

Complete kit for the automation of sectional doors for garages Instructions and Recommendations for installation and use



JUMP

SAVE YOUR ENERGY

BYOU

MADE IN ITALY **CE**

Dear Customer

We would like to congratulate and thank you for choosing the BYOU systems.

JUMP like all other products in the range it is the fruit of careful and accurate choice of materials and components. The result is a product that interprets and embodies captivating designs and state-of-the-art technology.

Our company's objective is to design and develop products that allow to improve our movements and our life responding to the needs for saving and eco-compatibility.

This, for us, means some simple but distinguishing choices.

AN ECOLOGICAL PRODUCT BY DEFINITION

The undisputed advantage of BYOU products is the capacity of responding to energy classification logics applied in the household appliance field.

BYOU has patented and incorporated ESA+ system in its systems. A device that allows to obtain a yearly saving of 250 Kw, equal to 97% of average consumption of a residential automation system (260 kw total/year).

In a few words, it allows to drastically lower consumption with respect to any gate-opener currently on the market.

ECO-COMPATIBILITY OF THE PACKAGING

The packaging that contains the product that you have chosen is realised entirely in recyclable cardboard and studied and designed to contain the product reducing the use of the same to a minimum, thus maximising the internal space.

The logic used to position the product and the accessories responds to the objective of obtaining maximum functionality and minimum environmental impact.

The packaging therefore does not have any material that cannot be re-cycled, such as polystyrene.

ECO-COMPATIBILITY OF THE MATERIALS

The BYOU product is characterised by materials that are compatible with the environment, in particular the batteries contained in the battery charger kit. This is an indispensable accessory for the use of the system even if there is a power cut. They do not contain lead. Other proof of Byou's attention to the environment. Also in this case the company choice has been aimed at respecting the environment.

OPTIMISATION OF THE INSTRUCTIONS

This single-language manual has been placed inside the kit aimed at the country of destination of the product.

This choice indicates the precise intention of the company, regarding respect for the environment, to reduce the amount of waste paper.

Certain that you will appreciate our choice, we excuse ourselves in advance if the language of this manual does not correspond with your language. Regarding this fact, we must remind you that the CD-GUIDE, which you will find inside, can guide you step-by-step in the product installation phases along with other manuals in your language.

For any other requirements, consult www.byouweb.com.

BYOU products are covered by a warranty with duration of 2 years.

BYOU srl is not liable for damage caused by improper use or by incorrect installation of products or components.

The descriptions and illustrations in this manual may be subject to modification at any time by the manufacturer, who reserves the right to make updates to the product of a technical, construction or commercial type, without having to update this publication within specific times.

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General recommendations

If this is the first time you realise an automation for JUMP garage doors, we recommend that you read this manual carefully as it contains important advice and information for the realisation of the plant in safe conditions.

Keep the various components on hand to gain confidence with them while reading this manual.

Keep this manual for future use.

JUMP is realised in a way to allow easy installation and configuration of the system, however, some phases require the presence of qualified staff.

When reading this manual pay particular attention to these symbols:



Authorised technician.

Indicates the phases to be performed in the presence of mains voltage. The presence of qualified staff is required (electrician or authorised installer), in complete respect with the Safety Standards in force.



Attention!

Potentially dangerous operations.
Scrupulously respect the indications given.



Useful indication.

Suggestions and recommendations for simplifying and/or improving the installation operations.

The automation of a door cannot be considered the only device for protection against intrusion.

Do not use any of the components in unsuitable environments (salty, acid or potentially explosive atmosphere).

All operations that require the protection shells of the devices opened, must take place without mains power supply.

Product description

DESTINATION OF USE

This product is destined exclusively for the opening and residential sectional garage doors, characterised by dimensional and weight limits as indicated in this manual in the "Limits of use" paragraph.

In particular, JUMP cannot be used for up & over doors that are partially or totally overhanging.

No other use is allowed.

BYOU is not liable for uses that are not in compliance with those indicated in these instructions.

If the sectional door to be automated closes a garage without other access routes, it is MANDATORY to install an external release device. If this is not the case, in the case of malfunctioning, it may not be possible to access the place.



The kit is made up from an electromechanical operator with 24V direct current motor, which allows movement of the door via a guide with belt.

The built-in control unit controls the movement of the motor and functioning of the accessories.

The supplied accessories are:

1 radio transmitters BY: remote control for opening/closing the door.

Other accessories available as options:

- CB.BY emergency battery kit: in case of a power cut, it allows the functioning of the leaf by batteries and relative battery charger installed inside the operator.

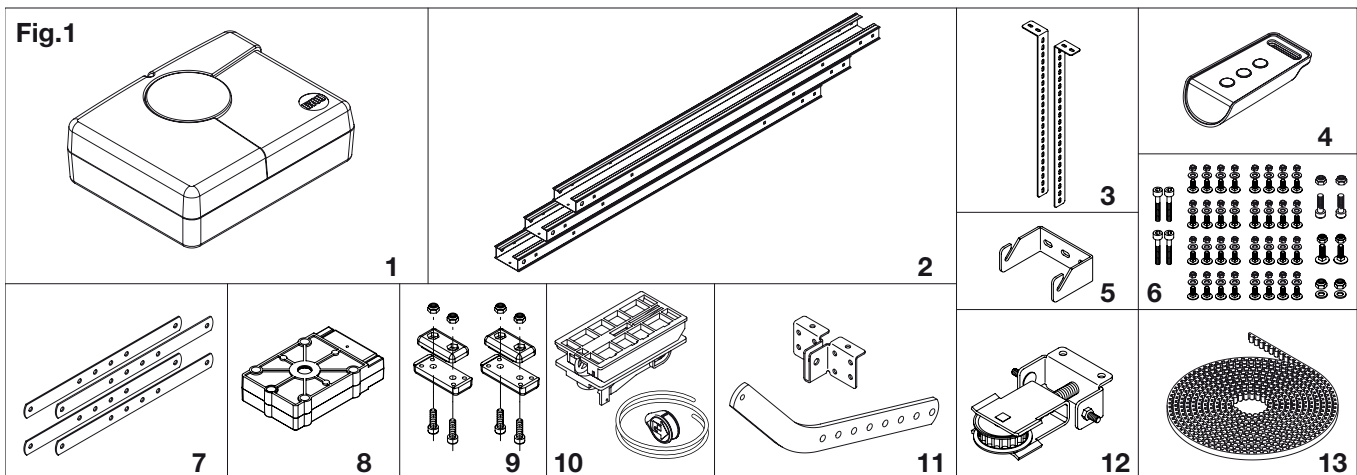
- P.BY pair of photocells: they interrupt the movement of the leaf if there are obstacles present.

- F.BY flashing light: flashing light that indicates that the door is moving.

- K.BY key selector switch: installed externally, allows the opening and closure by means of a customised key.

- SE.BY external wire unlock device: allows manual opening from the outside in the case of a power cut or malfunctioning.

Content of the standard kit



1	JUMP: Electromechanical operator with built-in control unit.
2	JMP.1: Drive track measuring 3 mt. divided into 3 parts measuring 1 mt. each.
3	JMP.2: Brackets for fixing the track to the ceiling
4	BY: 4-channel radio-transmitter
5	JMP.3: Bracket for fixing the track to the wall
6	Screws, nuts and washers for mounting the components

7	4 JMP.3 track joint brackets
8	JMP.4: Guide head unit
9	JMP.5: Mechanical stops
10	JMP.6: Drive carriage with release device complete with cord and handle.
11	JMP.7: Connection bracket and leaf fixing bracket
12	JMP.8: Belt-tensioner unit
13	JMP.9: Belt

Note: The content of the package may undergo variations.
If in doubt, consult your local dealer.

Description of the automation

With reference to the list of components in fig.1, fig. 2 shows a typical plant that can be realised using JUMP.

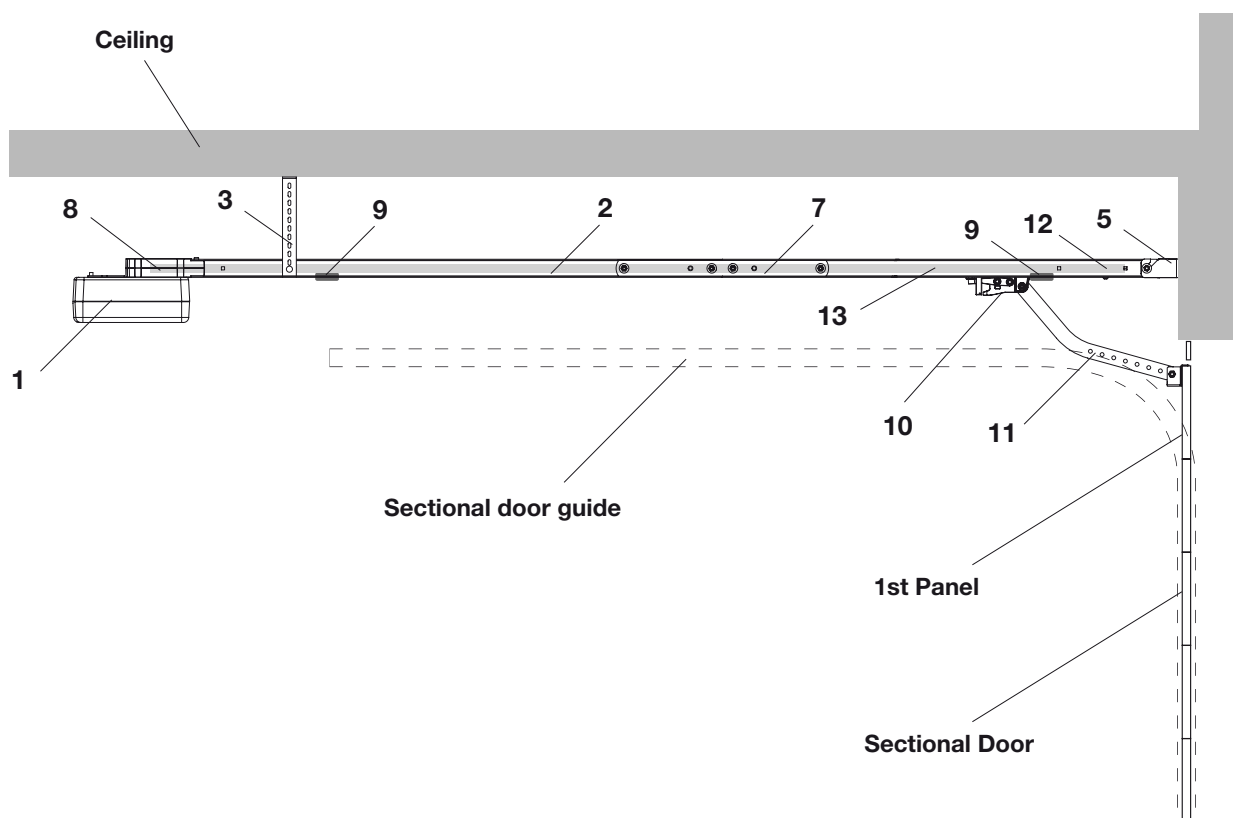


Fig. 2

Preliminary checks

It is indispensable to carry out several checks before starting installation:

- Try and open the door manually, it must move without effort and without points of resistance for the entire run.
- When left in any intermediate position the door must not move.
- The guides and components subject to wear must be in perfect working condition. If this is not the case, replace the faulty parts.
- The door structure must be strong and rigid.
- The electric set-ups necessary for installation are highlighted in the "Electric connections" paragraph. If they are not pre-existing they must be realised, with the aid of a specialised technician, if necessary (electrician).

