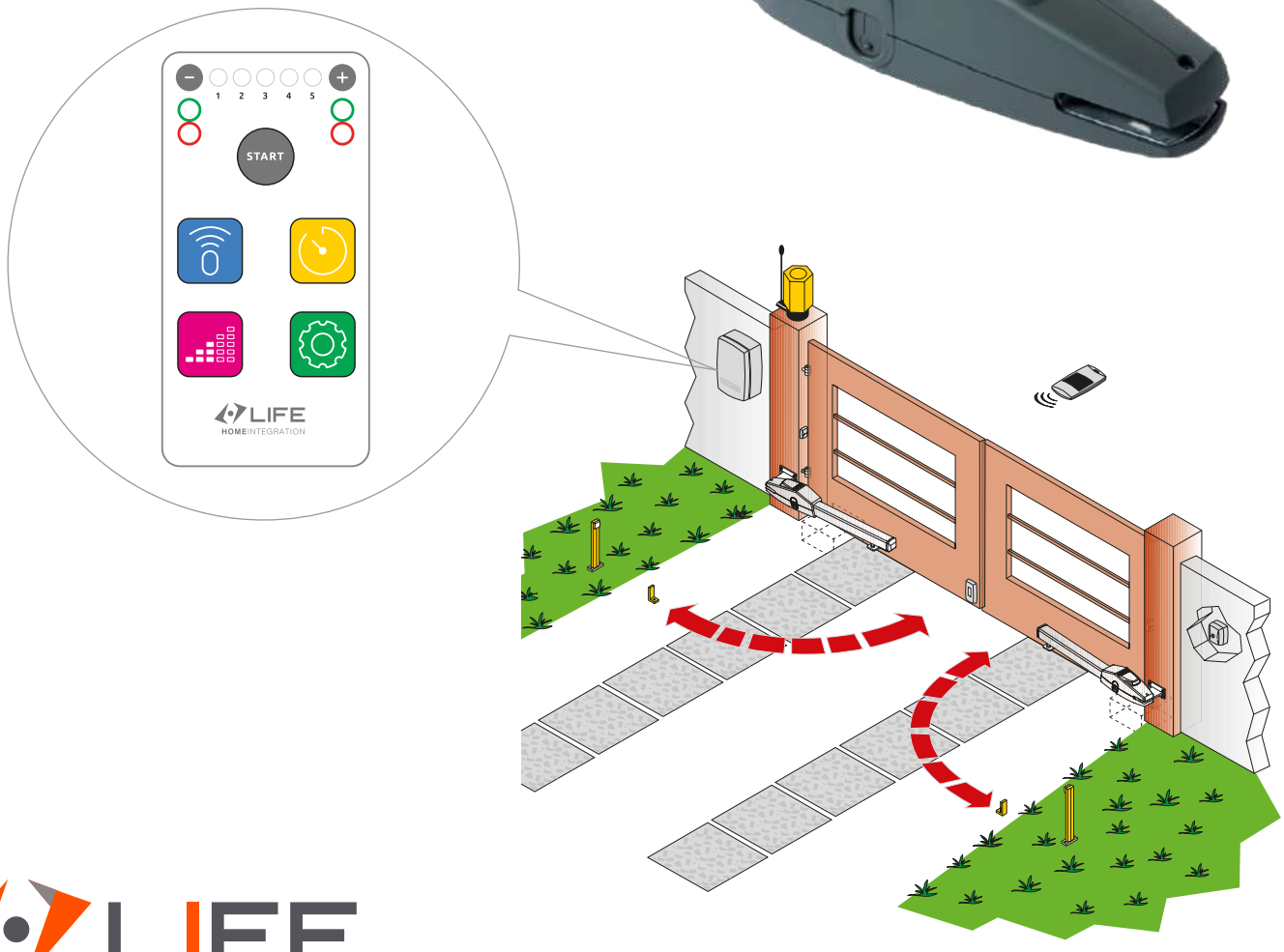
OPTIMO OP2 24UNI
GE UNI 24R DL2.2

EN

LINEAR ACTUATOR FOR SWING GATES CONTROL UNIT FOR TWO-LEAF GATES

INSTALLATION INSTRUCTIONS AND WARNINGS



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The image is for the sole purpose of presenting the product.

Rev. 14 - 17/04/2025

GENERAL INDEX

INSTALLER

FINAL USER

1 - GENERAL SAFETY INSTRUCTIONS

1.1 Important safety instructions

For your personal safety, it is important to follow these instructions and keep them in a safe place.
The device must be disconnected from the power supply during installation, cleaning, maintenance and replacement of components.
Do not allow children to play with the gate control devices. Keep remote controls out of the reach of children.
Monitor the moving gate and keep people away while the gate is in motion. Be careful when operating the manual release device as there may be uncontrolled gate movement due to mechanical failure or out-of-balance conditions.
Frequently check the system, in particular the hinges and mechanical stops, check the presence of signs of wear or damage.
Do not use if repair or adjustment is necessary, as the movement of the sashes can cause injuries.
Check the safety devices on a monthly basis, they must be functional and efficient.
Adjust or recheck if necessary, incorrect adjustment can be dangerous. If the intervention does not restore the correct operation of the drive, contact the authorised service centre.
The automation must not be installed at an altitude of more than 2,000 m above sea level.
In accordance with the installation regulations, insert a device that ensures complete disconnection from the power supply with contact opening distance in overvoltage category III.
If the power cable is damaged, it must be replaced by the service technician or in any case by a person with similar qualifications, in order to prevent any risk.

1.2 - General Safety Warnings

Automation for swing gates.
The gate may operate unexpectedly, so do not allow people or things to stand in the gate's movement area.
Follow all instructions as incorrect installation can cause injury to persons and damage to property.
Permanently affix warning labels against entrapment in a highly visible place or near fixed controls.
Ensure that entrapment between the gate and fixed parts due to the opening movement of the gate is avoided.
After installation, ensure that the gate parts do not obstruct public roads or pavements. After installation, ensure that the protective systems function as intended.
This information must also be included in the instructions.
This device is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they are supervised or instructed in its use by a person responsible for their safety. Children must not play with the device.
Cleaning and maintenance operations for the user must not be carried out by children without supervision.
To reduce the possibility of impact in the gate's movement areas, a pair of photocells (recommended height 500mm) can be installed to detect the presence of any obstacles, or an EN12978-compliant sensitive edge on the main impact profile.
The sound pressure level of the A-weighted emission is less than 70 dB(A)
The drive cannot be used with a motorised part incorporating a pedestrian door, unless the drive can only be operated with the pedestrian door in a safe position.

1.3 - Warnings and symbols used

DANGER! This 'Danger' symbol indicates a high-risk threat which, if not avoided, may cause serious injury or a fatal outcome.

WARNING! This symbol, together with the word 'Caution', indicates the risk of possible material damage.

WARNING! This 'Warning' symbol indicates a medium-risk threat which, if not avoided, could result in serious injury or death.

1.4 - General Information

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Translation into any other language, even partial, is prohibited without prior written authorisation and subsequent verification by LIFE home integration.
All rights to this document are reserved. LIFE home integration cannot be held liable for damage or malfunctions caused by incorrect installation or improper use of the products; we therefore invite you to read this manual carefully.
LIFE home integration shall not be liable for damage or malfunctions caused by the use of the control unit with devices from other manufacturers; this will also invalidate the warranty. LIFE home integration shall not be held liable for damage or injury caused by failure to observe the information on installation, commissioning, maintenance and use given in this manual, as well as failure to observe the safety instructions given in the chapter entitled SAFETY REQUIREMENTS AND WARNINGS. LIFE home integration, in order to improve its products, reserves the right to modify them at any time and without prior notice. This document reflects the state of the car to which it is attached at the time of its marketing.

1.5 - Manufacturer's data

LIFE Home Integration is the manufacturer of the OPTIMO OP2 24 swing gate motor and GE UNI 24R DL2 control unit and holder of all rights to this document.

- Manufacturer: LIFE Home Integration
- Address: Via Sandro Pertini, 3/5 - 31014 Colle Umberto (TV) Italy
- Telephone: + 39 0438 388592
- Fax: + 39 0438 388593
- Website: www.homelife.it
- E-mail: info@homelife.it

The identification plate, on which the manufacturer's details are stated, is attached to the motor and inside the electronic control unit.
The nameplate specifies the type and production date (month/year) of the product.
For technical and/or commercial information, requests for the dispatch of technical personnel, requests for spare parts, the customer may contact the manufacturer or the local representative where the product was purchased.

1.6 - Intended use

The OPTIMO OP2 24 + GE UNI 24R DL2 electromechanical gearmotor has been designed exclusively for the OPTIMO OP2 24.
to automate swing gates. Any other use is considered to be non-compliant with the intended use and is prohibited by the applicable regulations.

- The control unit should only be used with LIFE products.
- The manufacturer accepts no liability for damage caused by any other use. The risk is borne exclusively by the installer and the warranty becomes void.

The geared motor and control unit may not be installed and used in explosion hazardous areas.
Gates that are automated must comply with current European standards and directives, including EN 12604 and EN 12605.
The drive and control unit may only be used in a technically perfect condition and in accordance with their intended purpose, in awareness of the safety and hazard conditions, and in compliance with the installation and operating instructions.
Malfunctions that may impair safety must be rectified immediately.

- The gearmotor and control unit must not be installed in places where there is a risk of flooding.
- Do not use the system in aggressive environmental conditions (e.g. salty air). The actuator is suitable for installation on leaf gates with the dimensions and masses indicated in the chapter: Dimensions and limits of use.

1.7 - Safety instructions and warnings

- This manual is intended exclusively for PROFESSIONAL INSTALLERS.

The installation of automation requires practical and theoretical knowledge of mechanics, electricity and electronics, as well as current legislation and regulations in the sector.

- Once the electromechanical gearmotor has been installed, it is forbidden for users to perform any operations on the control unit, which, as mentioned above, are intended for qualified personnel only.
- Installers must operate in compliance with the legal guidelines.

They must also constantly refer to the harmonised standards EN 12453 and EN 12445.

- The instructions given in this manual must always be observed when installing, connecting, adjusting, testing and setting up the control unit. The manufacturer declines all liability for damage or injury caused by failure to observe the instructions in this manual.
- The manufacturer accepts no liability if the installer does not take care of the above.
- Keep this manual in a safe and easily accessible place for quick reference when needed.
- During installation, connection, test operation and use of the control unit, observe all applicable accident prevention and safety regulations.
- For safety and optimal system function, use only original spare parts, accessories and fasteners.
- Do not make any modifications to any devices or system components. This may cause malfunctions and excludes the manufacturer's product liability.
- If liquids come into contact with the control unit, disconnect the power supply and contact the manufacturer's service department immediately.
- If you experience faults or problems that cannot be solved with the information in this manual, please contact the manufacturer's service department.
- Keep the electromechanical gearmotor away from heat sources and flames, which can cause malfunctions, fires or dangerous situations.
- The electromechanical gearmotor must be stored indoors, dry, at an ambient temperature of -20 to +70°C and raised off the ground.
- The manufacturer accepts no liability for damage to the functioning of the electromechanical gearmotor caused by failure to comply with the storage regulations given here.

1.8 - Installation instructions and warnings

WARNING: Important safety instructions. Follow all instructions carefully, incorrect installation can cause serious injury. Before starting installation, we strongly recommend that you carefully read the instructions and warnings in this manual (see chapter GENERAL SAFETY INSTRUCTIONS) and observe the instructions contained therein.

• The PROFESSIONAL INSTALLER of the gate motor is responsible for analysing the risks and adjusting the safety devices of the automation.

