

Operatore elettromeccanico per porte sezionali

Istruzioni d'uso ed avvertenze

Sectional door electromechanical operator

Operating instructions and warnings

Moto-reducteur pour portes sectionnelles

Instructions pour l'utilisation et avertissements

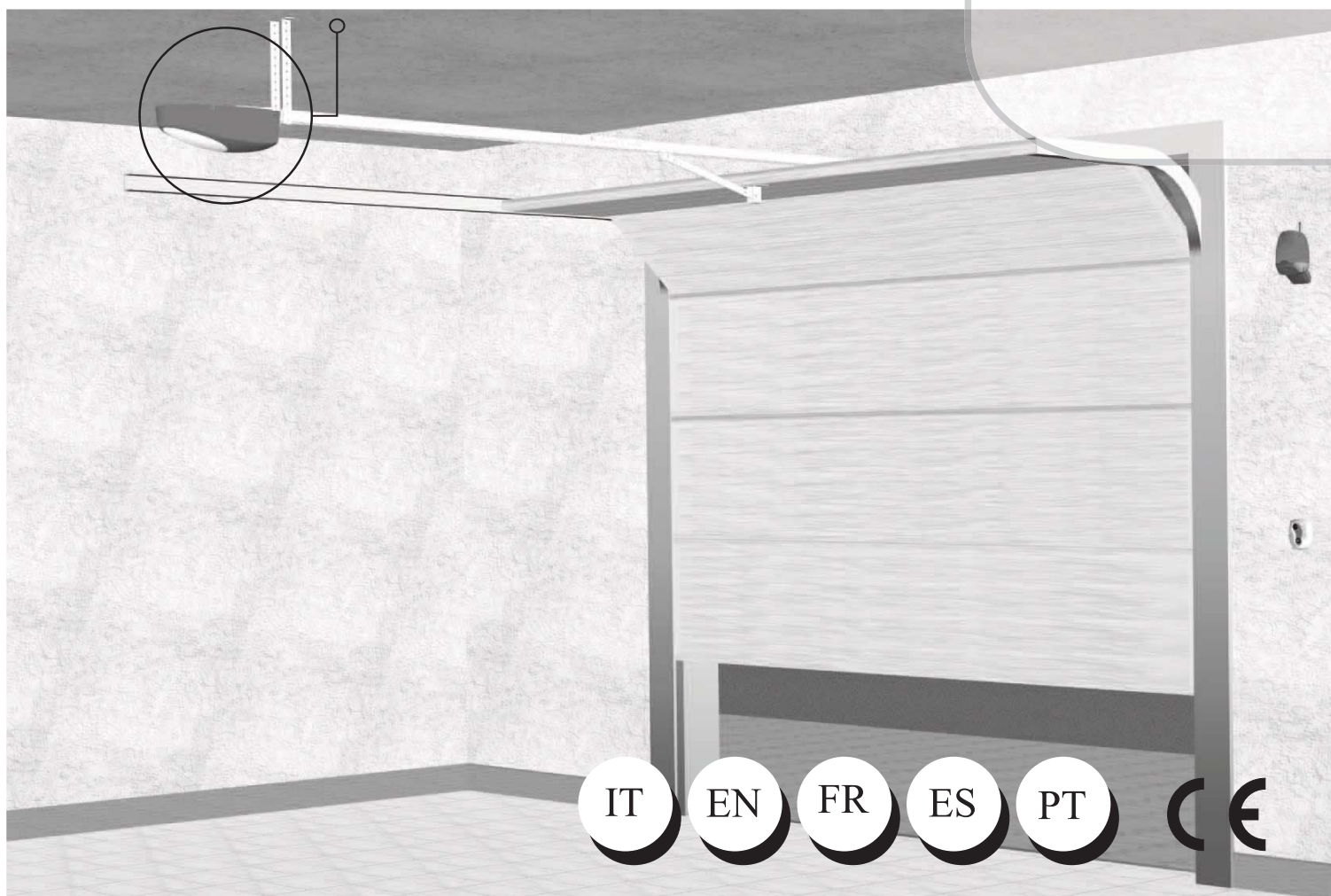
Operador electromecánico para puertas seccionales

Instrucciones de uso y advertencias

Operador electromecânico para portas seccionais

Instruções de uso ed advertências

DEA[®]



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SPAZIO

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Per facilitare la comunicazione e la rintracciabilità di particolari importanti informazioni all'interno del testo DEA System adotta la simbologia riportata.

EN USE OF THIS BOOKLET

In order to facilitate communication and the traceability of particularly important parts of the text, DEA System adopts the symbols provided.

FR UTILISATION DE CE LIVRET







Pour faciliter la communication et le repérage de renseignements spéciaux et importants à l'intérieur du texte, DEA System a adopté la symbolologie indiquée.

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	Pericolo Danger Danger Peligro Perigo
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	Ispezione Inspection Inspection Inspección Inspeção
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SPAZIO

Sectional door electromechanical operator

Use instructions and warnings

ENGLISH

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ANNEXES

- Instructions for the final user
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OVERVIEW

SCOPE OF THE INSTRUCTIONS

These instructions were prepared by the manufacturer and are an integral part of the product. The operations described are intended for adequately trained and qualified operators and must be carefully read and conserved for future reference.

Chapters "2 RESIDUAL RISK WARNINGS" and "4 OPERATING INSTRUCTIONS" contain all the information that **DEA** System provides in order for the product to constantly satisfy the Essential Safety Requirements prescribed by the Machinery Directive (European Directive 2006/42/CE). Read these chapters carefully because they contain important instructions for safe installation, use and maintenance and important warnings regarding the residual risks remaining even after all the safety devices and measures described have been applied. The product is designed for installation in complete closing systems subject to specific legislation. Chapter "7 COMPLETE CLOSING ASSEMBLY" provides useful information for the respect of the Essential Safety Requisites for special types of closing.



1 PRODUCT CONFORMITY

DEA System guarantees the conformity of the product to European Directives 2006/42/CE regarding machinery safety, 2004/108/CE electromagnetic compatibility and 2006/95/CE low voltage electrical equipment. **DEA** System also encloses the manufacturer's Declaration of Conformity with these instructions (see Directive 2006/42/CE Art. 4, paragraph 2).



2 RESIDUAL RISK WARNINGS

Read these warnings carefully; the failure to respect the following warnings can create risk situations.



WARNING The use of the product under unusual conditions not foreseen by the manufacturer can create situations of danger, and for this reason all the conditions prescribed in these instructions must be respected.

WARNING Under no circumstances must the product be used in explosive atmospheres or surroundings that may prove corrosive and damage parts of the product.

WARNING All installation, maintenance, cleaning or repair operations on any part of the system must be performed exclusively by qualified personnel with the power supply disconnected working in strict compliance with the electrical dards and regulations in force in the nation of installation

WARNING The use of spare parts not indicated by **DEA** System and/or incorrect re-assembly can create risk to people, animals and property and also damage the product. For this reason, always use only the parts indicated by **DEA** System and scrupulously follow all assembly instructions.

WARNING Awareness of the operation of the release mechanism (see F9 Page 48) is essential for all users of the automatism because the failure to use the device quickly during emergencies can jeopardise people, animals and property. Enclosure I to these instructions, which the installer is required to deliver to the final user, illustrates operation and can be detached.

WARNING **DEA** System reminds all users that the selection, positioning and installation of all materials and devices which make up the complete automation system, must comply with the European Directives 2006/42/CE (Machinery Directive), 2004/108/CE (electromagnetic compatibility), 2006/95/CE (low voltage electrical equipment). In order to ensure a suitable level of safety, besides complying with local regulations, it is advisable to comply also with the above mentioned Directives in all extra European countries.

WARNING To ensure an appropriate level of electrical safety always keep the 230V power supply cables apart (minimum 4mm in the open or 1 mm through insulation) from low voltage cables (motors power supply, controls, aerial and auxiliary circuits power supply), and fasten the latter with appropriate clamps near the terminal boards.

