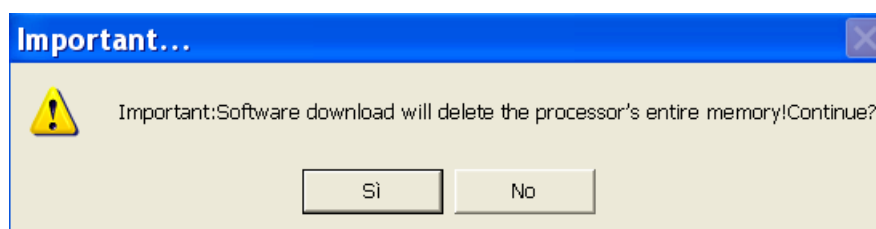
**Programming can only be done with a USB connection between PC and E124 board.  
Use an A-B type USB cable**



Click over [TOOLS Flash programming](#)

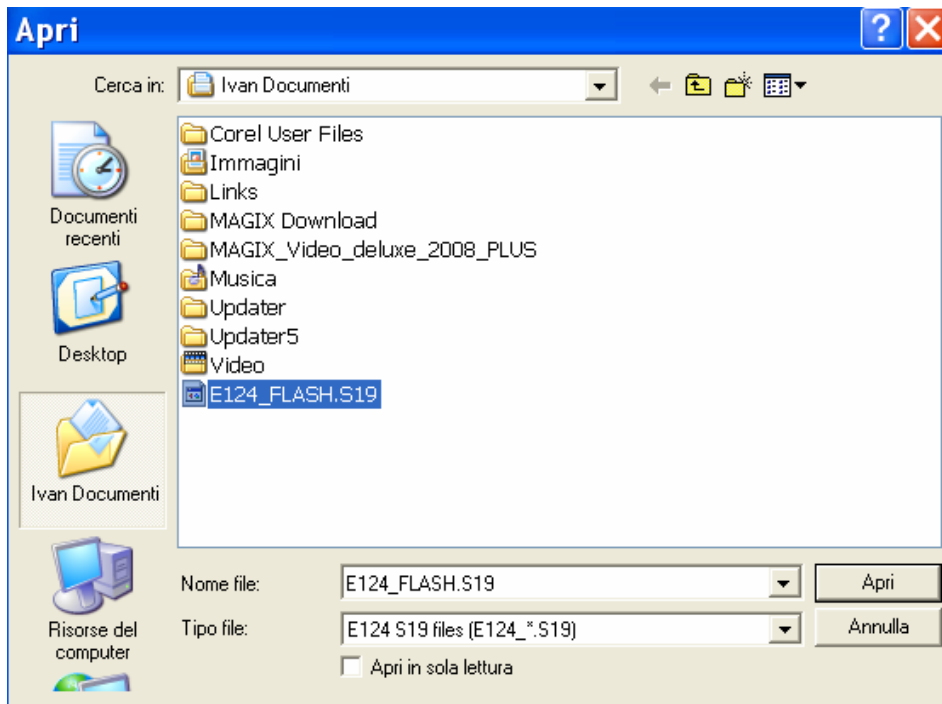


The following warning appears.

