PUISSANCE | EXIGENCE | PERFORMANCE

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UNIBox 120

CONTROL BOX FOR AUTOMATIC POOL COVER MOTORS

Installation and user's guide

WARNING

FOR YOUR SAFETY - Installation of this product must be performed by an authorized and qualified pool equipment installer. Before installing this product, please read and follow all warnings and instructions provided with this product. Not following the warnings and instructions could result in property damage. Improper installation or use will void the warranty.

Improper installation or use may create an unwanted electrical hazard, which may result in property damage or personal injury.

Section 1. **Important safety instructions**

WARNING

The swimming pool can be a serious danger for your children. Drowning can happen very quickly. Children near a swimming pool require your constant vigilance and active supervision, even if they can swim.
The physical presence of a responsible adult is essential when the pool is open.

WARNING

Check that there are no swimmers or foreign bodies in the pool before and during the usage of the cover.

WARNING

Keep the keys switch or remotes out of children's reach. Only a responsible adult should operate the mechanism.

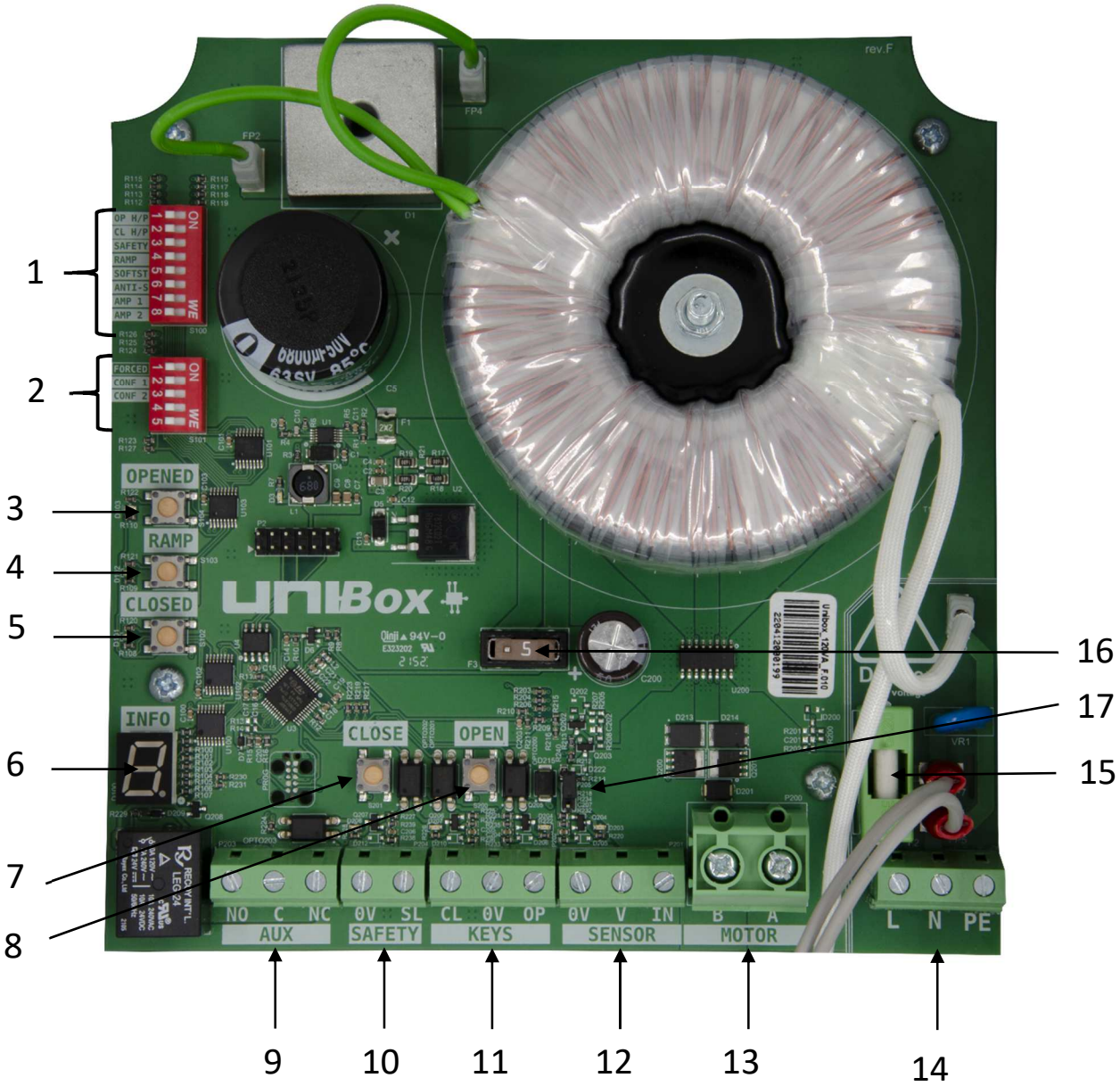
READ AND FOLLOW ALL INSTRUCTIONS - STORE THESE INSTRUCTIONS

LEAFLET VERSION

DATE	VERSION	MODIFICATIONS
12/2020	01	UNIBOX 120 V1
03/2021	02	Modification in troubleshooting and pictures.
05/2021	03	Fuse characteristics + troubleshooting
02/2022	04	Inductive sensor + troubleshooting + others
08/2022	05	Added chapter 2.3
08/2023	06	Hall sensor; enhanced functions

Section 2. **Technical data**

2.1 **Board architecture and main components**



1) Switches for configuring advanced functions.