WARNING Any external safety device installed in order to conform to the limits set for impact forces must comply with EN12978.



⚠ WARNING Wrong assessment of impact forces may cause serious damage to people, animal and things. DEA System reminds all personnel that the installer must ascertain that these impact forces, measured according to EN 12445 prescriptions, are actually below the limits indicated by EN12453 regulation.



⚠ WARNING In line with EU Directive 2002/96/EC for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product by returning it to your local municipal collection point for recycling.



3 MODELS AND CONTENTS OF THE PACKAGE

DEA System articles in the series are listed in the "AVAILABLE MODELS" table. SPAZIO is completed by a set of accessories listed in the "PRODUCT ACCESSORIES" table. Inspect the "Contents of the Package" on Page 48 and compare it with your product for useful consultation during assembly.



4 OPERATING INSTRUCTIONS

"AVAILABLE MODELS" table

Article	Code	Power supply tension	Capacity (N)	Control board
702S	636000	24 V d.c.	500	724 RR
703S	636010	24 V d.c.	1000	124 RRZ

In compliance with Directive 2006/42/CE Enclosure I, Point 1.7.4.

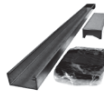





4.1 Product description

SPAZIO is an electromechanical operator for the automation of sectional, overhead counterweight and spring doors. It is basically made up of a mechanical operator (see F1 pages 45-46) rotating the draft gear that, through a chain transmits the movement directly to the door draft system thus moving it.

4.2 Technical data

See the "TECHNICAL DATA" table.

"PRODUCT ACCESSORIES" table

Article Code	Description	See inside back cover
720 639300	 1 mt. chain and guide extension	
721 639310	 Release handle	
721B 639320	 Simple release	
721C 639330	 Special lever to release mechanical locks	
722 639340	 Counterweight door bent arm	
723 639350	 Arm adaptor for sectional doors	

4.3 Labelling information

Part of the summarised data are listed in the label applied to the product (see Position F5, Page 46); the data regarding the seller are found in the enclosed Warranty, while "Indispensable Operating Safety Elements" are found under Point "4.2 Technical data".

4.4 Appropriate conditions of use

SPAZIO is designed to be installed as illustrated at page 45. Temperature range and degree of protection against dust and water and other data are shown in "4.2 Technical data". To

	Spazio 702 S	Spazio 703 S
Motor power supply voltage (V)	24 V ===	
Absorbed power (W)	120	230
Max Thrust (N)	500	1000
Work cycle	20 cycles/hour	25 cycles/hour
Max n° of operations in 24 hour	60	75
Operating temperature range (°C)	-20 ÷ 50 °C	
Opening speed (m/min)	5,3	6,9
Weight of product with package (Kg)	15	
Protection degree	IP20	

	724RR	124RRZ
Power supply (V)	230 V ~ ±10% (50/60 Hz)	
Rated power transformer (VA)	80 VA (230/22V)	150 VA (230/22V)
Fuse F1 (A)	T1A 250V (retarded)	T2A 250V (retarded)
Fuse F2 (A)	-	T2A 250V (retarded)
Outputs 24V motors (A)	70 W	
Auxiliaries power supply output	24 V === max 200mA	
"Warning" output	24 V === max 15 W	
Flashing light output	30 V === max 10W	
Receiver frequency	433,92 MHz	
Transmitters type of coding	HCS fix-code - HCS rolling code - Dip-switch	
Max remote controllers managed	100	



ensure proper working SPAZIO must be suitably positioned in relation to the door. DEA System recommended measures are shown in F3 p. 45. The operator must be chosen according to the door to automate and sliding properties, weight and width/height of the door must be assessed. elements to be considered.

⚠ WARNING The use of the product under unusual conditions not foreseen by the manufacturer can create situations of danger, and for this reason all the conditions prescribed in these instructions must be respected.

4.5 Instructions for risk-free operation

4.5.1 Transport

The SPAZIO gate operator is always delivered packed in boxes that guarantee the product adequate protection. Carefully read any warnings or instructions for storage and handling provided on the box.

4.5.2 Installation, assembly and disassembly

For a satisfying laying of the product it is important to define the entire automatic opening layout (see also "Complete closing assembly"); more specifically, after you have carefully assessed the features of the place, define model and correct positioning and then assemble SPAZIO (see F3 page 47):

- Fit the screws in the aluminium-profile slot
- Join the aluminium profiles with the appropriate connecting rods (**DO NOT screw the nuts too strongly**)
- Fasten the aluminium guide rail to the motor base by inserting the centering "tab" and wrap the chain over the draft pinion.
- Put under light tension the chain by operating on the indicated nut and fasten properly by using the lock nut
- Anchor the metal bracket to the wall aligning it to the center of the door by using appropriate bushings to anchor the screws and positioning it at right height
- Bolt the rail to the ceiling by using the M6 nut as shim between the aluminium-profile and the metal bracket. Cut and discard unused portion of the brackets.
- Screw or rivet the draft bracket to the door with appropriate screws/rivets.
- Adjust limit switch cams (see F4 pages 45-46), complete wiring (see wiring diagram) and then program the built-in control board as specified below.

⚠ WARNING All installation, maintenance, cleaning or repair operations on any part of the system must be performed exclusively by qualified personnel with the power supply disconnected working in strict compliance with the electrical standards and regulations in force in the nation of installation.

4.5.3 Starting

The installation of the product demands masonry and/or welding and electrical connection operations using adequate equipment for the job in complete respect of accident-prevention standards and regulations in force in the nation of installation.

Ensure the door to be automated is in good working condi-

tions, properly counterbalanced and that the whole structure is solid. The product is equipped with a built-in control board: see its instructions. (See paragraph 5.1 and 5.2)

4.5.4 Use

The product is intended to be part of a series of equipment that make up the door automation. DEA System assumes that it will always be used in compliance with the standards and regulations in use.

All SPAZIO models are equipped with an unlocking system: just turn the release handle in the direction shown in F9 page 48; now if no obstructions hinder its movement, the gate can now move freely. The door will be locked again automatically with the first travel thus returning the operator to its normal working conditions.

4.5.5 Adjustment

SPAZIO is preset with limit switches whose operation must be adjusted at the job site. In order to adjust the limit switch cams loosen fixing screw "B", and turn cams "A (Green)" and "C (Red)" until their respective micro-switches are activated, then fasten screws in their new position. (see F4 pages 45-46 and follow the instructions given in paragraph 5.2).

Other adjustments can be made directly on the control board that controls directly motor speed and can preserve torque even when operating at low rate, it can control duration of any slow down speed that may have been selected and anti-crush safety sensibility as well as other parameters as described in paragraphs 5.1 and 5.2.

⚠ WARNING To avoid premature failure of the operator program the control board appropriate slow down speed.

4.5.6 Maintenance and repair

Good preventive maintenance and regular inspection ensure long working life (see also "Warranty"). Consult the "TROUBLE-SHOOTING" table whenever anomalies are observed in order to find the solution to the problem and contact DEA System directly whenever the solution required is not provided.

The inspection/maintenance operations to be routinely scheduled in the "complete automatism maintenance register" are:

INTERVENTION TYPE	PERIODICITY
Chain and rotating joints lubrication	6 months
Check screws screwdown	6 months
Check chain tension	6 months

⚠ WARNING All installation, maintenance, cleaning or repair operations on any part of the system must be performed exclusively by qualified personnel with the power supply disconnected working in strict compliance with the electrical standards and regulations in force in the nation of installation.

"TROUBLE-SHOOTING" table

MALFUNCTION	CAUSES / SOLUTIONS
When the opening or closing command is activated the gate leaf fails to move and the operator's electric motor fails to start.	The operator is not appropriately powered; check all connections, fuses and power supply cable conditions and replace or repair if necessary. If the door does not close check that photocells work appropriately.
When the opening command is activated, the motor starts but the door fails to move	Make sure that the motor does not push in the opposite direction, the limit switch electrical connections might be reversed
The gate moves by fits and starts, it is noisy, it stops at half run or it does not start	The door does not move smoothly; unlock the motor and eliminates any obstacle from rotating points.
	The operator force might be insufficient for the door features; make sure the chosen operator model is fit.