• The installer must check that the temperature range stated on the electromechanical operator complies with the location where the device is installed.

• Before installing the actuator, check that the gate is in good mechanical condition, properly balanced, and opens and closes correctly.

• Carefully follow the fastening instructions in Chapter 3: INSTALLATION and 4: ELECTRONIC CONTROL BOX INSTALLATION INSTRUCTIONS.

• If a 'dead man' control is installed, it must be installed in a position with a direct view of the moving parts, but at a distance from them.
Unless it is operated with a key, it must be installed at a minimum height of 1.5 metres and not accessible to the public.

• During installation, always refer to the harmonised standards EN 12453 and EN12445.

• Ensure that the individual devices to be installed are compatible with the electromechanical operator. Do not proceed if even one device is unsuitable for the intended use.

• Ensure that the installation site of the control unit is not subject to flooding, does not contain sources of heat or flames, fires or dangerous situations in general.

• During installation, protect the components of the control unit to prevent liquids (e.g. rain) and/or foreign bodies (dust, earth, gravel, etc.) from getting inside.

• Connect the control unit to a power supply line built in accordance with current regulations, equipped with a grounding and power disconnect switch.

• Only connect the geared motor to a power supply line constructed in accordance with the applicable national standards, equipped with a device for complete disconnection of the line under overvoltage category III conditions.

• Packaging materials must be disposed of in accordance with local regulations.

• Wear protective equipment and goggles when drilling the holes for clamping.
In the case of work at heights above 2m from the ground, for example when installing a pilot light or antenna, installers must be equipped with ladders, safety harnesses, protective helmets and all other equipment required by law and the regulations governing this type of work.

1.9 - Commissioning

Testing and commissioning must be carried out by a COMPETENT PERSONNEL supervised and assisted by a PROFESSIONAL INSTALLER.
It is the responsibility of the person who tests and prepares the automation (of which the control unit is a part) to carry out the required checks according to the existing risks and to verify compliance with the reference standards, in particular EN 12445, which regulates the way in which tests are carried out on gate automations, and EN 12453, which specifies the performance requirements for safety in use.
To set the controls correctly, please refer to Chapters 5 - CENTRAL CONFIGURATION and 8 - SPEED AND FEEL ADJUSTMENT.

• The acceptance and testing phases are crucial to ensure maximum operational safety.

• The checks and test procedures can also be used for routine checks on the car and its devices.

• Never touch the gate or moving parts when they are in motion.

• The drive can only be tested if a non-hazardous force tolerance has been set. The force tolerance must be set to a minimum value so that there is no danger of injury during closing.
• Adjust the maximum force in line with EN 12445.
• Remain at a safe distance when the gate is in motion: only pass through when the gate is fully open and stationary.
• In the event of malfunctions (noise, jerky movements, etc.) immediately stop using the automation: failure to comply with this rule can lead to serious hazards, risk of accidents and/or serious damage to the gate and automation.
• Please note that the following residual risks exist when the gate is in motion:
a) impact and crushing against the main closing edge;
b) impact and crushing in the opening area;
c) crushing during movement between the movable and fixed parts of the rail and support;
d) mechanical risks caused by movement.

1.10 - Testing

When testing, please ensure that the measurement of the gate's impact force has been carried out in accordance with EN 12445 and 12453 and that the instructions in the chapters GENERAL INSTRUCTIONS ON SAFETY chapter 1.1 - 1.2 - 1.6 - 1.7 - 1.8 - 1.9 have been carefully observed.
Also ensure that the automation is correctly adjusted and that the protection and unlocking systems function correctly.
ATTENTION: Once the drive has been tested, the set parameters must not be changed. If any further adjustments are made (changes to sensitivity and force values), all the checks necessary for testing and compliance with EN 12445 must be repeated.
The automation can only be used for the first time after all the checks described in the TESTING chapter have been successfully carried out.
Automation cannot be used in precarious or temporary conditions.
a) Compile a technical file for automation, which must include at least:
• a general mechanical and electrical diagram,
• risk analysis and solutions adopted to eliminate or reduce risks,
• manuals of individual components,
• list of components used,
• instructions for use and warnings regarding use by the owner,
• maintenance booklet,
• declaration of conformity of the system.
b) Attach a CE marking plate to the gate, bearing at least the following information:
- Name and address of the party responsible for installation and testing
- Type of automation, Model, Registration number
- Year of installation, CE mark.
c) Fill in the declaration of conformity and hand it over to the owner of the automation.
d) Complete the guide with the instruction manual and hand it over to the owner of the automation.
e) Fill in the maintenance log and hand it over to the owner of the automation.
f) Fill out the maintenance instruction guide that provides instructions for the maintenance of all automation devices and give it to the owner of the automation.
g) Before the first use of the automation, the owner must have been adequately informed of the residual dangers and risks.
h) Permanently affix the manual release label adjacent to the actuation system.

2 - TECHNICAL DATA

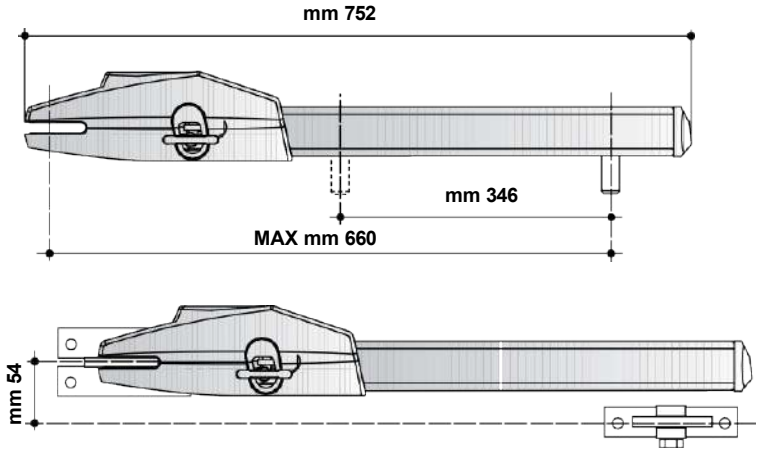
2.1 - Motor and control unit technical data : Electromechanical gearmotor OP2 24 UNI irreversible 24V for swing gates. GE UNI 24R DL2 control unit for LIFE gear motors.

		OPTIMO OP2 24UNI
Supply voltage	V	24 ⎓
Nominal power	W	60
Nominal thrust	N	1500
Protection classification	IP	54
Maximum hourly cycles	n°	50
Duty cycle	%	80
Operating temperature	°C	-20 ÷ +70
Opening time at 90°	s	15
Maximum gate leaf weight	Kg	275
Maximum gate leaf length	mt	2,5
Lubrication	Type	Permanent Grease
Motor dimensions	mm	750 X 86 H102
Engine weight	Kg	4
Sound pressure	dB	LpA≤70
		GE UNI 24R DL2
Supply voltage	V	230
Frequency	Hz	50 - 60
Nominal power	W	240
Protection classification	IP	44
Operating temperature	°C	-20 ÷ +70
Dimensions of control unit	mm	300 X 200 H90
Weight of the control unit	Kg	2.6

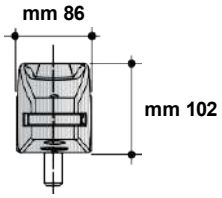
2.2 - Dimensions and limits of use.

WARNING!

The type of gate, the height and shape of the leaves, and the climatic conditions determine the limits of use. They must be carefully considered in the installation. The table is for guidance only.



Door length	Max. sash weight
m 1,50	Kg 275
m 2,50	Kg 125

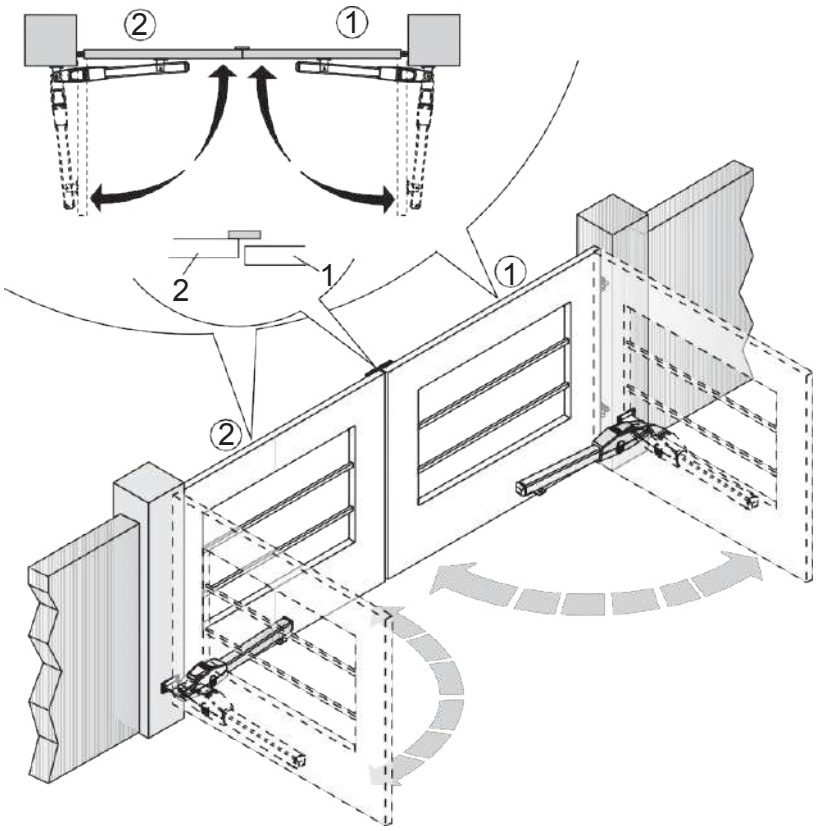


3 - INSTALLATION INSTRUCTIONS

3.1 - Two-leaf system

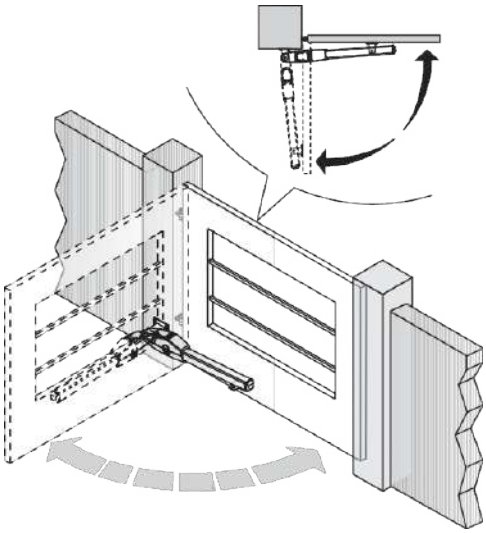
The definition of gate leaf 1 and gate leaf 2 is fundamental to the operation of the automation: Gate **leaf 1: it is the** first to open when the gate is closed, while it is the second to move when the gate is in the open leaf position; it arrives at the closing stop after gate leaf 2.

Leaf 2: it is the second to open when the gate is closed, while it is the first to move when the gate is in the open leaf position; it reaches the closing stop before leaf 1.