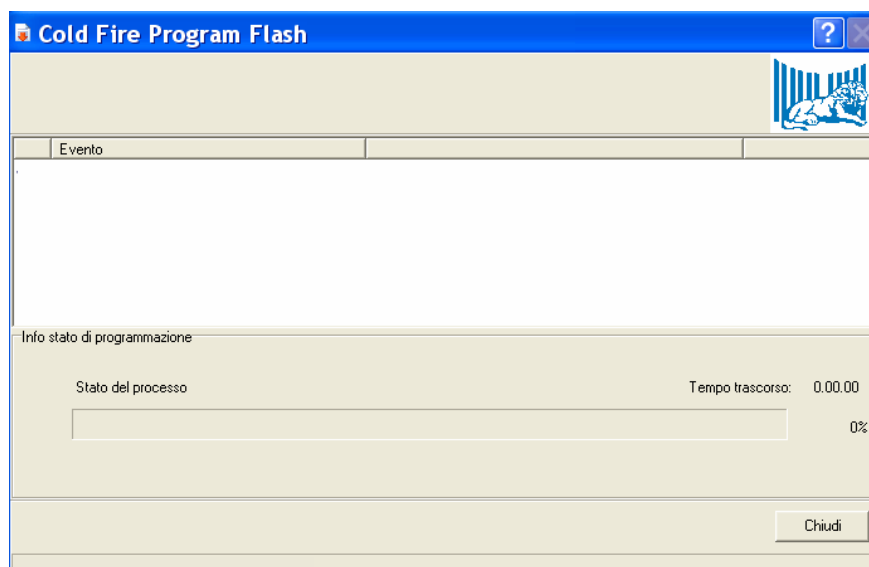


If you want to go ahead, type [YES](#)

At this point the program opens the following window. Select the file containing the firmware and type **OPEN** .



At the end of the process, the update will be completed.

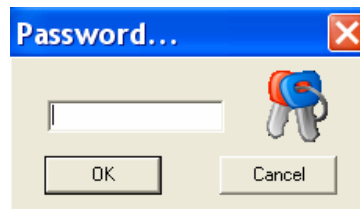


# PASSWORD

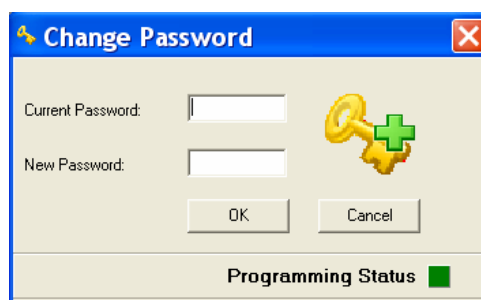
To change board parameters, the password must be input.

The default password is **0000**.

The password is not essential to access the software. By clicking over **“Cancel”** you can access all control functions in **read only** mode, i.e. you can send commands and monitor the system. As regards access in read only mode, if you intend to load a new parameter or configuration on the board, the password will be requested.



To Change the password, enter the **“Tools”**, menu, select **“Change password”** and type the following in the requested fields: old and new password, and finally press **“OK”**.



# STATUS

The status menu provides a detailed view of all the parameters, errors, inputs and any board alarms. The entire system can be controlled down to the tiniest details.

## BOARD DATA AND SYSTEM SETUP DATA

**Board Data** are parameters concerning the production of the control board, whereas **System Setup Data** refer to the settings loaded during setup. The system setup and board data are non modifiable parameters, and contain information useful for any analyses performed by FAAC personnel.

**System Setup Data**

| Values leaf 1 |          | Values Leaf 2 |          |
|---------------|----------|---------------|----------|
| Position OP:  | ████████ | Position OP:  | ████████ |
| Position CL:  | ████████ | Position CL:  | ████████ |
| Spd. OP. MAX: | ████████ | Spd. OP. MAX: | ████████ |
| Spd. CL. MAX: | ████████ | Spd. CL. MAX: | ████████ |
| Flag:         | ████████ | Flag:         | ████████ |

