

OPTIMO

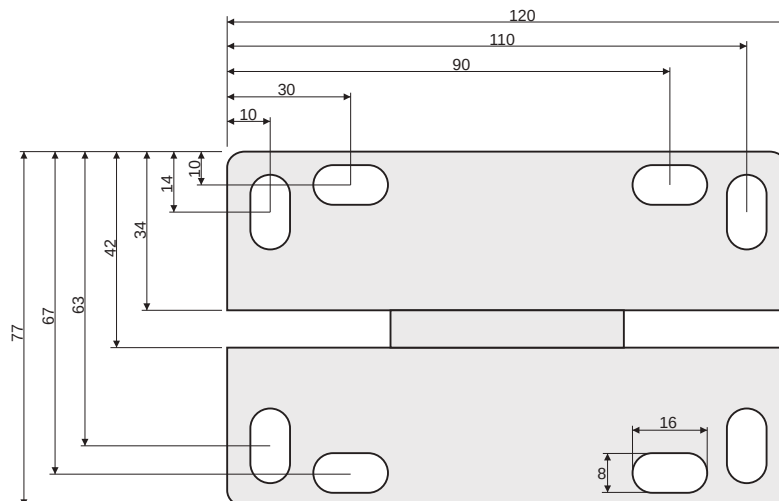
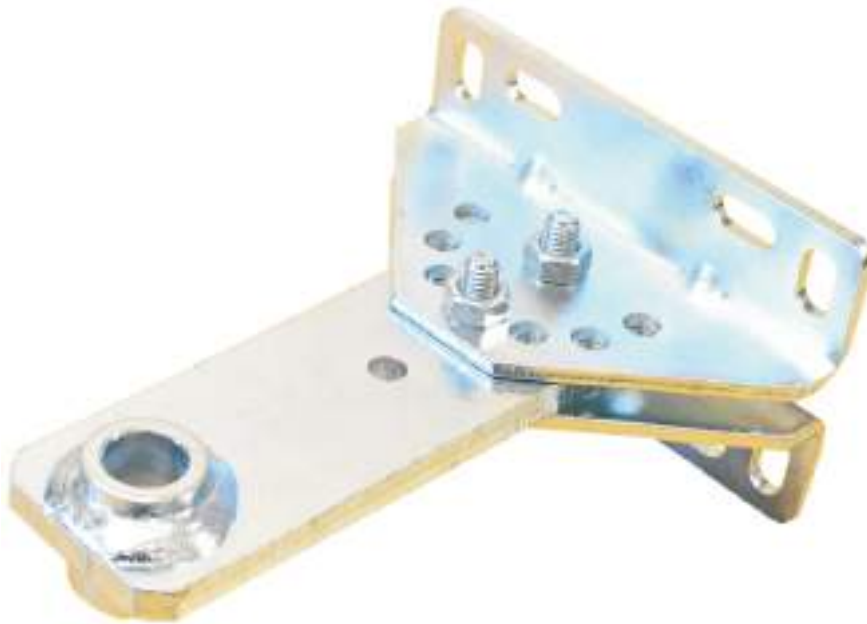
OP3-OP5

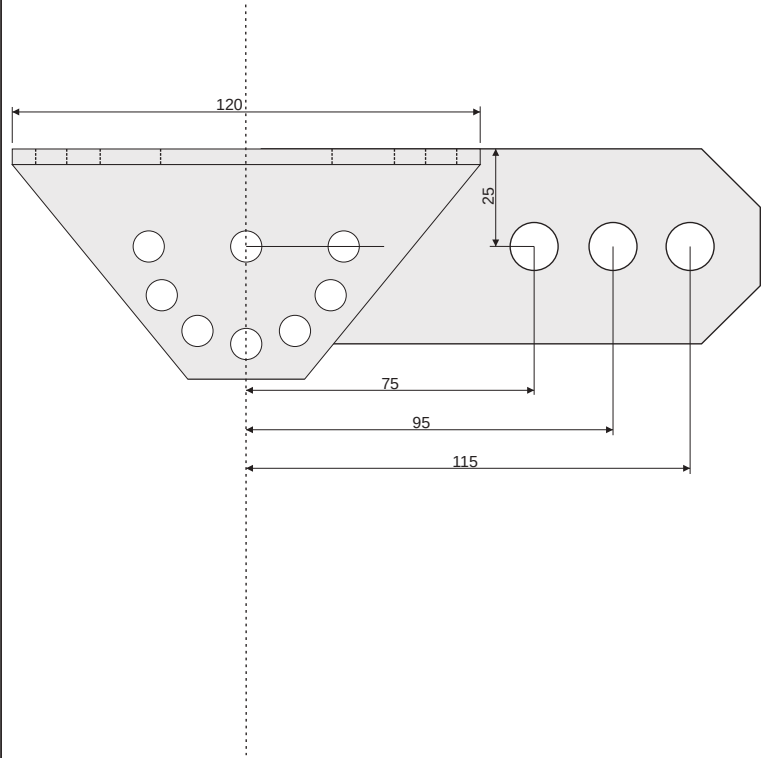
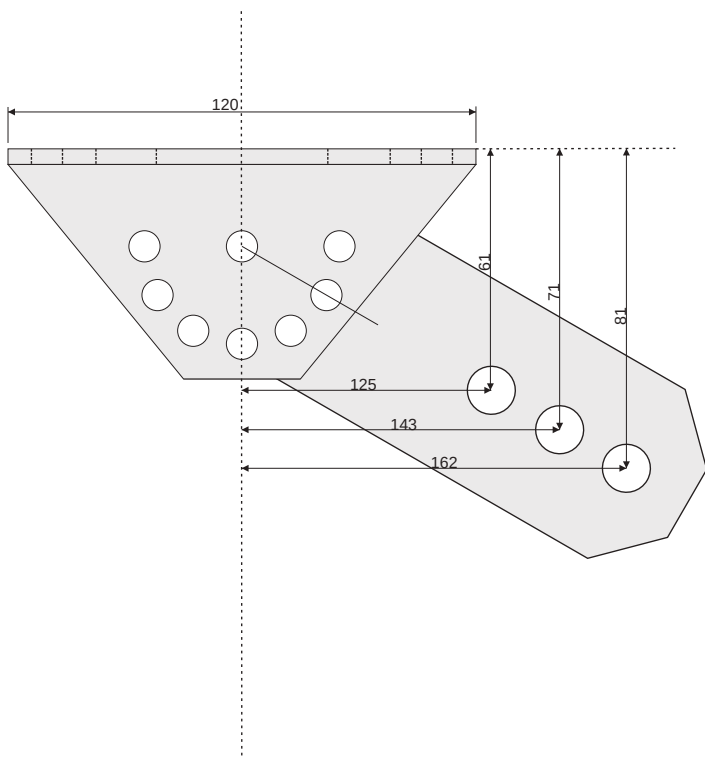
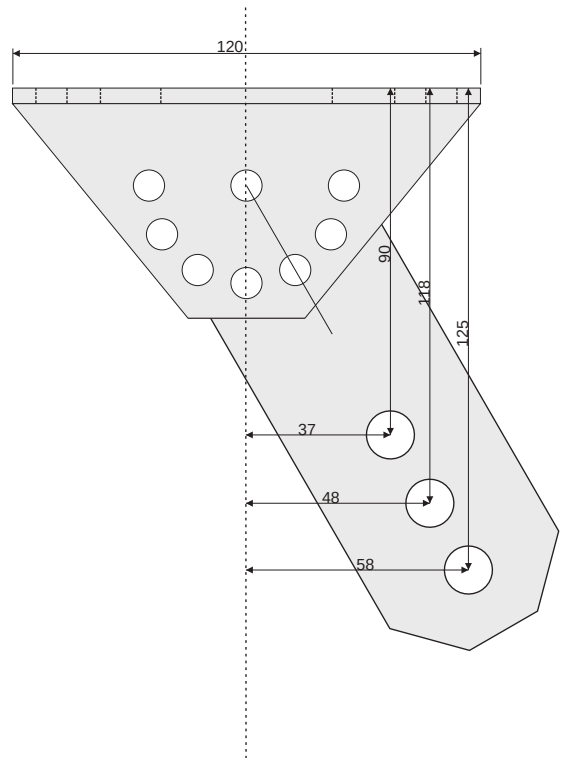
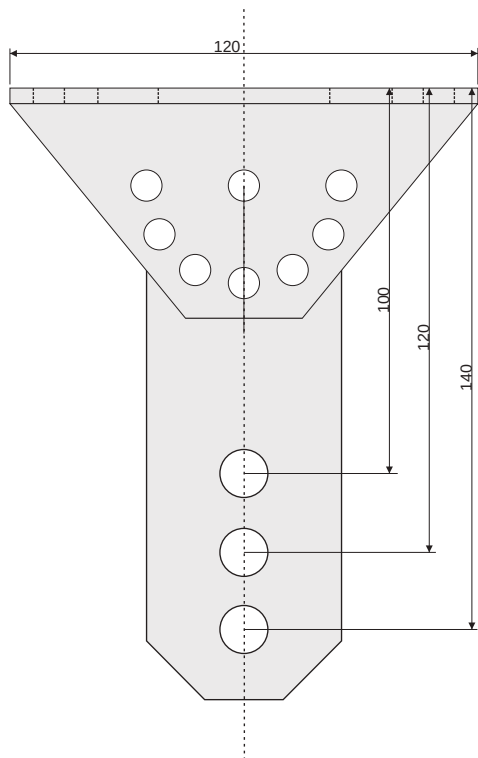
V.1

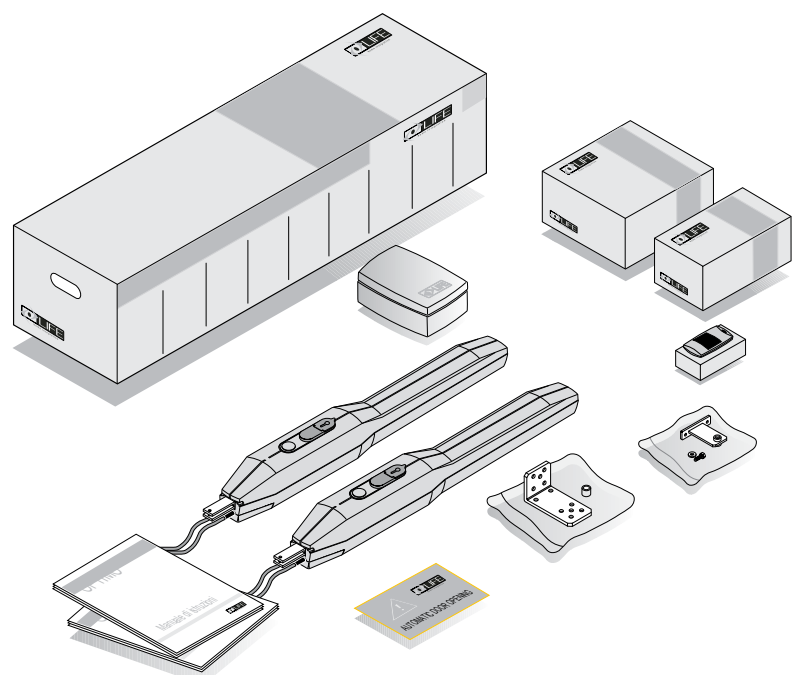
LINEAR ELECTROMECHANICAL OPERATOR FOR SWING GATES
INSTRUCTIONS AND WARNINGS FOR INSTALLATION, USE AND MAINTENANCE



AOP5







1 TECHNICAL FEATURES

LIFE home integration reserves the right to make changes to technical characteristics at any time and without prior notice, without changing the product's intended use and function.