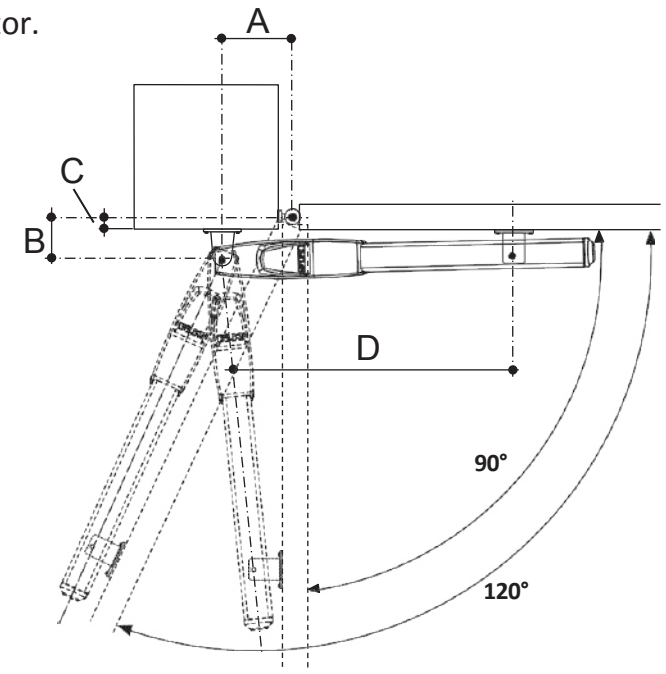
3.2 - Single leaf system:

Wing 1: the only wing of the gate.



3.3 - Gearmotor mounting dimensions

The following are the dimensions for mounting the motor. for an opening of 90° or 120°. Check that dimension "C" is not greater than the value shown in the table. If the dimension exceeds this value, it is necessary to intervene by making a back into the structure until the value indicated in the table.



(* D Maximum centre distance)

Opening	A max	B max	C max	D*
90°	160	160	110	650
120°	160	100	50	650

It is advisable not to choose values of A and B that are too different from each other: this ensures a smooth sash movement and the least strain on the actuator;
- Dimension A: increasing it increases the opening angle and, consequently, decreases the thrust on the sash while simultaneously increasing the peripheral speed.
- Dimension B: increasing it decreases the opening angle and, consequently, increases the thrust on the sash while simultaneously decreasing the peripheral speed.

3.4 Rear bracket position

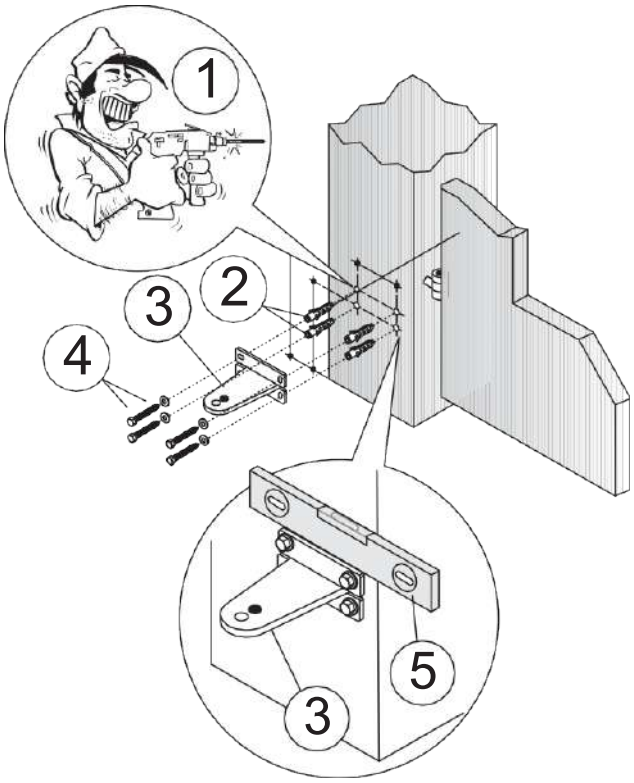
a) Define the position of the rear bracket. See the table on the previous page for distances A, B and C.

b) Ensure that the outlet of the electrical cable pipe is positioned under the bracket. (3).

c) Ensure that there is sufficient space for the front bracket to be installed with screws or welded onto the gate leaf.

d) Ensure that the rear bracket is levelled before fastening

e) Fasten the bracket to the abutment in the desired position with screws or welding.



3.5 Front bracket position

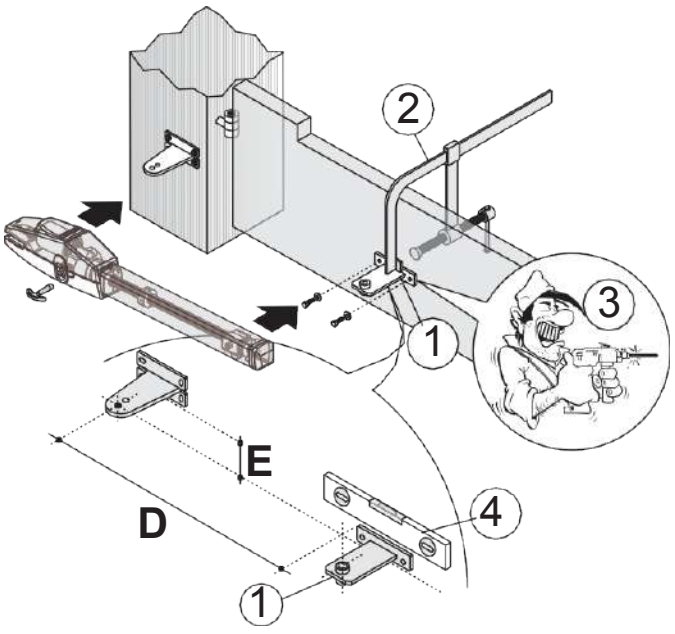
f) Place the leaves in the closed position against the mechanical stop.

g) Position the front bracket (1) at distance D (630 mm) from the rear bracket.

h) Position the front bracket (1) 54 mm lower than the rear bracket (distance E).

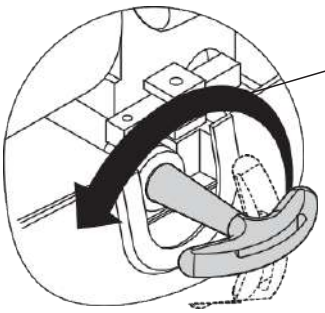
i) Provisionally secure the front bracket (1) to the gate in the correct position.

j) Check that the bracket is horizontal before fixing it in place (4).



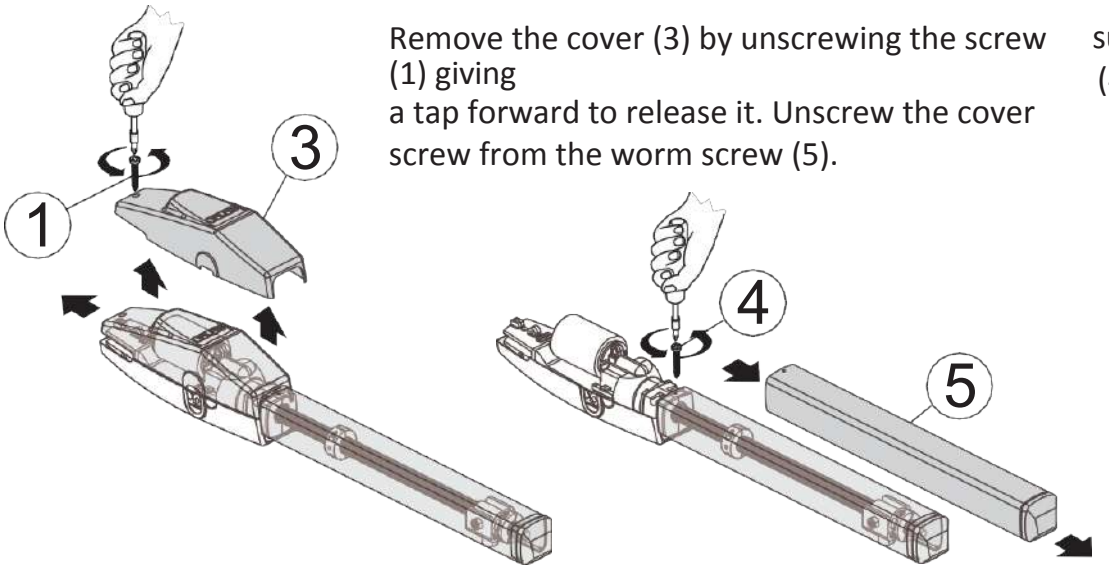
Dimension (D) = 650 mm
Dimension (E) = 54 mm

3.6 - Actuator positioning

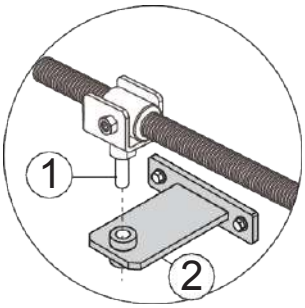


360° Unlocking

To unlock the actuator, insert the key and turn 360° anticlockwise, the actuator is now unlocked.



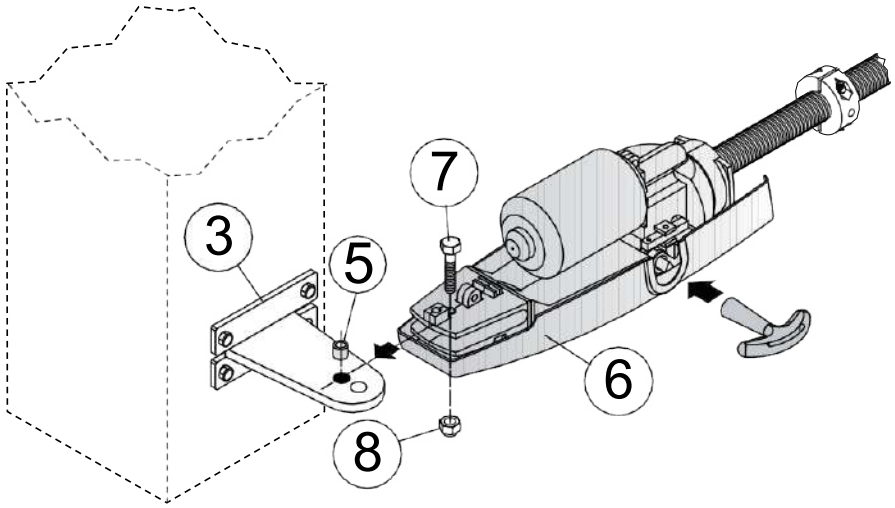
Remove the cover (3) by unscrewing the screw (1) giving
a tap forward to release it. Unscrew the cover screw from the worm screw (5). subsequently (4) and remove the



Raise the actuator and insert the pin of the nut bushing holder (1) into the hole of the front bracket (2)

Insert the bushing (5) into the selected hole in the rear bracket (3) and insert the actuator yoke (6) on the bracket (3), matching the hole to the bushing.

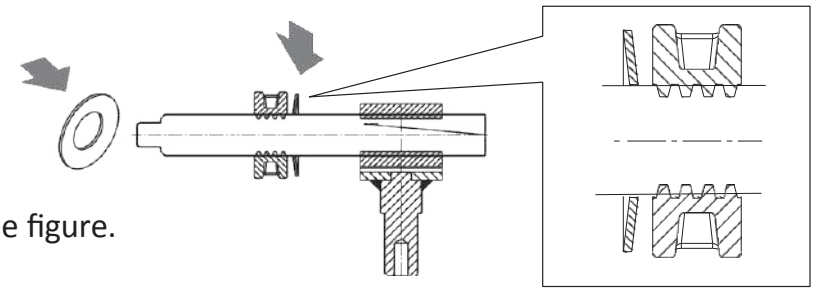
Insert the screw (7) into the hole and tighten with the self-locking nut (8).