**Setup Data**

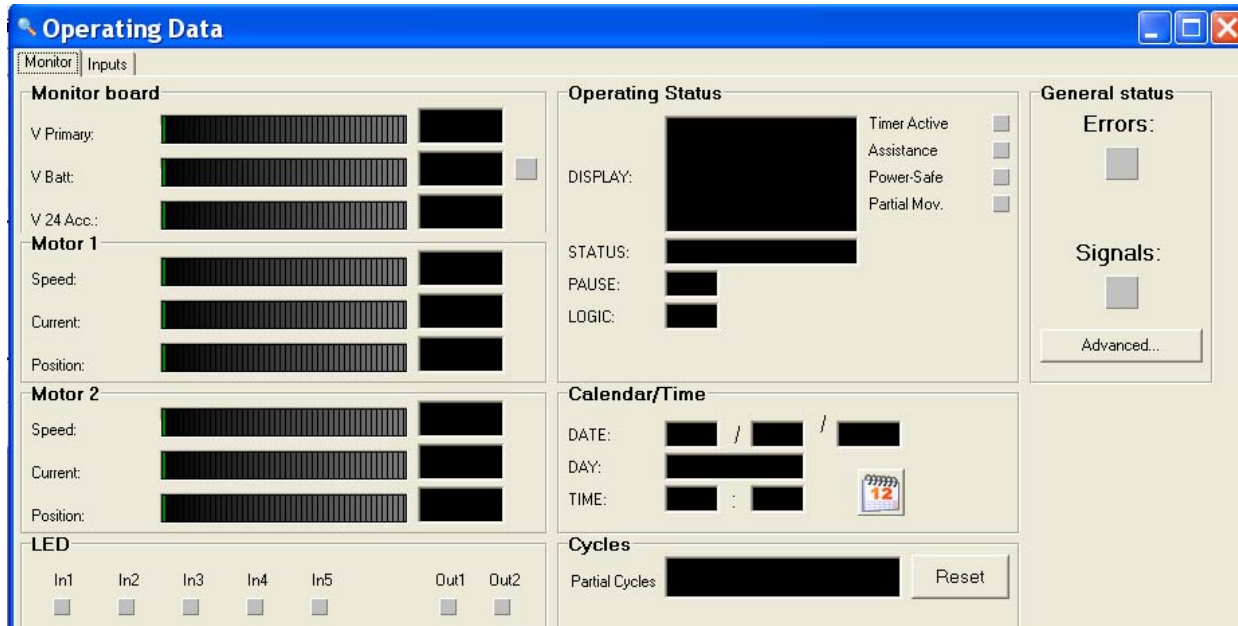
DATA: ███ / ███ / ███

**Board Data**

| Calibration values     |          | Type of Board           |               |
|------------------------|----------|-------------------------|---------------|
| Vmot:                  | ████████ | Board:                  | ████████      |
| Curr. mot. 1:          | ████████ | ID2:                    | ████████      |
| Curr. mot. 2:          | ████████ | <b>SW Version</b>       |               |
| Off. Corr. 1:          | ████████ | Version:                | ██ . ██       |
| Off. Corr. 2:          | ████████ | DATE:                   | ██ / ██ / ███ |
| <b>Absolute cycles</b> |          | <b>Calibration date</b> |               |
| Number:                | ████████ | DATE:                   | ██ / ██ / ███ |

## OPERATING DATA

The Monitor window enables you to view the system's main technical data, give commands and check errors.



You can view some programming parameters, such as operating logic, pause time, timer etc.

You can adjust time and give multiple commands, using also the indicated keyboard keys ( ) to simulate safety devices or other conditions useful for verifying if the board is operating correctly.

If you click the **Advanced...** push button, a dialogue window appears, showing in detail all types of errors and faults.

If you click over **inputs** you can see, in real time, the logic status of all inputs.

### DESCRIPTION OF THE MONITOR

#### Board monitor

**V primary:** power supplied by the switching feeder.

**V Bat:** voltage for battery power.

**V24 Acc:** voltage for accessory power

## Index

### **Motor 1 and Motor 2**

**Speed:** while the motor is running, it shows speed as a % of the maximum speed measured during setup.

**Current:** current absorbed during the movement phases.

**Position:** shows the exact position as a % of the total opening measured during setup.

### **LED**

LEDs referred to the **programmable** inputs (In1-5) and outputs (Out1-2).

### **Operating status**

**Display:** shows the status of the gate and alarms like the one on the board.

**Status:** shows gate status (i.e. pause, open, closed, etc).

**Pause:** If **Pause Time** was programmed, this function shows a count-down during the pause between automatic opening and closure.

**Logic:** shows the **operating logic** loaded on the control board.

**SIGNALS:** this indicator-light lights up if faulty conditions occur but do not block the system (excessive motor absorption, short circuits on auxiliary devices etc).

**ERRORS:** this indicator-light lights up if there are faults that stop the system operating. When the fault is remedied, command a movement, and the signal disappears.

**ADVANCED LEVEL PUSH BUTTON:** for detailed viewing of the system's status [click here](#)

**Cycles:** indicates the number of complete (opening/closing) movements executed by the system. To reset this counter, select the **Reset** push button.