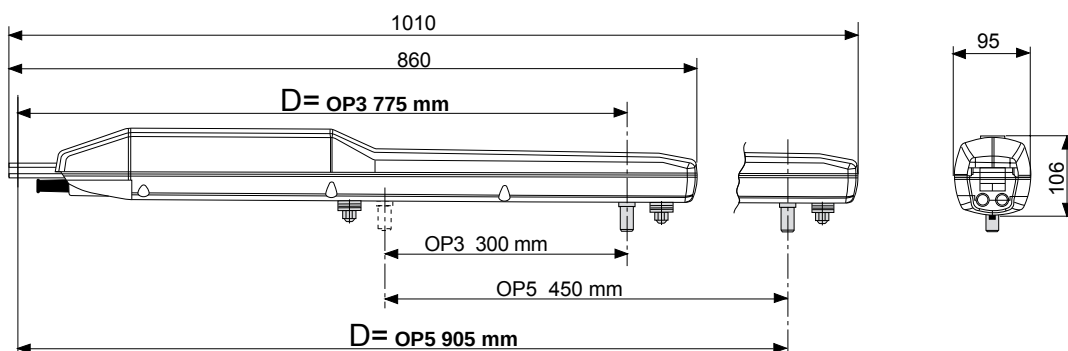
OPTIMO: Irreversible electromechanical operator with 230V or 24V power supply for swing gates with or without optical encoder, with or without limit switches and with stop plates.

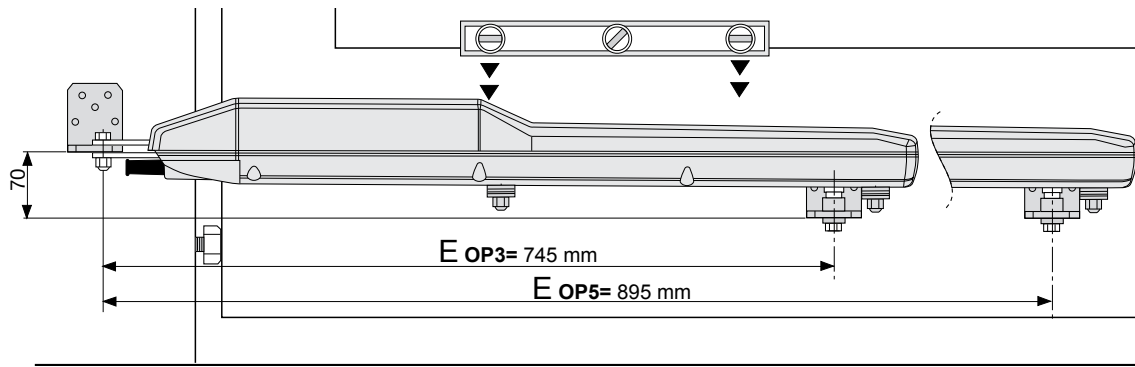
NAME		OP3	OP3 UNI	OP3L	OP3L UNI	OP5	OP5 UNI	OP5L	OP5L UNI	OP324	OP324 UNI	OP524	OP5 UNI
Motor power supply	V	230 V ac 50 Hz								24V dc			
Power	W	210								80			
Input	A	1,3								3,5			
Capacitor	µF	8								NO			
Thrust	N	2000								1800			
Lubrication	Type	grease											
Net rod travel	mm	300				450				300		450	
Thermal protection device	°C	140								NO			
Stop plate		-	YES	-	YES	-	YES	-	YES	-	YES	-	YES
Electromechanical limit switches		YES	-	YES	-	YES	-	YES	-	YES	-	YES	-
Optic encoder		YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Connected cable	CENELEC	H07RN-F											
Operating temperature	°C	from -20 to +70											
Protection class	IP	54											
Speed	m/min.	0,96		0,6		0,96		0,6		0,96		0,96	
Time to open 90°	S	19		30		28		45		19		28	
Work cycle	%	35		30		35		30		80		80	
Nominal work time	min.	10		7,5		10		7,5		20		20	
Motor insulation class		F								D			
Battery recharge time*	h	-								48			
Opening cycles with charged battery	N°	-								15		10	
Operator weight	kg	8,5				9,5				8,5		9,5	
Total dimensions		95x106L=860				95x106L=1010				5x106L=860		95x106L=1010	
Use in acid, saline or potentially explosive environment						NO							

2.0 INSTALLATION

2.1 Limits of use

The type of gate, height and shape of the leaf and climatic conditions impose certain limits of use and must be carefully taken into consideration during installation. The following table is to be considered a rough guide.





OP3 - OP3L - OP3 UNI - OP3L UNI - OP324 - OP324 UNI		OP5 - OP5L - OP5UNI - OP5L UNI - OP524 - OP524	
Max leaf length (m)	Max leaf weight (kg)	Max leaf length (m)	Max leaf weight (kg)
2,00	800	3,00	500
2,50	600	4,00	400
3,00	400	5,00	300

2.2 Typical installation

A) TWO-LEAF SYSTEM

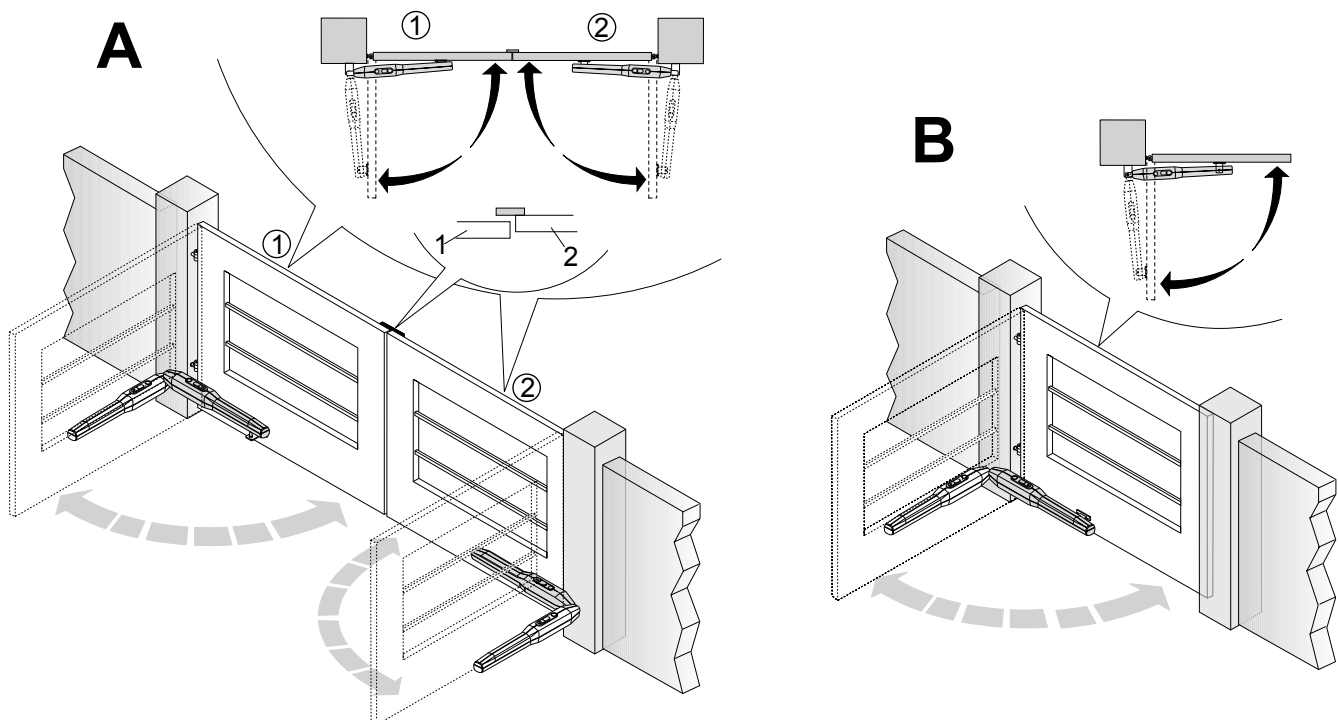
The definition of leaf 1 and leaf 2 of the gate is essential for automation operation.

Leaf 1: is the first to open (1) when the gate is closed and the second to move when the gate is open; it finishes its closure travel after leaf 2.

Leaf 2: is the second to open (2) when the gate is closed and the first to move when the leaves are open; it finishes its closure travel before leaf 1.

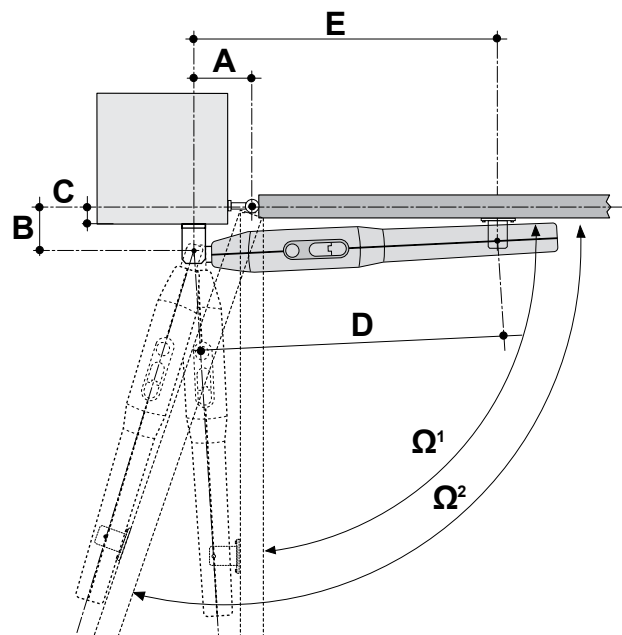
B) ONE-LEAF SYSTEM

Leaf 1: the gate's only leaf.



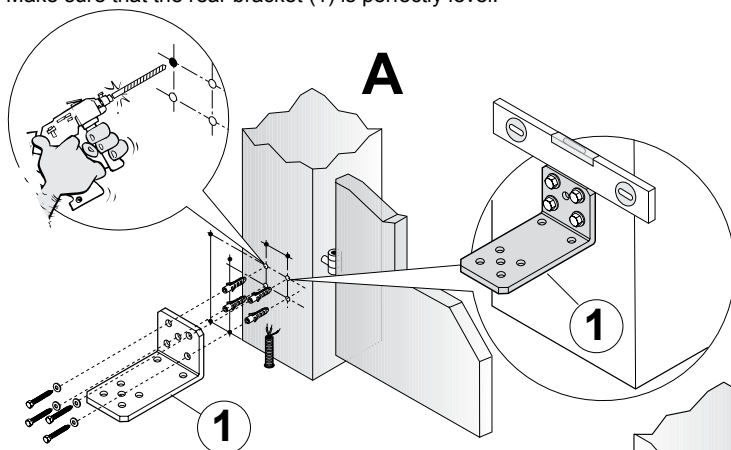
Check that the distance “C” on the gate support structure is no greater than the value given in the table below. If the distance is higher than this value, it is necessary to intervene by making a niche in the structure to obtain the indicated value. This is to avoid the linear operator colliding with the edge of the structure during closure. The niche must be made in the area in which the linear operator is to be installed and it must have a height such as to allow operator passage.