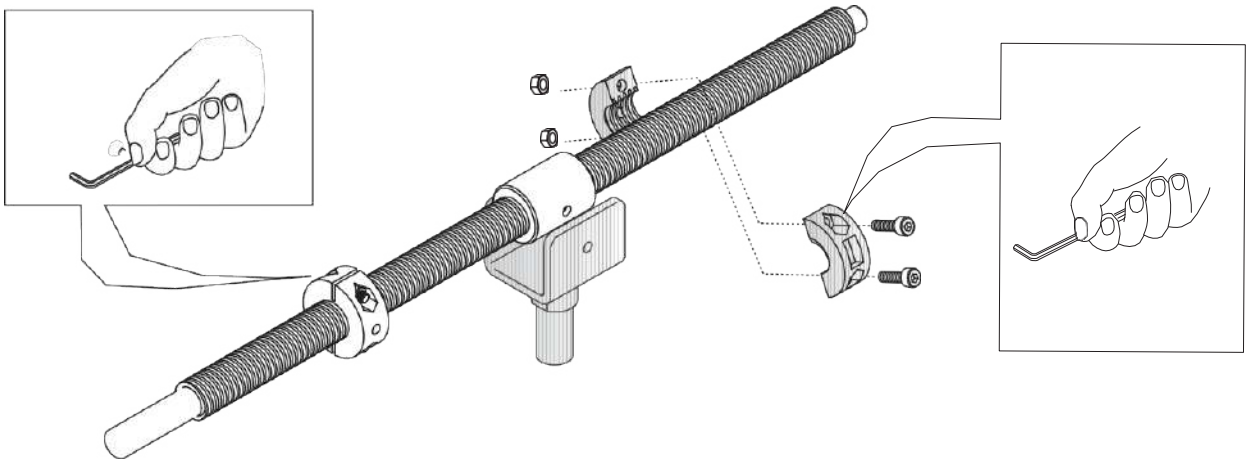
3.7 - Mechanical limit switch fixing and adjustment

WARNING!

Insert the disc springs as shown in the figure.



1) Fasten the actuator to the front bracket with a screw, closing it tightly.
2) Open and close the gate by hand several times and check that the movement of the gate leaf is smooth and that the actuator moves in a plane parallel to the plane of movement of the gate.
3) Ensure that the nut-socket carrier slides perfectly over the actuator worm gear and that, with the sash closed and open, at least 5 mm remains between the nut-socket carrier and the closing and opening limit switches.
4) If necessary, use the different hole on the rear bracket by repeating the steps indicated.
5) Precisely define the closing and opening positions of the gate leaves by adjusting the position of the limit switches as follows:
- Bring the gate into the CLOSED position against the mechanical stop,
- Loosen the end stop with the appropriate spanner and position it so that it touches the nut-bush support; then re-engage it by tightening the screws firmly.
- Carry out the same operation for adjusting the OPEN end stops.
6) Lock the actuator as described in the following chapter 'Unlocking the actuator'.
7) Mount the plastic and aluminium cover.

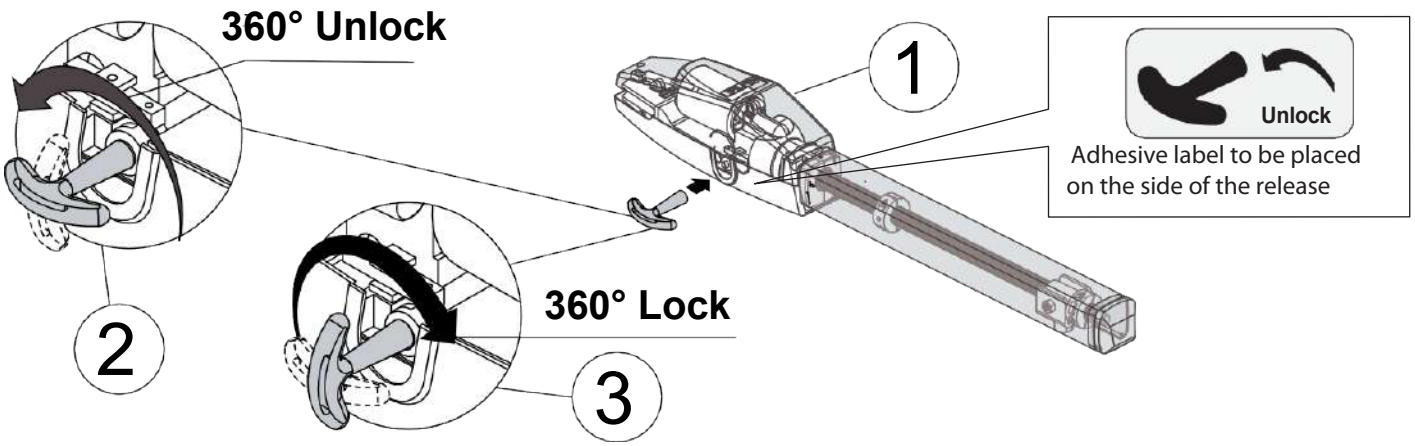


3.8 - Manual release

WARNING!

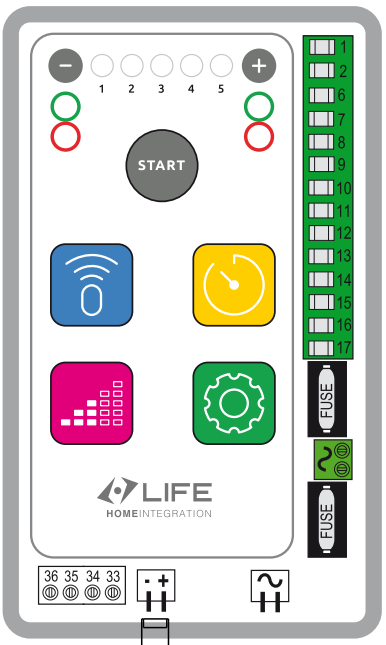
• **WARNING, DANGER**: Activating the manual release could cause uncontrolled gate movement due to mechanical damage or mechanical imbalance conditions.
• The installer must permanently affix the label concerning the operation.
manual release key next to the manual release key.
• Before performing the manoeuvre, disconnect the power supply to the drive.
• Do not force the key to avoid breaking it.

The release allows the actuator drive to be disengaged and the door to be moved by hand; it can be used in the event of a power failure or system malfunction.
Unblocking is implemented by means of a key which must be kept in a safe place.
a) Lock protection flap (1).
b) Insert the triangle key into the lock and turn it 360° (2) anti-clockwise; the transmission is now unlocked.
c) The gate lock is free and can be operated manually
d) To lock the sash again, insert the triangular key and turn it 360° clockwise (3); the transmission is locked again.

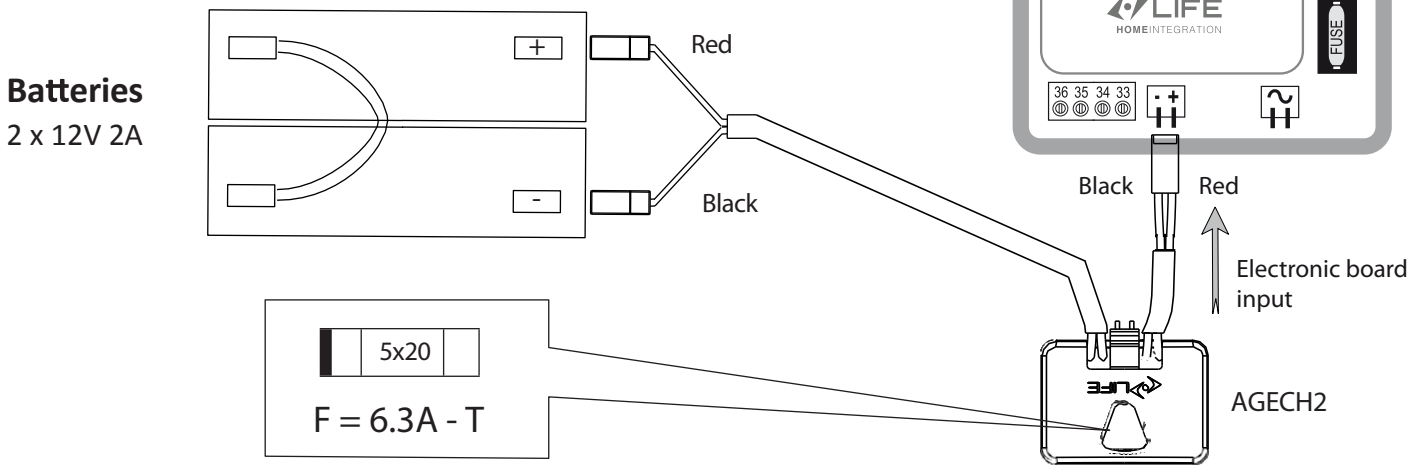


3.9 - Buffer battery connection (optional AGECH KIT)

An emergency power system is an independent source of electrical energy that supports important electrical systems in the event of a loss of normal power supply.
It has an autonomy of about 8 hours for about ten manoeuvres. The diagram below shows how to connect it.



Batteries
2 x 12V 2A



3.10 - Electrical Connections and Wiring Before making connections and wiring, please read the following carefully.
chap. SAFETY INSTRUCTIONS AND WARNINGS.
The actuator must only be connected to the GE UNI 24R DL2 control unit manufactured by Life. All connection and linking operations must
take place with the control unit disconnected from the power supply; if the disconnection device is not visible, affix a sign: "CAUTION MAINTENANCE IN PROGRESS".
The internal wiring of the control unit and the electromechanical linear actuator should not be changed at all.

DANGER! **WARNING!**

3.11 - Actuator electrical connections

To access the internal motor wiring lift the cover (1) by unscrewing the screw (2) see fig. A

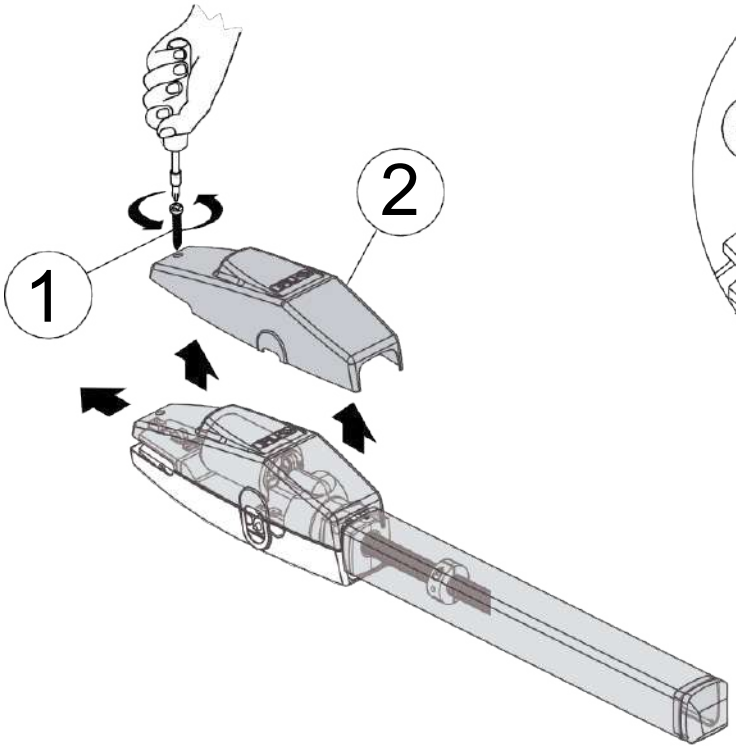
Description of electrical cables

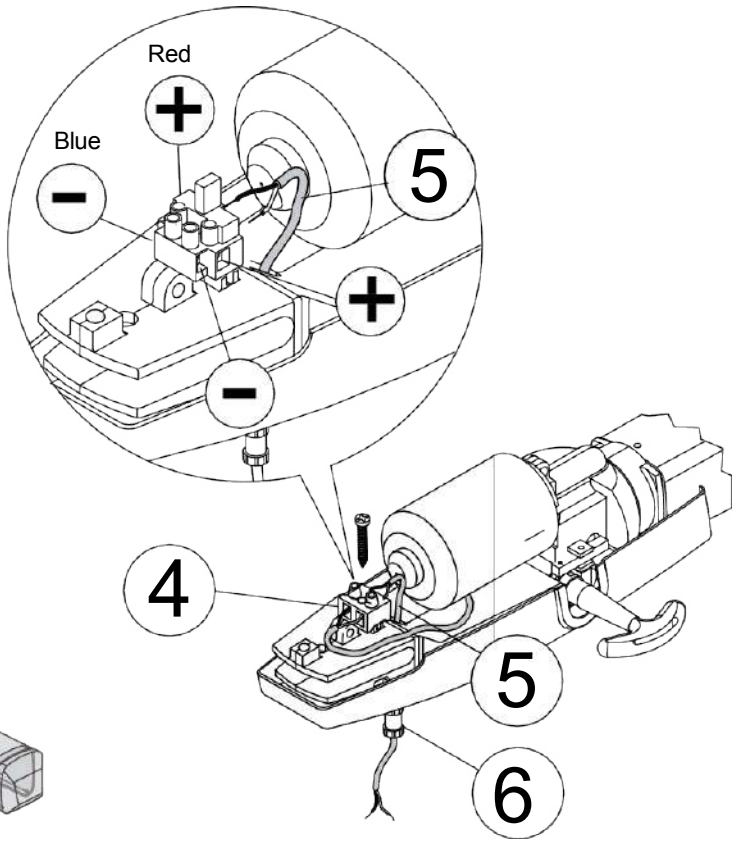
Pos.	Connection	Cable type
1	Motor power supply	Cable 2x1.5 mm2