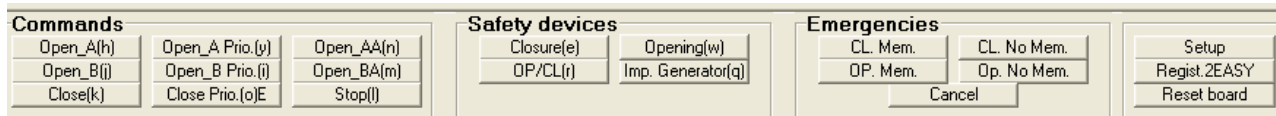
**Calendar:** shows the time and date set on the board. Without an appropriate buffer battery, the **Calendar** and **Timer** functions are inhibited.

To modify the calendar of the board, press.



## SAFETY AND EMERGENCY DEVICES COMMANDS

Use the panel below to send single or multiple commands to the board.



### Commands and safety devices:

You can send movement or safety devices (e.g. photocells) commands by directly clicking the relevant push buttons.

You can give multiple commands, using the keyboard (a letter is associated with every command).

**Pulse generator** safety devices are a safety device (e.g. a photocell) programmed to supply an OPEN command.

**Priority commands Prio:** they are opening (A-B) or closing commands with absolute priority. These commands can be either impulsive or dead-man (command always pressed).

If a dead-man priority command is sent - push button pressed - during an opening or closure movement or during intervention by the safety devices, the board immediately performs the commanded priority movement.

In case of a priority impulsive command, the board performs the commanded priority movement only if the safety devices are free.

### Emergencies:

Emergency commands can enable priority opening and closing commands.

Emergency commands with memory command a closure/opening, blocking the system. The system exits the emergency only after a reset.

The **Reset** command re-powers up the board.

The **Setup** command learns the operating parameters, and automatically gives the 2easy Registration command.

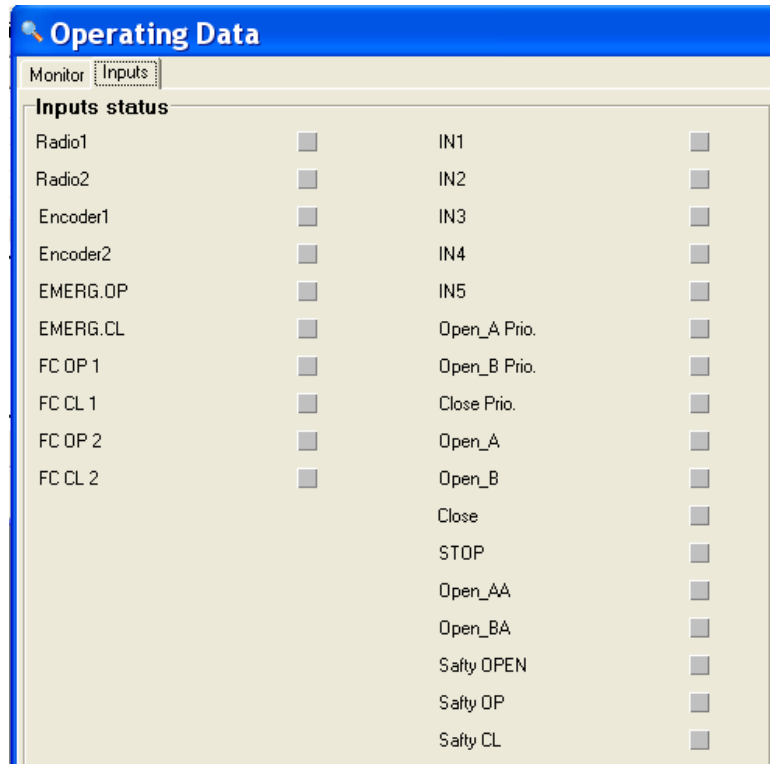
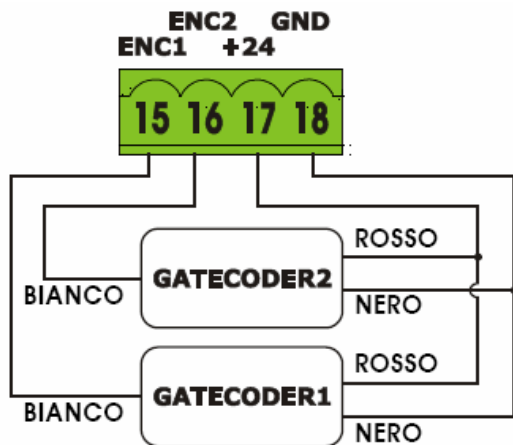
The **2easyRegistration** command saves the bus safety devices (encoder and 2easy safety devices) – **see instructions**.