Ω	OP3 - OP3L - OP3 UNI – OP3L UNI – OP324 OP324 UNI				OP5 – OP5L – OP5UNI – OP5L UNI – OP524 OP524 UN			
	A -mm	B -mm	C MAXmm	D*mm	A -mm	B -mm	C MAXmm	D*mm
$\Omega 1=90^\circ$	140	140	90 max	755	210	210	140 max	905
$\Omega 2=120^\circ$	140	100	50 max	755	210	120	70 max	905

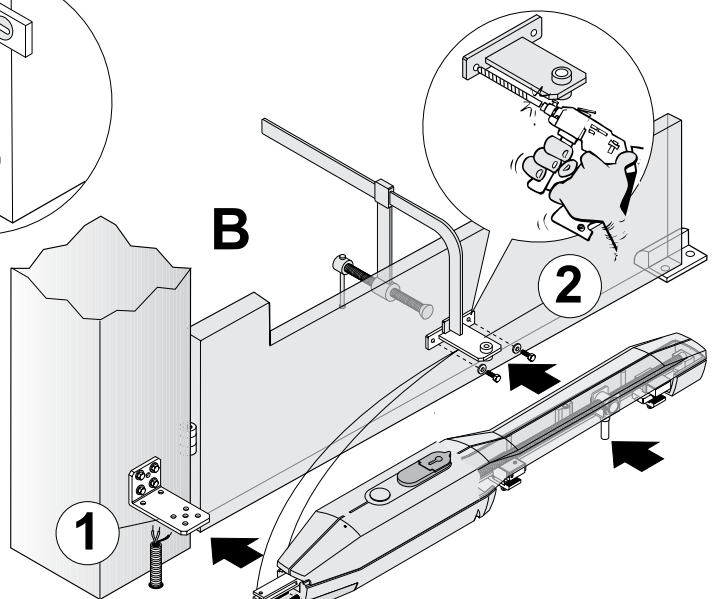


2.3 Rear and front bracket positioning

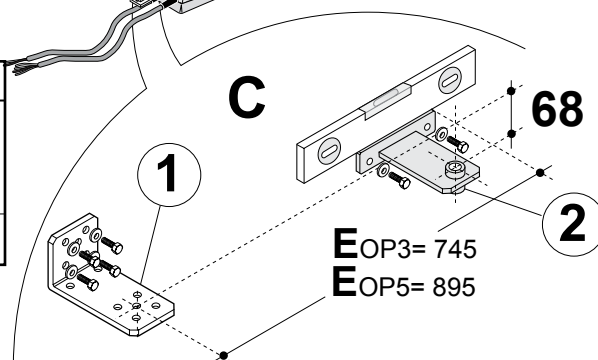
- A**
- Define the clamping position of the rear bracket (1) of the operator, observing the distances A, B and C.
 - Check that the outlet of the pipe housing the electric cables is below the bracket (1).
 - Check that there is enough space on the leaf, at the point in which the operator's front bracket is to be clamped, and that the surface is suitable for clamping (with screws or by means of welding).
 - Fix (with screws or by means of welding) the rear bracket (1) to the pillar in the established position.
 - Make sure that the rear bracket (1) is perfectly level.



- B**
- Take the leaf to the closure position, resting it against the closure stop plates.
- C**
- Position the front bracket (2) at distance E from the rear bracket (1) and 68 mm lower.



	OPTIMO 3	OPTIMO 5
	OP3 - OP3L - OP3 UNI – OP3L UNI OP324-OP324UNI	OP5 – OP5L – OP5UNI – OP5L UNI OP5-OP5L-OP524 UNI
E	745 mm	895 mm

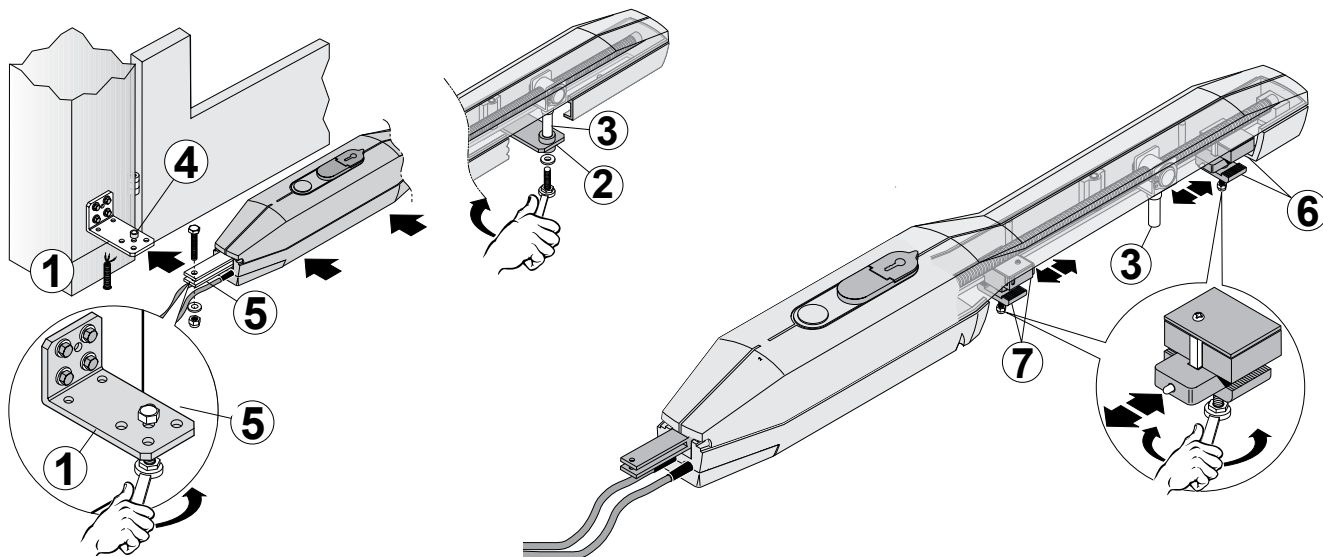


The value of **E** must be just lower (**10 mm**) than **D** (maximum space between centres) to allow optimal stop plate adjustment.

- Temporarily block the front bracket (2) with a clamp.
- Check that the bracket is level using a spirit level.

2.4 Positioning the operator and stop plate adjustment

1. Release the operator as indicated in the RELEASING THE OPERATOR chapter.
2. Lift the operator and insert the nut screw bushing support pin (3) into the hole on the front bracket (2).
3. Insert the bushing (4) into the chosen hole on the rear bracket (1) and thread the operator fork (5) on to the bracket, aligning the hole with the bushing. Fix the whole set with a screw, washer and self-locking nut and tighten.
4. Fix the operator to the front bracket (2) using a screw and washer, and tighten.
5. Manually open and close the gate several times and check that the movement of the leaf is regular and that the operator moves on a plane parallel to the gate's plane of movement.
6. Check that the nut screw bushing support (3) slides perfectly on the operator nut screw and that, with the leaf closed and open, there are at least 5 mm between the nut screw bushing support (3) and the closure (6) and opening (7) stop plates.
7. If necessary, use a different hole on the rear bracket and repeat the operations indicated in points 3 and 4. .
8. Define with precision the opening and closure positions of the stop plates on the operator's internal slider, as follows:
 - take the gate to a closed position, abutting against the stop plate.
 - loosen the support of the closure stop plate (6) using a suitable wrench and position so that it touches the nut screw bushing support (3); then lock again by tightening.
 - Take the gate leaf to the desired opening position;
 - loosen the support of the opening stop plate (7) using a suitable wrench and position so that it touches the nut screw bushing support (3); then lock again by tightening.
9. Definitively fix the front bracket (2) of the operator, to the leaf of the gate, choosing the clamping means to suit the material of the leaf (with screws or by welding).
10. Release the operator as indicated in the RELEASING THE OPERATOR chapter.



2.5 Releasing the operator

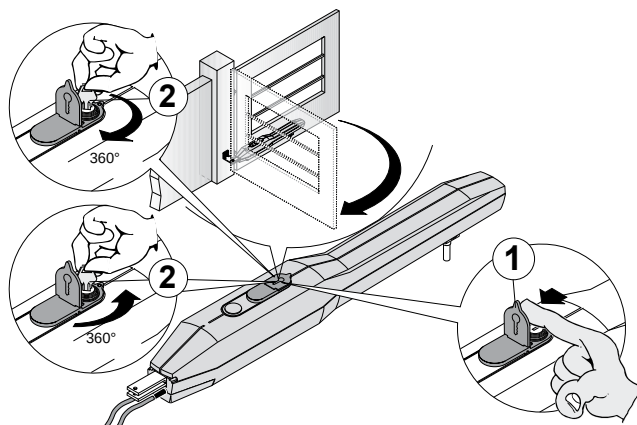
ATTENTION:

- The fitter must permanently fix the label describing the manual release operation close to the manual release key.
- The activation of the manual release could cause an uncontrolled movement of the gate in the event of mechanical damage or mechanical unbalance conditions.
- Before performing the manoeuvre, switch off the electricity supply to the automation.
- To avoid breaking the key, do not apply excessive force.

This command makes it possible to release the operator transmission and to perform leaf movement manually. It can be used in the case of a blackout system malfunction.

The release is activated using a key, which must be kept in a safe place.

- a) Lift the lock protection cover (1).
- b) Insert the key (2) into the lock and turn clockwise through 360°.
- c) The leaf is now free and can be moved manually.
- d) To relock the leaf, insert the key (2) and turn anticlockwise through 360°.



3.0 WIRING AND CONNECTIONS

- Before commencing wiring and connection work, read the SAFETY INSTRUCTIONS AND WARNINGS chapter carefully.
- The operator must be connected to Life control units only.

OPERATORS		LIFE PLUG-IN RADIO RECEIVER	INTEGRATED 433.92 MHz RADIO RECEIVER
230 V 50 Hz	OP3 - OP3L - OP5 - OP5L	GE1A -GE2A	GE1R -GE2R
	OP3 UNI - OP3L UNI - OP5 UNI - OP5L UNI		GE UNI R
24 V	OP324 - OP524 GE1A 24	GE1A 24-GE2A 24	
	OP324 UNI - OP524 UNI		GE UNI 24R

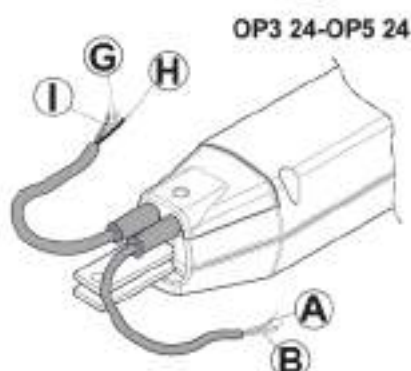
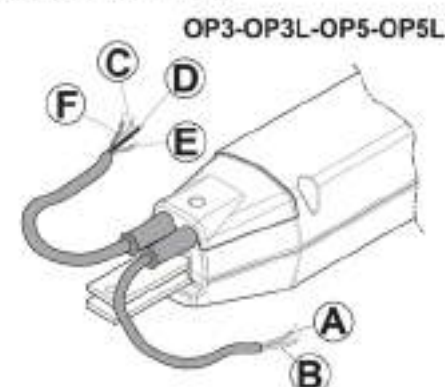
- All wiring and connection operations must be carried out with the control unit disconnected from the electricity supply. If the disconnection device is not in view, display a sign reading: "ATTENTION: MAINTENANCE WORK IN PROGRESS".
- The internal wiring of the linear electromechanical operator performed by the Manufacturer, may not be modified under any circumstances.

3.1 Electrical connections of the operator

One or two cables lead out of the operator depending on whether or not one has the UNI version.
 The UNI single-cabled version, only has a power supply cable, which can be 230 V (cable with 4 wires) or 24 V (cable with two wires).
 The 230 V and 24 V two-cabled versions have an extra cable for the encoder and limit switch signal (2-wired cable).
 The 230V models come with a capacitor, which is housed in the control unit. The capacitor is connected in parallel to the "open motor" and "close motor" cables.