⚠ WARNING The use of spare parts not indicated by **DEA** System and/or incorrect re-assembly can create risk to people, animals and property and also damage the product. For this reason, always use only the parts indicated by **DEA** System and scrupulously follow all assembly instructions.

4.6 Training

After installation and setting, the correct operation of the complete automatism must be carefully illustrated to the final user. The SPAZIO gate operator requires careful instruction on the release mechanism (see "Enclosures") in particular and the respective maintenance schedule (see Point 4.5.6.).

⚠ WARNING Awareness of the operation of the SPAZIO release mechanism (see F9 Page 48) is essential for all users of the automatism because the failure to use the device quickly during emergencies can jeopardise people, animals and property. Enclosure I to these instructions, which the installer is required to deliver to the final user, illustrates operation and can be detached.

4.7 Inappropriate use

Chapter "4.4 Appropriate conditions of use" describes the conditions for which the product has been designed and tested. The product must never be used for other purposes.

⚠ WARNING The use of the product under unusual conditions not foreseen by the manufacturer can create situations of danger, and for this reason all the conditions prescribed in these instructions must be respected.



5 WIRING AND CONTROL

BOARD PROGRAMMING

5.1 Wiring and terminal board connections

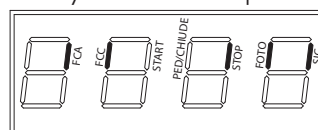
Connect to the power supply 230 V ~ ± 10% 50 Hz through a multi pole switch or a different device that can ensure multi pole disconnection from the power supply, with a contact opening of 3 mm. Ake all connections to the terminal board and remember to short-circuit, whenever necessary, all unused inputs. (See table 1 terminal board connection and page 43 basic and complete wiring diagram)

5.2 Programming

After making all connections to the terminal board, remember to short-circuit, whenever needed, any unused input (see "connection to the control board") and power the card: on the display you will read for a few seconds "rES-" followed by the symbol "---" which stands for gate closed.

•• Visualisation of inputs status

Press on the "OK" key to check if all inputs have been properly connected.



By pressing on the "OK" key when the control board awaits further instructions ("---"), the display shows some vertical segments: each one of them is associated to one of the control board inputs (see the picture above). When the segment is lighted it means that the contact associated to it is closed, on the contrary, when it is switched off the contact is open. You can

Centrale724RR SPAZIO 702S	Centrale124RRZ SPAZIO 703S	Table 1 Terminal board connection	
1-2 24 V ---	1-2 24 V ---	24 V --- transformer power supply input (faston BLU)	
/	3-4 24 V Batt	24 V --- battery power supply input (Follow carefully polarity indications)	
/	5-6 	Free contact max. capacity 5 A : this contact can be used to control an open gate warning light (P27=0) or a courtesy lamp (P27≠0)	
13-14 LAMP	7-8 	Flashing light output 24 V --- max 15W art. Lumy 24S The intermittent output does not demand the use of a flashing light card.	
13 COM	9 COM	Common safety devices / Connection of motors metallic parts	
13-12 +24VAUX	9-10 +24VAUX	+24 V --- power supply output for auxiliary circuits and uncontrolled safety devices To be used as power supply of any auxiliary devices, photocell receivers (in all cases), and of safety devices when testing these latter before each operation	
13-11 +24VSIC	9-11 +24VSIC	+24 V --- power supply output for controlled safety devices. To be used as power supply of photocell transmitters (in all cases) and of safety devices when testing these latter before each operation	
3-4	12-13	Motor output 24 V --- max 70W	
J3	14 FCA	N.C. input limit switch while opening.	
J3	15 FCC	N.C. input limit switch while closing.	
5 START	16 START	N.O. open input. If activated, it opens or closes both motors. It can work in "reversal" mode (P25=0) or "step-by-step" mode (P25=1)	
6 CHIUDE	17 PEDON	PEDESTRIAN/CLOSE N.O. input. If it is set off it may: partly open the door (If P030>1); close the door (If P030=1); close the door in all cases (If P030=0)	
7 STOP	18 STOP	N.C. stop input. If activated, it stops the movement of both motors during any operation. If unused, short circuit to common	
8 FOTO	19 	N.C. Photocell input. In case of activation it reverses the movement only while closing (P26=0) or it reverses the movement while closing and stops while opening (P26=1). If unused, short circuit to the common	
9 SIC	20 	N.C. leaf safety device input. In case of activation it reverses the movement (P18=0) or it stops it (P18=1). If unused, short circuit to the common	
10 COM	21 COM	Common inputs	
15	22	Aerial ground input	
16	23	Aerial signal input	



now position the door/gate in its position of max. opening. In order to do this:

•• Setup and memorization of motor stroke

⚠ WARNING During motors stroke memorisation, the control board detects automatically the presence and type of photocells, safety devices and limit switches which are installed. It is therefore essential that during this phase the latter be properly connected and working.

Instruct.	Function	Display
	Manually position the door in the half open position then power up the control panel, the panel is now waiting for instructions.	----
+/-	Scroll down the parameters until you visualize procedure P003	P003
OK	Confirm! The control board awaits a further confirmation	APP_r
OK ↓	Confermare tenendo premuto il tasto OK! until APPR stops flashing: control panel is ready to be programmed.	APP_r
	Give a START impulse (by an already memorised remote or a keypad): door opens.	APP_r
	Once it arrives at desired opening point, give a START impulse: door stops. Adjust the green cam so that it presses the opening limit switch.	APP_r
	Give a START impulse: door closes.	APP_r
	Once it arrives at the closed position, door stops. Adjust the red cam so that it presses the closing limit switches. Display will show "----", programming complete.	----

•• Built-in radio receiver

DEA control board includes a 433,92MHz built-in radio receiver accepting both transmitters with HCS coding (complete rolling code or just fixed part), and HT12E dip-switch coding.

- The type of coding is selected by programming the working parameter n° 8 "type of coding" (see Table 2 Parameters)
- The receiver memory capacity can contain up to 100 different transmitters.
- When receiving a pulse from the transmitter, depending on your channel selection and linking, the start or the pedestrian/close inputs are activated. In fact, by programming one of the working parameters it is possible to choose, according to one's needs, which key of the memorized transmitters will activate the start input and which one will activate the pedestrian input (see "Channel selection and linking on the transmitter").
- While you memorize each transmitter the display shows a progressive number by which you will be able to trace and, if necessary, delete each transmitter individually

Instruct.	Function	Display
	The control board is ready to receive instructions	----
Deletion of all transmitters		
+/-	Scroll down the parameters until you visualize P004	P004
OK	Confirm! The control board awaits a further confirmation	CRnC
OK ↓	Confirm by pressing on the OK key for a few seconds! The procedure starts	CRnC
↑	Done! The transmitters memory has been deleted	P004
+/-	Scroll down the parameters until you visualize "----". The control board awaits further instructions	----
Memorization of transmitters ¹		
+/-	Scroll down the parameters until you visualize P005	P005

OK	Confirm! The receiver enters in memorization mode. The flashing light turns on	LEAr
CH1 CH2 CH3 CH4	Press on any key of the transmitter.	
	Memorization done! The flashing light goes out for 2 seconds. The display visualizes the number of the transmitter just memorized (es. "r001")	r001
	The receiver reverts automatically to memorization mode. The flashing light turns on again	LEAr
	Memorize all necessary transmitters	
	Wait 10 seconds before quitting the memorization mode The receiver will now receive all the memorized transmitters	---
How to activate the memorization mode without Operating on the control board ¹		
	Press simultaneously on key CH1 and CH2, or on the hidden key of a transmitter already memorized	LEAr
How to search and delete a transmitter		
+/-	Scroll down the parameters until you visualize P006	P006
OK	Confirm! You can now select the transmitter	r001
+/-	Scroll down the transmitter numbers until you reach the transmitter to be deleted (eg. "r003")	r003
OK ↓	Confirm the deletion by pressing the OK key for a few seconds	r003
	OK! The transmitter is deleted	---
↑	You can now select the parameter	P006
+/-	Scroll down the parameters until you visualize "----". The control board awaits further instructions	----