# INPUTS

The inputs panel indicates the logic status of all the inputs managed by the board. If the LED associated with the relevant input lights up, this means that the command is active.

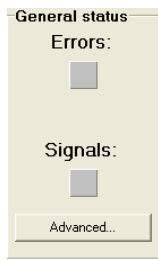
N.B. The Encoder inputs shown on this window refer to the terminals destined to the *GATECODER* device, described in the board's instructions.



## DESCRIPTION OF INPUTS

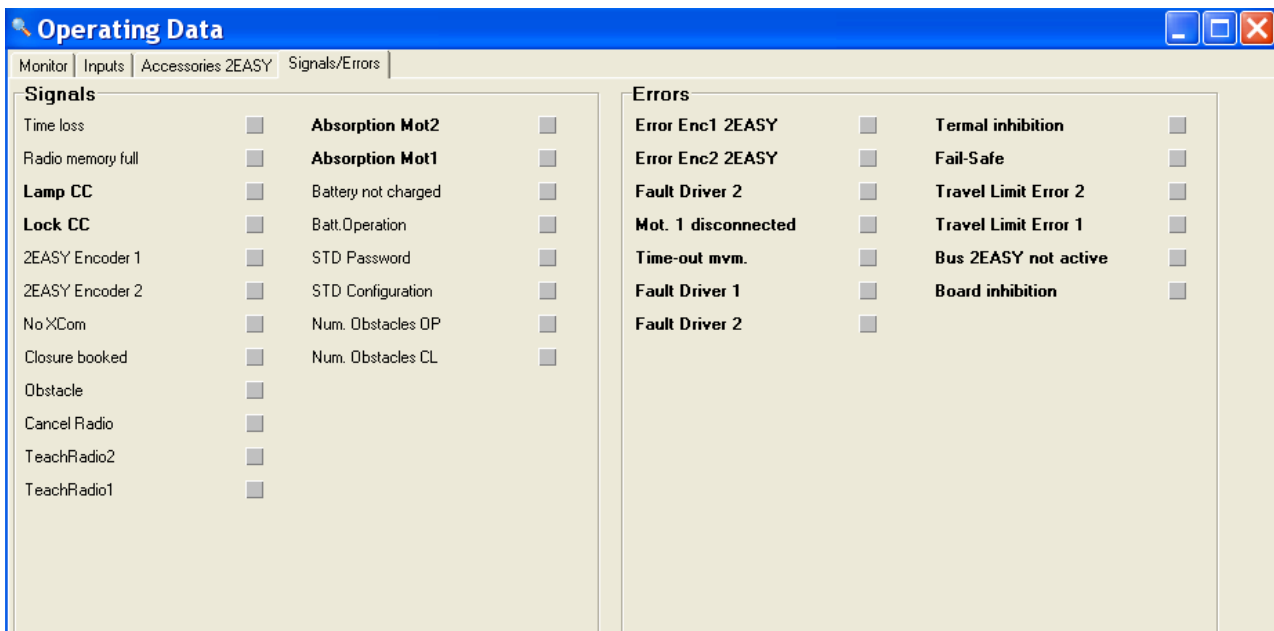
| INPUTS               | Description   | INPUTS     | Description   |
|----------------------|---|------------|---|
| Radio1               | Radio 1 channel OMNIDEC active  | Open _BA   | Open_B command In logic A active                                  |
| Radio2               | Radio 2 channel OMNIDEC active  | Open_AA    | Open_A command In logic A active                                  |
| Encoder1<br>Encoder2 | If a gatecoder is connected at every impulse sent by the device fitted on leaf 1 or 2 | FC CL1     | Leaf 1 Closing Travel limit device active                         |
| Close Prio           | Priority closing comand active.   | FC OP1     | Leaf 1 opening Travel limit device active                         |
| Open_A Prio          | Open_A priority command active.   | FC CL2     | Leaf 2 Closing Travel limit device active                         |
| Open_B Prio          | Open_B priority command active.   | FC OP2     | Leaf 2 opening Travel limit device active                         |
| EMERG.CLOSE          | Closing emergency active  | Safty OPEN | Safety.dev.used as pulse generator to perform an opening command. |
| EMERG.OPEN           | Opening emergency active  | Open B     | Open_B command active   |
| Close                | Closing command active  | Open A     | Open_A command active   |
| Stop                 | Stop command active.  | Safty CL   | Closing safety.dev active   |
| In1 In2 In3 In4 In5  | SEE PROGRAMMABLE INPUTS   | Safty OP   | Opening safety dev.active   |