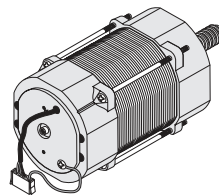
OPERATORS		MOTOR POWER SUPPLY Min. 1.5mm ² cable		LIMIT SWITCH and ENCODER SIGNAL Min. 1mm ² cable	
230 V 50 Hz	OP3 - OP3L - OP5 - OP5L	BLUE/ GREY	COMMON	BROWN	+
		BLACK	OPEN MOTOR	BLUE	-
	OP3 UNI - OP3L UNI - OP5 UNI - OP5L UNI	BROWN	CLOSE MOTOR		
		YELLOW - GREEN	EARTH		
24 V	OP324 - OP524	BLUE	+	BROWN	+
		BROWN	-	BLUE	-
	OP324 UNI - OP524 UNI	YELLOW - GREEN	EARTH		

N.B. each cable is 1m long.



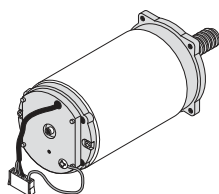
- DESCRIZIONE COMPONENTI OP/OP5
- DESCRIPTION OF OP3/OP5 COMPONENTS
- DESCRIPTIONS PARTICULIERES
OP3 / OP5
- DESCRIPCIONES DE LOS DETALLES
DEL OP3 / OP5
- DESCRIÇÕES PARTICULARES OP3 / OP5
- BESONDERE BESCHREIBUNGEN
OP3 / OP5
- OPIS SZCZEGÓŁOWY OP3 / OP5
- ОПИСАНИЕ ОСОБЕННОСТЕЙ OP3 / OP5
- OP3/OP5 RÉSZLETEZETT ROBBANTOTT
LEÍRÁSA

1-2



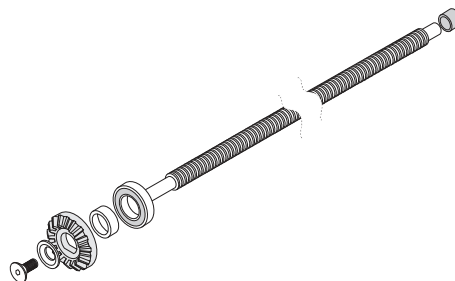
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- 2) 5RI0880000 OP3L-OP3LUNI-OP5L-OP5LUNI

3



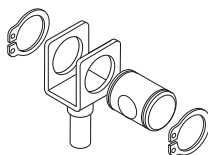
- 3) 5RI0890000 OP324-OP324UNI-OP524-OP524UNI

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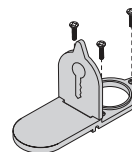
- 4) 5RI0900000 OP3-OP3UNI-OP3L-OP3LUNI-OP324-OP324UNI
- 5) 5RI0910000 OP5-OP5UNI-OP5L-OP5LUNI-OP524-OP524UNI

6



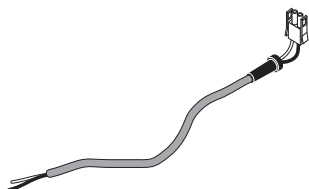
- 6) 5RI0920000 OPTIMO

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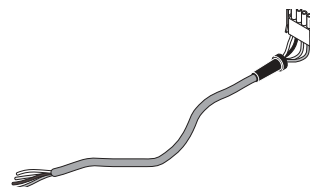
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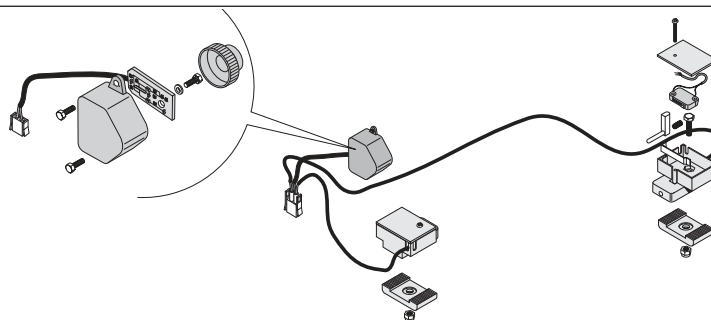
- 8) 5RI0940000 OP3-OP3L-OP5-OP5L-OP324-OP524

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- 9) 5RI0950000 OP3-OP3L-OP3UNI-OP3LUNI-OP5-OP5L-OP5UNI-OP5LUNI
- 10) 5RI0960000 OP324-OP324UNI-OP524-OP524UNI

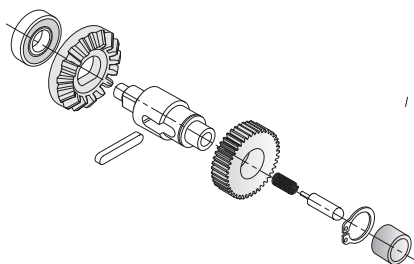
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- 11) 5RI0970000 OP3-OP3L-OP324
- 12) 5RI0980000 OP5-OP5L-OP524

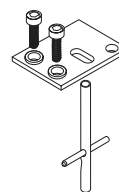


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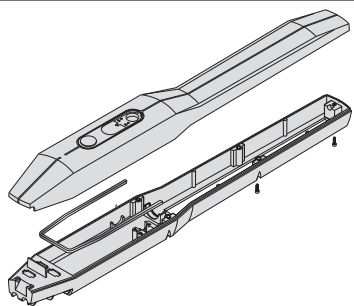
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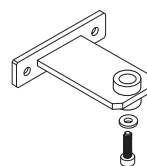
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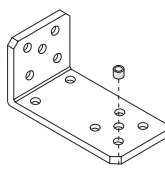
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17



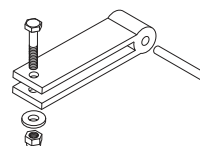
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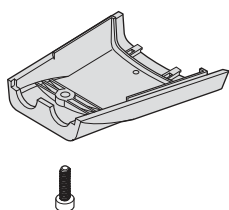
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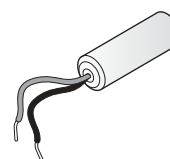
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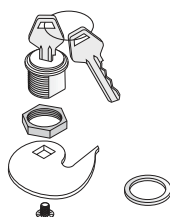
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21



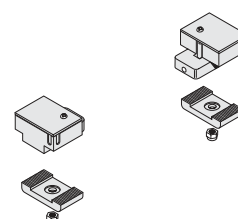
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22



22) 5RI1100000 OPTIMO

23



23) 5RI2750000 OP3UNI-OP3LUNI-OP324UNI-OP5UNI-OP5LUNI-OP524UNI

GE UNIRS DL V.1

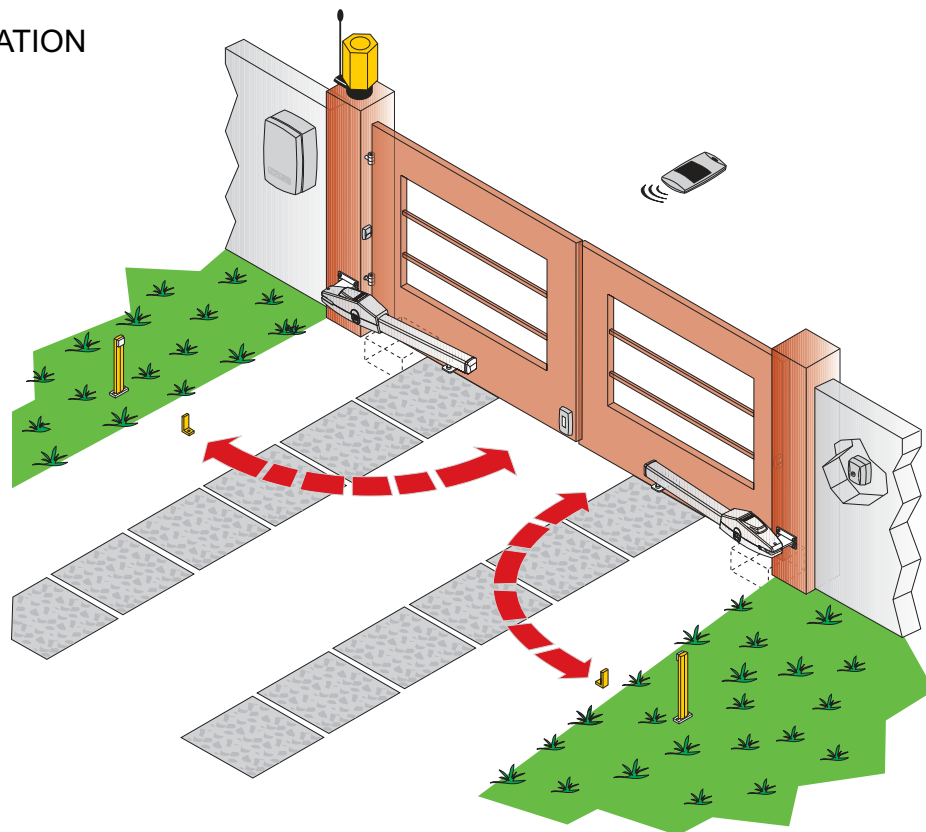
GB CONTROL UNIT FOR TWO-LEAF GATES



GB INSTRUCTIONS AND WARNINGS FOR INSTALLATION, USE AND MAINTENANCE



GB STANDARD INSTALLATION



GB Tab. 1: Components and devices of a typical GE UNI R DL automation.

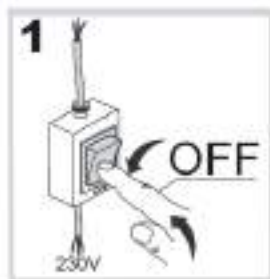
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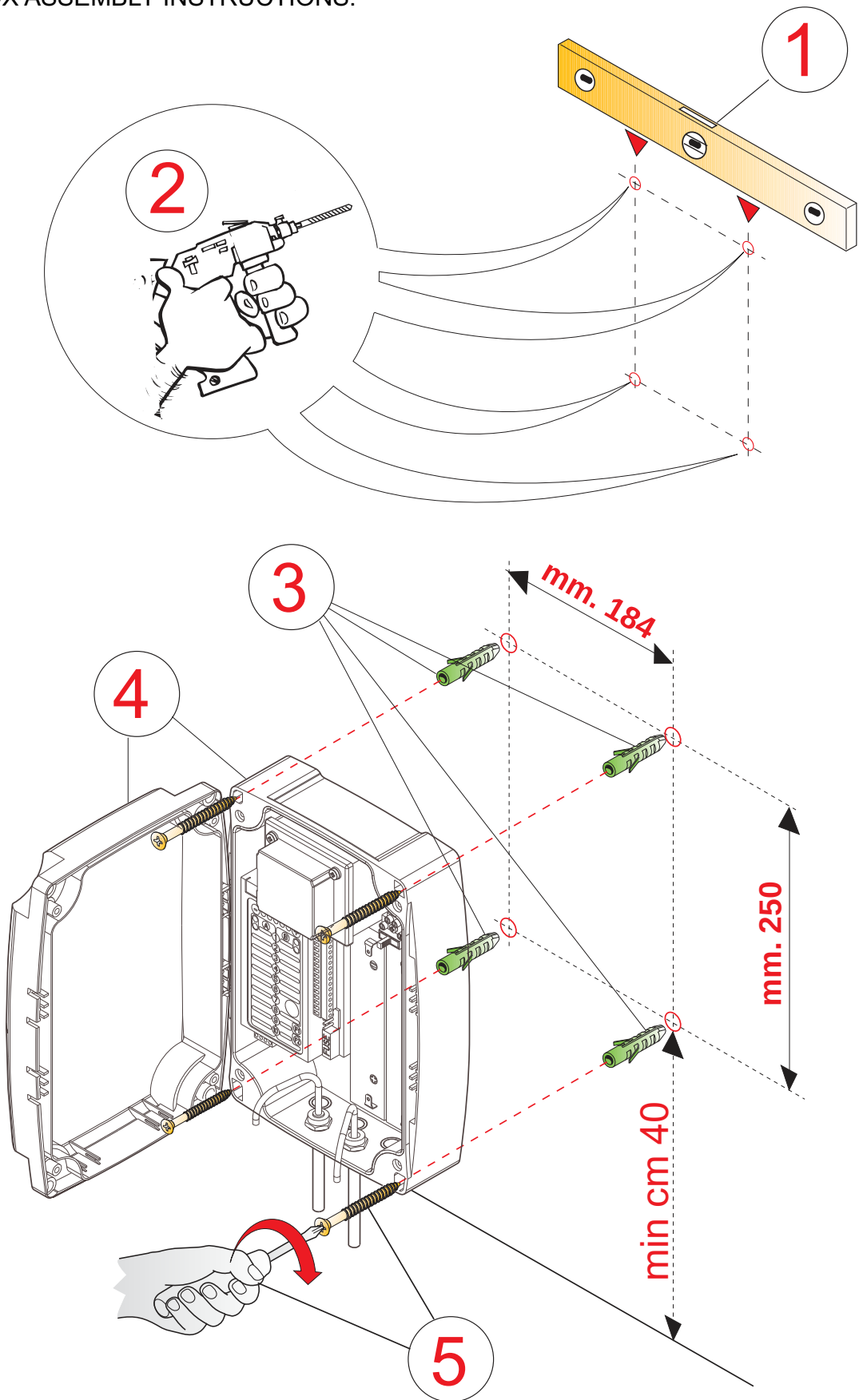
Energy Saving

In order to save energy, we have introduced the function

Energy Saving. 10 minutes after the end of programming of the control board, the LED of the keyboard go out and it is no more possible to use the control board. To get the control board working again, switch it off and on.