- Select the most suitable method for fixing the gear motor to the ceiling and the guide to the wall.

Consider that the JMP.3 fixing bracket is stressed during leaf movement and the fixing of the brackets JMP.2 to the ceiling must be able to sustain the weight of the gear motor and the guide.



The reliability and safety of the automation depend on the state of the door structure.

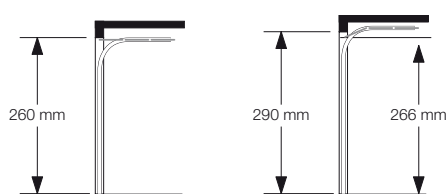
In no case can the installation of JUMP be considered a solution for opening inefficient doors.

Technical Data, dimensions and limits of use

TECHNICAL DATA	JUMP
Control unit power supply	230 Vac
Motor power supply	24Vdc
Absorbed power	140 W
Absorption	1 A
Maximum thrust	600 N
Maximum use frequency (complete open/close cycles)	15 cycles/hour 80 cycles/day
Opening speed	9,8 m/1'
Protection rating	IP40
Functioning temperature	-20°C / +70°C
Opening time (90°)	s
Noise	<70 dB
Weight	10,5 kg

DIMENSIONS

Fig. 3 indicates the main clearance dimensions of the gear motor complete with guide.



The measurement of 266 cm represents the maximum run that the drive carriage can make during movement and corresponds to the maximum opening height that can be obtained.

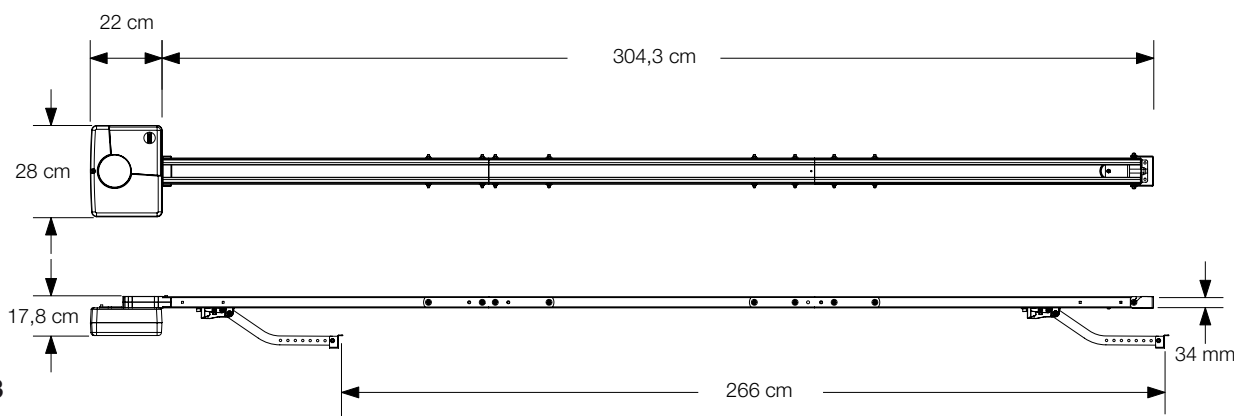


Fig.3

With reference to Fig. 4, check the maximum and minimum clearances indicated in measurements X and Y.

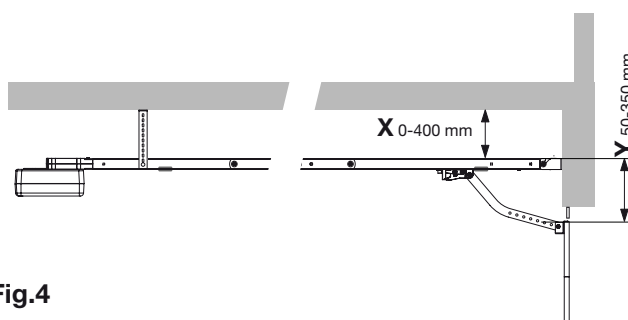


Fig.4

The measurement X highlights that the guide can adhere to the ceiling or be at a maximum distance of 40 mm, maximum value allowed from the JMP.2 brackets.

The Y measurement indicates the minimum and maximum values possible between the track and first sectional panel.

LIMITS OF USE

JUMP can be used exclusively for residential sectional doors for garages with the following dimensional limits:

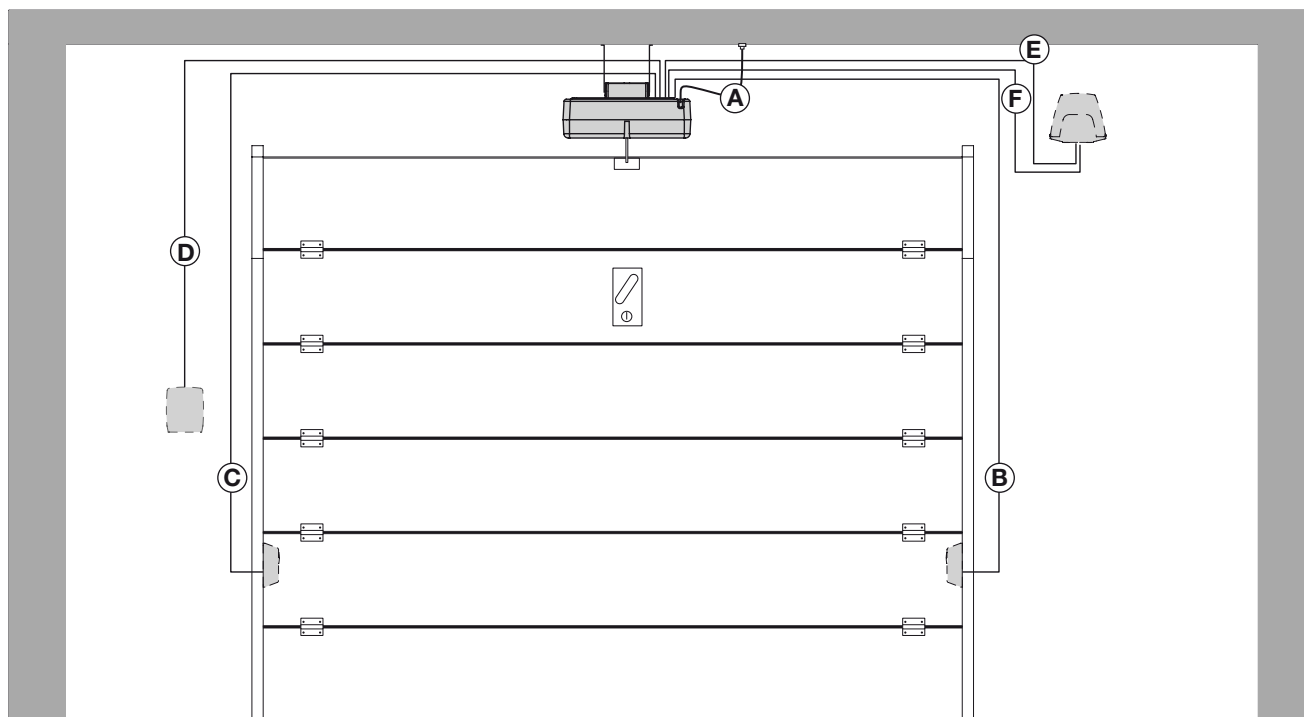
HEIGHT 260 cm max.

WIDTH 350 cm max.



The materials with which the door is built, the state of maintenance and particular conditions of use can reduce the values indicated.

Fig.5



The cables necessary for the installation of JUMP can vary according to the accessories installed.

All of the accessories indicated in the layout in figure 5 are optional.

No connection cable is supplied for the accessories.

List of cables

	Connection	Type	Maximum length and notes
A	Mains power supply to the control unit	3x1,5mm ²	[1]
B	Photocell transmitter connection P.BY	2x0,5mm ²	20m
C	Photocell receiver connection P.BY	4x0,5mm ²	20m
D	Key selector connection for external command K.BY	4x0,5mm ²	20m
E	Flashing signal light connection F.BY	2x1,0mm ²	10m
F	Connection of the aerial built-in the flashing light F.BY	RG 58	[2]

Notes

	The mains power supply connection can be made via the supplied plug, connected to an electrical socket already prepared.
[1]	 If the power supply cable is removed for connection to the mains or if the supplied cable must be replaced, contact qualified BYOU staff only. They will perform the connection with respect to the Standards in force.
[2]	There is an aerial pre-installed in the control unit, which in most cases makes this connection superfluous. If reception is disturbed, the capacity of the receiver can be improved by connecting the aerial in the flashing light L.BY (optional) to the control unit.



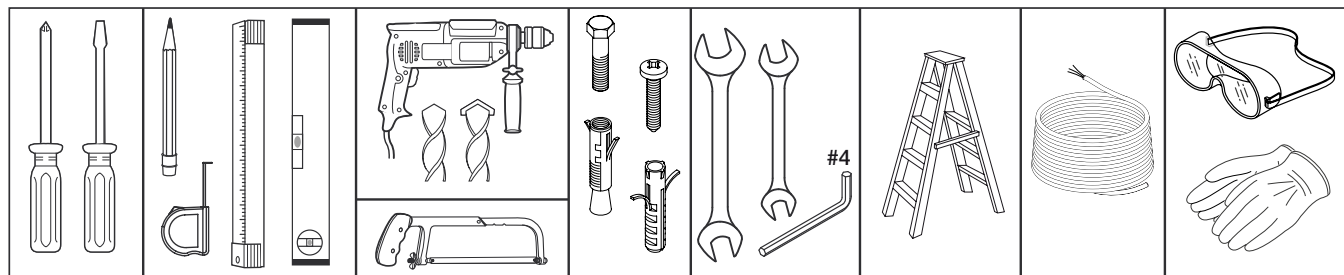
The connections in figure 5, will be realised in a bricked-up raceway or using raceways from the outside (flexible corrugated sheath) that is in compliance with the Standards in force. If in doubt, contact staff that is specialised in the realisation of these set-ups.