Fasten the two power supply cables (5) 2x1.5 mm2 to the terminal (4).
On the motor, the RED-coloured cable represents the + and the BLUE-coloured cable represents the - . Then tighten the cable gland (6), leaving the cable slightly loose on the terminal side.

WARNING:
A motor protection fuse is inserted in terminal(4).

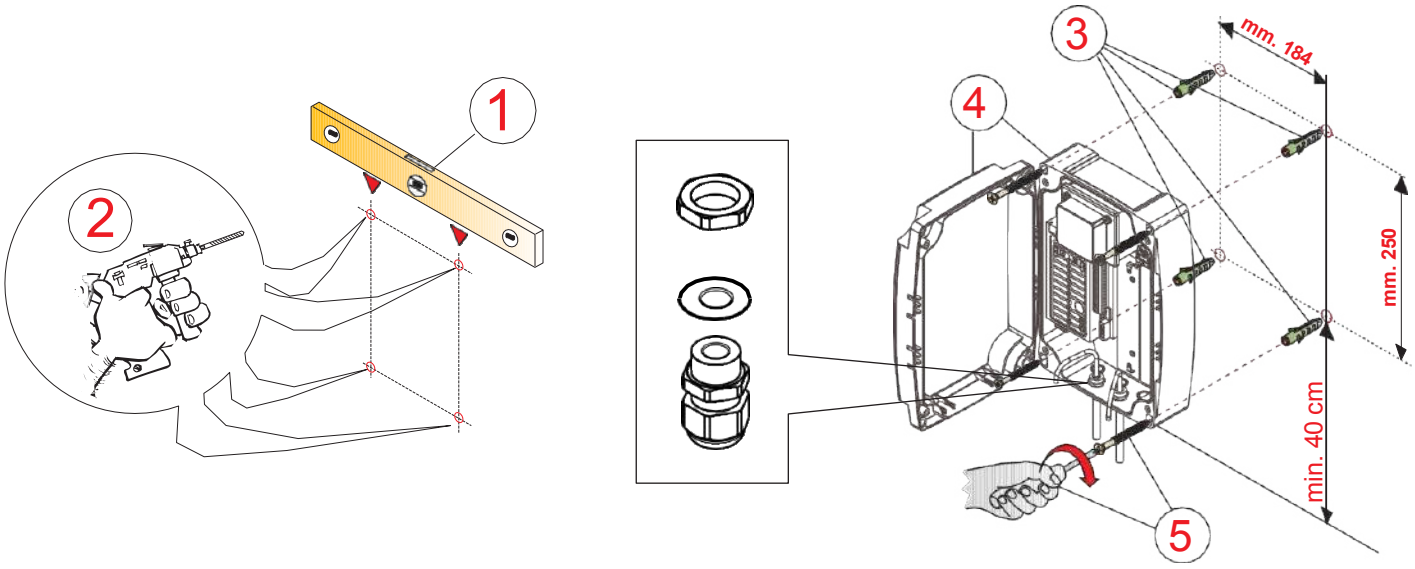
FUSE FM 5A-T 5x20





4 - ASSEMBLY INSTRUCTIONS ELECTRONIC CONTROL UNIT GE UNI 24R DL2

Fasten the plastic container containing the control unit with the dowels provided for masonry structures or screws of a suitable size and shape for fastening on metal structures.



4.1 - Cables used for electrical connections

The cables must enter the control unit on the underside via a cable gland. The IP protection rating of the components to be wired must be observed.
For correct operation, the dimensions given in the table must be observed. The greater the distance between the motor and the electronic control unit, the larger the cross-sectional area of the copper conductor must be.

N.B. Use of the control unit beyond a distance of 15 metres is not recommended

WARNING!

	Connection	Cable type and length
1	Control unit power supply	Cable 2x1.5 mm2
2	Photocell power supply	Cable 4x0.5 mm2
3	Flashing power supply	Cable 2x0.5 mm2
4	Control keyboard	Cable 5x0.5 mm2
5	Engine power supply	Cable 2x1.5 mm2 max 6mt / 2x2.5 max 15mt

Flexible cables connected inside the control unit must be made of poly- nyl chloride (60227 IEC 57) resistant to at least 90°C.

The flexible cable connected to the actuator must be made of polychloropropene (60245 IEC 57).

4.2 - Electrical connections of the control unit

- Before wiring and connecting, carefully read the IMPORTANT SAFETY INSTRUCTIONS and GENERAL SAFETY WARNINGS.
- All wiring and connection work must be carried out with the appliance switched off; if the sign is not visible, a label must be affixed: 'CAUTION: IN MAINTENANCE'.

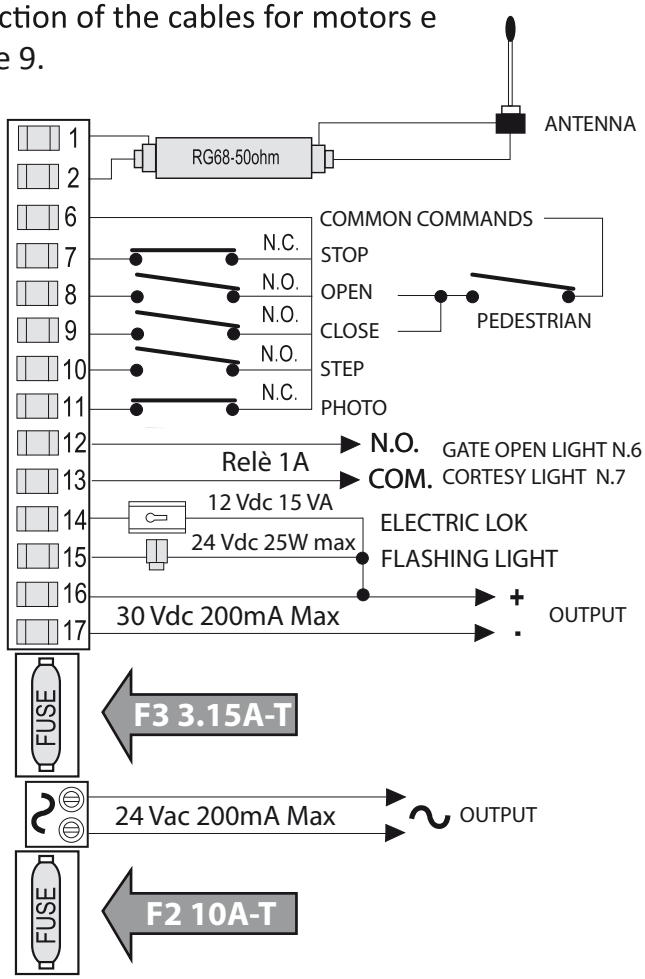
Terminal block	Description (see wiring diagram, page 11)
1	**ANTENNA:** Antenna braid input, use RG58-50 Ohm cable.
2	**ANTENNA:** Antenna input.
6	**COMMON** commands STOP - OPEN - CLOSE - STEP - PHOTO.
6 - 7	**STOP:** NC input Stops the gate. Safety devices such as an emergency stop button can be connected here. When the command is released, the gate never closes automatically; only a new command resumes operation. Leave the jumper in place if no device is present.
6 - 8	**OPEN:** NO input Determines gate opening.
6 - 9	**CLOSE:** NO input Sets the gate to close.
6 - 10	**STEP BY STEP:** NO input Determines gate movement according to the following cycles: AUTOMATIC MODE: Open, Pause, Close, Pause. SEMI-AUTOMATIC MODE: Open, STOP, Close, STOP. CONDO MODE: Opening (automatic closing with time delay).
6 - 11	**PHOTO:** NC input for photocells or safety devices. During the gate opening cycle, it does not intervene; when closing, it reverses the movement until the gate is fully open. Leave the jumper in place if no device is present.
12 - 13	**CONTACT RELAY max 3A** by default for connection of a gate open light. OPTION 2 Led 2 becomes a control for the courtesy light with a time delay of 3 min.
14 - 16	**ELECTRIC LOCK:** 12Vdc output for connecting a 12Vdc 15VA electric lock. To activate, select the function in the Option 1 menu, LED 3.
15 - 16	**FLASHER:** Output 24 Vdc 25 W max, for connecting the flasher
16 (+) / 17 (-)	**30 Vdc OUTPUT:** to power several devices, max 200mA.
~	**24 Vac OUTPUT:** To power several devices, max 200mA.

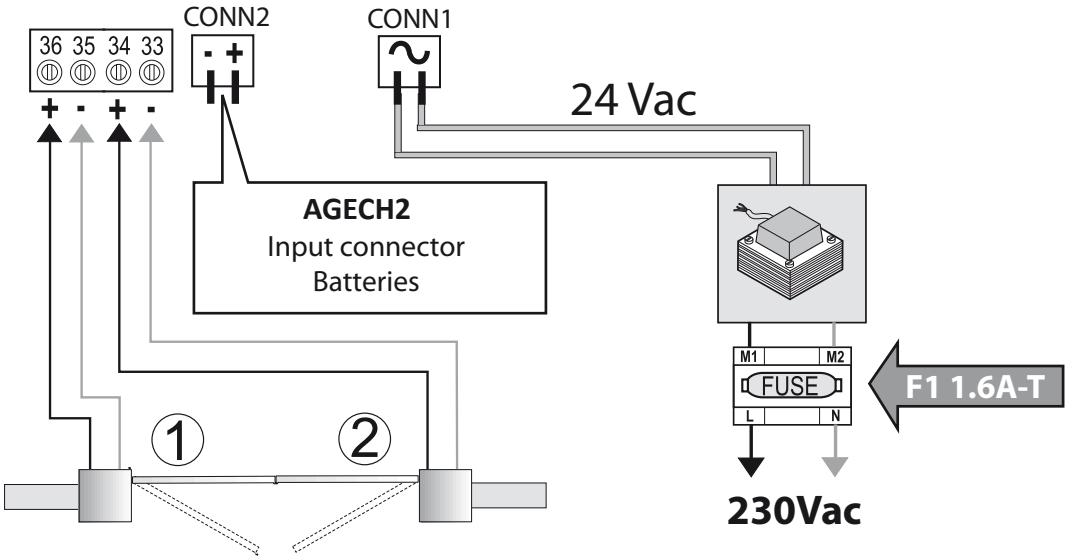
PEDESTRIAN The command results in partial opening. It can be given by a remote control or from the terminal block. On the terminal block, it is obtained by bridging terminal 8 OPEN with terminal 9 CLOSE, then connecting this bridge with a switch to terminal 6 COMMON. The PEDESTRIAN command on the terminal block excludes the OPEN and CLOSE commands.