GB GEBOX ASSEMBLY INSTRUCTIONS.



List of electric cables

The cables needed may vary depending on the installation and type and quantity of devices installed.

The cables used in the installation must be IEC 60335 compliant.

Pos.	Connection	Type of cable
1	Electricity supply line	3x1,5 mm ² cable
2	Power supply	Supplied with motor
3	Flashing light	2x1 mm ² cable
4	Radio aerial	Screened RG58 50 Ω cable
5	Tx Photo	2x1 mm ² cable
6	Rx Photo	4x1 mm ² cable
7	Selector	3x1 mm ² cable
8	Internal button panel.	3x1 mm ² cable
9	Sensitive strip (signal)	2x1 mm ² cable

FUSES

Two internal Fuses

a)F1 protects the secondary 24v supply against transformer overload
Technical: Mini fuses 5x20 T1.6A certificated by IEC 60127 or EN 60127

b)F2 protects the primary 24v supply against motor overload
Technical: Mini fuses 5x20 T3.15A certificated by IEC 60127 or EN 60127

**ATTENTION: the cables used must be suited to the type of installation.
It is the Fitter's responsibility to choose appropriate material.**

- Use the power supply cable provided with the operator only.
- The power cable provided may not be extended or shortened
- All wires must be unsheathed as little as possible (6mm at the most), as close as possible to the connection terminals, in order to prevent accidental contact with live parts should the cables disconnect from the terminals.
- Do not pre-seal cables to be fastened to the terminals using screws.
- If it is possible that wires subject to voltage higher than 50 Volt RMS and very low voltage safety wires may come into contact with one another, wires with voltage higher than 50 volt RMS must be insulated with a sheath; or the very low voltage safety wire must have an insulating sheath at least 1mm thick.
- No external connection cables must be of the flat twin tinsel cord type.

Setting up the electric system and connection to the mains supply

This manual does not describe how the electrics system should be prepared for connection to the mains. It does, however, give the following warnings:

- **The electricity supply line must be installed and connected by an authorised electrician or professional fitter.**
- **The electricity supply must be adequately protected against short circuits and static discharge.**
- **The power supply network must contain an omnipolar circuit breaker with a contact opening distance equal to or greater than 3.5 mm that assures the complete disconnection of the power supply.**

Control unit connections

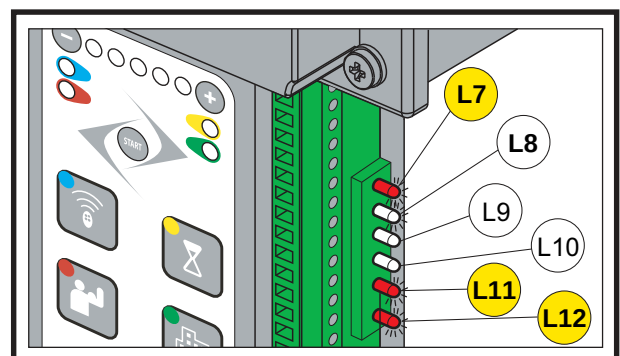
Fitters must make the connections of the 230 Vac 50 Hz electricity supply, and the various automation devices.

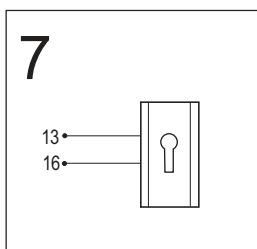
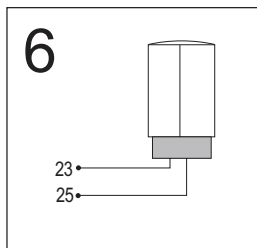
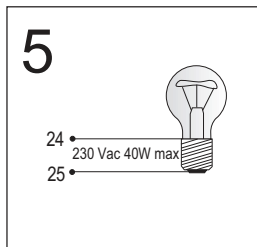
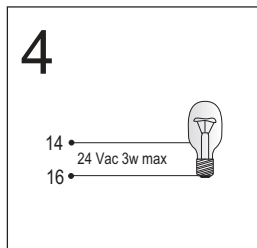
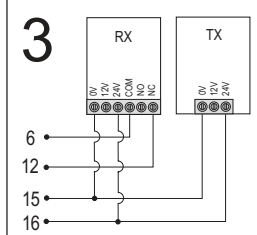
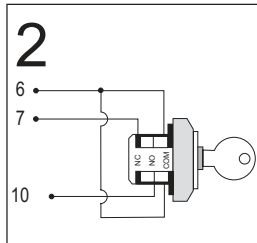
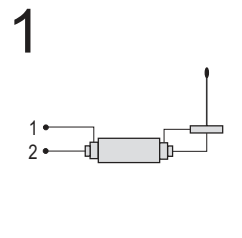
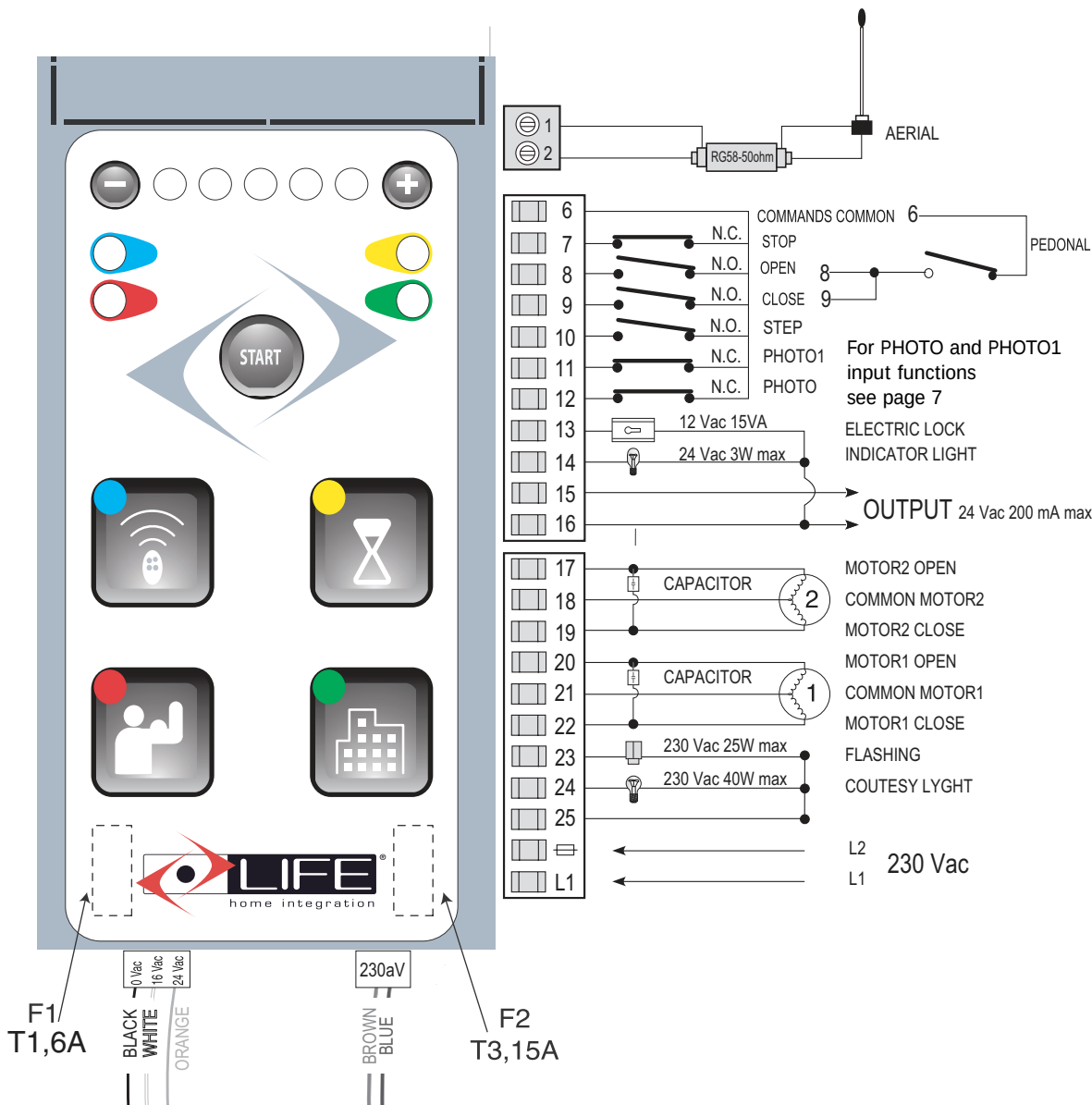
Connections between the control unit, motor, encoder and transformer have already been performed by the Manufacturer.

- Once the connections to the control unit have been made, the Fitter must use bands to join adjacent wires into groups of 2, 3 or 4 in order to prevent them coming away from the terminal board: bands must be attached as close as possible to the terminals, no more than 10mm away, taking care not to damage wire insulation. No cable may remain unpaired.
- The bands are only for unsheathed cables (sheathed cables are held in place by the sheath).
- Pay careful attention not to pair wires with voltages higher than 50 Volt RMD with lower voltage wires.
- The wiring performed internally by the manufacturer is already equipped with clamping bands.

Indicator LEDs

There is a row of 6 LEDs on the right hand side of the board, under the terminals. the NC inputs, stop and photo, the corresponding LEDs L7, L11 and L12 are normally lit; for the NO inputs open, close and step, the corresponding LEDs L8, L9 and L10 are normally off. These LEDs therefore indicate any malfunction of the connected devices.