The cables used must be suitable for the type of connection. For example, for connection protected by raceways use H03VV-F cables, for cables in the outdoor environment always use the H07RN-F type.

Tools and materials

Fig.6



Make sure that there are all tools and materials necessary for installation (fig.6). Also check that they are in compliance with Standards and in perfect working order.



Use suitable individual protection devices I.P.D. (goggles, gloves, etc)



The length and type of connection cables depend on the accessories installed (see “Electric connections” paragraph).

The fixing screws for the gear motor are not supplied as they depend on the features of the materials used for the pillars and the leaves.

Assembly of the drive guide - 1

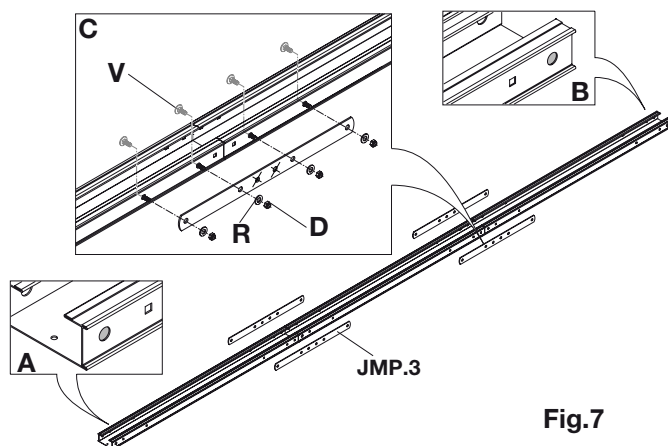
1) Prepare the three parts that make up the drive track JMP.1, positioning them as indicated in figure 7, in a way that the circular holes are present at the ends of the guide as highlighted in boxes A and B.

2) Making reference to box C fix the guides using the 4 mounting plates JMP.3. Each plate must be well blocked using the screws V of the nuts D and positioning the washers R in between.

To fix, use the holes highlighted in detail C.

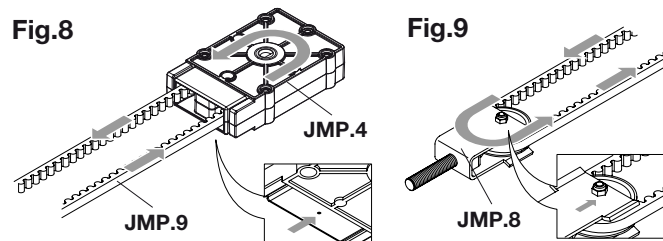


Check that the 3 parts meet perfectly. The track must be perfectly straight and not have steps at the joints.



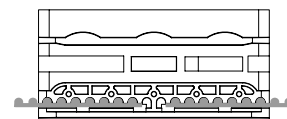
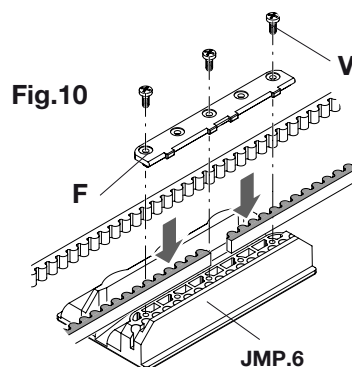
3) Pass one end of the belt JMP.9 through the head unit JMP.4, as indicated in Fig. 8, leaving the hole highlighted facing downwards.

4) Pass the belt through the belt-tensioner pulley JMP.8, as indicated in figure 9, the lock-nut must be facing upwards.



Check that the smooth part of the belt is external for the entire length and is not twisted.

5) Join the two ends of the belt, using the lower part of the drive carriage MP.6, as in figure 10. It is important to **respect the insertion position** highlighted in the view from above in figure 11, in order to allow the correct successive tensioning of the belt.

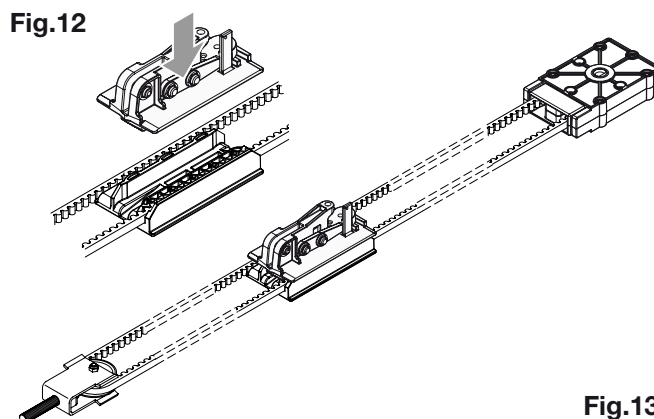


6) The belt must be inserted completely into the seat, if necessary pressing it with a blunt tool, in a way to make the base of the belt adhere to the base of the carriage.

7) Apply the belt stop F (fig.10) fixing it with the three screws V.

8) Position the upper part of the carriage onto the base as indicated in Fig.12.

The assembled belt must be as in Fig. 13.



Assembly of the drive guide - 2

1) Insert the belt with the track as indicated in figure 14:

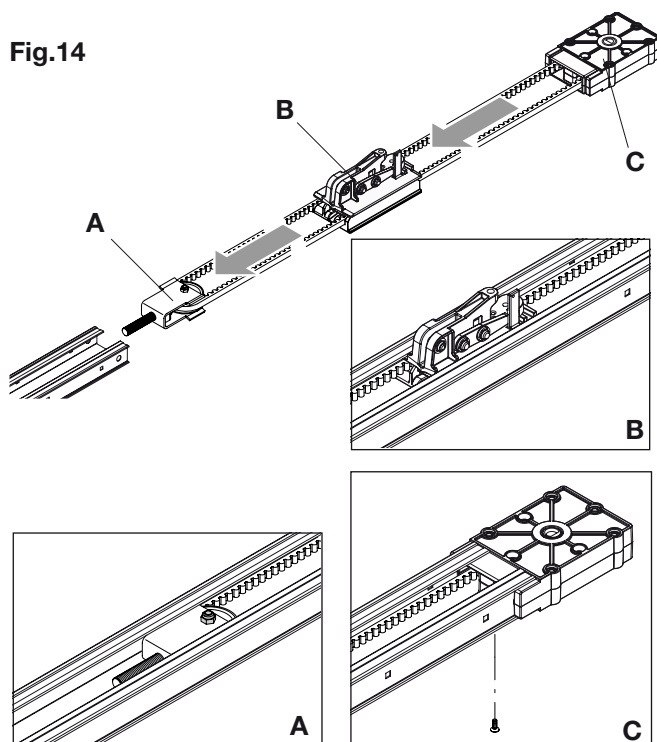
- initially insert the belt tensioning unit; the nut must be positioned upwards, so as not to cause friction on the track (detail A). Allow the pulley to run along the track paying attention not to twist the belt.

- insert the drive carriage in the position indicated in detail B, the release has a smooth part in order to favour insertion.

- finally insert the head unit, which has two grooves for attachment to the track, block the head unit using the screw (detail C).

2) Apply bracket T to the end of the track as indicated in figure 15 and then insert the two screws V from inside the track. Fix the bracket using the 2 nuts D.

Fig.14



3) Take the belt/tensioning unit JMP.8 to the bottom of the track in a way to make the tensioning screw escape F as indicated in figure 16 and then apply the regulation nut R, fixing it in a

In all cases, the correctly tensioned belt maintains the position along the entire track, without flexion, however giving at slight manual pressure.

If necessary, act on the regulation nut R to obtain correct tensioning.

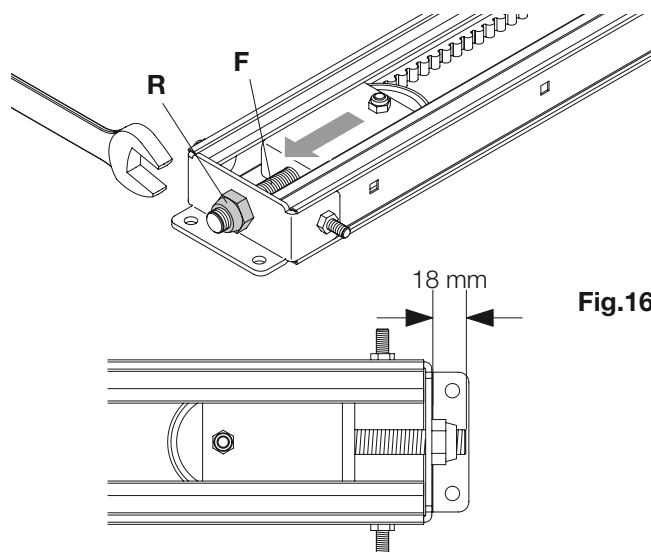


Fig.16

i The belt must not be twisted. Move the drive carriage manually along the entire track, the carriage must run freely without friction.

If there is friction in correspondence with a particular carriage position, identify the origin and repeat the previous operation.

4) Apply the drive guide to the gear motor (figure 17):

- rest the gear motor unit on a flat surface with the drive pin P facing upwards.

- insert the guide, engaging the pin P in the head unit seat.

- inserted in this way the guide may not be perpendicular to the gear motor unit. Turn the guide until the holes are aligned for the screws (Fig 17 ref F) - with the corresponding sump seats (Fig 17 ref S).

- block the head unit using the 4 screws C.

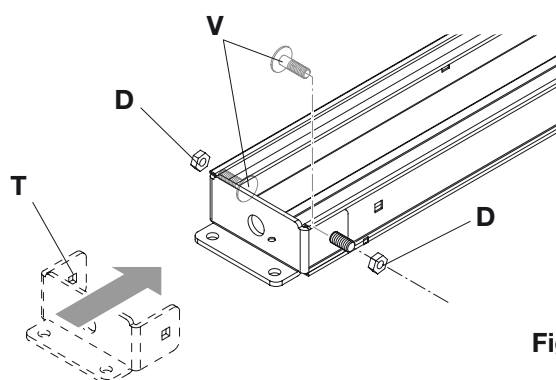


Fig.15

way to obtain a screw projection of about 18 mm as indicated in the detail.

This measurement allows correct tensioning of the belt, as long as the indications in figure 11 have been respected.