2) Switches for FORCED mode and other board configuration.

3) Button to program the "open" limit switch position.

4) Button to program the end of the speed ramp when closing the pool.

5) Button to program the "closed" limit switch position.

6) Alarms display.

7) Button to operate the motor in the "close" direction.

8) Button to operate the motor in the "open" direction.

9) Wiring terminal for the auxiliary contact.

10) Wiring terminal for the safety loop.

11) Wiring terminal for the key switch or remote-control receiver.

12) Wiring terminal for the position sensor.

13) Wiring terminal for motor power supply.

14) Wiring terminal for mains 230VAC 50Hz.

15) Fuse of the alternating circuit (1.6A 250VAC time lac, ceramic, cylindrical 5x20mm).

16) Engine protection fuse (5A, 32V ATO mini 10.9 mm).

17) Jumper for UNICUM motor with inductive sensor

Note: Box compatible with **PL1210, PL2010, DL1310 motors**.

2.2 Available advanced functions

- Impulse and/or maintained control in both directions (configurable).
- Programmable soft start (speed ramp).
- Soft docking at the end of closing.
- Anti-snatching alarm in case you forget to unlock the cover.
- Amperometric control (stop on obstacle) during the entire opening and closing process (stop on obstacle).
- Overload detection in case of motor deceleration in both directions.
- Safety loop (for water level sensor, emergency stop...)
- Auxiliary relay (Electrolyser, filtration pump...)
- Display for easy installation and troubleshooting.
- Compatible with multiple sensor technologies.

2.3 Technical Specifications

CHARACTERISTICS	UNIBox 120	Unit
Supply voltage	230	V AC
Supply current	0,6	A
Frequency	50	Hz
Single-phase AC network	L/N/PE	
Input power	160	W
Maximum power	120	VA
Voltage without load	30	V DC
Maximum current (fuse capacity)	5	A
Nominal voltage	24	V DC
Nominal current	4	A
Dimension (HxWxD)	250x175x75	mm
Weight	2,3	Kg
Sealing	IP55	
Operating temperature	from 0 to 50	°C
Permissible humidity	from 0 to 85	%
Permissible altitude	up to 2000	m
Pollution degree	2	

Note: UNIBox 120: control box compatible with **PL1210, PL2010, DL1310, UNIMOT Elec**

This control box is compliant with EN 61800-5-1 standard.

This control box has been tested under EMC standard EN 61800-3.

Device does not include motor overheat protection.

Section 3. **Installation**

WARNING

FOR YOUR SAFETY - The installation of this product must be carried out by an authorised and qualified technician according to NF-C 18-510 or EN 50110-1.

Definition of qualified personnel according to the NF C 18-510 standard: "person with appropriate training, knowledge and experience in electricity to enable him/her to analyse the electrical risk and avoid the dangers that electricity can present".

3.1 Installation of the box

The installation must be carried out in accordance with the electrical standards in force in the country of installation; in France according to standard NF-C 15-100 (part 7-702), in Europe according to standard HD 384-7-702 or equivalent according to local regulations.

The box must be installed in a frost-free technical room, away from rain, sun, any heat source and any risk of spraying or immersion.

It should be installed level, ideally between 1.2 and 1.5 metres from the floor, vertically, with the cable glands downwards, and on a sufficiently solid, flat and smooth wall to withstand the weight of the box.

Fixing the box :

1. Mark the (4) positions of the holes outside the gasket on the mounting surface.

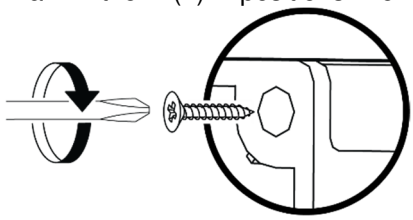


Fig.1 - Position of the external holes

WARNING: Failure to comply with this attachment method may result in the warranty being voided.