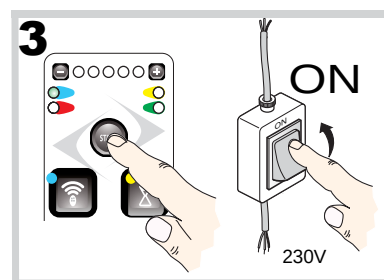
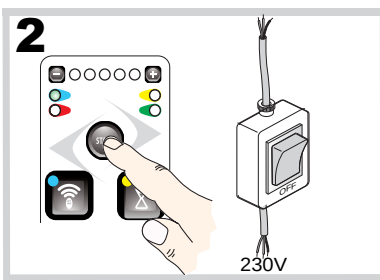
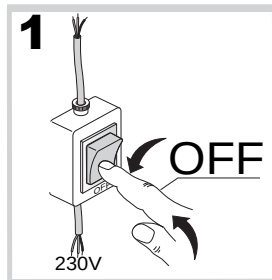




PROGRAMMING THE CONTROL BOARD

- STOP PLATES** - Ensure that the open and close stop plates are set to the correct position
- SINGLE MOTOR** - In the case of a single gate installation connect the motor into terminals 20-21-22 before programming enter the options menu 2 and select single motor activated (led 4 on)
- ISOLATION SWITCH** - A means of isolation must be connected to the incoming supply cable, local to the control board, to aid programming.

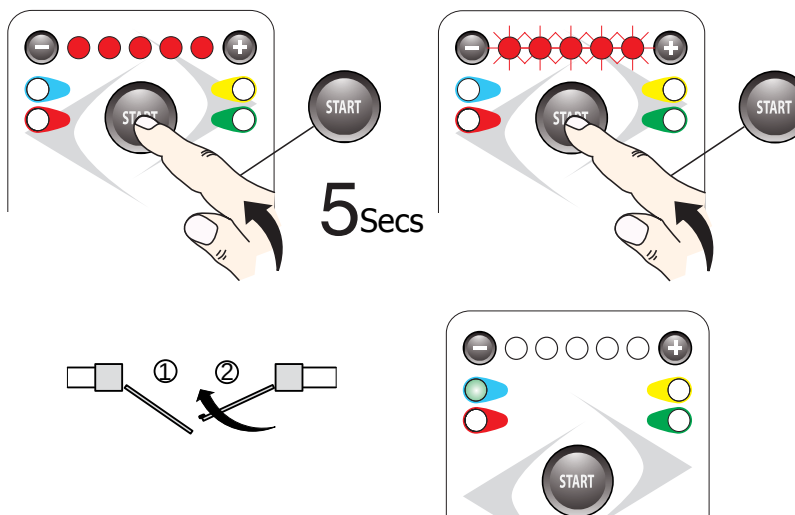
PHASE 1



POWERING UP - With the power off, hold the start button down, reinstate the power supply and release the button. The red led's will flash

NOTE: Carrying out this operation will reset the previously stored parameters

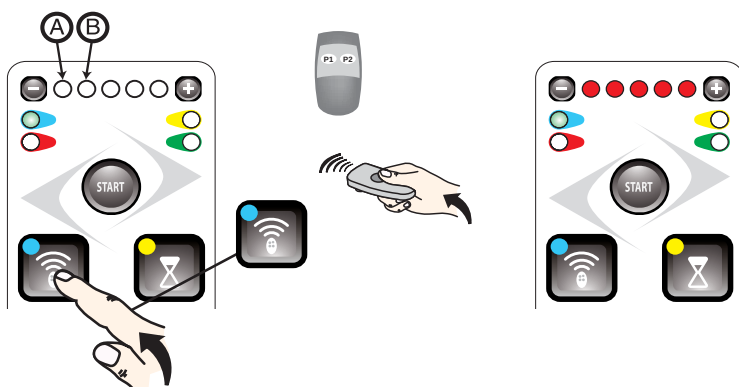
PHASE 2



AUTOMATIC PROGRAMMING

- Position the gate leafs at 45 degrees.
- Press the start button for 5 seconds, the 5 leds at the top of the board will light and start to flash.
- Press the start button and motor 2 should run closed. If it runs open, you must invert the cables of electric motors to invert the movement. The red and green led's will flash.
- Once motor 2 has closed, motor 1 will then close, once closed it will re-open followed by motor 2. Once both motors are open, motor 1 will start to close again followed by motor 2.
- Once both motors have completed this full close cycle the programming is complete and the red led's will light and green led's will flash. The gates will now operate on the start button in semi automatic mode. **OPEN-STOP-CLOSE-STOP**
- This programming will set a default leaf delay time. If you wish to change this please refer to the manual set up instructions (page 10)
- You can now encode the radio transmitters and enter the programming menus to suit the type of operation required.

PHASE 3



PROGRAMMING RADIO TRANSMITTERS

TOTAL OPENING COMMAND

- Press the radio icon button (top left) once. The left green led will light and the first (L to R) of the top 5 led's (A) will light.
- Hold down the button on the transmitter that you want to perform a total opening of the gates. Once the top 5 led's light the transmitter has been coded.
- To exit wait 25 seconds or push the radio icon button twice.

PEDESTRIAN OPENING COMMAND (ACTIVE ON MOTOR 1)

- Press the radio icon button (top left) **TWICE**. The left green led will light and the second (L to R) of the top 5 led's (B) will light.
- Hold down the button on the transmitter that you want to perform a pedestrian opening of the gate. Once the top 5 led's light the transmitter has been coded.

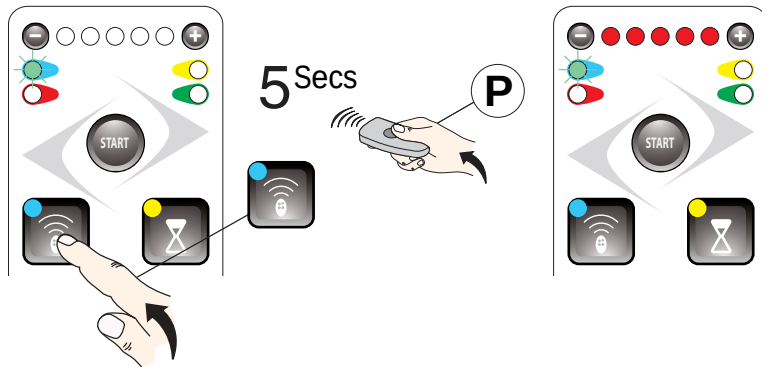
SEMI-AUTOMATIC mode is enabled: by giving the 'STEP' command, the automation changes movement following the sequence 1 – OPEN 2 – STOP 3 – CLOSE 4 – STOP. Automatic re-closure is not enabled.

Once programming is complete the START button acts as a step command



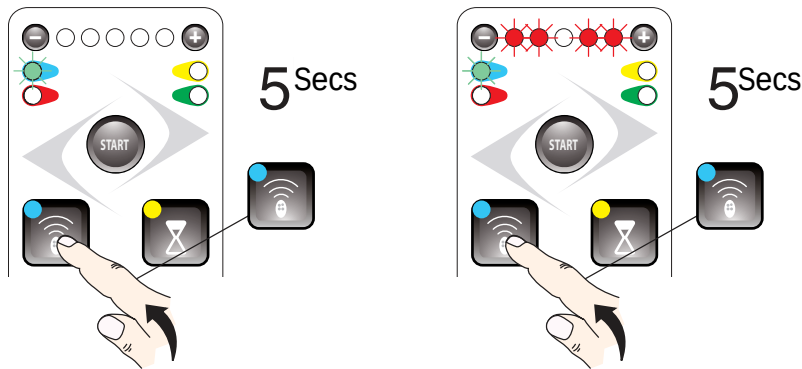
DELETING RADIO CONTROL TRANSMITTERS

The control unit is fitted with a built-in radio receiver with a 1 channel 1000-code memory, with a 433.92 MHz frequency with LIFE Rolling Code and Auto code encoding.



DELETING A SINGLE RADIO TRANSMITTER

- Press the radio icon button (top left) for 5 seconds. The left green led will light and start flashing.
- Hold down the button on the transmitter you wish to delete until all the top 5 led's light. The transmitter has been deleted
- To exit wait 25 seconds or push the radio icon button once.



DELETING ALL RADIO TRANSMITTERS.

- Press the radio icon button (top left) for 5 seconds. The left green led will light and start flashing.
- Press for five more seconds, the first two and the last two led's will flash alternately. All transmitters have been deleted
- To exit wait 25 seconds or push the radio icon button once.

PHOTOCELL FUNCTIONS

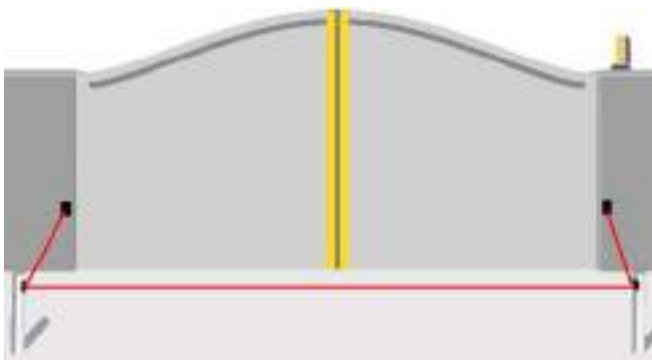


Photo Input

- Opening - No effect, continues to open.
- Closing - Re opens.

Photo1 input

- Opening - Stops and continues opening when photocells are cleared.
- Closing - Stops and then reopens when photocells are cleared.

PROGRAMMING MENUS

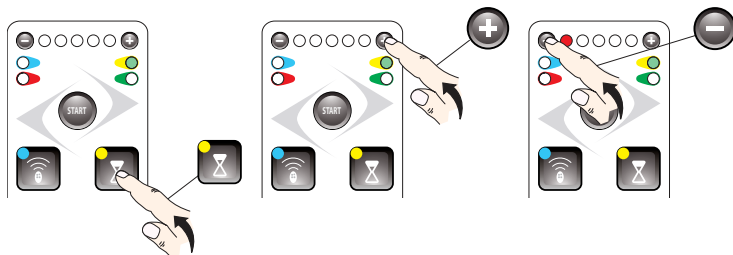
AUTOMATIC CLOSING

In this mode by pressing the start button or radio transmitter the automation changes its motion as follows
OPEN-PAUSE- CLOSE – PAUSE

OPEN-PAUSE- CLOSE – PAUSE

SELECTING A PAUSE TIME

- Press the time button (top right) and the right green led switches on.
- If none of the top 5 led's are lit automatic closure is not enabled.
- Press the + button to increase or the – button to decrease the pause time.
- Wait 25 Seconds or press the time button to quit



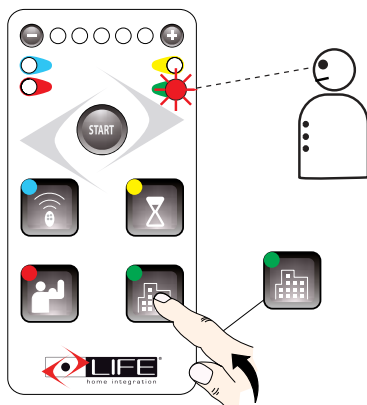
Press and to set the various **PAUSE TIME** values.

Wait 25 seconds or press again to quit.

LEDS ON	PAUSE TIME
	AUTOMATIC RE-CLOSURE IS NOT ENABLED
	5 s
	10 s
	30 s
	60 s
	120 s

OPTION MENU 1

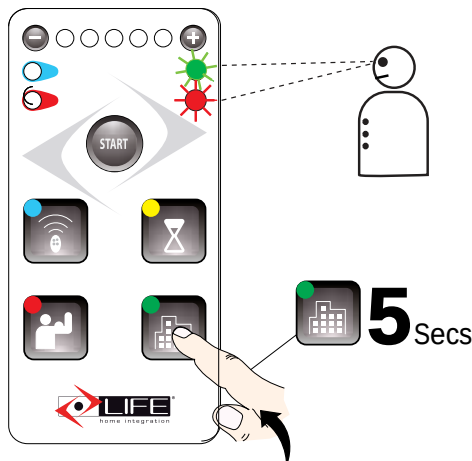
Press the option button (bottom right) once, then press in sequence to scroll through the options as shown by the five led's at the top. The flashing of the led indicates the option selected. The + button is used to select the function indicated by the led staying lit without flashing. The – button will de select the option, led off. To exit continue to scroll through to option 5.