¹ Make sure that the receiver is set to receive the type of coding of the transmitter you wish to memorize: visualize and, if necessary, update parameter n° 8 "type of coding" (see "Personalization of working parameters")

•• Channel selection and linking on the transmitter

The built-in receiver can control both the start input and the pedestrian/close one. By setting the correct value of the parameter "P009 Selection and linking of channels" it is possible to decide which key of the transmitter will activate each input. If you check on the "working parameters" table you will realize that the P009 parameter allows you to choose among 16 different combinations. If, for instance, you attribute value "3" to the parameter P009, all memorized transmitters will activate the start input through the CH1 and the pedestrian input through CH4. Please refer to chapter "Personalization of working parameters" in order to select your own combination..

•• Personalization of working parameters

Instruct.	Function	Display
	The control board is ready to receive instructions	----
+/-	Scroll down the parameters until you visualize the one you wish to set (ex. P010)	P010
OK	Confirm! The display shows the set parameter value	d100
+/-	Increase or decrease the value until you reach the value you wish to define	d080
OK	Confirm! The display shows again the parameter	P010
+/-	Scroll down the parameters until you visualise "----". The control board awaits further instructions	----
	The automation is now ready to work according to the new working parameters.	

•• Resetting of default parameters (p.007)

DEA control board software includes a reset procedure to restore default values (the one set by the maker) of all settable parameters. The value originally set for each parameter is shown in the "working parameters table". In case you should reset all



values and restore all default values, proceed as follows:

Instruct.	Function	Display
	The control board is ready to receive instructions	----
	Scroll down the parameters until you visualize P007	P007
	Confirm! The control board awaits a further confirmation	dEF-
	Confirm by pressing on the OK button. The procedure starts	dEF-
	All parameters are now set at their original value	P007
	Scroll down the parameters until you visualise "----". The control board awaits further instructions	----

•• Safety devices

DEA control board allows fitters to set up installations that truly comply with European regulations concerning automated garage doors and gates. More specifically, this control board allows you to comply with the limits set by the same regulations as to impact forces in case of collision with obstacles.

DEA control board is equipped with a built-in anti-crush safety device that, associated to the possibility of tuning up the motors' speed, allows you to comply with the limits imposed by the above mentioned regulations in most installations.

In particular, you can adjust the anti-crush safety device sensitivity by properly setting the value assigned to the following parameters (see also "Personalization of working parameters"):

- P014 motor 1 force in opening: from 30 (min. force, max sensitivity) to 100 (max force, neutralized sensitivity)
- P015 motor 1 force in closing: from 30 (min. force, max sensitivity) to 100 (max force, neutralized sensitivity)

In case the gate structural features do not allow you to comply with the above force limits, it is possible to use external safety devices inputs. SIC inputs can be configured by properly setting parameter no. 18:

- P018= 0 "rib" mode functioning: when the input is activated the movement direction of the motors is inverted.
- P018=1 "photoelectric barriers" mode functioning: when the input is activated, the motor stops.

If SIC input is unused, it is necessary to short circuit it to common. If you power external safety devices through 24VSIC output (terminal no. 22), their proper working is tested before each manoeuvre.

•• Messages shown on the display

Control board allows you to visualize on the display several messages concerning its working status and any malfunction:



6 SPARE PARTS LIST

The list of spare parts that can be ordered is a detailed list that accompanies the exploded view of the product and must be used to order spare parts.

The following data must always be provided when ordering spare parts:

- the code of the product (seen on the product label; see F5, Page 46),
- the part's position number in the exploded view,
- if available, the product's purchase date may be useful in some cases.



7 COMPLETE CLOSING ASSEMBLY

This chapter illustrates the typical installation of a complete automatism for the purpose of informing and assisting the installer in the selection of the various parts to be used in compliance with Machinery Directive (2006/42/CE) and European Safety Standards (EN 12453 - EN 12445 - EN 12604) for gate

installation.

The data provided in this chapter are neither complete nor exhaustive, and DEA System declines all liability for any errors, omissions or inaccuracies that may occur.

7.1 Minimum level of protection provided by the safety edge

The risk of getting crushed between the gate and the fence or wall and/or other fixed parts is among the most serious risks to be considered when automating a sliding gate is. An appropriate type of operating control board must be used according to the gate type and use against such risk, as provided for by the quoted regulations (see "OPERATING CONTROL" table).

7.2 Scissoring in side arms

The risk of scissoring on side arms is a relevant risk on automated overhead doors. The above-mentioned regulations prescribe the implementation of one of the following solutions against such risk:

- ensure there is no point of scissoring between the telescopic arms and the door arms nor with the frame nor with the door (F10 page 48);
- use adequate protection for your hands in the area;
- this protection is not required if the installation is in a private home which does not give onto a public area and there is no timer-set automatic closing.

7.3 Impact in the opening/closing area

Install a pair of photocells on one or the other side of the gate or on both in order to avoid the risk of impact with the gate in the closing area. (recommended height: 500 mm) in order to detect the presence of the test parallelepiped (height: 700 mm) positioned as shown in F11 on Page 48.

Note. The presence detection test sample is a parallelepiped with 3 sides with light-coloured reflecting surfaces and 3 sides with dark-coloured, opaque surfaces.

Make sure there is no conflict when the photocells are installed on both sides. The system working on the gate side where the test sample is positioned must detect all test objects.



Messages shown on the display

Message	Description	
MESSAGES CONCERNING WORKING STATUS		
----	Closed	
JL	Open	
OPEN	Opening under way	
CLOS	Closing under way	
STEP	While in step-by-step mode, the control board awaits further instructions after a start command	
bLOC	Stop input activated	
bArr	SIC activated while working in barrier mode	
ERROR MESSAGES		
Message	Description	Possible solutions
Err1 Err2	They point out that the gate has exceeded: - (Err1), the max allowed number of reversals (50) without ever reaching to the limit switch; - (Err2) the max number of uninterrupted operations (10) of the anti-crush safety device; Therefore an "emergency maneuver" is under way: the control board sets automatically the motors in a slow down phase and searches to the limit switch in order to reset the positioning system. Once to the limit switch while closing are found again the message disappears and the control board awaits further instructions "----" and then resumes working normally.	In case the gate is not properly closed after the emergency maneuver (maybe because of false stops or obstacles due to mechanical frictions), proceed as follows: - Disconnect the power supply, check manually that no particular frictions and/or obstacles are present during the complete stroke of the door/gate. Leave the door/gate half-open. - Connect the power supply again and subsequently give a start pulse. At this point the door/gate will start to close in slow down phase until reaching to the limit switch. Make sure that the maneuver is properly completed. Adjust force and motor speed values, if needed. If the gate keeps working inappropriately try to repeat the motor stroke memorization procedure
Err3	External photocells and/or safety devices are activated or out of order	Make sure that all safety devices and/or photocells installed are working properly.
Err4	The motor is not connected or it signals control board failure	Make sure that the motor is properly connected. If the message reappears change the control board.
Err5	Voltage of the control board power supply is beyond admitted range	Ensure power supply voltage on faston connections 1-2 is equivalent to 22 V \pm +/-10% and on faston connection 3-4 is equivalent to 27 V \pm +/-10%.
Err6	The motor is probably overheated because something hinders the door travel range. The control board does not react to commands	Remove any obstacle and wait until message "bLOC" replaces message "Err6" for the control board to resume accepting instructions (a few seconds).