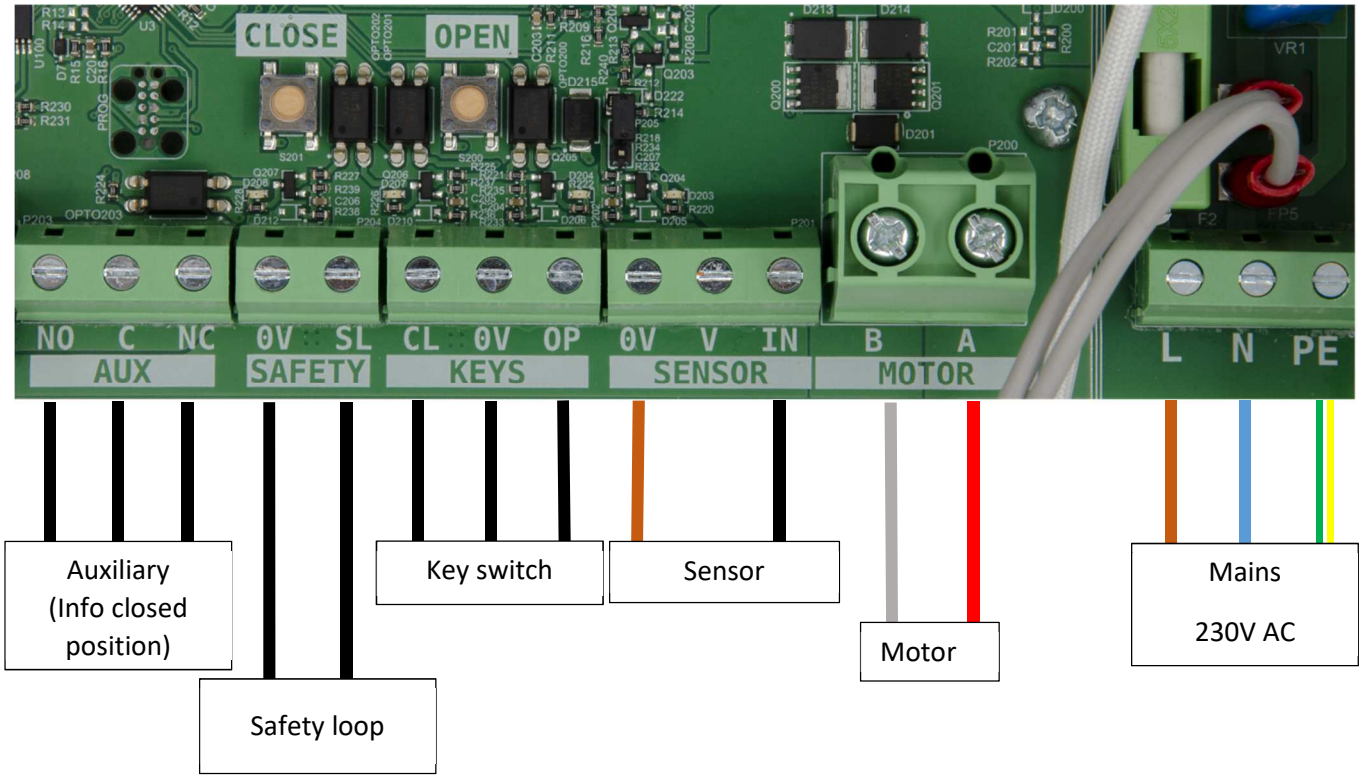
2. Drill four (4) holes in the mounting surface using the provided drill template.
3. Push four (4) plugs firmly into the holes.
4. Screw the case onto the mounting surface

The lid is closed by screwing the 4 plastic screws of the lid in the 4 corners of the base of the box (if the box is removed, remove these 4 plastic screws using a screwdriver).

3.2 Electrical connections

WARNING

All connections must be done with the power turned off.



NOTE: This wiring schema is valid for a UNICUM motor equipped with mechanical sensor (MLS).

WARNING

FOR YOUR SAFETY - Connections are to be made by a QUALIFIED and HABILITATED person. Electrical connections must comply with the C15-100 standard in France the HD 384-7-702 standard in Europe.

3.3 General

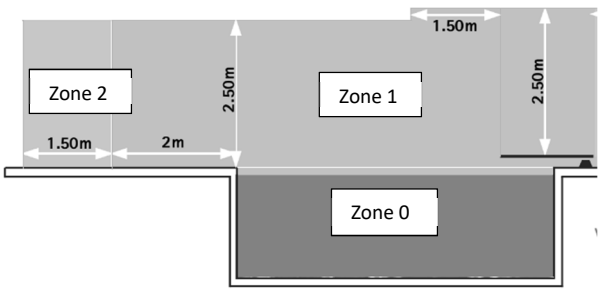
Check the cables for defects.

The cables must be protected so that they cannot be torn off or crushed.

The green/yellow wire may only be used for an earth connection in compliance with electrical standards.

Do not forget to tighten the cable glands after the cables have been routed to ensure that the enclosure is watertight.

NOTE: Submerged cables cannot be repaired or connected in Zone 0.



3.4 230VAC single-phase mains :

An electrical separation device must be installed upstream of the enclosure. It must be easily accessible, identifiable and lockable in the open position. This device may be of the "switch-disconnector" type with a current rating of at least 6A or any other system that can be disconnected for optimum safety and in compliance with current regulations.

Note 1: the installer must ensure that this device is chosen according to external constraints: humidity level (IP65!), etc.

Note 2: The power supply of the unit must be protected according to the ground connection diagram in compliance with the legislation of the installation site.

Note 3: for TT operation, the circuit must be protected upstream by a bipolar circuit breaker with a high sensitivity differential 30mA, intensity 6A and trigger curve type C.

Use a 2-wire cable + ground 2.5 mm^2 cable, type H07 VV-F. Cable strip length should be 5-8 mm.

Pass the cable through the cable gland provided.

3.5 3-position key switch with centre return: (2 NO contacts)

Use a 3-wire cable of 1.5 mm^2, type H07 VV-F. Cable strip length should be 5-8 mm.

Connect the switch to the KEY SWITCH terminal block provided for this purpose on the electronic board.

Respect the "CL" (Closing) and "OP" (Opening) markings indicated on the electronic board and on the switch.

Wire the switch common to the "0V" indicated on the electronic board.

Pass the cable through the provided cable gland.

3.6 Sensor :

Use a cable with 1 mm^2 wires - type H07VV-F. Cable strip length should be 5-8 mm.

Respect the colors of the wires according to the screen-printed values on the electronic board at the terminal block "SENSOR" and the sensor wires coming out of the motor.

In all cases, in order to wire the sensor, the cable must be passed through the cable gland provided for this purpose.

Functional test:
The green LED above the connection terminal sends the sensor signal back :

- ✓ Motor stopped: LED on or off.
- ✓ Motor running with a good sensor function: LED flashing regularly.