LEDS	OPTIONS 1
	No function is active.
	Residential : The automation closes automatically after the set PAUSE TIME
	Functioning mode as OPEN – STOP – CLOSE – STOP.
	Activation of the electrolock.
	Input STOP becomes FOTO2, the photocell is activated also for the opening phase (See page 7 for details)
	When gate has been opened, after passing between the photocells the gates will close

OPTION MENU 2

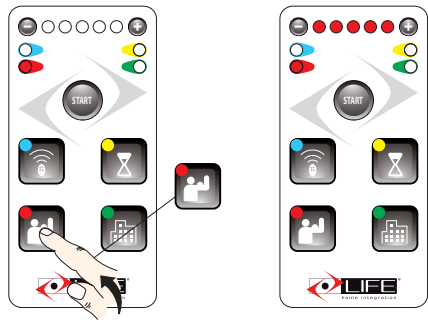
Press the option button (bottom right) for 5 seconds, then press in sequence to scroll through the options as shown by five led's at the top. The flashing of the led indicates the option selected. The + button is used to select the function



LEDS	OPTIONS 2
	No function is active.
	Deceleration when reaching end points
	Activate extra-stroke on closing and opening.
	Preflashing
	Single motor activated (connect on terminals 20-21-22)
	Soft Start

FORCE

The force function regulates the thrust and the speed of the automation.



Wait 25 seconds or press  again to quit.

- Press the force button (bottom left) and the left red led switches on.
- Press the + and - buttons to set the force values.
- The force value is indicated by the 5 led's at the top of the board.
- Wait 25 seconds or press the force button again to quit

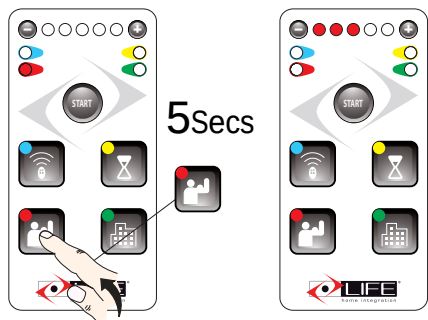
LEDS ON	FORCE VALUE
	Minimum
	
	
	
	
	Maximum

OBSTACLE DETECTION

The automation is fitted with an obstacle detection system. The automation inverts its movement when it strikes an obstacle during the opening and closing phases.

fies an obstacle, the automation inverts the motion and performs

fies an obstacle on opening, the automation performs a short reversal of motion, before



Wait 25 seconds or press  again to quit.

LEDS ON	OBSTACLE DETECTION
	NO OBSTACLE DETECTION
	MINIMUM
	
	
	
	MAXIMUM

MANUAL PROGRAMMING



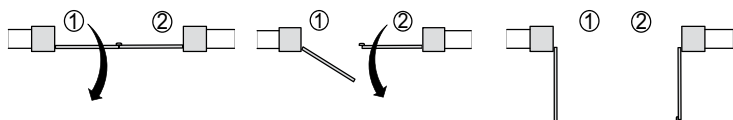
POSITION THE GATE AT 45 DEGREES

- Press the start button for 5 seconds, the first of the 5 top led's light and flash.
- The programming can be done manually with a radio transmitter or a switch connected across terminal 6 & 10 .



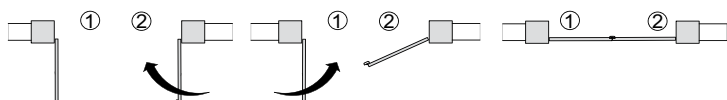
LEARNING THE CLOSING LIMIT

- Give a command with a radio transmitter or with a switch connected across terminals 6 & 10. Motor 2 will run closed and shut off when it drives against the close stop. The right red led will remain on.
- Give a second command using the radio transmitter or switch and motor 1 will run closed and shut off when it drives against the close stop. The left red led will remain on.



LEARNING THE OPEN LIMIT

- Give a command with a radio transmitter or with a switch connected across terminals 6 & 10. Motor 1 will run open. To set the required opening leaf delay, give a second command when the first gate has achieved the required delay.
- The two motors will run to the open stops and shut off. The two red led's will light.



LEARNING THE FULL CLOSING TRAVEL

- Give a command with a radio transmitter or with a switch connected across terminals 6 & 10. Motor 2 will run closed. To set the required closing leaf delay give a second command using the radio transmitter or switch when motor 2 has achieved the required delay.
- The two motors will run to the closing stops and shut off. To verify the completion of the manual programming the two red led's will light and the green led's will flash.

If the result is not satisfactory carry out the procedure again.

If the result is not satisfactory to reset the power and start over from scratch.

5 GENERAL INFORMATION

It is strictly forbidden to copy or reproduce this instruction manual without written permission to do so and subsequent verification by **LIFE home integration**. Translation into other languages of all or part of the manual is strictly forbidden without previous written authorisation from and subsequent verification by **LIFE home integration**. All rights on this document are reserved.

LIFE home integration will not accept responsibility for damage or malfunctions caused by incorrect installation or improper use of products and Users are therefore recommended to read this manual carefully. **LIFE home integration** will not accept responsibility for damage or malfunctions caused by the use of the automation together with the devices of other manufacturers; such action will render the warranty void. **LIFE home integration** will not accept responsibility for damage or injury caused by non-compliance with the installation, set up, maintenance and use indications contained in this manual and the safety instructions described in the **SAFETY INSTRUCTIONS AND WARNINGS** chapter.

With the aim of improving its products, **LIFE home integration** reserves the right to bring about alterations to them at any time, without giving prior notice. This document conforms to the state of the automation at which it is provided when released for sale.

5.1 INFORMATION ON THE MANUFACTURER

LIFE home integration is the manufacturer of the **RG1 24DL** control unit (referred to for short as "control unit") and the owner of all rights concerning this document.. The Manufacturer's information as required by Machinery Directive 98/37/EC is given below:

• Manufacturer:	LIFE home integration
• Address:	Via S.Pertini,3/5 – 31014 COLLE UMBERTO (TV) Wlochy
• Telephone:	+ 39 0422 809 254
• Fax:	+ 39 0422 809 250
• http:	www.homelife.it
• e-mail:	info@homelife.it

The identity plate bearing the information on the Manufacturer is fixed to the control unit. The plate specifies the type and date (month/year) of manufacture of the product.

For further information on technical and/or commercial issues and technician call-out and spares requests, Clients may contact the Manufacturer or area representative from which the product was purchased.

5.2 INTENDED USE

- The **RG1 UNIR DL** control unit has been exclusively designed to command 1 electromechanical operator with 230 Vac power supply destined to motorising 'residential' type leafs. Any usage differing from that described above is forbidden.
- The control unit may only be used with other **LIFE** products.
- The manufacturer declines all responsibility for damage caused by improper use. All risks are the fitter's responsibility and the warranty shall be rendered void.
- The control unit may not be installed or used in potentially explosive environments.
- Motorised gates must conform to current European standards and Directives, including EN 12604 and EN 12605.
- The control unit may only be used when in perfect working order and in compliance with the intended use, in the awareness of safety and hazard conditions and in compliance with the instructions for installation and use.
- Any dysfunctions that may pose threats to safety must be eliminated immediately.
- The control unit may not be used in environments prone to flooding.
- Do not use the operator in environmental conditions characterised by harsh atmospheric agents (e.g. salty air).

6 SAFETY INSTRUCTIONS AND WARNINGS

6.1 General instructions and warnings

- This manual is designed for use by **PROFESSIONAL FITTERS** only. Installation of the control unit requires practical and theoretical knowledge of mechanics, electrics and electronics as well as current sector legislation and regulations.
- Once the control unit has been installed, it is forbidden for users to perform any operation on the control unit even following the instructions in this manual, which, as mentioned previously, are intended for use by qualified personnel only.
- Fitters must operate in compliance with the following: law 46/90, directive 98/37/EC, 73/23/EEC, 89/336/EEC and subsequent amendments. He/she must also make constant reference to harmonised standards EN 12453 and EN 12445.
- The indications given in this manual must always be observed when installing, connecting, adjusting, testing and setting the control unit. The Manufacturer declines all responsibility for damage or injury caused by non-observance of the instructions contained in this manual.
- The Manufacturer declines all responsibility for damage and faults to the control unit caused by non-observance of the instructions contained in this manual.
- Keep this manual in a safe and easily accessible place so that it can be consulted rapidly when necessary.
- During installation, connection, trial run and usage of the control unit, observe all applicable accident prevention and safety regulations.
- In the interests of safety and optimal functioning of the control unit, only use original spares, accessories, devices and fastening apparatus.
- Do not perform alterations on any control unit device or component. This type of operation may cause malfunctions. The manufacturer declines all responsibility for damage caused by products that have been modified.
- Should liquids penetrate inside the control unit, disconnect the electricity supply and contact the Manufacturer's Assistance Service immediately; use of the control unit in such conditions may cause hazard situations.
- In the event of long periods of inactivity, in order to prevent the leakage of harmful substances from the battery (optional), it should be removed, stored in a dry place and recharged periodically.
- In the case of faults or problems that cannot be resolved using the information contained in this manual, contact the Manufacturer's assistance service.

6.2 Storage instructions and warnings

- The Manufacturer declines all responsibility for damage and faults to control unit functioning caused by non-compliance with the storage instructions given below.
- The control unit must be stored in closed, dry places, at room temperatures of between -20 and +70°C and raised off the ground.
- Keep the control unit away from sources of heat and naked flames, which could damage it and cause malfunctions, fires or hazard situations.

7 INSTALLATION

ATTENTION: Important safety instructions. Follow all instructions carefully, incorrect installation may cause serious injury.

Before commencing installation we highly recommend reading the instructions and warnings contained in this manual carefully (see the **SAFETY INSTRUCTIONS AND WARNINGS** Chap) and observing the instructions it contains.

7.1 Instructions and warnings for installations

- Before commencing installation read the **SAFETY INSTRUCTIONS AND WARNINGS** chapter carefully
- The **PROFESSIONAL FITTER** who installs the control unit is responsible for performing risk analysis and regulating the automation's safety devices consequentially.
- The Fitter must check that the temperature range declared on the control unit is suited to the place in which the device is installed.
- Any normally open/off buttons installed for the activation of the operator must be positioned so that they are within view of the gate but distant from moving parts. Unless said commands operate using keys, they must be positioned at a minimum height of 1.5m and not accessible to unauthorised persons.
- During installation, make constant reference to harmonised standards EN 12453 and EN12445.
- Ensure that the individual devices to be installed are compatible with the **RG1 UNIR DL** control unit. Do not proceed if even just one device is unsuitable for the intended use.
- Ensure that the place of installation of the central unit is not prone to flooding, does not contain sources of heat or naked flames, fires or hazard situations in general.
- During installation, protect control unit components in order to prevent liquids (e.g. rain) and/or foreign bodies (earth, gravel, etc) penetrating inside.
- Connect the control unit to a power supply line created in compliance with current regulations and earthed and fitted with a power supply sectioning switch.
- Wrapping materials must be disposed of in compliance with local regulations.
- Wear protective goggles when making holes for clamping.

In the event of work at heights of over 2m from the ground, for example for the installation of the indicator lamp or aerial, fitters must be equipped with ladders, safety harnesses, protective helmet, and all other equipment required by law and the standards governing this kind of work. Refer to Directive 89/655/EEC amended by 2001/45/EC.