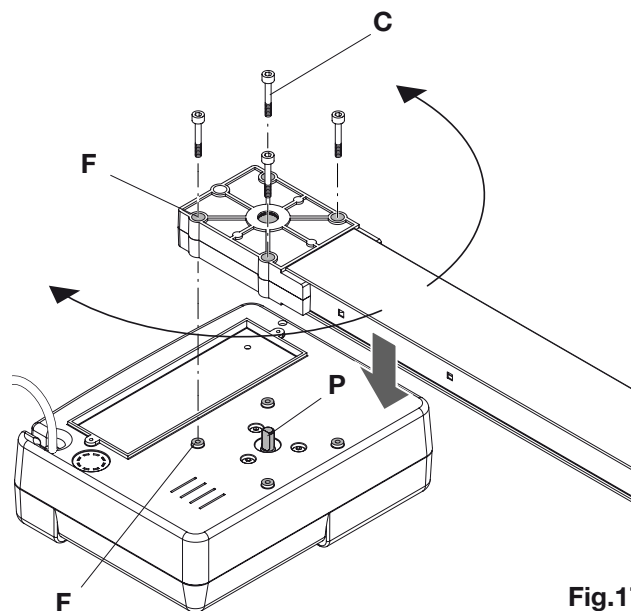


Fig.17

Fixing the gear motor to the ceiling - 1



IMPORTANT: For correct functioning of the automation, the gear motor must be fixed in correspondence with the door control unit (figure 18).

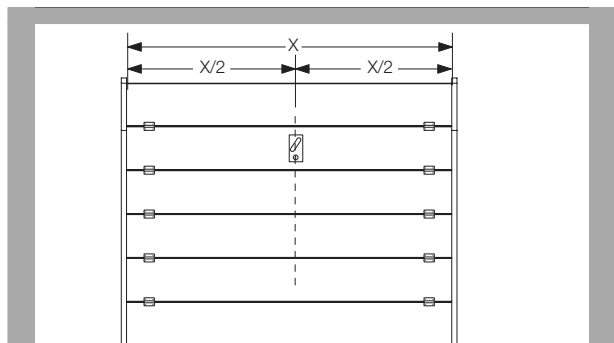


Fig.18

1) Respecting the measurements indicated in the "Preliminary checks" paragraph, trace the two holes at the centre of the door for fixing the bracket JMP.3, as indicated in figure 19.



The fixing devices are not supplied. Select the most appropriate method on the basis of the type of material (plugs, rivets, screws).

Ceiling fixture is also possible; simply orientate the bracket as indicated in detail A.

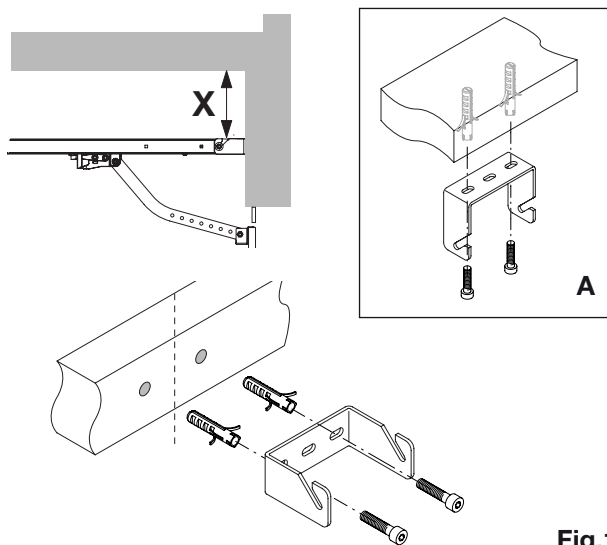


Fig.19

2) Apply the brackets JMP.2 to the guide as indicated in figure 20, selecting the hole that corresponds to the X measurement of the "Preliminary checks" paragraph as much as possible, fix them by inserting the two screws V, blocking them using the two nuts D.

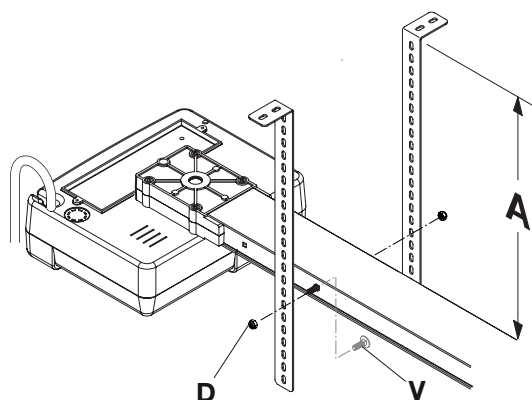


Fig.20

3) Attach the track to the bracket as indicated in figure 21, fixing it using the washers and nuts (detail B), rest the gear motor on the ground.

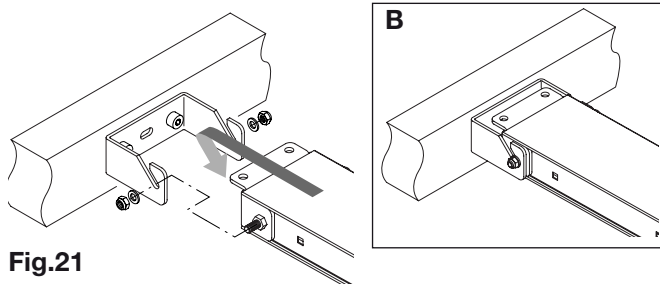


Fig.21

4) Use a ladder, lift the gear motor until it rests on the brackets on the ceiling (figure 22), mark the 2 drilling points, place the gear motor back on the ground.

5) Drill the two holes, always using a ladder, place the gear motor on the ceiling and fix it using screws and plugs that are suitable for supporting the weight.

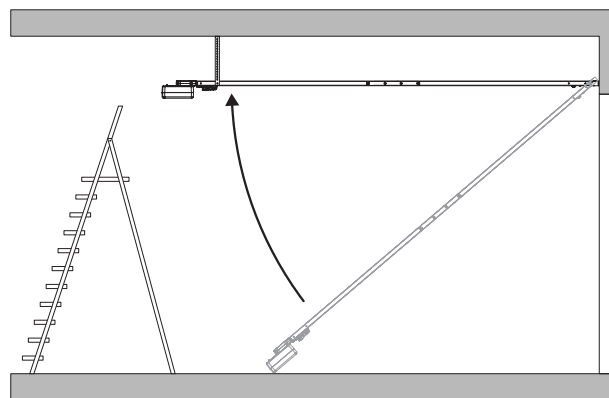


Fig.22

6) Check that the track is horizontal and then, if necessary, shorten the brackets JMP.2, in a way to prevent them projecting excessively (figure 23).

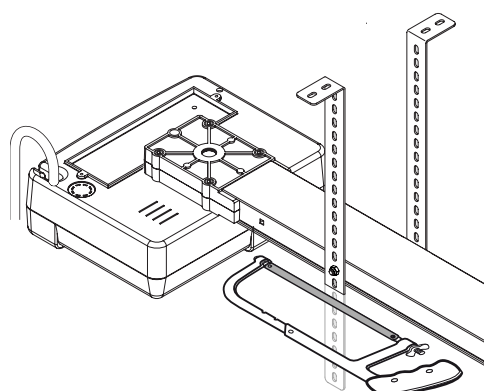
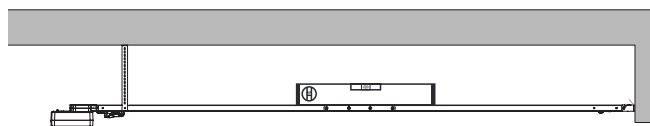


Fig.23

Fixing the gear motor to the ceiling - 2

7) Apply the curved bracket JMP.7 to the drive carriage as indicated in figure 24, blocking it with the screw and nut.

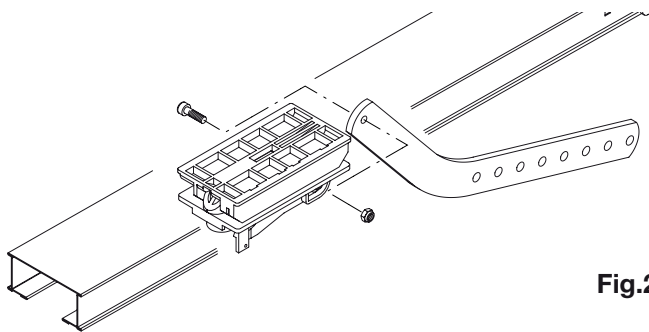


Fig.24

8) Apply the leaf fixing bracket to the curved bracket JMP.7 as indicated in figure 25, blocking it with the screw and nut.

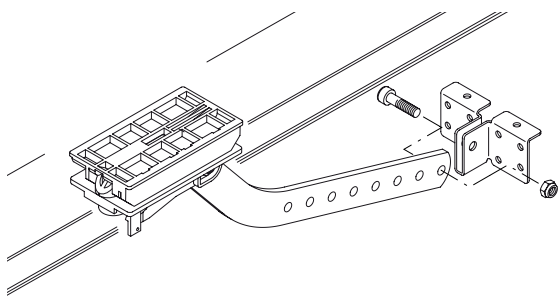


Fig.25

9) Tie the release cord to the release unit lever, as indicated in figure 26.

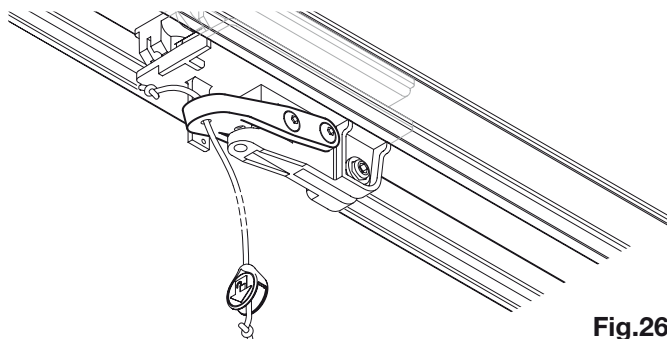


Fig.26

10) Release the drive mechanism, pulling the cord down in a way to free the drive unit driving bracket - figure 27.

11) Make the racket rest at the upper edge of the leaf, mark the drilling points for fixing as indicated in figure 27.

Fix the bracket to the leaf, checking the measurement Y in the "Preliminary checks" paragraph. In some cases, in order to respect the Y measurement, it may be necessary to shorten the curve bracket JMP.7.

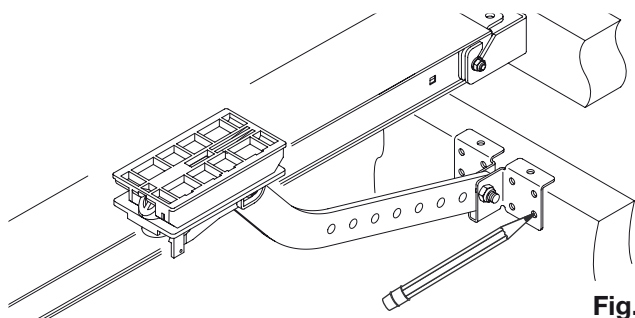


Fig.27

12) For excellent fixing it is recommended to use all of the holes present on the bracket (10 screws) including the upper ones highlighted Fig.28.



The fixing devices are not supplied.

Select the most appropriate method on the basis of the type of material (plugs, rivets, screws).