"OPERATING CONTROL" table

Type of control	Type of use		
	Informed users (private areas)	Informed users (public areas)	Uninformed users
Person-present control	Pushbutton control	Pushbutton control with key	The person-present control is not possible
Pulse control with the gate in sight	Force limitation or presence detectors	Force limitation or presence detectors	Force limitation and photocells or presence detectors
Pulse control with the gate not in sight	Force limitation or presence detectors	Force limitation and photocells or presence detectors	Force limitation and photocells or presence detectors
Automatic control (i.e. control with timed closing)	Force limitation and photocells or presence detectors	Force limitation and photocells or presence detectors	Force limitation and photocells or presence detectors



PROCEDURE DESCRIPTION																																																										
PROCEDURE	P001	Positioning of the door/gate																																																								
	P002	Unused parameter																																																								
	P003	Memorization of the motors' stroke																																																								
	P004	Deletion of the radio receiver memory																																																								
	P005	Transmitters memorization																																																								
	P006	Search and deletion of a transmitter																																																								
	P007	Resetting of default parameters																																																								
PARAMETER DESCRIPTION		SETTABLE VALUES ¹	USER ²																																																							
PARAMETRES	P008	Type of coding of the radio receiver	000 HCS fixed part only 001 HCS rolling code 002 HT12E dip switch																																																							
	P009	Channel selection and linking to "start" and "pedestrian" inputs	<table border="1"> <thead> <tr> <th></th> <th>start</th> <th>pedest.</th> <th></th> <th>start</th> <th>pedest.</th> </tr> </thead> <tbody> <tr> <td>001</td> <td>CH1</td> <td>CH2</td> <td>009</td> <td>CH3</td> <td>CH4</td> </tr> <tr> <td>002</td> <td>CH1</td> <td>CH3</td> <td>010</td> <td>CH4</td> <td>CH1</td> </tr> <tr> <td>003</td> <td>CH1</td> <td>CH4</td> <td>011</td> <td>CH4</td> <td>CH2</td> </tr> <tr> <td>004</td> <td>CH2</td> <td>CH1</td> <td>012</td> <td>CH4</td> <td>CH3</td> </tr> <tr> <td>005</td> <td>CH2</td> <td>CH3</td> <td>013</td> <td>CH1</td> <td>CH2³</td> </tr> <tr> <td>006</td> <td>CH2</td> <td>CH4</td> <td>014</td> <td>CH2</td> <td>CH2³</td> </tr> <tr> <td>007</td> <td>CH3</td> <td>CH1</td> <td>015</td> <td>CH3</td> <td>CH2³</td> </tr> <tr> <td>008</td> <td>CH3</td> <td>CH2</td> <td>016</td> <td>CH4</td> <td>CH2³</td> </tr> </tbody> </table>		start	pedest.		start	pedest.	001	CH1	CH2	009	CH3	CH4	002	CH1	CH3	010	CH4	CH1	003	CH1	CH4	011	CH4	CH2	004	CH2	CH1	012	CH4	CH3	005	CH2	CH3	013	CH1	CH2³	006	CH2	CH4	014	CH2	CH2³	007	CH3	CH1	015	CH3	CH2³	008	CH3	CH2	016	CH4	CH2³	
		start	pedest.		start	pedest.																																																				
	001	CH1	CH2	009	CH3	CH4																																																				
	002	CH1	CH3	010	CH4	CH1																																																				
	003	CH1	CH4	011	CH4	CH2																																																				
	004	CH2	CH1	012	CH4	CH3																																																				
	005	CH2	CH3	013	CH1	CH2³																																																				
	006	CH2	CH4	014	CH2	CH2³																																																				
	007	CH3	CH1	015	CH3	CH2³																																																				
	008	CH3	CH2	016	CH4	CH2³																																																				
	P010	Motors' speed during normal stroke (calculated as % of max speed)	50 100																																																							
	P011	Motors' speed during slow-down phase (calculated as % of max speed)	30 <u>60</u> 100																																																							
	P012	Slow-down duration (expressed as % of total stroke)	10 <u>25</u> 50																																																							
	P013	Unused parameter																																																								
	P014	Motor's force while opening (if = 100 --> max force, sensitivity on obstacle excluded)	30 <u>90</u> 100																																																							
	P015	Motor's force while closing (if = 100 --> max force, sensitivity on obstacle excluded)	30 <u>90</u> 100																																																							
	P016	Unused parameter																																																								
	P017	Unused parameter																																																								
	P018	Selection of type of external safety device: rib / barrier. If the "rib" modality is selected, the SIC input activation inverts the movement direction; during slow-down phase, while if the "barrier" modality is selected the movement is stopped.	000 "safety rib" mode 001 "photoelectric barrier" mode																																																							
	P019	Time of automatic closing (expressed in sec). If = 0 the automatic closing is deactivated	0 <u>10</u> 255																																																							
	P020	Time of pre-flashing (expressed in sec)	0 <u>2</u> 15																																																							
	P021	Unused parameter																																																								
	P022	Unused parameter																																																								
	P023	Collectivity function: if it is activated it deactivates both start and pedestrian inputs for the whole duration of automatic opening and closing	000 deactivated 001 activated																																																							
	P024	Ram blow function: if it is activated, it pushes the motors closed for one second before each opening movement, so as to ease motor's start	000 deactivated 001 activated																																																							
	P025	Operating program: reversal (start->open, start->close, start->open ...), step-by-step (start->open, start->stop, start->close...)	000 reversal 001 step-by-step																																																							
	P026	Photocell function even while opening: if it is activated, the photocell stops the movement while opening until the obstacle is removed. In any case it reverses the direction of movement while closing	000 Photocell activated only in closing 001 Photocell activated also in opening																																																							
	P027	Clean contact operation: - If = 0, open gate fixed warning light, the contact is always closed when the gate is moving or opened, it opens again only when the closing movement is completed - If = 1, open gate intermittent light, the contact is slow while opening and fast while closing, always closed when the gate is opened, it opens again when the closing movement is completed - If > 1 courtesy light, the contact is closed during every movement, it opens again when the motor stops according to a pre-settable delay (expressed in sec)	000 open gate fixed warning light 001 open gate intermittent warning light >001 courtesy light with settable delay-off																																																							
	P028	Short reversal at end of stroke: when the door/gate reaches the end of stroke, it reverses shortly the movement so as to "release" the mechanical stress due to the door/gate pressure on the end of stroke itself	000 deactivated 001 activated																																																							
	P029	Unused parameter																																																								
	P030	"PED" input functioning -If=0, it ensures the door or gate closing in any position, "AP" input works normally. -If=1 the "PED" input starts the closing while "AP" starts the opening. -If=2 the "PED" input (permanent command) starts the closing, the "AP" input (permanent command) starts the opening. The gate stops at release. -If>2 "PED" starts the pedestrian opening. The selected value indicates the duration of the pedestrian stroke (expressed as a % of the total stroke). The "AP" input normally works.	000 Central lock 001 Separate lock 002 Man present command >002 Pedestrian																																																							
	P031	Ramps-up rate -If=0 The motor starts immediately at the selected speed -If=1 The motor speeds up progressively until it reaches the selected speed	000 fast ramp 001 slow ramp																																																							
	P032	Reaction at detection of an obstacle while opening -If=0 the door reverses travel direction -If different from 0 the door reverses travel direction only for the time set (expressed in sec)	0 10																																																							
P033	Reaction at detection of an obstacle while closing -If=0 the door reverses travel direction -If different from 0 the door reverses travel direction only for the time set (expressed in sec)	0 10																																																								
P034	Unused parameter																																																									

¹ The default value, set by manufacturer at the factory, is written in bold and underlined.
² Column reserved to the installer to fill in with the automation personalised parameters
³ Inactive channel.