## ADVANCED DIAGNOSTICS



If faults emerge, the errors or signals LED lights up. To display the advanced diagnostics in detail, press push button [Advanced](#).

## ERROR SIGNALLING



***THE SIGNALS refer to the system's non-standard operations, which are not a fault blocking the automated system***

### Lamp cc:

24V flashing lamp output short circuited.

### Lock cc:

Electric lock output short circuited.

### 2easy encoder 1:

Motor 1 encoder has not exited reset status yet and, therefore, does not allow movement at the selected speed.

### 2easy encoder 2:

Motor 2 encoder has not exited reset status yet and, therefore, does not allow movement at the selected speed.

## Index

**No xcom:**

The board HAS NOT detected any XCOM module ready for wireless connection.

**Closure booked:**

Booking of a closing movement which will be performed as soon as the current movement is completed.

**Absorption motor 1 or 2:**

During movement, motor 1 or 2 absorbing too much.

The signal will however be active when the leaves are near the stop points.

***If motor power is not adequate for the type of system (type of motor and leaf weight) this signal will be active.***

**Battery not charged:**

This alarm is only shown if use of a battery was enabled, and signals that the battery charge level is so low that it cannot guarantee any movement in case of a mains power cut.

**Radio memory full:**

Any request to save new codes on the Omnidec coding, will NOT be satisfied because 256 radio controls have already been saved.

**Time loss:**

Time must be reset via the PC. This alarm compromises operation of the TIMER function.

**Obstacle:**

The anti-crushing system has detected an obstacle.

**Cancel Radio:**

If this LED lights up, this means that the radio memory is being deleted.

**Teach Radio1-2:**

The board is acquiring a radio code on channel 1 or 2.

**Battery operation.**

The board is powered by the battery only.

**STD Password:**

The saved password is standard **(0000)**.

**STD Configuration:**

The board is programmed with one of the 4 default configurations.

**Num. Obstacles OP:**

During the next opening movement, the encountered obstacle will be considered the travel limit.

**Num. Obstacles CL:**

During the next closing movement, the encountered obstacle will be considered the travel limit.

***ERRORS refer to malfunctions serious enough to block the automated system*****Vacc too low:**

Low accessories power supply, the error may be caused by a board failure; if battery powered, the error may be caused by an over-discharged battery.

**Error enc2 2easy:**

Reading error by Bus motor2 encoder device – check connections.

**Error enc1 2easy:**

Reading error by Bus motor1 encoder device – check connections.

**Time out mvm:**

The last movement required too much time.

**Fail safe:**

One or more STANDARD (not 2easy) photocells not operating correctly.

**Travel limit error 1 or 2:**

Check its correct position and connection.

**Bus 2EASY not active:**

In case of a short circuit, the Bus system is disabled.