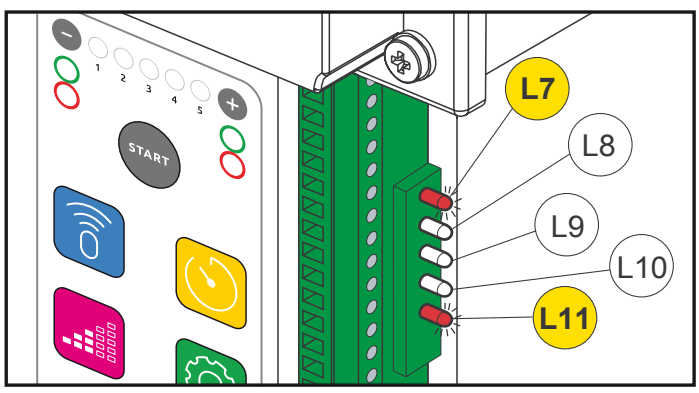
NC = Normally closed contact - NO = Normally open contact

Connections on the underside of the control unit		
CONN-1	**24Vac:** Transformer power supply input	
CONN-2	AGECH-2 battery charger connection	
33 - 34	**- / +**	Motor 2, if closed, opens second
35 - 36	**- / +**	Motor 1, if closed, opens first.

It is important to respect the section of the cables for motors e accessories as indicated on page 9.

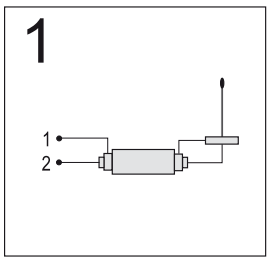


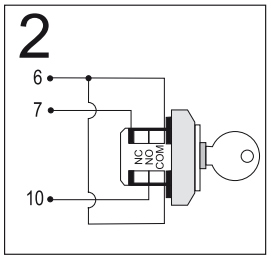


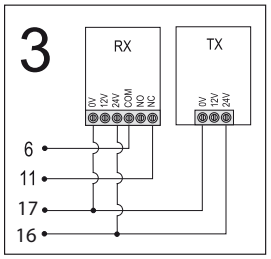


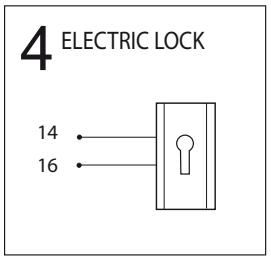
LED INDICATOR LIGHTS

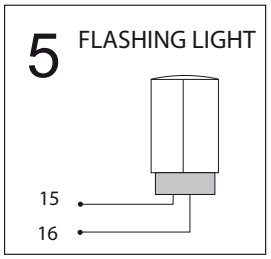
There is a row of 5 LEDs on the right side of the board, under the terminals. These LEDs are lit when the corresponding signal is present.
For N.C. inputs STOP and PHOTO, the corresponding LED L7, L11 are normally ON. For the N.O. inputs OPEN, CLOSE and STEP -BY-STEP, the corresponding LED L8, L9 and L10 will be switched off. These LED therefore indicate any malfunction of the connected devices.

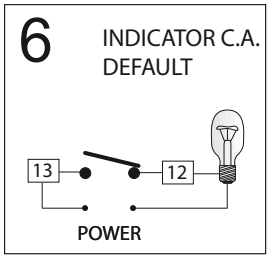


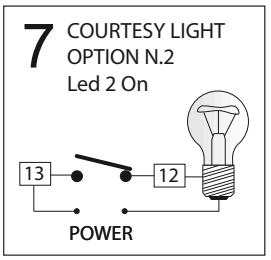










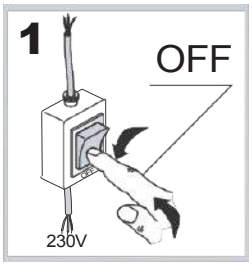


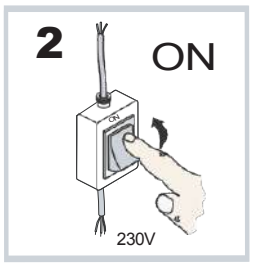
5 - CONTROL UNIT CONFIGURATION

Energy saving

To optimise energy consumption, we have introduced an energy-saving function. After the control unit has been inactive for 10 minutes, the LEDs on the front panel go out and the use of the keyboard is inhibited.

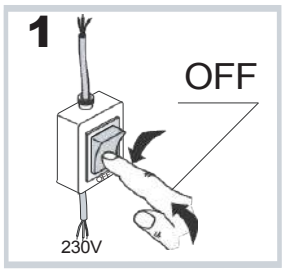
To reactivate it, the control unit must be switched off and on again.

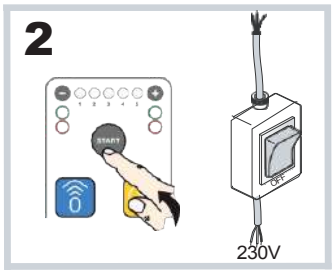


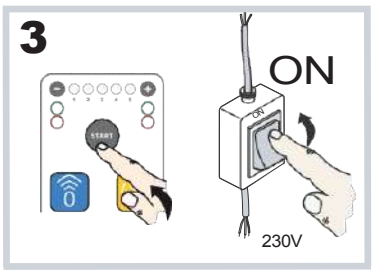


5.1 - Total reset

Switch off the system, hold down the START button, switch on again and release the start button once the red LEDs have lit up.

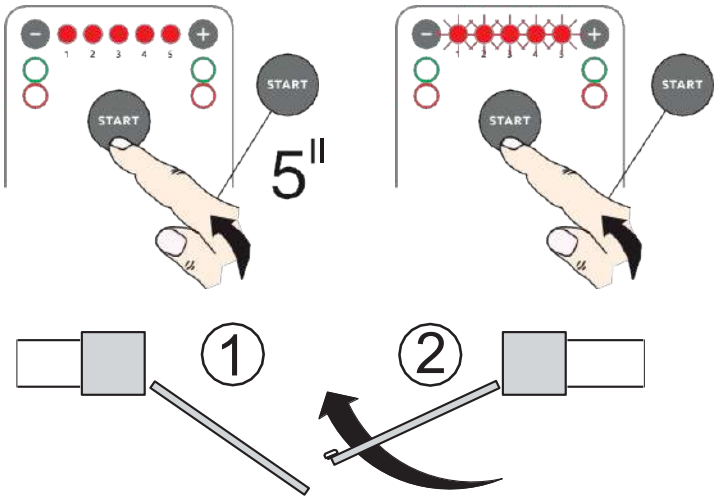






5.2 - Initial setup and phase shift adjustment

N.B. If only one motor is used, connect it to terminals 35 - 36.
Make sure you have fitted the mechanical limit switches for opening and closing the automated system.



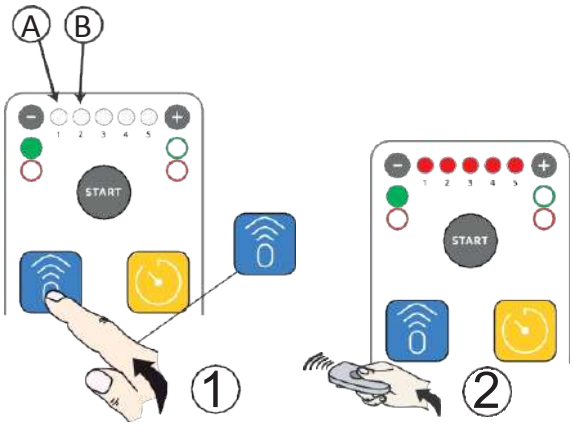
a) Position the leaves at 45° and disconnect all accessories;
b) Press and hold the START button for 5 seconds until the 5 red LEDs flash.
c) Press the START button. The automated system runs in sequence:
- closing leaf 2 ;
- closing leaf 1 ;
- leaf 1 opening ;
- opening of leaf 2 with time lag.
- closing the leaf 2.
- closing leaf 1 with phase shift.

When programming is complete, the two green LEDs flash, while the two red LEDs light up continuously.
The START button can now be used as a STEP command for 10 minutes.
If the result is not satisfactory, manual programming can be carried out to define different phase shifts. See chapter N. 10 page 21.

6 - REMOTE CONTROLS

The control unit is equipped with an integrated radio receiver with a memory for 750 codes and 2 channels at a frequency of 433.92 MHz with LIFE Rolling Code and Auto code.

6.1 - Saving a remote control



A - Total opening

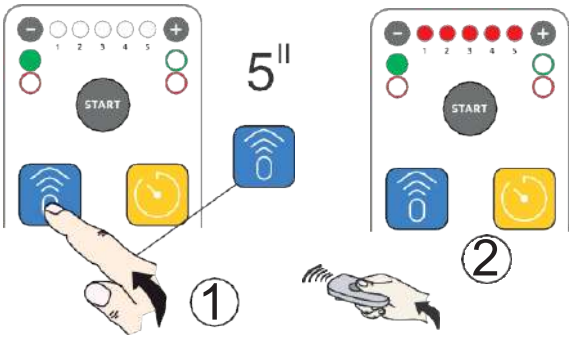
- Press the remote control setting button (blue, top left); the left green light below the "-" button and the first red light (A) next to the "-" button will come on.
- Press the button on the transmitter you wish to program for total opening until all five LEDs light up.

B - Opening for pedestrians leaf N.1

- Press the remote control setting button (blue, top left) twice; the left green LED below the "-" button and the second red LED (B) next to the "-" button will light up.
- Press the button on the transmitter you wish to program for pedestrian opening until all five LEDs light up.

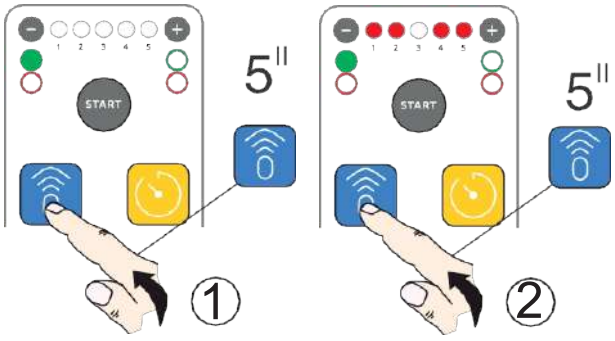
Wait 20 seconds or press the set button on the remote again to exit configuration.

6.2 - Deleting a remote control



- Press and hold the remote control settings button (blue, top left) for 5 seconds until the green LED on the left below the "-" button lights up and starts flashing.
- Press the button on the transmitter you wish to delete until all five LEDs light up.