Table 2 Parametres



Esempio di installazione tipica - Example of typical installation - Exemple d'installation typique
Ejemplo de instalación típica - Exemplo de instalação típica

DEA System fornisce queste indicazioni che si possono ritenere valide per un impianto tipo ma che non possono essere complete. Per ogni automatismo, infatti, l'installatore deve valutare attentamente le reali condizioni del posto ed i requisiti dell'installazione in termini di prestazioni e di sicurezza; sarà in base a queste considerazioni che redigerà l'analisi dei rischi e progetterà nel dettaglio l'automatismo.

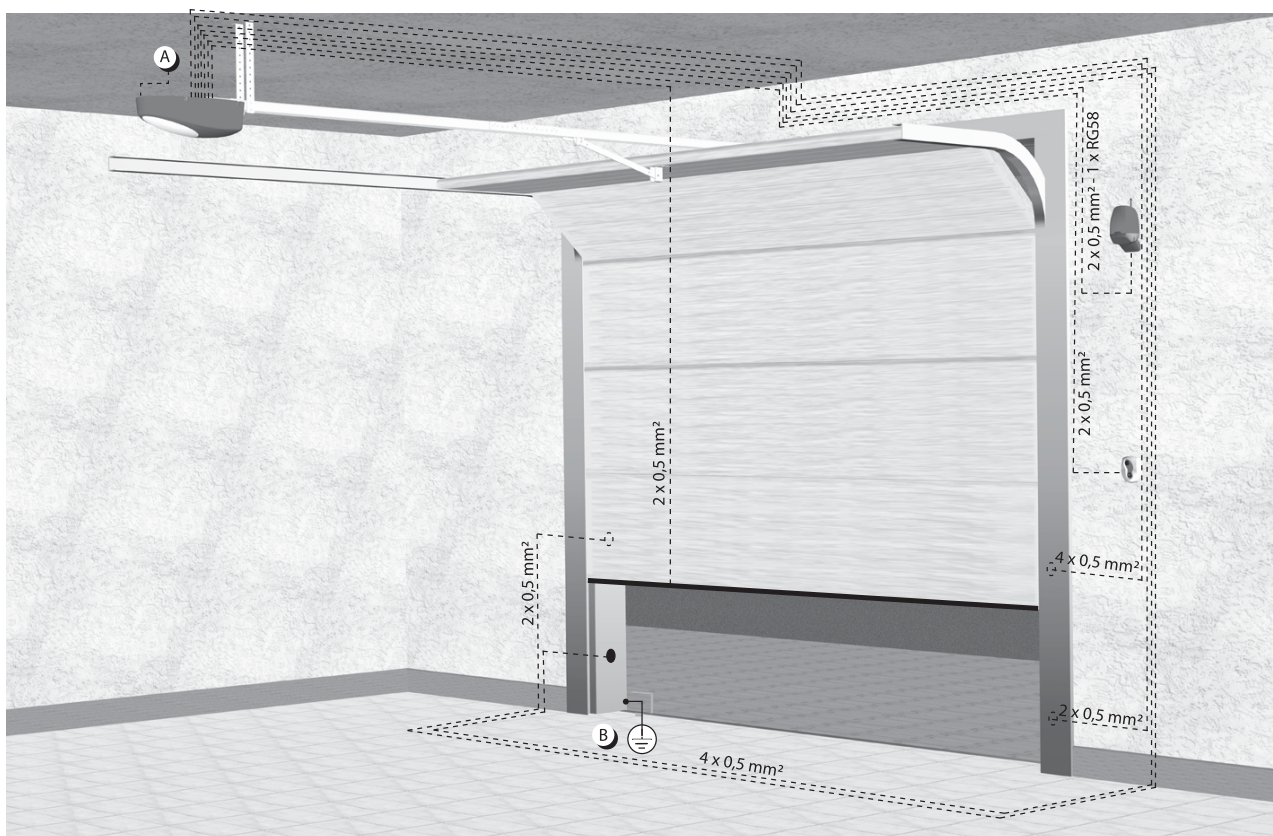
DEA System provides the following instructions which are valid for a typical system but obviously not complete for every system. For each automatism the installer must carefully evaluate the real conditions existing at the site. The installation requisites in terms of both performance and safety must be based upon such considerations, which will also form the basis for the risk analysis and the detailed design of the automatism.

DEA System fournit ces indications que vous pouvez considérer comme valables pour une installation-typique, même si elles ne peuvent pas être complètes. En effet, pour chaque automatisation, l'installateur doit évaluer attentivement les conditions réelles du site et les pré-requis de l'installation au point de vue

performances et sécurité ; c'est sur la base de ces considérations qu'il rédigera l'analyse des risques et qu'il concevra l'automatisation d'une manière détaillée.

DEA System facilita estas indicaciones que pueden considerarse válidas para una instalación tipo pero que no pueden considerarse completas. El instalador, en efecto, tiene que evaluar atentamente para cada automatismo las reales condiciones del sitio y los requisitos de la instalación por lo que se refiere a prestaciones y seguridad; en función de estas consideraciones redactará el análisis de riesgos y efectuará el proyecto detallado del automatismo.

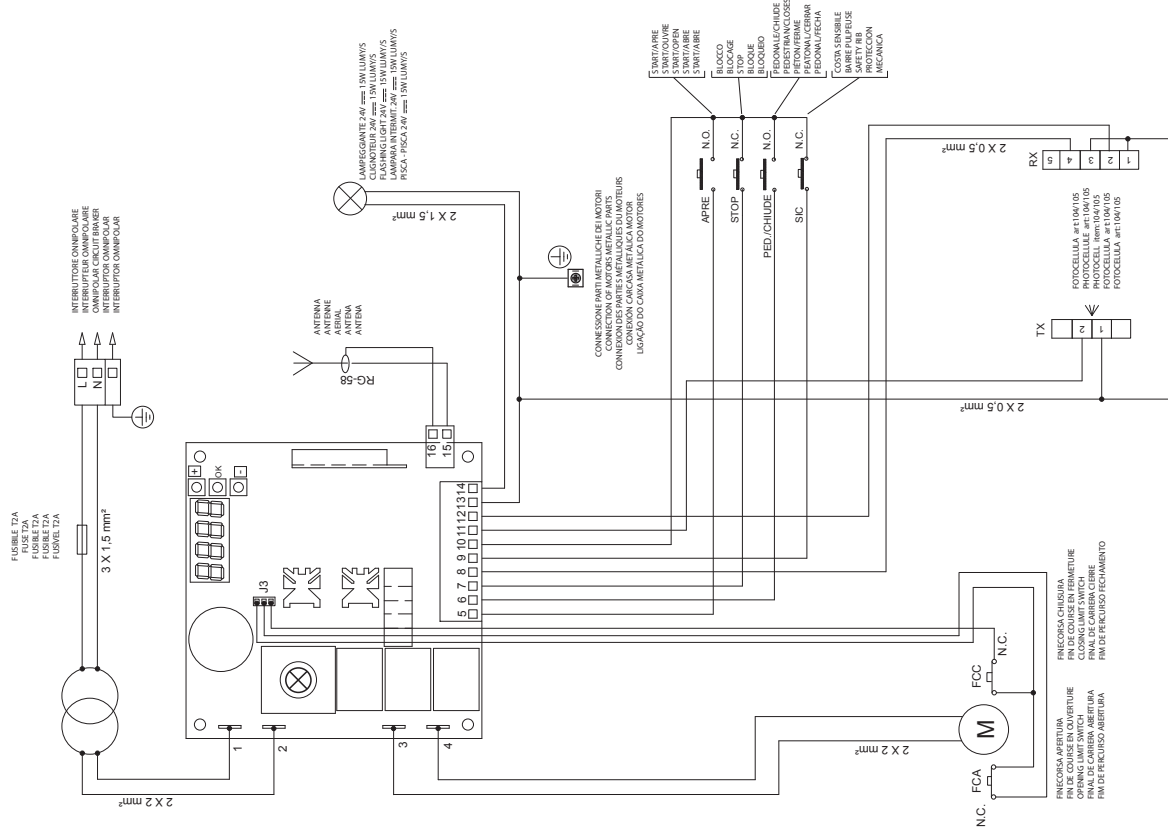
DEA System fornece estas indicações que podem ser consideradas válidas para o equipamento padrão, mas que podem não ser completas. Para cada automatismo praticamente o técnico de instalação deverá avaliar com atenção as condições reais do sítio e os requisitos da instalação em termos de performance e de segurança; será em função destas considerações que realizará uma análise dos riscos e projectará o