In all cases, the bracket must be fixed suitably for the weight and effort necessary to move the leaf.

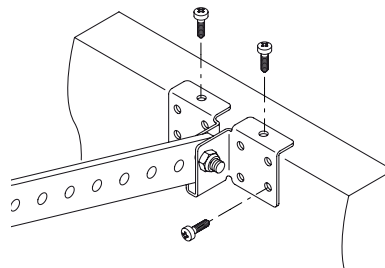


Fig.28

13) Fix the mechanical end run stops:

The two mechanical stops are blocked using the two nuts positioned inside and the two screws, as indicated in figure 29.

- Close the leaf completely and then fix one of the two mechanical stops resting on the drive carriage (figure 30 ref. F1).

- Open the leaf completely and then fix the other mechanical stop resting on the drive carriage (figure 31 ref. F2).



Position the two mechanical stops precisely, successively the control unit will memorise these end run positions for the correct opening and closure manoeuvre.

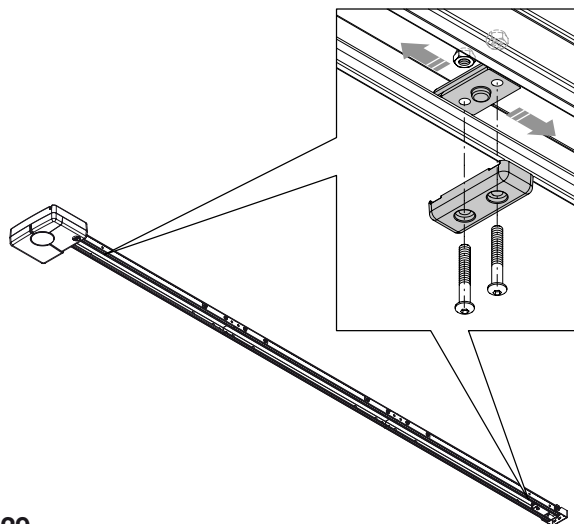


Fig.29

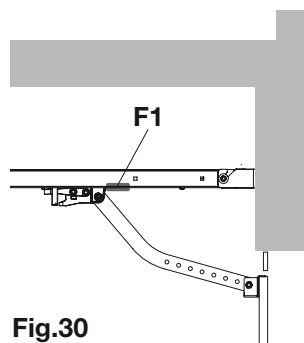


Fig.30

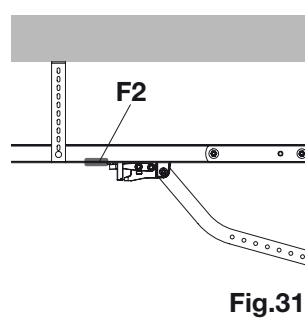


Fig.31

Installation of photocells P.BY

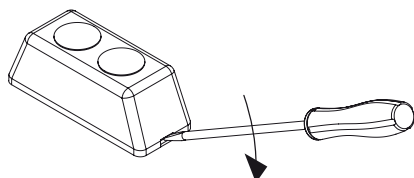
Description

Pair of photocells for detection of obstacles for automations for doors and gates.

The pair is made up of a transmitter (labelled TX) that sends an infrared ray towards the receiver (labelled RX). The receiver has an output with NC contact (normally closed). The interruption of the ray causes the contact to open, the control unit detects the receiver switch-over and interrupts the movement according to the settings selected.

Installation

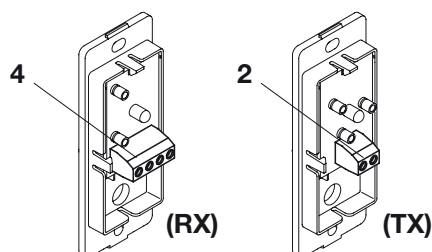
Open the photocells by using a screwdriver as a lever in the slot



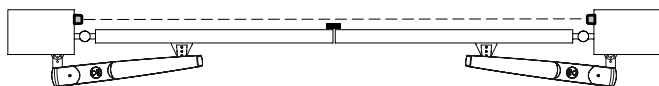
The difference between the receiver and the transmitter is evident from the number of clamps present on the boards:

4 clamps for the receiver (RX)

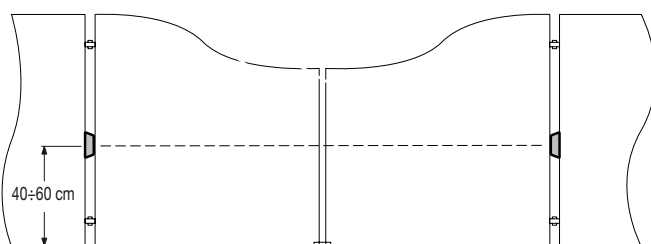
2 clamps for the transmitter (TX)



The two photocells must be fixed on the outside and as near as possible to the gate:



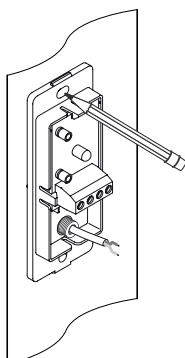
At a height of 40÷60 cm from the ground:



Trace the drilling holes using the photocell base as a reference.

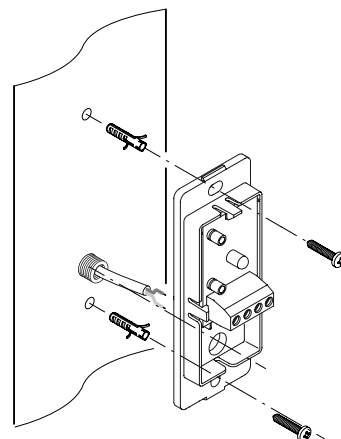
The hole in proximity of the terminal board must correspond to the passage of the cables.

Four 6 mm plugs and relative screws are supplied for fixing the photocells.



Make two holes with diameter of 6 mm in a way that the hole in proximity of the terminal board corresponds to the set-up of the cables.

Insert the cable and fix the base of the photocell to the wall using the plugs and screws.

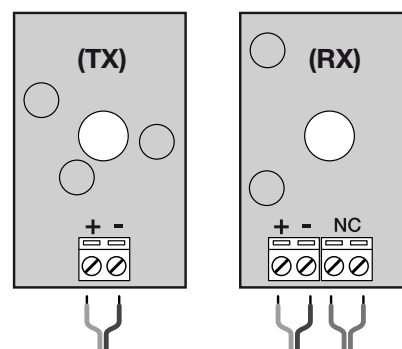


Connections

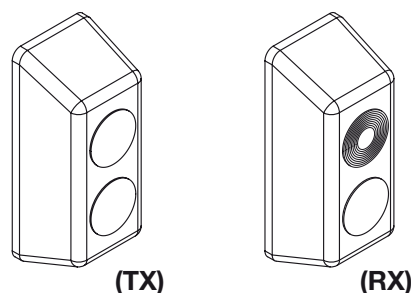
Connect the TX and RX to the control unit as per the main connection layout.

TX only requires power supply from the 24V output of the control unit, respect the polarities (+/-).

RX requires 24V power supply (respect the polarities +/-) and the connection of the NC contact at the PHOT C input.



Make the connections and re-position the covers checking that the cover with the lens (RX - 4 clamps) is applied to the receiver. The lens can be recognised by the concentric circles that are visible in transparency.



TECHNICAL DATA

TECHNICAL DATA	P.BY photocell
Power supply	24Vac/dc
Capacity (in optimal conditions)	about 20 metres
Absorption	15mA(TX) - 20mA(RX)
Functioning temperature	-20°C / +70°C
Protection rating	IP44
Dimensions	90x35x31 (mm)

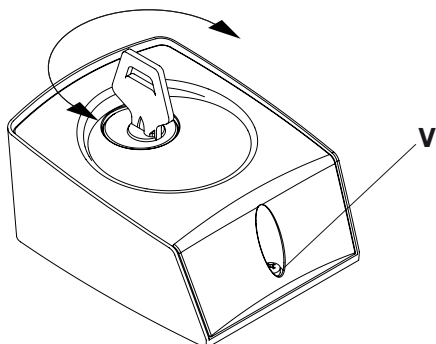
Installation of selector K.BY

Description

Key selector with control of automations for automatic gates and doors.

Wall fixing, customised key.

The customised key also has a burglar-resistance function as it is indispensable for opening the selector.

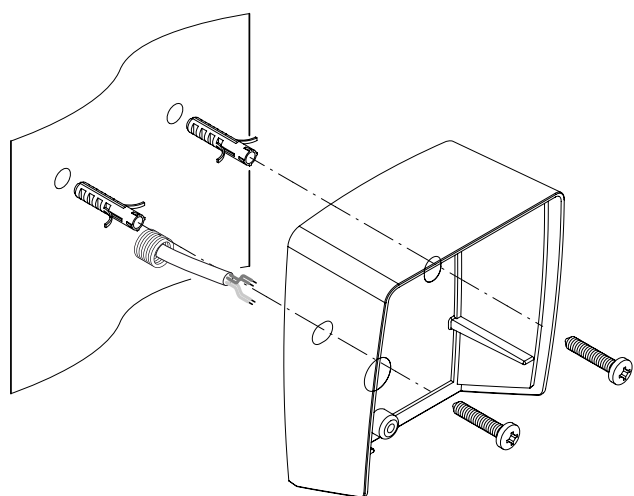


Installation

Select the position of the selector in a way that it is in proximity to the gate, at a height of about 80/100 cm.

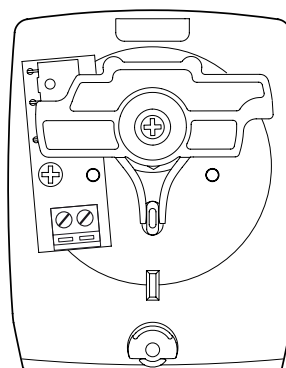
To open the selector, remove the screw V, insert the key, turn it in one of the two directions and hold it in this position, lift the selector cover, which separates from the fixed base. Keep the screw V, which is indispensable for closing the selector.

Two 6 mm plugs and relative screws are supplied for fixing the selector base to the wall.



Using the support as a reference, mark and make two holes with diameter of 6 mm in a way that the lower hole corresponds to the set-up of the cables.

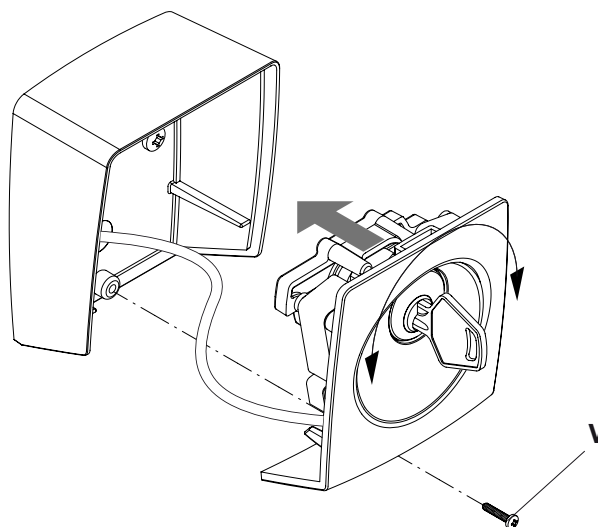
Insert the cable and fix the base to the wall using the plugs and screws.