3.6.1 Mechanical sensor:

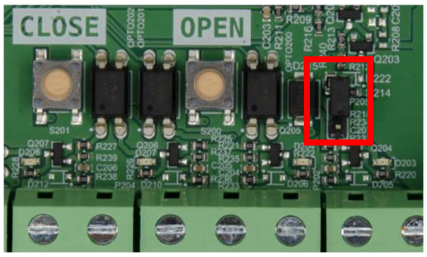
Our current range of motors are equipped with mechanical sensors. If your motor is equipped with mechanical sensors, please apply the following connection;

Printing	Wire colour
0V	Brown
V	
IN	Black

3.6.2 PNP inductive sensor (standard for older UNICUM motors):

The UNIBOX 120 box can be used to replace old AN1072 boxes; in this case it is necessary to check whether the motor installed in the winding tube was equipped with a three-wire inductive sensor. In this case, in addition to connecting cables as shown below, it is necessary to close the bridge by connecting the two pins on the P205 connector on the board, using the jumper (see photo and chapter 2.1 point 17).

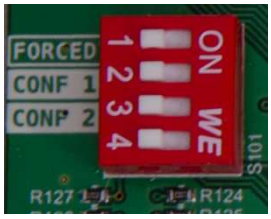
Label	Wire color
0V	Blue
V	Brown
IN	Black



3.6.3 Hall Effect Sensor:

The UNIBox box can be used to control Hall effect sensors; in this case it will be necessary to connect the cables according to the diagram below. It will then be necessary to put the dip-switch "CONF1" of the Configuration block (chapter 2.1 point 2) and restart the board.

Screen printing	Wire
0V	Neutral
V	12V power supply
IN	Sensor signal

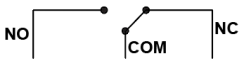


This sensor is used in the following motors: UNIMOT Elec.

3.7 Auxiliary relay :

(To activate an electrolysis system or other)

D Dry contact 3A 30VDC, with common (COM) and contacts rest (NC) / work (NO).



AUXILIARY REL.

Auxiliary relay status:

Auxiliary 1: Closed position info:

Aux 1 : Unibox 120	NO	NC
Opened end position	0	1
Motor closing	0	1
Motor not moving between end positions	0	1
Motor opening	0	1
Closed end position	1	0

3.8 Safety Loop :

This terminal allows the serial connection of one or more devices that prevent the operation of the cover, under certain circumstances such as a water level sensor being activated, an emergency stop, etc...

The cut-off device shall be fitted with a closed contact at rest which, once activated, shall open the safety loop stopping the engine, and preventing it from working. To be connected to the SECURITY terminal block.

3.9 Motor :

Wiring in 2-wire cable type HO7 RN-F, minimum cross-section 4mm², and up to 10mm² flexible depending on the distance between the box and the motor. Cable strip length should be 5-8 mm.

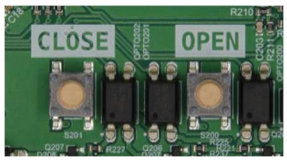
Wire colour marking of the motor cable: red and grey wires.

Connection on the MOTOR terminal block (positions 1 and 2)

Pass the cable through the provided cable gland.

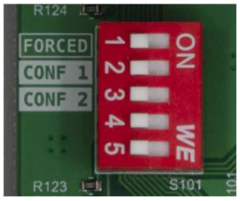
3.10 After complete wiring :

Check the direction of movement of the cover according to the switch positions.



Check that the direction of movement of the cover when activating the "Open" command of the key switch is consistent with the direction of movement when pushing the "Open" button on the board. The same applies to the opposite direction, when closing the pool.

To perform this control, use the FORCED mode by activating/deactivating the "FORCED" dip-switch as described in chapters 4.1 and 4.2.

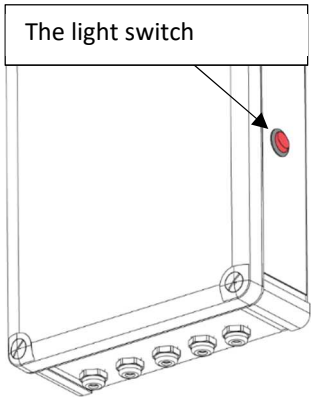


This operation is of great importance and must be extended to any possible control device, such as remote controls, smartphone receivers, etc.

If the direction of movement of the cover is wrong, and if the switch wiring is correct, reverse the motor wires (grey and red cable). Wire the key switch after having verified the correct movement of the cover by using OPEN and CLOSE buttons on the board.

Section 4. Operation of the control box

4.1 General



Power is switched on using the illuminated switch on the side of the cabinet.

As soon as the power is switched on, the switch lights up. You can check the initialisation of the electronic board on the INFO display for a few seconds.

The electronic box has been designed for operation for a maximum of **10 minutes of** continuous use. Beyond this time, there should be a 30-minute interval between manoeuvres. In the event of overheating of certain components, the board goes into self-protection mode and stops supplying power to the motor until the temperature returns to a useable level.

The operating range of the electronics box is between 0°C and 50°C max.

Three operating modes are available and must be familiar to the installer.

AUTOMATIC MODE: this is the normal mode when all programming has been done correctly. Advanced functions can be enabled and alarms are active.

FORCED MODE: this is the preferred mode for maintenance operations. Once in forced mode all configurations (limit switches, measured current levels, etc.) are overridden and therefore the operator uses the motor without limit switches. This mode must therefore be used with great care. It can also be used in case of sensor failure.

PROGRAMMING MODE: this is the mode that allows the operator to save the basic parameters for using the card in AUTOMATIC mode. PROGRAMMING mode is entered when the limit switches and the end of the speed ramp have to be configured. In this mode the advanced functions are not active as well for some of the alarms.

NOTE: To activate the advanced functions, once the corresponding switch has been switched on, **the board must always be restarted** using the power switch. This operation requires the parameters and active functions to be re-read.