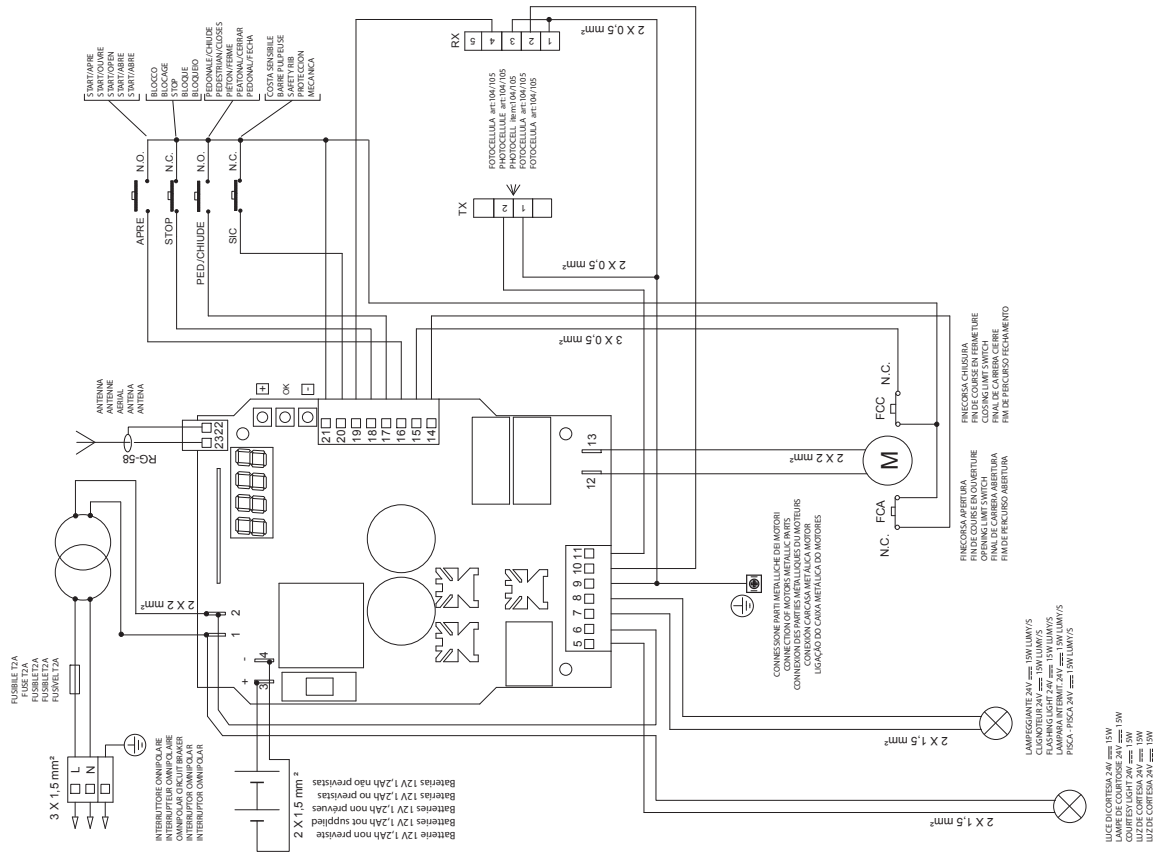
- A)** Collegarsi alla rete 230 V \pm 10% 50-60 Hz tramite un interruttore onnipolare o altro dispositivo che assicuri la onnipolare disinserzione della rete, con una distanza di apertura dei contatti \geq 3 mm
Make the 230V \pm 10% 50-60 Hz mains connection using an omnipolar switch or any other device that guarantees the omnipolar disconnection of the mains network with a contact opening distance of 3 mm
Connectez-vous au réseau 230 V \pm 10% 50-60 Hz au moyen d'un interrupteur omnipolaire ou d'un autre dispositif qui assure le débranchement omnipolaire du réseau, avec un écartement des contacts égal à 3 mm.
Efectuar la conexión a una línea eléctrica 230 V \pm 10% 50-60 Hz a través de un interruptor omnipolar u otro dispositivo que asegure la onnipolar desconexión de la línea, con 3 mm de distancia de apertura de los contactos.
Ligue na rede de 230 V. \pm 10% 50-60 Hz mediante um interruptor omnipolar ou outro dispositivo que assegure que se desliga de maneira onnipolar da rede, com abertura dos contactos de pelo menos 3 mm. de distância
- B)** Collegare a terra tutte le masse metalliche - All metal parts must be grounded - Connectez toutes les masses métalliques à la terre - Conectar con la tierra todas las masas metálicas - Realize ligação à terra de todas as massas metálicas



Centrale 724RR SPAZIO 702S



Centrale 124RRZ SPAZIO 703S

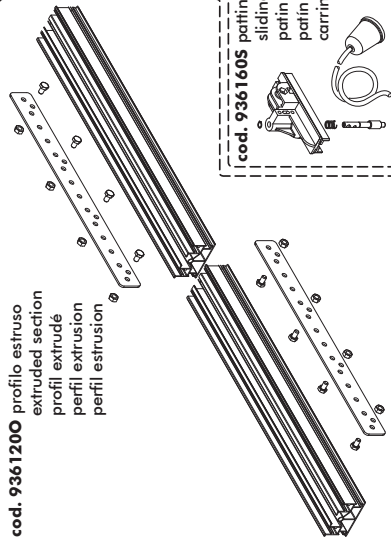


LUCE E CORTEZIA 24W mm 15W 3X
COURTESY LIGHT 24W mm 15W 3X
LITZ E CORTEZIA 24W mm 15W 3X
LITZ E CORTEZIA 24W mm 15W 3X

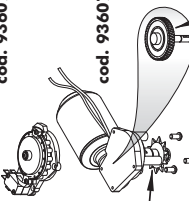


cod. 360080 pignone - 702
pinion - 702
pignon - 702
piñón - 702
pinhão - 702
cod. 360081 pignone - 703
pinion - 703
pignon - 703
piñón - 703
pinhão - 703

cod. 9361200 profilo estruso
extruded section
profil extrudé
perfil extrusion
perfil extrusión

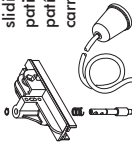


cod. 936070H gruppo motore - 702
power unit - 702
ensemble moteur - 702
grupo motor - 702
grupo motor - 702
cod. 936071H gruppo motore - 703
power unit - 703
ensemble moteur - 703
grupo motor - 703
grupo motor - 703



cod. 160007 albero motore - art. 702
motor shaft - art. 702
arbre moteur - art. 702
eje motor - art. 702
veio do motor - art. 702
cod. 331180 albero motore - art. 703
motor shaft - art. 703
arbre moteur - art. 703
eje motor - art. 703
veio do motor - art. 703

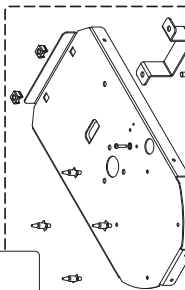
cod. 9361605 pattino sblocco
sliding block
patin
carrinho



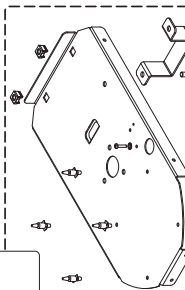
cod. 310700 lama sblocco
connection blade
lame d'attache
hoja conexión
lama ataque



cod. 936100M catena+sblocco
chain+release
chaîne + déverrouillage
cadena + desbloqueo
corrente + desbloqueio



cod. 936030D base motore - 702
operator plate - 702
base moteur - 702
base do motor - 702
cod. 936031D base motore - 703
operator plate - 703
base moteur - 703
base do motor - 703