Connections

A terminal board is installed on the selector for the connection to the Step-by-Step input (PP) of the control unit:

No polarity (+/-) has to be respected.



To close the selector, turn the key and hold it in this position, insert the selector into the base fixed to the wall.

Release the key and fix the screw V

TECHNICAL DATA	F.BY selector
Contacts	1 micro switch, with spring for return to central position
Functioning temperature	-20°C / +70°C
Protection rating	IP44
Dimensions	72x90x46 (mm)

Transmitter BY

Description

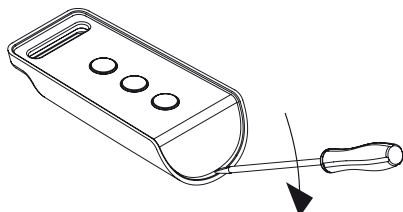
Radio transmitter for the long distance commands for BYOU automations.

Functioning

The transmitter has three buttons through which it is possible to command the various functions of the automation, configurable in the control unit.

Replacing the battery

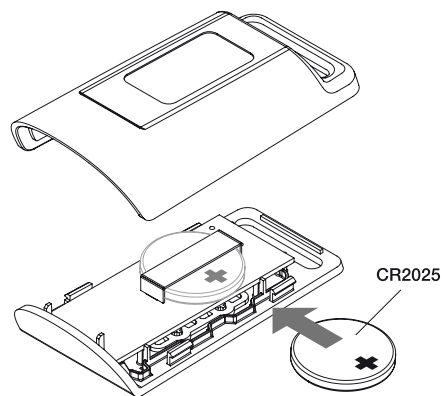
When the signal LED starts to flash it means that the battery is starting to go flat and must be replaced.



Use a small screwdriver as a lever in the zone indicated, in a way to open the transmitter.

Replace the new battery by inserting it with the positive pole upwards, as indicated in the figure.

IMPORTANT: Do not touch the batteries.
Use rubber gloves.



The batteries contain pollutants, do not throw them in the waste but dispose of the as special waste according to the Standards in force.

Close the transmitter.

TECHNICAL DATA

Transmitter BY	
Code	Rolling-code
Frequency	433,92 MHz
Functioning temperature	-20°C / +70°C
Dimensions	68x33x16 (mm)

Control unit CP.JMP



Before proceeding, check that the mains power supply is disconnected.

The control unit CP.JMP is inside the gear motor sump. To access the control unit, remove the screw V indicated in figure 32 and then open cover C.

The relevant opening highlighted in figure 33, which must be broken using a screwdriver, is envisioned for the passage of the accessory connection cables.

The connection cables must be anchored securely using a cable-block for example (not supplied).

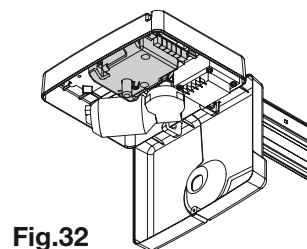
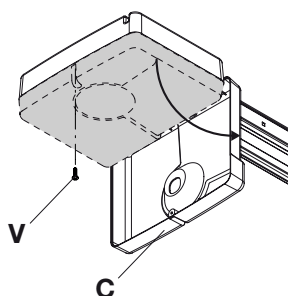


Fig.32

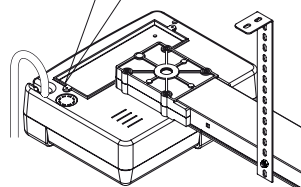
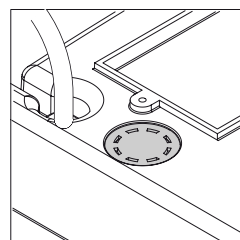


Fig.33



Below it is illustrated how to connect the optional accessories F.BY, K.BY and P.BY. If they are not present, pass to the next paragraph “Programming”.

Except for the mains connection cable, all electric connections have a voltage of 24V and can also be performed by unqualified staff.

Connect all accessories making reference to the layout in figure 34 and to the “Electric connections” paragraph, for that concerning the types of cable.

To make connection easier, the accessory clamps have colours that correspond to those of the control unit.

KEY:

- 1 24V E14 15 W "Courtesy light" bulb
- 2 Line protection fuse
- 3 Accessories protection fuse
- 4 "PGM" programming button
- 5 Programming button "5"
- 6 LCD

DESCRIPTION OF THE TERMINAL BOARDS

CLAMP	COLOUR	DESCRIPTION
PHOT	GREEN	NC input from the RX photocell. The two clamps are connected to each other by a wire (ref. "A"). Remove this wire only if the photocell is connected.
STOP	BLACK	STOP input NC contact for auxiliary "STOP" command (optional). The two clamps are connected to each other by a wire (ref. "A"). Remove this wire only if a device is connected to this input.
PP	WHITE	Step-by Step' command input from the key selector. At every impulse sent from the selector a sequence of commands, which can be configured using the PP function, is performed cyclically.
24V	YELLOW	24V output for photocells power supply. Respect the polarities + and - in the connections (ref "B").
BLINK	RED	24 Vdc flashing light connection output
SHIELD/ANT	BLUE	Connection of the aerial built-in the flashing light. When connecting the RG58 cable, the external shield must be connected to the SHIELD clamp.

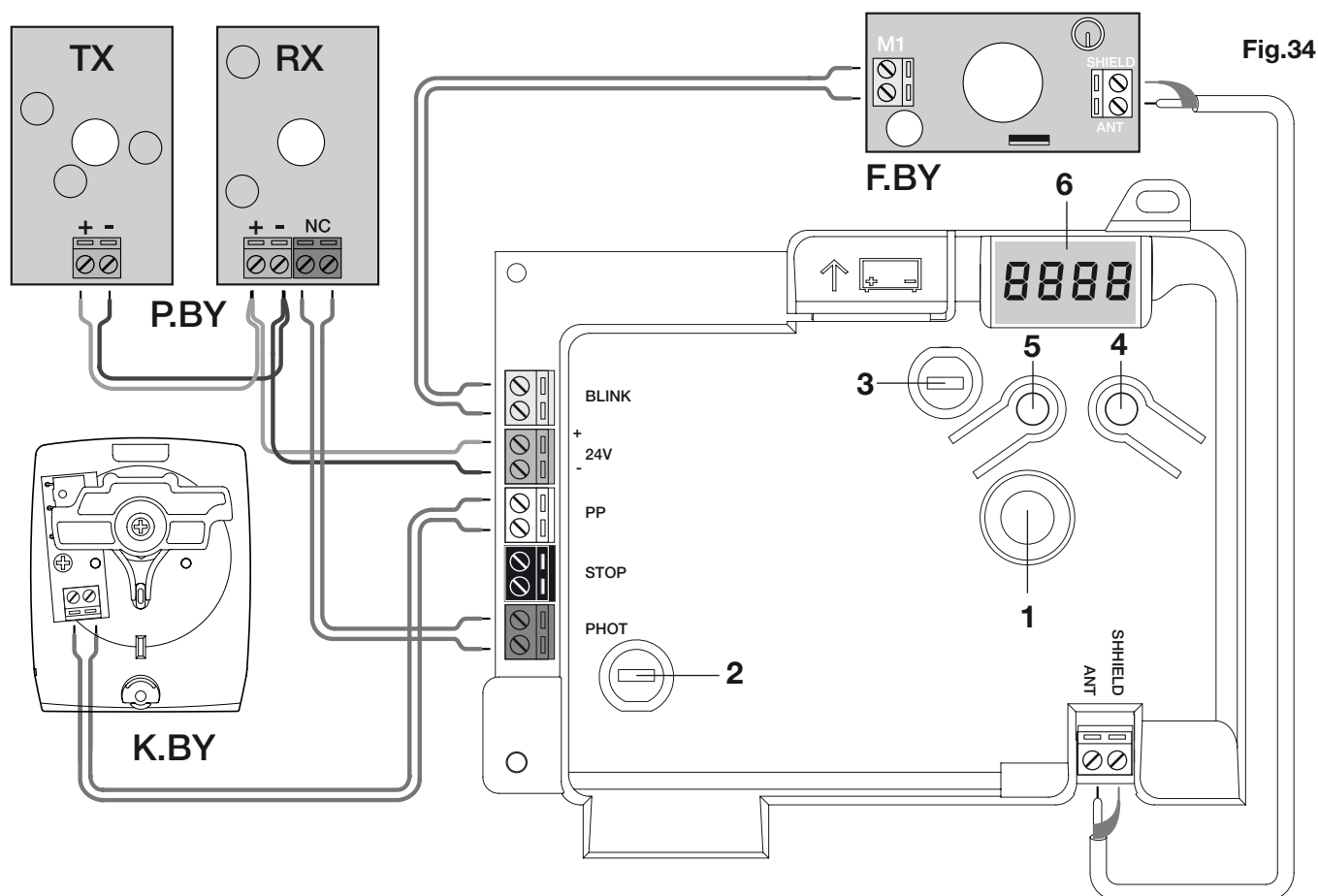
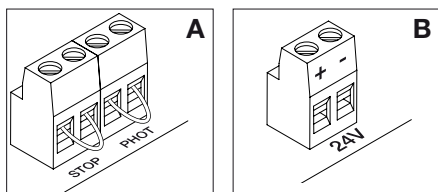


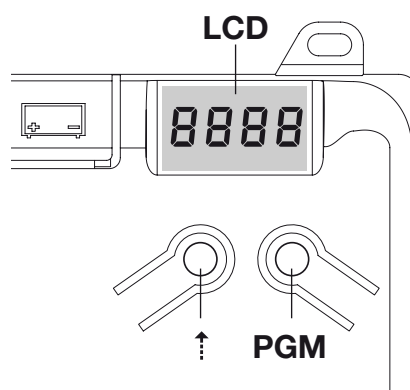
Fig.34

Programming the CP.JMP control unit - Introduction

Programming of the control unit allows the regulation of all parameters indispensable for the correct functioning of the automation.

Programming takes place by means of a series of menus that can be selected from the LCD. A function corresponds to every menu, which will be described successively.

PGM	The "PGM" button allows to enter programming, select the pre-selected menu and confirm the value selected.
↑	The "↑" button allows to scroll the various items in the menu and the values to be set cyclically.
PGM+↑	By pressing "↑" and "PGM" at the same time, return to the upper level of the menu or, if already at the first level, exit programming.