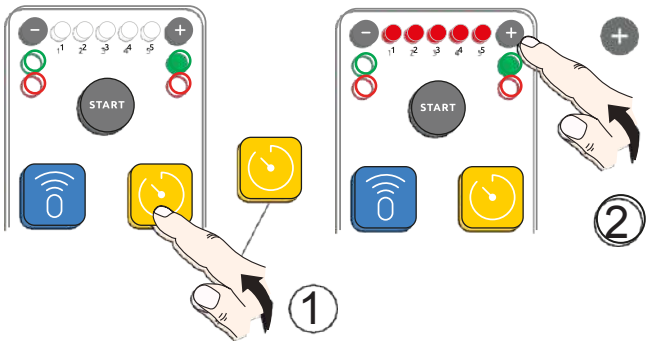
6.3 - Deleting all remote controls



- Press the remote control setting button (blue, top left) until the green LED on the left below the "-" button lights up and starts flashing.
- Press the blue remote control setting button again and hold it down for 5".
All the LEDs flash alternately.
- As soon as the flashing stops, all the remote controls have been successfully deleted.

7 - SETTING OPTIONS

7.1 - Automatic re-closing



Automatic re-closing is activated after a preset PAUSE TIME.
a) Press the TIMER button. The green LED on the lights up.
- If none of the 5 red LEDs are lit, the automatic re-closing is not activated. Press the "+" button to activate it.
- If at least one of the 5 red LEDs is lit, automatic re-closing is activated. To deactivate it, press the "-" button until all the LEDs are off.

DANGER!

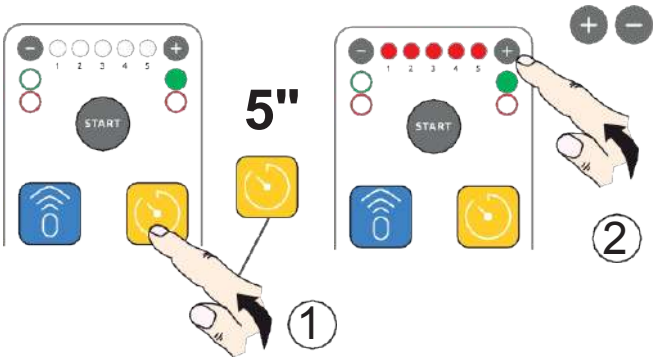
Activating the automatic re-closing function generates an uncontrolled movement of the gate.

Press the "-" and "+" buttons to set the PAUSE TIME. Working cycle: OPEN - PAUSE - CLOSE - PAUSE

LEDS ON	PAUSE TIME
⊖○○○○○⊕	AUTOMATIC RE-CLOSING DEACTIVATED
⊖●○○○○⊕	5 s
⊖●●○○○⊕	10 s
⊖●●●○○⊕	30 s
⊖●●●●○⊕	60 s
⊖●●●●●⊕	120 s

Wait 20" or press the TIMER button again to exit configuration mode.

7.2 - Setting the slow-down time



Press the TIMER button (top right) for 5". The green and red LEDs (right) will light up.
- 1 LED on: minimum slowdown.
- 5 LEDs on: maximum slow down.
- No LED on: slow-downs deactivated. Use the "-" and "+" buttons to change the parameters.

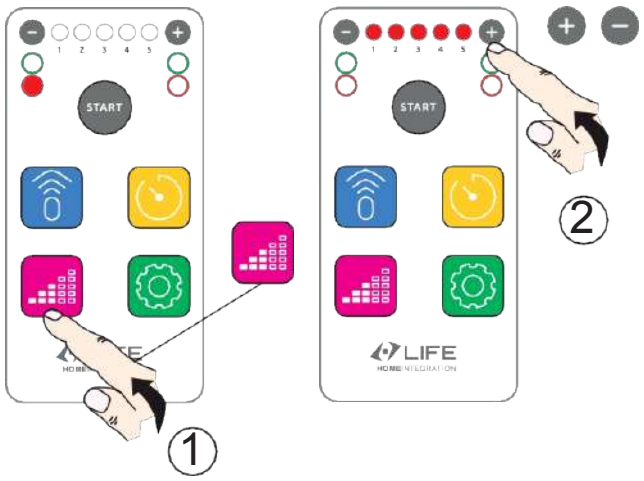
CAUTION:
Slowing down cannot be completely eliminated. In the deceleration phase, when the limit switch is reached, the automated system STOPS and does not reverse.

LEDS ON	SLOWDOWN TIME
⊖○○○○○⊕	MINIMUM
⊖●○○○○⊕	
⊖●●○○○⊕	DEFAULT
⊖●●●○○⊕	
⊖●●●●○⊕	
⊖●●●●●⊕	MAXIMUM

Wait 20" or press the TIMER button again to exit configuration mode.

8 - SPEED AND OBSTACLE DETECTION SENSITIVITY

8.1 - Speed setting



Press the SPEED button (bottom left). The red LED on the left lights up: the speed can be adjusted by pressing '-' or '+'.

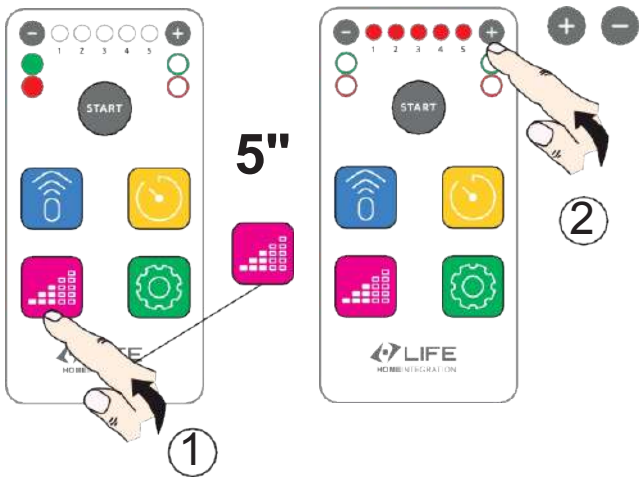
LEDS ON	SPEED
⊖○○○○○⊕	MINIMUM 75%
⊖●○○○○⊕	85%
⊖●●○○○⊕	80%
⊖●●●○○⊕	DEFAULT 90%
⊖●●●●○⊕	95%
⊖●●●●●⊕	MAXIMUM 100%

DANGER !

Parameters such as speed and obstacle sensitivity must be set according to the type of gate and its use, in accordance with the laws of the country in which the gate is installed.

Wait 20" or press the SPEED button to exit programming.

8.2 - Obstacle detection sensitivity adjustment



Press the SPEED button (bottom left) for 5". The green and red LEDs on the left light up. Press '-' or '+' to adjust sensitivity.

LEDS ON	SENSITIVITY
⊖○○○○○⊕	MINIMUM
⊖●○○○○⊕	
⊖●●○○○⊕	DEFAULT
⊖●●●○○⊕	
⊖●●●●○⊕	
⊖●●●●●⊕	MAXIMUM

DANGER !

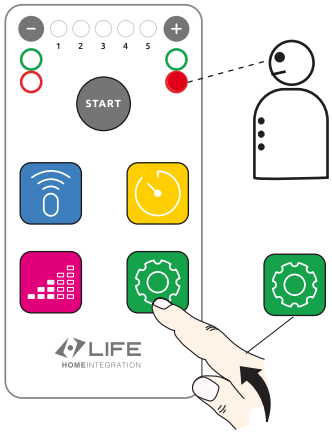
Parameters such as speed and obstacle sensitivity must be set according to the type of gate and its use, in accordance with the laws of the country in which the gate is installed.

Wait 20" or press the SPEED button to exit programming.

9 - OPTIONS MENU

9.1 Menu Option 1

Press the OPTIONS button (bottom right) to enter the OPTIONS MENU 1. Press it again in sequence to scroll through the available options.
The flashing LEDsindicate the position and the corresponding option.
By pressing button “+” the function is activated (red LED on). By pressing button “-” the function is deactivated (LED off).

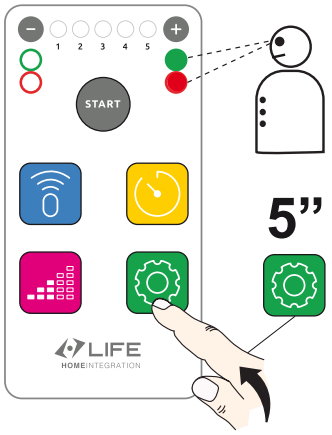


LED ON	OPTION 1
⊖○○○○○⊕	No active functions.
⊖●○○○○⊕	Condo options: step command only opening
⊖○●○○○⊕	Change operating mode: OPEN-STOP-CLOSE-STOP
⊖○○●○○⊕	Electric lock activation.
⊖○○○●○⊕	The CLOSE input becomes PHOTO1.
⊖○○○○●⊕	Activating PHOTO anticipates re-closure.

Wait for 20” or press the OPTIONS BUTTON again to exit programming mode.

9.2 Menu Option 2

Press the OPTIONS BUTTON for 5” to enter the OPTION MENU 1. Press it again in sequence to scroll through the available options.
The flashing LEDS indicate the position and the corresponding option.
By pressing button “+” the function is activated (red LED on). By pressing button “-” the function is deactivated (LED off).



LED ON	OPTION 2
⊖○○○○○⊕	No active functions.
⊖●○○○○⊕	Increase the speed during slowdown.
⊖○●○○○⊕	The output Relay 12 - 13 becomes COURTESY LIGHT.
⊖○○●○○⊕	Safety intervention delay during movement.
⊖○○○●○⊕	* Operation in MAN'S SWITCH.
⊖○○○○●⊕	** Enable parameters for **ERGO 24V** motor.

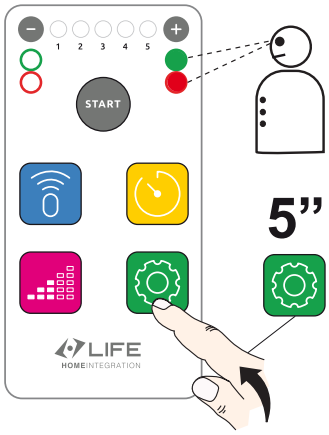
* N.B. The command in man present works exclusively from the terminal board input: Open - Close - Step by Step.

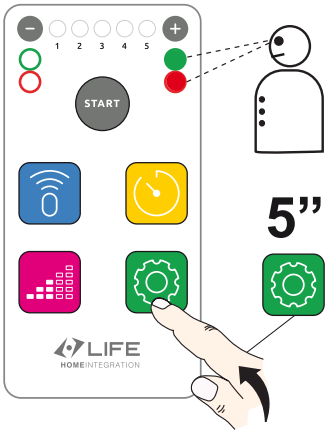
** N.B. After enabling the ERGO option, reset the control unit chap. 5.1 page 18.

Wait for 20” or press the OPTIONS BUTTON again to exit programming mode.

9.3 - Option 3

Press the OPTIONS button for 5” and again for another 5” to enter the OPTION MENU 3.
Press it again in sequence to scroll through the available options.
The flashing LEDS indicate the position and the corresponding option.
By pressing button “+” the function is activated (red LED on). By pressing button “-” the function is deactivated (LED off).

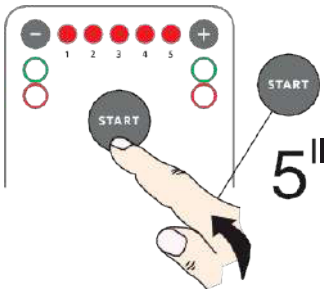




LED ON	OPTIONS 3
⊖○○○○○⊕	No active functions.
⊖●○○○○⊕	Brief inversion to STOP
⊖○●○○○⊕	Eliminate short inversion ERGO
⊖○○○○○⊕	----------
⊖○○○○○⊕	----------
⊖○○○○○⊕	----------

Wait 20” or press the OPTIONS BUTTON to exit the programming mode.