4.2 Programming mode (to be used only by qualified personnel)

This mode allows you to program the distance to be covered by the pool cover by setting the end positions (full open or full close).

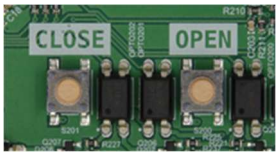
4.2.1 Programming the end positions

WARNING

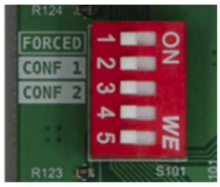
Limit switch setting procedure must be executed having direct view on the pool to avoid accidents.

NEVER USE REMOTES OR OTHER RADIO DEVICES to program limit switch positions. Programming must be performed using the key switch or OPEN and CLOSE buttons present on the board.

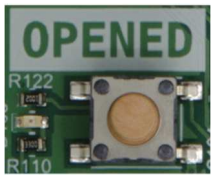
1. Put the card in FORCED mode using the "FORCED" switch and setting it to "ON".



2. Use the OPEN and CLOSE buttons or the key switch to check that the motor wiring is correct; if not, switch off the box and change the wiring.



3. When finished, return the "FORCED" switch to the "OFF" position.



4. Push and hold the "OPENED" button until the green LED next to it lights up. You have now entered the programming mode for the "open" limit switch.

5. Put the cover in rolled up position (fully open).

6. Wait at least 5 seconds and then press the "OPENED" push button - The green LED turns off and the position is recorded.

7. Push and hold the "CLOSED" button until the green LED next to it lights up. You have now entered the programming mode for the "closed" limit switch.

8. Place the cover in the unrolled position (fully closed). Beforehand make sure that nothing and nobody is using the pool.

9. Wait at least 5 seconds and then press the "CLOSED" pushbutton - the green LED goes out and the position is recorded.

Now the end positions are programmed and the card operates in "AUTOMATIC" mode.

4.2.2 Limit switch position modification

In the event that an adjustment of a single limit position is required, the user can do so without reprogramming the other one. The user is able to enter into the programming mode of the particular limit position to modify it according to the procedure in the previous paragraph. The impact of this change on the other functions must be carefully evaluated; for example, the modification of a limit switch requires the complete reprogramming of the "amperometric control" function if it is active. If, on the other hand, if the speed ramp is active, care must be taken to ensure that the new position of the limit switch does not exceed the programmed ramp end point. In this case the card will generate alarms to notify the error.

4.3 Automatic Mode

This mode allows the cover to be opened and closed in normal use, with automatic stop at the end positions.

The cover is opened or closed by different control devices (switch, wall remote control, remote control, etc.).The cover is automatically stopped at the end positions which have been previously programmed (see programming mode).

You will not be able to choose the direction of movement of the cover when it is located at one end since one of the directions becomes momentarily invalid: the closing direction does not work in the fully closed position of the cover. Same goes for the opening direction; it does not work in the fully open position (use manual mode to move beyond the programmed distance if necessary). All alarms are activated as well as the advanced functions selected by the user.

4.4 INFO Display

The INFO display shows any alarms which allow the operator to detect and correct anomalies.

If two alarms are present at the same time, the display will rotate them one after the other.

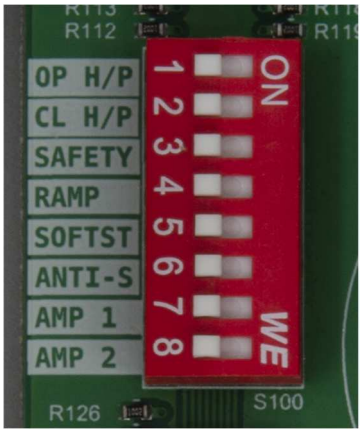
The acknowledgment of alarms is done using the motor control device (key contact, remote control or physical buttons); by operating the device twice in the same direction the alarm will be acknowledged and the engine can then be restarted. The list of alarms is as follows:

0	**Fixed**	Error starting card.
1	**Fixed**	Error programming the end positions.
2	**Fixed**	The engine is not wired.
3	**Fixed**	Faulty sensor.
4	**Fixed**	Fuse melted.
5	**Fixed**	Current threshold exceeded (“amperometric control" function active).
6	**Fixed**	Active alarm on the security loop.
7	**Fixed**	Activated anti-snatching alarm; check the straps.
8	**Fixed**	Overloaded motor
A	**Fixed**	Acquisition of the current level during closing phase requested (amperometric control programming.)
b	**Fixed**	Acquisition of the current level during opening phase requested (amperometric control programming.
b	**Fixed**	Completed current acquisition without errors; amperometric control function active.
C	**Fixed**	Error during current acquisition; the amperometric control function has to be reprogrammed.
d	**Fixed**	Possible major fault on motor driver.

For advice on the management of these alarms see chapter 5.1.

4.5 Advanced functions

The advanced functions are accessible from an 8-switch block that allows selection and activation. Here is a list of the switches, their labels and functions:



1 - " OP H/P ": Opening in Man Present (OFF) or impulse mode (ON)

2 - " CL H/P ": Closing in Man Present (OFF) or impulse mode (ON)

3 - "SAFETY": Security loop inactive (OFF) or active (ON)

4 - "RAMP": Closing speed ramp disabled (OFF) or enabled (ON)

5 - SOFTST": Slow docking disabled (OFF) or enabled (ON).

6 - "ANTI-S": Anti-snatching disabled (OFF) or activated (ON).