With the display off, the "↑" button performs a Step-by-Step command. This function can be useful during the programming and inspection phases.

Self-regulation of the functioning parameters (AUTO)

The first and most important function to program is the self-regulation of the parameters, which allows the control unit to set the end run points, the torque applied to the leaf and the slowing phases.

The slowing phase envisions that the last phase of manoeuvre, both opening and closure, are performed at a slower speed, thus allowing a silent manoeuvre.



During the autoset operations, the control unit automatically performs several opening and closure manoeuvres. Before proceeding, check that no person, animal or obstacle is or can be in the door manoeuvre area.

1	Apply mains power supply by connecting the plug	
2	Press the button [PGM] to access programming.	PGM
3	The display shows AUTO, select Auto by pressing the [PGM] button.	AUTO
4	AUTO starts to flash slowly. Press and hold the [PGM] key, after 5 seconds AUTO starts to flash quickly, release the key only when the display shows the PRG message.	
5	The self-regulation phase starts, the display shows PRG. The control unit commands different opening and closing manoeuvres at various speeds. At the end of the manoeuvre the display shows "OK"	PRG
6	To go back to the programming menu, press the [PGM] and [↑] buttons at the same time. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

The intervention of the photocells or any other transmitter or key selector command interrupts the autoset phase, displaying the ERR message. The procedure must therefore be repeated. Every self-regulation procedure overwrites the previous one.

Perform an autostop procedure after every maintenance intervention or modification of the door.

Regulation of the automatic closure time (TCA)

The automatic closure function allows to set a time, which, on expiry, if the leaf is in the open position the control unit autonomously commands a closure manoeuvre.

With this function active, if you forget to give the closure command or in the case of simultaneous commands, the control unit closes the leaf after the set time.

Factory settings envisions that the automatic closure is deactivated.

1	Press the [PGM] button to access programming or if the control unit is already in the programming menu, press [↑] until the TCA function is displayed.	TCA
---	--	-----

Regulation of the automatic closure time (TCA)...follows

2	Press the [PGM] button to enter the TCA parameter regulation. The display shows the current value of the TCA parameter. Use the [↑] key to select one of these values: 0 The TCA function is deactivated (default setting). 1 The pause time is set at 10 seconds 2 The pause time is set at 30 seconds 3 The pause time is set at 60 seconds 4 The pause time is set at 90 second	0000 0004
3	Confirm the desired value using the [PGM] key, the display shows PRG.	PRG
4	To go back to the programming menu, press the [PGM] and [↑] buttons at the same time. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

Regulation of the motor thrust (PMOT)

The force applied is normally set automatically by the control unit during the self-regulation phase (AUTO).
This menu can be used to modify that set by the control unit, to make up for a friction point for example.

1	Press the [PGM] button to access programming or if the control unit is already in the programming menu, press [↑] until the PMOT function is displayed.	PMot
2	Press the [PGM] button to enter the PMOT regulation. The display shows the current value of the PMOT parameter. Use the [↑] key to select one of these values: 1 low motors torque 2 medium/low motors torque (default setting) 3 medium/high motors torque 4 high motors torque	0001 0004
3	Confirm the desired value using the [PGM] key, the display shows PRG.	PRG
4	To go back to the programming menu, press the [PGM] and [↑] buttons at the same time. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

Regulation of courtesy light regulation time (TLS)

Using this function it is possible to modify the switch-on duration of the courtesy light (Fig.34 ref.1).
The courtesy light allows to light the place during opening and closure.

1	Press the [PGM] button to access programming or if the control unit is already in the programming menu, press [↑] until the TLS function is displayed.	TLS
2	Press the [PGM] button to enter the TLS regulation. The display shows the current value of the TLS parameter. Use the [↑] key to select one of these values: 1 Courtesy light OFF 2 Courtesy light active for 60 seconds from the last manoeuvre 3 Courtesy light active for 90 seconds from the last manoeuvre (default) 4 Courtesy light active for 120 seconds from the last manoeuvre	0001 0004
3	Confirm the desired value using the [PGM] key, the display shows PRG.	PRG
4	To go back to the programming menu, press the [PGM] and [↑] buttons at the same time. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

Note: Even in OFF the courtesy light switches-on during opening and closure manoeuvres and remains on if the door is open in stand-by for the TCA time.

Step-by-Step functioning mode (PP)

It is possible to select two different modes of the Step-by Step command sent from the transmitter or the key selector. Every time the button is pressed in the default mode, the following progression of commands is performed cyclically: OPEN>STOP>CLOSE>STOP>OPEN> and so on.

The sequence can be modified by eliminating the intermediate STOP commands: OPEN>CLOSE>OPEN> and so on.

1	Press the [PGM] button to access programming or if the control unit is already in the programming menu, press [↑] until the PP function is displayed.	PP
2	Press the [PGM] button to enter the PP regulation. The display shows the current value of the PP parameter. Use the [↑] key to select one of these values: ON OPEN>CLOSE>OPEN functioning OFF OPEN>STOP>CLOSE>STOP>OPEN> functioning (default)	on off
3	Confirm the desired value using the [PGM] key, the display shows PRG.	PrG
4	To go back to the programming menu, press the [PGM] and [↑] buttons at the same time. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

Pre-flashing functioning mode (Pre)

An imminent manoeuvre warning mode can be set through the pre-flashing function.

Once activated, the flashing light switches on 3 seconds before the door starts to move.

1	Press the [PGM] button to access programming or if the control unit is already in the programming menu, press [↑] until the Pre function is displayed.	PrE
2	Press the [PGM] button to enter the Pre regulation. The display shows the current value of the Pre parameter. ON pre-flashing activated OFF pre-flashing deactivated (default)	on off
3	Confirm the desired value using the [PGM] key, the display shows PRG.	PrG
4	To go back to the programming menu, press the [PGM] and [↑] buttons at the same time. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

Condominium function (IBL)

If used in condominiums, it may be preferable that further commands given during the opening phase are ignored.

This function can result useful if many users are involved, in a way to prevent several opening commands, given at the same time, causing the movement to stop.

1	Press the [PGM] button to access programming or if the control unit is already in the programming menu, press [↑] until the IBL function is displayed.	IBL
2	Press the [PGM] button to enter the IBL regulation. The display shows the current value of the IBL parameter. ON IBL mode activated OFF IBL mode deactivated (default)	on off
3	Confirm the desired value using the [PGM] key, the display shows PRG.	PrG
4	To go back to the programming menu, press the [PGM] and [↑] buttons at the same time. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

Resetting the control unit (Res)

This function annuls all settings made, taking the control unit back to the initial conditions. It also deletes the settings of the autostart procedure.

NOTE: Any remote controls memorised in the radio receiver are not deleted.

1	Press the [PGM] button to access programming or if the control unit is already in the programming menu, press [↑] until the Res function is displayed.	
2	Press the [PGM] button to enter the RES function. Press and hold [PGM], the RES message starts to flash quickly.	
3	Release the [PGM] button when the PRG message is displayed. The control unit is now taken to factory values.	
4	To go back to the programming menu, press the [PGM] and [↑] buttons at the same time. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

Memorising new transmitters (RADI>PP)

To memorise new transmitters with Step-by-Step function for the automation command, proceed as follows:

1	Press the [PGM] button to access programming or if the control unit is already in the programming menu, press [↑] until the Radi menu is displayed.	
2	Press the [PGM] button to enter the Radi function. The display shows the first sub-menu PP.	
3	Press the [PGM] button to enter the PP function. The display shows the flashing PUSH message.	
4	Press the BY transmitter button that is to be associated to the Step-by-Step function within 5 seconds.	
5	The display shows PRG to confirm memorisation.	
6	To go back to the PP programming menu, press the [PGM] and [↑] buttons at the same time. To go back to the programming menu, press the [PGM] and [↑] buttons at the same time. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

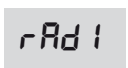
Deleting transmitters (RADI>CLR)

Proceed as follows to delete a transmitter already inserted in the memory:

1	Press the [PGM] button to access programming or if the control unit is already in the programming menu, press [↑] until the Radi menu is displayed.	
2	Press the [PGM] button to enter the Radi function. The display shows the first sub-menu PP. Press [↑] to display the CLR sub-menu	
3	Press the [PGM] button to enter the CLR function. The display shows the flashing PUSH.	
4	Press any transmitter button BY that is to be deleted within 5 s.	
5	The display shows OK to confirm cancellation.	
6	To go back to the PP programming menu, press the [PGM] and [↑] buttons at the same time. To go back to the programming menu, press the [PGM] and [↑] buttons at the same time. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

Complete deletion of the receiver memory (RADl>RTR)

To delete the memory completely, eliminating all previously-inserted remote controls, proceed as follows:

1	Press the [PGM] button to access programming or if the control unit is already in the programming menu, press [↑] until the Radi menu is displayed.	
2	Press the [PGM] button to enter the Radi function. The display shows the first sub-menu PP. Press [↑] twice to display the RTR sub-menu	
3	Press the [PGM] button to enter the RTR function. Press and hold [PGM], the RTR message starts to flash quickly.	
4	When the RTR message switches off, release the [PGM] button, the display shows the PRG message. All remote controls are now deleted from the memory.	
6	To go back to the PP programming menu, press the [PGM] and [↑] buttons at the same time. Press the [PGM] and [↑] buttons twice at the same time to go back to the main Radi menu. To exit programming, remove the power supply or wait for 60 seconds.	PGM+↑

Remote controls quick duplication

If you have a transmitter that is already memorised (TX1), it can be duplicated (TX2) without accessing the control unit for programming, proceed as follows:

1	With remote control that is already memorised (TX1), give an opening command and wait for the leaf to be in the completely open position.	
2	Press all three transmitter keys, already memorised, at the same time (TX1) until the courtesy light switches on*.	 TX1
3	Press the button of the remote control that is already memorised (TX1) that is to be copied into the new transmitter. The courtesy light switches-off for 5 seconds.	 TX1
4	When the courtesy light switches back on, press the button of the new transmitter (TX2) that is to assume the function of the button selected in point 3.	 TX2
5	If a new transmitter is to be duplicated, repeat the procedure from point 2. Wait 60 seconds to exit the programming procedure.	

* If the automatic re-closure function is active, pressing the three buttons at the same time suspends it to allow memorisation operations.



ALL OPERATIONS DESCRIBED IN THIS PARAGRAPH ARE EXCLUSIVE COMPETENCE OF AUTHORISED BYOU STAFF, IN COMPLIANCE WITH THAT ENVISIONED IN THIS MANUAL AND THE STANDARDS IN FORCE.

The respect for the indications given below is indispensable to guarantee the maximum safety of the automation.