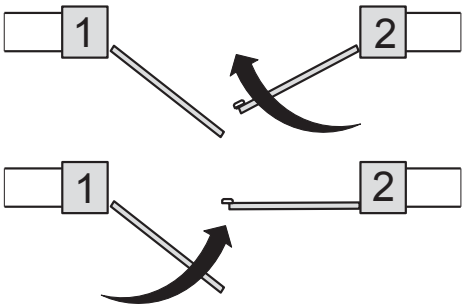
10 - MANUAL CONFIGURATION



Manual settings can be made by using a button connected to terminals 6-10 (Step-by-Step) or by using a pre-programmed remote control.

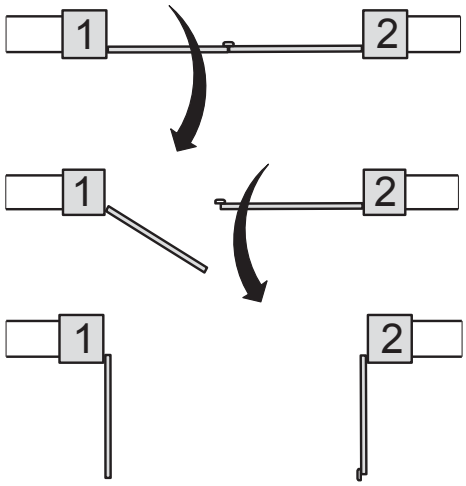
Position the gate leaves at 45°.
Press and hold the START button for 5 seconds. The 5 LEDs light up and then flash.

10.1 - Closing limit switch adjustment



While the 5 LEDs are flashing, give the step-by-step command. The door leaf [2] must move in closing direction. Once the mechanical stop has been reached, the device stops and the LED on the right-hand side lights steady red. Give another step-by-step command. The door [1] must move in closing direction. When it reaches the mechanical stop, it must stop and the LED on the left-hand side lights up steady red.

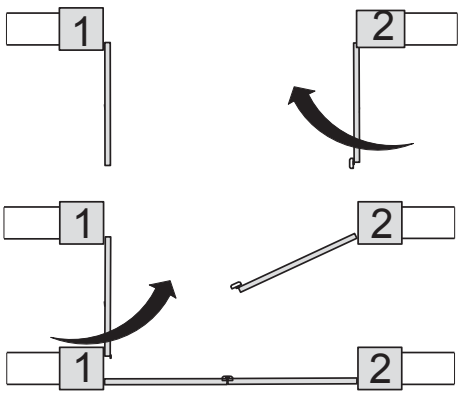
10.2 - Adjustment of limit switches and opening shifts



Give a step-by-step command. The leaf [1] starts to open. As soon as it reaches the point where you want to start opening leaf [2], give another step-by-step command.

Both leaves now open until they reach their respective mechanical stops. The two red LEDs on the left and right remain lit.

10.3 - Setting the closing offset



Give a step-by-step command. The leaf [2] begins to close. When it reaches the point where you want to start closing leaf [1], give another step-by-step command.
Both leaves close until they reach their respective mechanical stops. The two red LEDs on the left and right remain lit.

The operator is now programmed in semi-automatic mode. If the result is not satisfactory, reset the control unit and start again from step 10.

9 - INSTRUCTIONS AND WARNINGS FOR THE USER

• It is the installer's responsibility to carry out a risk analysis and to inform the user/owner of any residual risks that may exist. Any residual risks detected must be recorded and reported.
• In moving gates, the following residual risks are usually present: impact and crushing against the main closing surface (of the single leaf or between the two leaves); impact and crushing in the opening area; crushing between moving and fixed guiding and supporting parts during movement.
• The manufacturer accepts no liability for damage or injury caused by failure to observe the operating information in this manual and failure to observe the safety instructions below.
• The manufacturer accepts no liability for damage and malfunctions caused by failure to observe the operating instructions.
• Keep this manual in a safe and easily accessible place for quick reference when needed.
• Before activating the gate, ensure that all persons are at a safe distance.
• Never touch the gate or moving parts when they are in motion.
• Remain at a safe distance when the gate is moving: only drive through when the gate is fully open and stationary.
• Do not allow children to play with the gate controls; do not leave radio controls or other control devices within reach of children.
• Prevent children from playing and standing near the gate or control devices (radio controls) the same precautions should be taken for the disabled and animals.
• In the event of malfunctions (noise, jerky movements, etc.) immediately suspend use of the automation: failure to comply with this rule may result in serious danger, risk of accident and/or serious damage to the gate and the automation. Contact a PROFESSIONAL INSTALLER and in the meantime use the gate manually by disengaging the operator (see chap. UNLOCK OPERATOR/ACTUATOR) of this manual.
• To keep the automation in efficient condition, ensure that the operations indicated in the MAINTENANCE chapter are carried out at the intervals indicated by a PROFESSIONAL INSTALLER.
• Examine the installation frequently for signs of mechanical imbalance, wear and tear and damage to cables and assembled parts: do not use the operator until the necessary repairs or adjustments have been made.
• In the event of liquids penetrating inside the control unit, disconnect the power supply and immediately contact the Manufacturer's Service Department.
• If a problem occurs that cannot be solved using the information in this manual, contact the manufacturer's service department.

9.1 - Indications for use

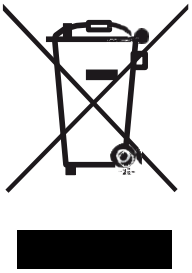
After having read and understood all the instructions given in the chapter entitled INSTRUCTIONS AND SAFETY WARNINGS FOR THE USER, the gate can be activated automatically, remotely with the radio remote control, with a key-operated control positioned close to the gate or any push-buttons from inside the house. Follow all safety instructions scrupulously during movement.

9.2 - Maintenance Requirements and Warnings

• Once the automation has been tested, the set parameters must not be changed.
If further adjustments are made (e.g. alterations to the voltage value), ALL REQUIRED CHECKS MUST BE REPEATED FOR TESTING AND COMPLIANCE WITH THE STANDARDS.
• The manufacturer accepts no liability for damage or injury caused by failure to observe the information provided in this manual and the safety instructions below.
• The manufacturer accepts no liability for damage and malfunctions resulting from failure to comply with maintenance instructions.
• To keep the operator efficient and safe, follow the cleaning, inspection and routine maintenance procedures described in this manual. This is the duty of the owner.

• Any checks, maintenance or repairs must be carried out by a PROFESSIONAL INSTALLER.
• Always switch off the power supply in the event of malfunctions, faults and before any other maintenance or cleaning work in order to prevent the gate from being operated.
• Always disconnect the operator's power supply before performing any operation.
• The owner is NOT authorised to remove the cover of the control unit as it contains live parts.
• If the power cable is damaged, it must be replaced by the Technical Service Department or a similarly qualified person in order to avoid risks.
• Do not make technical or programming changes to the control unit.
Such operations may cause malfunctions and/or risk of accidents. The manufacturer accepts no liability for damage caused by modified products.
• In the event of a circuit breaker or fuse tripping, the fault must be detected and rectified before operating conditions are restored.
Request the services of a PROFESSIONAL INSTALLER.
• The disconnection and replacement of the buffer battery pair (optional if provided) may only be carried out by a PROFESSIONAL INSTALLER.
• If a fault occurs that cannot be solved by following the information in this manual, contact the manufacturer's service department.
• Any maintenance, repair or replacement of parts must be recorded in the maintenance logbook, PROVIDED AND FILLED INITIALLY BY THE INSTALLER.
Every 6 months a PROFESSIONAL INSTALLER must repeat the series of tests described for testing the automation (see INSTALLATION MANUAL - TESTING AND TESTING).

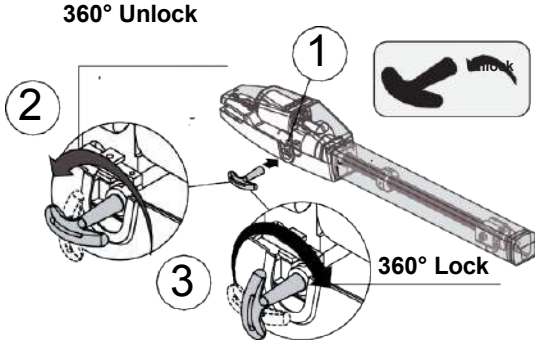
12.3 - Demolition and disposal



• The electromechanical operator is constructed using various materials, which implies the adoption of different disposal procedures. Please refer to the regulations in force in the country in which the automation is installed, especially regarding buffer batteries (if any).
• Batteries must be removed from the control unit before disposal. Disconnect the control unit from the mains before removing the batteries.
• Contact qualified companies for disposal.
CAUTION: Operator disconnection from the mains supply must be carried out by a qualified electrician using suitable tools.
The symbol to the right indicates that the product may not be disposed of with household waste, in accordance with the WEEE Directive (2012/19/EU), and/or applicable national laws. The product must be handed over to a designated collection point, e.g. the seller in case of purchase of a new similar product or an authorised collection point for recycling of waste electrical and electronic equipment (WEEE). Improper handling of this type of waste may have negative consequences for the environment and human health due to the potentially harmful substances usually contained in such waste.
The user's cooperation in the proper disposal of this product will contribute to the efficient use of natural resources and avoid incurring administrative sanctions under Art. 255 et seq. of Legislative Decree no. 152106.
For more information on recycling this product, contact your local authority, waste collection agency, authorised dealer or household waste collection service.

12.4 - Emergency manual release

Unblocking is implemented by means of a key which must be kept in a safe place.
a) Lock protection flap (1).
b) Insert the triangle key (2) into the lock and turn it 360° anticlockwise; the transmission is now unlocked.
c) Repeat the operation in reverse to re-lock the motor (3).



11 - TROUBLESHOOTING GUIDE

DIAGNOSTICS	REPAIRS
The control unit does not light up.	- Check that the main switch is on. - Check the fuses on the electronic board.
The engines do not meet the remote control commands	- Check that the remote control has been registered. - Check the remote control battery. - Check the wiring and position of the antenna. - Check whether there is any interference with the radio signal due to electricity pylons, reinforced metal walls, etc. If so, provide an external antenna. If so, provide an external antenna.
Safety photocells interfere with the opening and not with the closure.	Repeat the programming. Make sure that the first operation is a closing operation.
Malfunction indication: 5 LEDs on.	Make sure there are no obstacles blocking the movement of the door.
Malfunction indication : LEDs 1 and 2 on; LEDs 1 and 3 on.	Make sure the limit switches are in the correct position.
The leaf slows down but cannot not close.	Check the sensitivity and force parameters.
The gate does not close.	Check the photocells. Check the LED indicators (page 15)

WARNING!

Checks and repairs may only be carried out by qualified and experienced personnel.

EU DECLARATION OF CONFORMITY

Number: 08A/8-23

LIFE home integration
31014 COLLE UMBERTO (TV) Italy
Via Sandro Pertini 3/5

Declares that the following product:

OPTIMO OP2 24 UNI + GE UNI 24R DL2.2

Electronic control unit for swing gates.

It complies with the essential requirements of the following directives:

- 2014/53/EU - Radio Equipment Directive (RED).
- 2011/65/EU - Directive on the restriction of the use of certain dangerous substances (ROHS)

It meets the essential requirements of the following EU regulations:

- EN IEC 61000-6-1:2019
- EN IEC 61000-6-3:2021
- EN IEC 61000-3-2:2019 + A1:2021
- EN 61000-3-3:2013 + A1:2019 + A2:2021 + A2/AC:2022
- ETSI EN 301 489-1 (V2.2.3 - 2019)
- ETSI EN 301 489-3 (V2.1.1 - 2019)
- EN 60335-2-103:2015
- EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 + A2:2019 + A14:2019 +A15:2021
- EN 62233: 2008

The responsibility for the technical acts lies with the signatory.

COLLE UMBERTO

24/02/2023

Signer's name: Michele

Position CEO

Signature: .....

HOMEINTEGRATION

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