7 - "AMP 1": Amperometric control see next chapter → 4.5.2

8 - "AMP 2": Amperometric control see next chapter → 4.5.2

These functions can only be activated after the end positions have been set correctly.

IMPORTANT NOTE: to activate any configuration changes, it is necessary to completely **restart the card** via the main power switch.

4.5.1 « Man present » or « Pulse » Mode

Dip-switch 1 and 2 allow activating command pulse mode respectively on pool open and on close actions. By default, this function is disabled (« Man present mode) so the cover will stop immediately if the user stops giving the command. If on the contrary pulse mode is active, a simple command will be enough to completely open or close the cover automatically. If user wants to stop the motor while cover is moving, he'll have to give a command in the opposite direction.

CAUTION: activating switch 2 in the ON position permanently makes the cover NON-COMPLIANT WITH THE SAFETY STANDARD NF P90-308. It is therefore prohibited in France and strongly discouraged as a general rule. The activation of this function entails the **direct responsibility of the user**.

4.5.2 Programming the speed ramp

The speed ramp slows down the motor in the first phase closing. In the case of a submerged motor, Archimedes' thrust tends to accelerate the motor significantly.
Once the function has been enabled using switch 4 as explained in the previous chapter, the operator must teach the board the point at which the motor will reach its maximum speed.

- Open the pool completely
- Activate dip switch number 4.
- Restart the board.
- Push and hold the "RAMP" button until the green LED next to it lights up. You have now entered the programming mode for the end position of the speed ramp.
- Close the cover untill the position where you want the motor to run at normal speed.
- Press the "RAMP" pushbutton again - the green LED turns off and the position is saved.

4.5.3 Soft docking

This function slows down the motor when the cover is approaching its « closed » limit switch position.
The function is activated by moving the dip-switch 5 to ON and restarting the board.

4.5.4 Anti-snatching

This function is specifically designed for slatted covers equipped with some security device (snatches, straps, etc) to connect the last lamella to pool wall. On these covers, if user forgets to release this security system before opening the cover, motor could tear out protections or damage the cover. In such a case Anti-snatching function allows stopping the motor automatically as soon as a certain current threshold is passed. Dans ce cas la fonction permet d'arrêter le moteur automatiquement lorsqu'un certain seuil de courant est dépassé.
The function is activated by moving the dip-switch 5 to ON and restarting the board.

NOTE: « Anti-snatching » function is not compatible with « Amperometric control » function which is described in the next chapter. Only one between these two functions can be activated

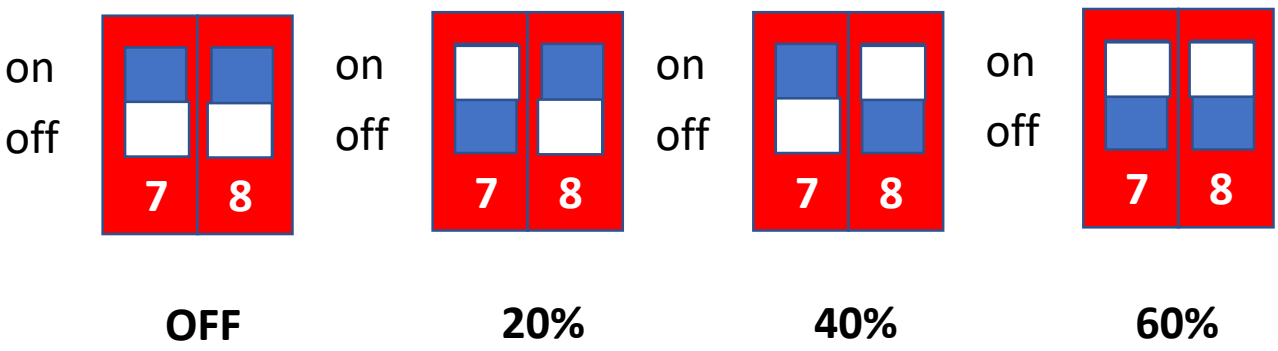
4.5.5 Amperometric control (stop on obstacle)

The amperometric control allows to trigger an alarm when the current threshold is exceeded and to stop the motor if an anomaly or a blockage occurs during the opening or closing of the pool.

To ensure that the function is activated correctly, it is necessary to execute a procedure to acquire and store current values during normal usage; this acquisition must be done in both directions because, in case of submersible motors, the load is very different between opening and closing phase.

Amperometric control feature has to be activated at last. If other functions are modified later on, the user has to re-program amperometric control. The following procedure has to be executed:

- Open the pool completely.
- Switch on dip 1 abd 2 to temporarily activate the impulse mode.
- Select the correct alarm current threshold using switches 7 and 8 (see figure at the end of this procedure).
- Restart the board using the main switch.
- Check that the "INFO" display shows notification "A"; this means that the function has been activated but that the initial acquisition during closing phase is necessary to complete the configuration.
- Check that nothing or nobody is in the water; close the pool completely without interrupting or disturbing motor movement.
- Check that the "INFO" display shows notification "A" inversed (upside-down); this means that the initial acquisition during opening phase is necessary to complete the configuration.
- Completely reopen the pool without interrupting or disturbing the movement of the motor.
- If the acquisition has been successful, the "INFO" display will show notification "b" which means that the function is now active; if, on the other hand, the data is incomplete or the procedure has been interrupted, the display will show notification "C".
- If alarm "C" is active, the operator will have to reset switches 7 and 8 to OFF and restart the card to cancel programming. The operator can then restart the procedure from the beginning and try again.
- Do not forget to reset switches 1 and 2 to their original configuration once the amperometric control has been activated.