The BYOU authorised technician must perform all tests envisioned by the Law, Standards and Regulations in force depending on the risks present, particularly respecting all requisites of the EN 12445 Standard, which establishes the test methods for gate automations.

INSPECTION

- 1 Check that the model selected is suitable for the type of application and that all automation components have been installed correctly, with respect to the indications in this manual.
- 2 Test opening and closure and control that the movement of the leaf is regular without friction points.
- 3 Check that all electric connections are made correctly and with cables that are in compliance with the Standards.
- 4 Check the correct functioning of photocells, transmitters, key selectors, manual release devices.
- 5 For the photocells, check that on the passage of a cylinder with diameter of 5 cm and length of 30 cm the switch-over takes place on the optical axis with the consequent movement stop. The photocells must intervene when passing the cylinder in proximity of the TX, in proximity of the RX and in the centre.
- 6 Take the measurement of the force of impact according to that indicated by the EN 12445 Standard, intervening, if necessary on the "Regulation of the motor thrust (PMOT) paragraph.
- 7 Replace the temporary power supply cable with a mains connection that is in compliance with the Standards in force and

the type of installation.

COMMISSIONING

Commissioning of the automation can only be performed if all of the previously-described inspection phases have had a positive result.

- 1 Apply the warning plate, supplied with the automation, to the gate in a well-visible position.
- 2 Apply a plate to the gate that contains the following data: Type of automation, name and address of the person in charge of commissioning (manufacturer), serial number, year of manufacture and CE mark.
- 3 Realise the technical file as per indications of the EN 12445 Standard, attaching the entire drawing (e.g. figure 2, electric wiring diagrams (e.g. figure 5), risk analysis and solutions adopted, declaration of conformity of the manufacturer of the devices used (included in this manual).
- 4 Fill in and supply the owner of the automation with the declaration of conformity.
- 5 Realise and supply the owner with the "user guide" for the automation, also using the user guide present in this manual.
- 6 Realise and supply the owner of the automation with the periodical maintenance plan.
- 7 Do not start the automation before having informed the owner completely regarding the dangers and risks deriving from incorrect use of the automation.

What to do if...

Below find the most common functioning problems and the relative solutions. :

Problem	Cause	Solution
The automation does not work	There is no mains power supply	Check for the presence of mains power supply
	The control unit is not connected	Check all connections to the control unit
	The photocells are engaged	Check that there is no obstacle between the photocells
	One or more protection fuses have intervened	Check the integrity of the fuses and replace them if necessary.
The automation does not work using the remote control.	The remote control battery is flat, the remote control LED flashes quickly the remote control has not been memorised	Replace the remote control batteries Memorise the remote control.
The automation does not work using the key selector	The selector is not connected correctly or is faulty.	Check the key selector connections or replace them if faulty
The gate stops in the opening or closure phase, inverts the movement for a few seconds and then stops.	The obstacle detection sensor has intervened	If no obstacles are present, release the motor and check for the presence of friction points. Perform a new self-learning. Increase the value of the PMOT parameter
The door does not close	STOP input active.	Check the connections of the STOP input
	Obstacle between the photocells or photocells broken	Remove the obstacle or check the photocells
The flashing light does not switch on	The bulb has blown	Replace the bulb
	The flashing light is not connected correctly	Check the connections.

The control unit LCD displays several messages during normal functioning and in the case of breakdown:

Message	Description
Err	Stop the autoset phase by pressing the [PGM] and [↑] buttons at the same time,
Err1	Motor error. Check the motor connections or broken motor
Err2	Photocell error. Check the photocell connections or broken photocells.
Err3	PP input activation error during the autoset phase
Err4	STOP input activation error during the autoset phase
Stop	STOP input active
Phot	Photocell input active
oPEn	Start of opening manoeuvre
cLoSE	Start of closure manoeuvre
RLt	Stop the manoeuvre by means of the PP command.
bAtt	The automation is functioning with the buffer battery in the absence of mains power supply (only with CB.BY accessory installed).

KEEP THIS GUIDE AND MAKE IT AVAILABLE TO ALL USERS OF THE AUTOMATION

SAFETY STANDARDS

Do not stand in the movement area of the door.
Do not allow children to play with the commands or in proximity of the leaves.

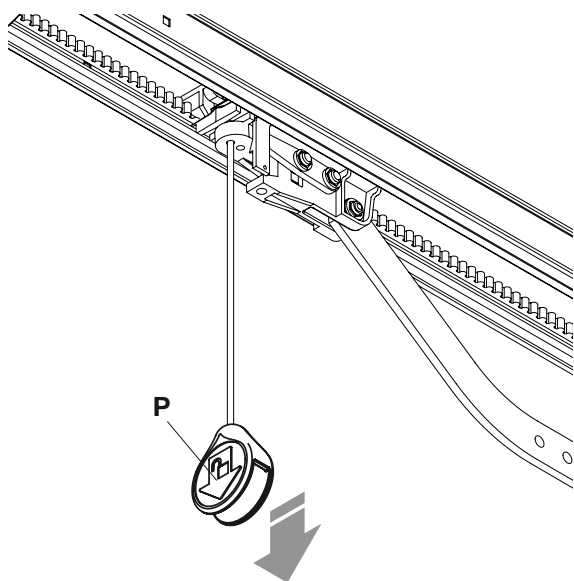


In the case of functioning anomalies do not attempt to repair the fault but contact a BYOU specialised technician.

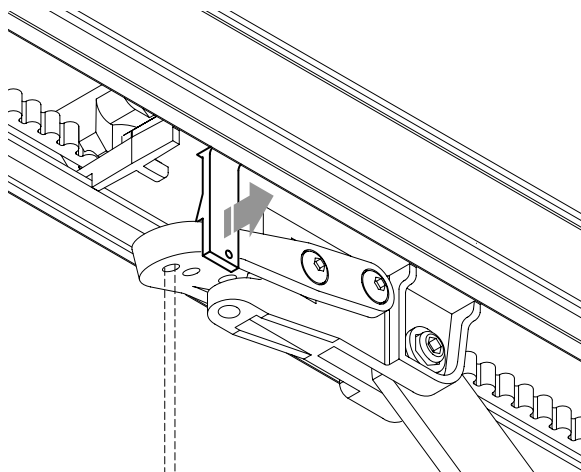
MANUAL MOVEMENT FROM INSIDE

In the case of functioning anomalies or power cuts, the automation can be released and the door moved manually, proceed as follows:

- 1) Pull knob P downwards.
- 2) The door is no longer restricted by the automation and can be opened and closed manually.



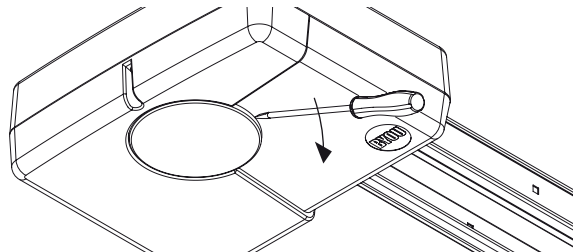
To go back to automatic functioning, push lever L and give an opening or closure impulse to the automation.



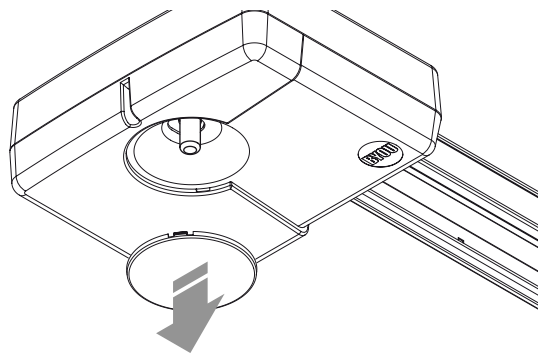
If the automation is at a height from the ground such that the lever L cannot be reached easily, use another cord with knob.

REPLACING THE COURTESY LIGHTS

Remove the transparent protection sump, using a screwdriver as a lever in the relevant seat.



Unscrew the bulb and replace it with one that has the same features (E14-24V)



MAINTENANCE

- Periodically check the efficiency of the manual emergency release.
- The actuator does not require routine maintenance, however it is necessary to periodically check the safety devices and the other parts of the plant that could create dangers following wear.

DISPOSAL

Whenever the product is put out of service, the legislative provisions in force must be followed regarding differentiated disposal and re-cycling of the various components (metals, plastics, electric cables, etc.). It is advised to contact a BYOU specialised technician or a specialised company that is enabled for this purpose.

CE declaration of conformity for machines
(Directive 89/392 CE, Attachment II, part B) - Do not put into service

The undersigned Luigi Benincà in quality of the legal representative, declares that the product:

Manufacturer: BYOU srl
Address: Via dell'Industria 91 - 36030 Sarcedo (Vicenza) - ITALIA
Description Electromechanical automation with built-in control unit
for sectional garage doors
Model: JUMP
Accessories: BY

is in compliance with the essential requisites envisioned by the following Directives:

Directive	Title
98/37/CE	98/37/CE DIRECTIVE OF THE EUROPEAN PARLIAMENT AND COUNCIL dated 22 June 1998 concerning the harmonisation of the legislations of the Member States relative to machinery
73/23/CEE	73/23/EEC DIRECTIVE OF THE EUROPEAN COUNCIL dated 19 February 1973 concerning the harmonisation of the legislations of the Member States relative to electric material destined for use within certain voltage limits
89/36/CEE	89/36/EEC DIRECTIVE OF THE EUROPEAN COUNCIL dated 3 May 1989, concerning the harmonisation of the legislations of the Member States relative to electromagnetic compatibility
199/5/CE	1999/5/CE DIRECTIVE OF THE EUROPEAN PARLIAMENT AND COUNCIL dated 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity

is in compliance with the essential requisites envisioned by the following Standards:

Standard	Edition	Title
UNI EN 12445	8/2002	Industrial, commercial and garage doors and gates. Safety when using motorised doors - Measurement methods
UNI EN 12453	8/2002	Industrial, commercial and garage doors and gates. Safety when using motorised doors - Requisites
ETSI EN301489-3	11/2001	Electromagnetic Compatibility and Radio spectrum Matters(ERM) Electro Magnetic Compatibility (EMC) standard for radio equipment and services
EN300220-3	2000	Radio appliances and systems (RES) - Short range devices – Technical features and test methods for radio equipment to use in the frequency range from 25 MHz to 1000 MHz with power levels up to 500 mW.
CEI EN60950	10/2001	Information technology equipment. Safety

and also declares that it is not allowed to start the machinery until the machine in which it has been incorporated or of which it will become a component has been identified and has been declared in compliance with the conditions of the 98/37/CE Directive and national legislation that transposes it, this means that until the machinery subject of this declaration does not form a complete unit with the final machine.

Sarcedo, 10/04/2009.

Luigi Benincà, Legal Representative