8 TESTING AND TRIAL RUN

- The testing and trial run must be performed by a **COMPETENT PERSON** supervised and aided by a **PROFESSIONAL FITTER**. It is the responsibility of the person who tests and sets up the automation (of which the control unit is a part) to perform the checks required in accordance with the risks existing and to check conformity with the relevant legislation and standards, in particular with EN standard 12445, which governs the methods for performing trials on gate automations and EN standard 12453 that specifies the performance requisites concerning safety of use.
- The testing and trial run are the most essential phases of installation for guaranteeing maximum operating safety.
- The checks and procedures for testing may also be used for routine checks on the automation and its devices.
- The automation may only be tested if a non-hazardous force tolerance has been set. Force tolerance must be adjusted to a minimum value so as to exclude the danger of injury during closure.
- Adjust the maximum force in line with EN standard 12445.
- Never touch the gate or moving parts when they are in motion.
- Remain at a safe distance when the gate is in motion: only pass when the gate is completely open and immobile.
- In the event of malfunctions (noisiness, jerky movements, etc.) suspend the use of the automation immediately: failure to observe this rule may entail serious hazards, risks of accidents and/or serious damage to the gate and the automation.
- Always remember that the following residual risks exist when the gate is in movement:
 - a) impact and crushing against the main closure edge (against the single leaf or between the two leaves);
 - b) impact and crushing in the opening area;
 - c) cshearing between the moving and the fixed guides and support during movement;
 - d) mechanical risks caused by movement.

8.1 Testing

During testing, ensure that the measurement of the gate's impact force has been performed in accordance with EN standards 12445 and 12453.

- Check that the indications given in the **SAFETY INSTRUCTIONS AND WARNINGS AND INSTRUCTIONS AND INDICATIONS FOR INSTALLATION** chapters have been carefully observed.
- Ensure that the automation is correctly adjusted and that the protection and release systems are in good working order.
- Using the key selector or the radio control perform gate opening and closure tests and ensure that each movement of the gate corresponds to the control unit settings. Perform as many checks as necessary to be certain of perfect operation.
- Ensure the correct operation of the LEDs on the keyboard of the control unit (see specific manual).
- In particular, for photocell checks, check that there is no interference with other devices. Pass a cylindrical tube with a diameter of 5cm and a length of approximately 30 cm through the optic axis that connects the two photocells. Perform this check firstly close to the transmitter and then close to the receiver and lastly halfway between the two.
- In all three cases, the device must intervene by passing from the active state to the alarm state and vice versa, thus causing the action set on the control unit: for example, during a closure manoeuvre it must cause inversion of movement.
- Perform the photocell operation test required in compliance with EN standard 12445 p. 4.1.1.6. The results must satisfy EN standard 12453 p. 5.1.1.6.

ATTENTION: once the automation has been tested, the parameters set must not be altered. If further adjustments (e.g. alterations to the voltage value) are made, all the checks required for testing and compliance with EN standard 12445 must be repeated.

8.2 First usage

The automation may only be used for the first time once all the checks described in the **TESTING** chapter have been performed successfully. The automation may not be used in precarious or temporary conditions.

- a) Compile a technical file for the automation, which must include at least:
 - a general mechanical and electrical diagram,
 - risk analysis and solutions adopted for eliminating or reducing risks,
 - manuals of the individual components,
 - list of the components used,
 - instructions for use and warnings concerning use by the owner,
 - system maintenance record
- b) Fix 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 give it to the owner of the automation.
- d) Compile the guide with the instruction manual (EN 12635 p. 5.3 and 5.4) and give it to the owner of the automation.
- e) Compile the maintenance and improvement log (EN 12635 p. 5.3) and give it to the owner of the automation.
- f) Compile the guide containing the instructions for maintenance that provides instructions concerning the maintenance of all automation devices (EN 12635 p. 5.3 and 5.5) and give it to the owner of the automation.
- g) Before the first use of the automation, the owner must have been given adequate information concerning hazards and residual risks.

9 SAFETY INSTRUCTIONS AND WARNINGS

9.1 Instructions and warnings for use

- It is the fitter's duty to perform risk analysis and inform the user/owner of any existing residual risks. Any residual risk detected must be recorded in writing in the operator manual.
- The following residual risks are usually present in moving gates: impact and crushing against the main closure surface (of the single leaf or between the two leaves); impact and crushing in the opening area; crushing between the mobile and fixed guide and support parts during movement; mechanical risks caused by movement.
- The Manufacturer will not accept responsibility for damage or injury caused by the non-observance of the information on use contained in this manual, and the failure to observe the safety indications given below.
- The Manufacturer declines responsibility for damage and malfunctions caused by non-compliance with the instructions for use.
- Keep this manual in a safe and easily accessible place so that it can be consulted rapidly when necessary.
- 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 in motion: only pass when the gate is completely open and immobile.
- Do not allow children to play with gate controls; do not leave radio controls or other control devices within children's reach.
- Prevent children from playing or standing in the vicinity of the gate or the control organs (radio controls). The same precautions should be adopted for disabled persons and animals.
- In the event of malfunctions (noisiness, jerky movements, etc.) suspend the use of the automation immediately: failure to observe this rule may entail serious hazards, risks of accidents and/or serious damage to the gate and the automation. Contact a **PROFESSIONAL FITTER** and in the meantime use the gate manually by disconnecting the operator (see the **OPERATOR/ACTUATOR RELEASE** chapter) **OPERATOR/ACTUATOR RELEASE** chapter) of the operator manual.
- In order to maintain the automation in efficient conditions, ensure that the operations indicated in the **MAINTENANCE** chapter are performed at the frequency indicated by a **PROFESSIONAL FITTER**.
- Examine the installation frequently in order to check that there are no signs of mechanical unbalance, wear and damage to the wires and assembled parts: do not use the operator until the necessary repairs or adjustments have been made.
- Should liquids penetrate inside the control unit, disconnect the electricity supply and contact the Manufacturer's Assistance Service immediately; use of the control unit in such conditions may cause hazard situations. The automation may not be used in these conditions, even with buffer batteries (optional).
- If a problem arises that cannot be resolved using the information contained in this manual, contact the Manufacturer's assistance service.



10 MAINTENANCE

10.1 Maintenance instructions and warnings

- Once the automation has been tested, the parameters set must not be altered. If further adjustments (e.g. alterations to the voltage value) are made, **ALL THE CHECKS REQUIRED FOR TESTING AND COMPLIANCE WITH STANDARDS MUST BE REPEATED.**
- The Manufacturer declines responsibility for damage or injury caused by non-compliance with the information provided in this manual and the safety instructions provided below
- The Manufacturer declines all responsibility for damage and malfunctions deriving from non-compliance with the maintenance instructions.
- In order to keep the operator efficient and safe, follow the cleaning, checking and routine maintenance procedures as described in this manual. This is the owner's duty.
- Any checking, maintenance or repair work must be conducted by a **PROFESSIONAL FITTER**
- Always switch off the electricity supply in the event of malfunctions, breakdowns and before any other operations in order to avoid the gate from being activated.
- Always disconnect the operator's power supply before performing any maintenance or cleaning operation.
- The owner is **NOT** authorised to remove the control unit cover as it contains live parts.
- If the power cable is damaged, it must be replaced by the Manufacturer or its technical Assistance service or in any case a person with a similar qualification in order to avoid risks.
- If the power cable is damaged, it must be replaced by the Manufacturer or its technical Assistance service or in any case a person with a similar qualification in order to avoid risks.
- Do not perform technical or programming modifications on the control unit. Operations of this type may cause malfunctions and/or risk of accidents. The manufacturer declines all responsibility for damage caused by products that have been modified.
- In the event of intervention of automatic or fuse switches, before restoring function conditions identify and eliminate the fault. Request the intervention of a **PROFESSIONAL FITTER**.
- The disconnection and replacement of the pair of buffer batteries (optional) may be performed by a **PROFESSIONAL FITTER** only.
- If a fault that cannot be solved following the information contained in the present manual arises, contact the manufacturer's assistance service.
- All maintenance, repair or replacement of parts must be recorded in the maintenance log, which is **SUPPLIED AND INITIALLY FILLED IN BY THE FITTER.**

10.2 Routine maintenance

Every 6 months a **PROFESSIONAL FITTER** should repeat the series of tests described for automation testing (see **INSTALLATION MANUAL – TESTING AND TRIAL RUN Chap.). – TESTING AND TRIAL RUN Chap.**).

11 DEMOLITION AND DISPOSAL

- The control unit is constructed using various materials, which implies the adoption of different disposal procedures. Refer to regulations in force in the country in which the automation is installed, especially with regard to the buffer batteries (if present).
- If present the batteries must be removed from the control unit prior to disposal. Disconnect the control unit from the electricity supply before removing batteries.
- Contact qualified firms for disposal.

ATTENTION: operator disconnection from the mains supply must be performed by a qualified electrician using suitable tools.

Declaration of conformity



under Directive 98/37/EC, appendix II, part B (Manufacturer's Declaration of CE Conformity)

LIFE Home Integration
Via S.Pertini 3/5
31014 COLLE UMBERTO (TV)

declares that the following product:

GEUNIR DL control unit

satisfies the essential requisites established in the following directives:

- Low voltage directive 73/23/EEC and subsequent amendments,
- Electromagnetic compatibility directive 89/336/EEC and subsequent amendments,
- Radio and telecommunications equipment directive 1999/5/EC and subsequent amendments.

and satisfies the following standards:

- EN 12445:2000 Industrial, commercial and garage doors and gates – Safety in the usage of motorised doors – testing methods
- EN 12453: Industrial, commercial and garage doors and gates – Safety in the usage of motorised doors – Requisites
- EN 60204-1:1997 Machinery safety – Electric equipment of the machine – Part 1: general rules.
- EN 60950 Information technology equipment - Safety - Part 1: General requisites
- ETSI EN 301489-3:2001 Electromagnetic compatibility for radio equipment and appliances.
- EN 300220-3:2000 Radio equipment and systems – short band devices – Technical characteristics and testing methods for radio apparatus with a frequency of 25 to 1000 MHz and powers of up to 500mW.

The Manufacturer also declares that it is not permitted for the abovementioned components to be used until such time as the system in which they are incorporated is declared conform to directive 98/37/EC.

COLLE UMBERTO _____

Name of Signor:

MICHELE RUI

Position:

PRESIDENT

Signature:



14 MANUFACTURER'S DECLARATION OF CONFORMITY

Declaration of



conformity

under Directive 98/37/EC, appendix II, part B (Manufacturer's Declaration of CE Conformity).

LIFE home integration

Via Sandro Pertini 3/5

31014 COLLE UMBERTO (TV) Italy

declares that the following product:

OP3-OP5

satisfies the essential requisites established in the following directives:

- Low voltage directive 73/23/EEC and subsequent amendments,
- Electromagnetic compatibility directive 89/336/EEC and subsequent amendments,
- Radio and telecommunications equipment directive 1999/5/EC and subsequent amendments.

and satisfies the following standards:

- EN 12445:2000 Industrial, commercial and garage doors and gates – Safety in the usage of motorised doors – testing methods
- EN 12453: Industrial, commercial and garage doors and gates – Safety in the usage of motorised doors - Requisites.
- EN 60204-1:1997 Machinery safety – Electric equipment of the machine – Part 1: general rules.
- EN 60950 Information technology equipment - Safety - Part 1: General requisites
- ETSI EN 301489-3:2001 Electromagnetic compatibility for radio equipment and appliances.
- EN 300220-3:2000 Radio equipment and systems – short band devices – Technical characteristics and testing methods for radio apparatus with a frequency of 25 to 1000 MHz and powers of up to 500mW.

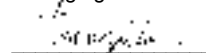
The Manufacturer also declares that it is not permitted for the abovementioned components to be used until such time as the system in which they are incorporated is declared conform to directive 98/37/EC.

C□

Position:

Managing Director

Signature:





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