Threshold values settings by dip-switch 7 and 8.

4.5.6 Advanced functions activation séquence

UNIBOX offers a number of advanced functions to the user.

These functions can be classified into three groups:

- System functions: Impulse/hold opening/closing mode, safety loop, weather sensor
- Speed functions: Speed ramp, soft docking
- Current sensitivity function: Anti-snatching, Amperometric Control

When activating these functions, the user is supposed to follow a certain logics and sequence considering the following rules:

- System functions can be activated/disactivated at any moment without consequences;
- Speed functions must be activated possibly BEFORE Current sensitivity functions;
- Current sensitivity functions should be activated as last;
- If Amperometric control is active, a modification of a motor speed function (e.g. speed ramp deactivation) consequently requires a re-programming of Amperometric control feature.

NOTE: it has no sense to activate Anti-snatching and Amperometric Control together because this second is a more extensive function which includes Anti-snatching.

Section 5. **Intervention and troubleshooting**

5.1 Diagnostic table

(to be carried out only by qualified personnel)

WARNING

Before any work on the box and after switching off the power supply upstream of the cabinet, wait 15 seconds for the capacitors to dissipate their residual energy.

WARNING

In the event of a malfunction in the box or in the event of interventions other than programming mode, manual mode, activate the upstream electrical separation device.

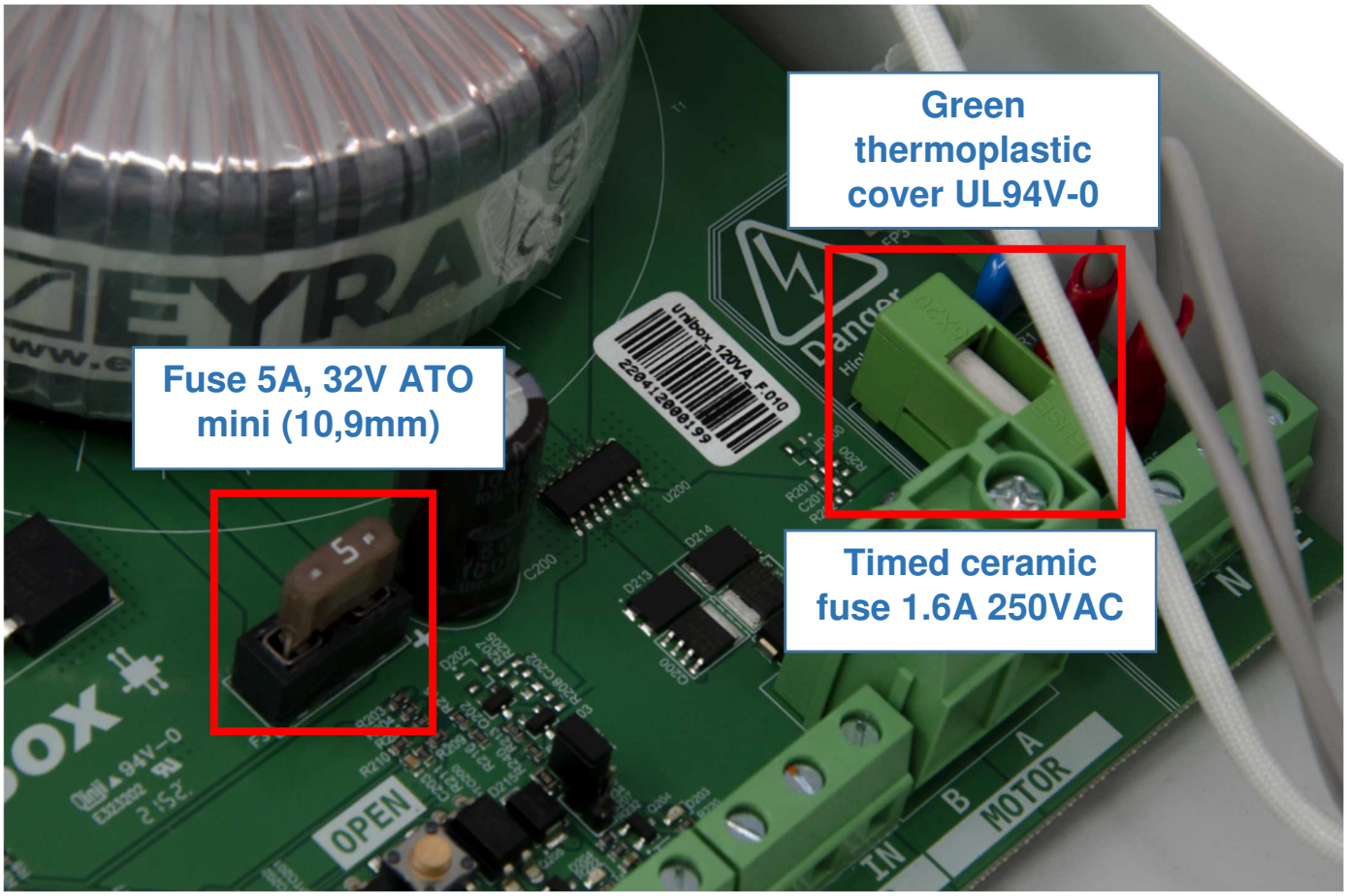
DETECTED PROBLEM	ALARM CODE	TROUBLESHOOTING
Control box doesn't start when switched on by main interruptor.		Check cabling to mains electric network. If cabling is correct and 230V AC monophasic current is present, replace completely the board when error persists.
Switching on the control box by main interruptor, initialisation sequence ends up with error.	0	Switch off the board and restart it; if alarm persists, replace completely the unit.
After first control board start-up correctly done, motor doesn't start even if motor wiring is correct.	None	Activate FORCED mode using the dip switch. This erase eventual previously registered parameters and override limit switches. Program limit switches as described in chapter 4.2.
Alarm 1 appears during limit switch programming.	1	One limit switch has been programmed but motor is running beyond the limit switch setting. This can happen when a wiring mistake is done and key switch is moving the motor in the opposite direction with respect to the standard. Re-check wiring and restart limit-switch programming.
Alarm 2 appears during limit switch programming or normal usage.	2	Motor power cables (grey and red) are not correctly connected or there is a problem in the wiring between the motor and the control box. Check carefully the wiring and try to solve the problem. If no solution is found then motor may be damaged or in shortcircuit. Try to feed the motor with DC battery to have final proof or connect the board to the motor bypassing any other wiring.
Alarm 3 appear during cover movement and motor stops; motor can't restart afterwards.	3	This alarm appears when more than 3 seconds pass between two sensor's pulses. Check sensor wiring first. If no wiring problem is found, activate FORCED mode and check if motor run at normal speed when activated manually. If so, internal position sensor is damaged and motor has to be replaced and sent to UNICUM for service and repair. While waiting for motor replacement, cover can be used carefully in FORCED mode.
Motor doesn't start and alarm 4 is shown.	4	A fuse is broken; switch off completely the board and wait for some 15 seconds. Check all fuses with the tester and replace the broken one (see chapter 5.2). Restart the board and check correct working of the motor. If fuse blows again the motor is maybe stuck.
Motor stops and alarm 5 is shown.	5	Amperometric control function is active and some obstacle arose current level over the chosen threshold. Acknowledge the alarm and analyse the cause of the problem. Check with an amperometer which is the current value around the position where motor stuck. If current value is good but alarms rise again then you have to re-program amperometric function and redo data acquisition (check chapter 4.5.2)
Motor stops and alarm 6 is shown.	6	Security loop is active and an alarm provoked an emergency stop. Remove the alarm cause and acknowledge the alarm.
Motor stops and alarm 7 is shown.	7	Anti-snatching function is active and current threshold has been passed when starting opening the cover. Undo snatches and verify that no obstacle prevent motor start. Acknowledge the alarm.
Motor stops and alarm 8 is shown.	8	Motor is in overload and it has been stopped in order not to damage the board or the motor itself. This alarm appears when more then 3 seconds are passing between two sensor pulses AND an high current level is measured. Acknowledge the alarm, wait for components cooling down and then analyse and solve the cause of the alarm.
Motor works only in one direction.		Disconnect the motor and verify that motor run correctly in both directions by feeding it with 24V DC batteries as closest as possible to the winding tube. In this case move the slat cover in the middle of the pool. Connect again the motor to the board and activate forced mode. If motor runs only in one direction then board must be replaced.
Activating an optional advanced function with a dip switch, nothing happens.		In order to really activate a feature like "soft stop" or "safety loop" you need to completely restart the board by switching it off and on again.