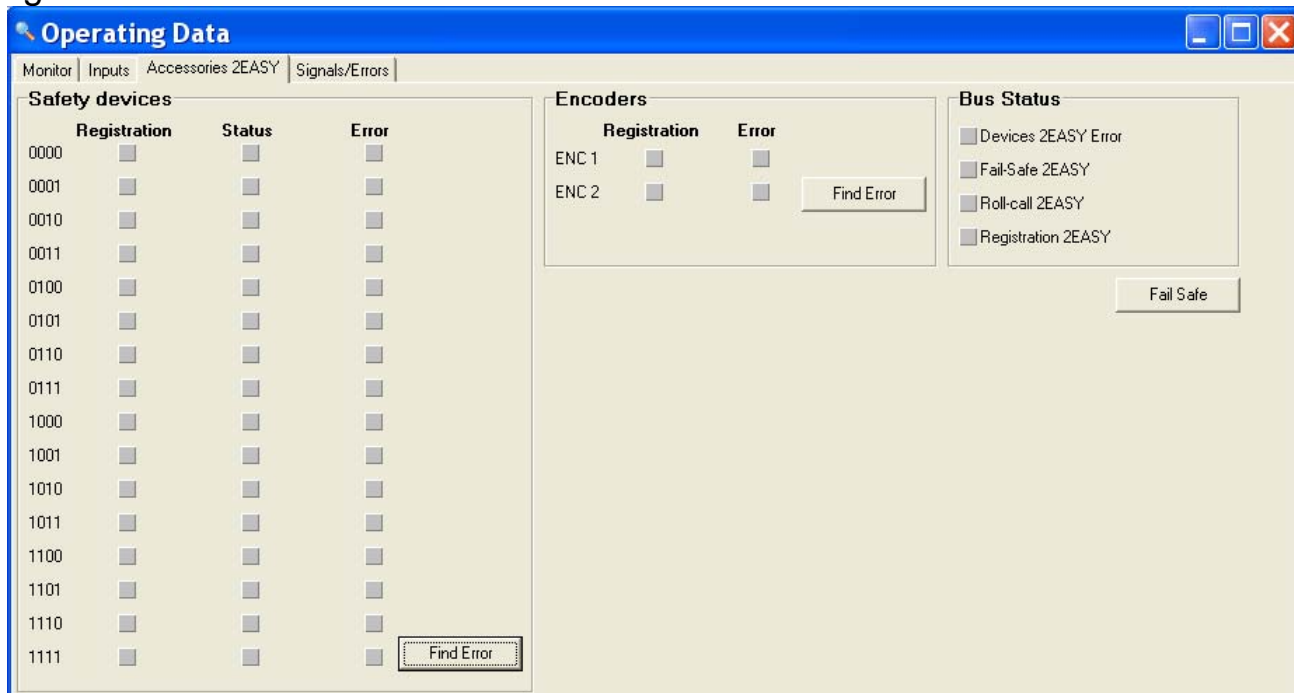
**Board inhibition:**

Blocked board. If the situation does not change, after a reset, check all signals and, if necessary, the electrical connections.

## ACCESSORIES

The following panel controls all the bus devices which are displayed according to their addressing - [see instructions on bus safety devices](#).

If a device was correctly configured, the relevant [registration LED](#) will be lighted.



### **BUS STATUS**

#### **Devices 2easy error:**

This LED indicates if a 2easy safety device (encoders or safety devices) is in error status (incorrect address, interrupted connections, no communication, etc.).

By using the **Find Error** push buttons, you can see which device is faulty.

#### **Roll call:**

The roll call is a control procedure of all the addresses on the BUS line, performed by the E124 board before every movement. This signal lights if a 2easy device is not registered correctly.

#### **Registration:**

This LED lights if a 2easy registration command was sent.

**Fail Safe:**

Fail safe is a functional TEST for photocells. If a device does not answer correctly, the board does not enable any movement. This control can be disabled from the **BUS SAFETY DEVICES** programming menu.

In the 2easy system, this command sequentially powers down all the pairs registered in the BUS, and then powers them up in order to verify they are operating correctly. If, during the fail safe control, one of the **Status** signalling LEDs remains active near an address, this means that device is faulty.

**SAFETY DEVICES.****Registration:**

If a bus safety device has been correctly saved, the LED of the associated address lights up (see bus photocells addressing instructions).

**Status:**

This LED indicates if the safety device with which the LED is associated is engaged.

**Error:**

This LED indicates if the safety device with which it is associated has a functioning error (e.g: wrong address, interrupted connections, no communication etc.)

**ENCODERS****Registration:**

When the bus encoders have been correctly saved, the relevant LED lights up (see the board's instructions).

**Error:**

This LED indicates if the safety device with which it is associated has a functioning error (e.g: wrong address, interrupted connections, no communication etc.)

**N.B.** Connection of the BUS-2EASY input in the control board is via the bipolar cables which come out of the encoders.

Unlike the case of BUS photocells, the polarity of the ENCODERS connection on the BUS-2EASY line determines whether the encoder belongs to motor 1 or motor 2