5.2 Fuse replacement

WARNING

Fuse replacement must be done only when the board is completely switched off and disconnected from mains network. Not respecting this prescription will expose you to a high risk of electroshock. This operation must be performed only by authorized and trained technicians.

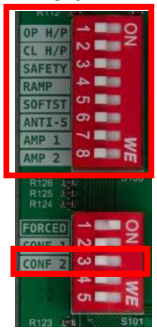
Fuse replacement must be done using spare parts following specifications below:



5.3 Full reset of the card

To completely erase the memory of the electronic card the following procedure must be performed:

- Switch all the advanced function dipswitches to off
- Enter « FORCED » mode
- Exit « FORCED » mode
- Restart the card



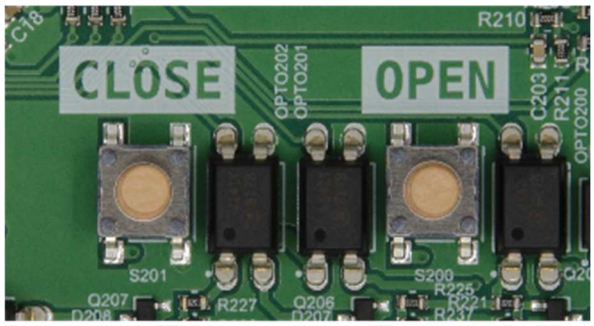
5.4 Onboard motor control during maintenance operations

WARNING

Using these buttons is strictly forbidden when not having direct sight on the pool.

During maintenance and troubleshooting operation, it is possible to operate the motor directly from the control box; this feature must not be used if it's not possible to see directly the pool to oversee cover movements effectively.

« OPEN » and « CLOSE » allow to open and close the cover at any moment, even when no key switch is used.



6 Warranty application

The warranty only applies for normal use, which corresponds to a maximum of **10 minutes of** continuous use. Beyond that, please allow 30 minutes between activations.

The manufacturer disclaims his liability in the following cases:

- Replacement of parts that do not conform to the original parts.
- Installation not in accordance with these recommendations.
- Installation does not comply with current regulations.
- Unserviced control devices causing malfunctions.
- Deterioration due to lightning or other causes.
- Deterioration due to sprinkling or immersion.
- Any other situation which would not be expected in the normal use of the equipment.

Storage temperature of the boxes and associated equipment: between -20°C and +60°C.

PUISSANCE | EXIGENCE | PERFORMANCE

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