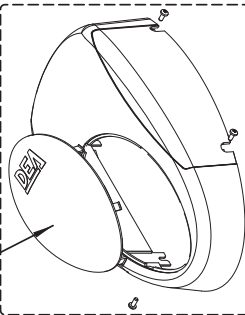
cod. 9360801 cavo+morsetto
terminal + cable
bornier + cable
borne + cable
terminal + cabo



cod. 168000 fusibile
fuse
fusible
fusil

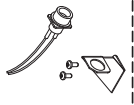


cod. 321260 vetrino carter
regard carter
cristal carter
vidrinho carter



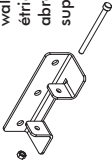
cod. 936000A carter
case
carter
carter
tampa

cod. 936020C supporto lampadina
lamp support
support lampe
soporte bombilla
suporte lâmpada

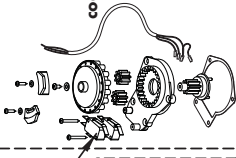


cod. 164008 microinterruttore
microswitch
micro-interrupteur
micro interruptor

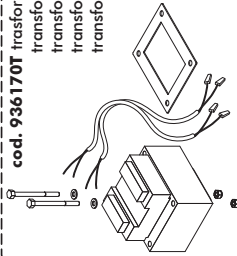
cod. 936130P staffa fissaggio a muro
wall fixing bracket
érier de fixation à mur
suporte de fixaçção mural



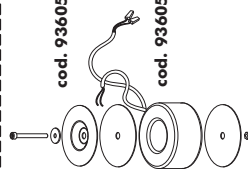
cod. 936060G finecorsa - 702
ilimit switch - 702
fin de course - 702
final de carrera - 702
fin de curso - 702
cod. 936061G finecorsa - 703
ilimit switch - 703
fin de course - 703
final de carrera - 703
fin de curso - 703



cod. 936170T trasformatore
transformer
transformateur
transformador



cod. 936050F trasformatore - 702
transformer - 702
transformateur - 702
transformador - 702
cod. 936051F trasformatore - 703
transformer - 703
transformateur - 703
transformador - 703

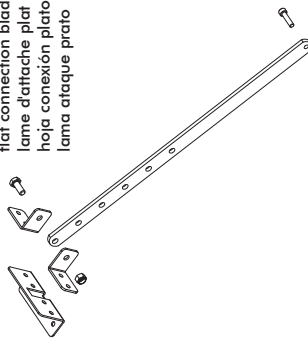


cod. 678230 centrale di comando - 702
control board - 702
armoire de commande - 702
central de mando - 702
quadro de comando - 702



cod. 678200 centrale di comando - 703
control board - 703
armoire de commande - 703
central de mando - 703
quadro de comando - 703

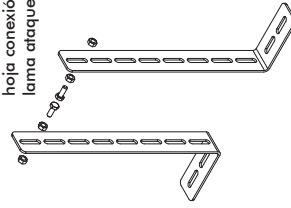
cod. 936110N lama attacco piatto
flat connection blade
lame d'attache plat
hoja conexión plato
lama ataque prato



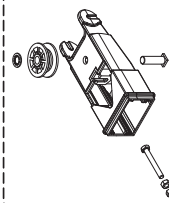
cod. 170000 lampadina
bulb
ampoule
bombilla
lâmpada



cod. 936150R lama attacco soffitto
flat connection blade
lame d'attache plat
hoja conexión plato
lama ataque prato

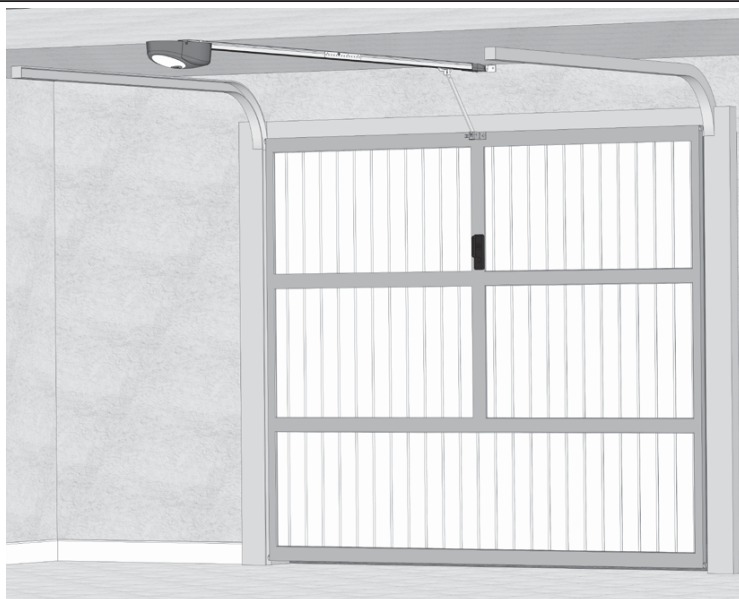
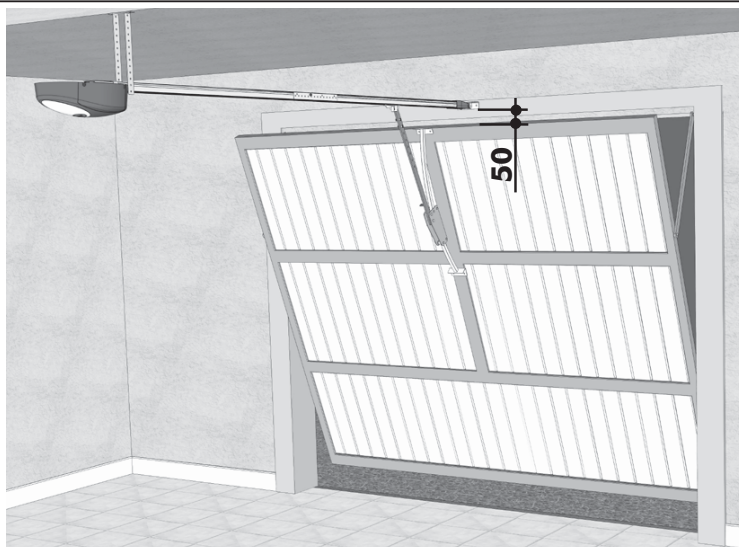
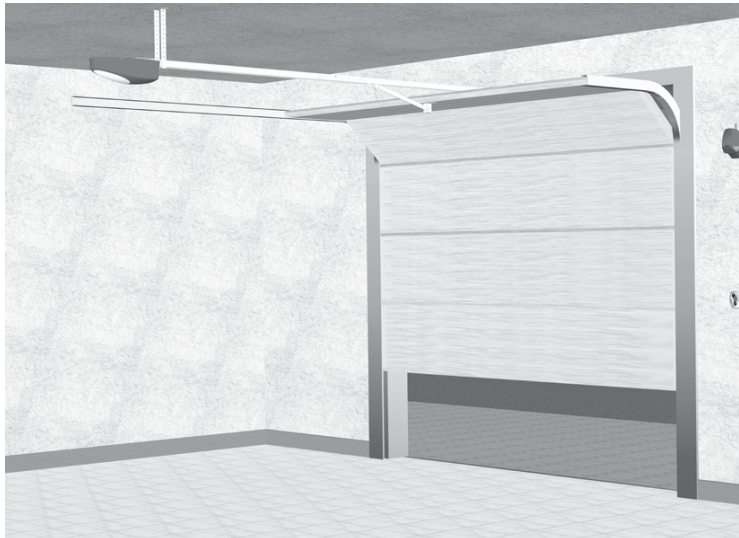


cod. 936140Q supporto puleggia
pulley support
support poulie
soporte polea
suporte de polie



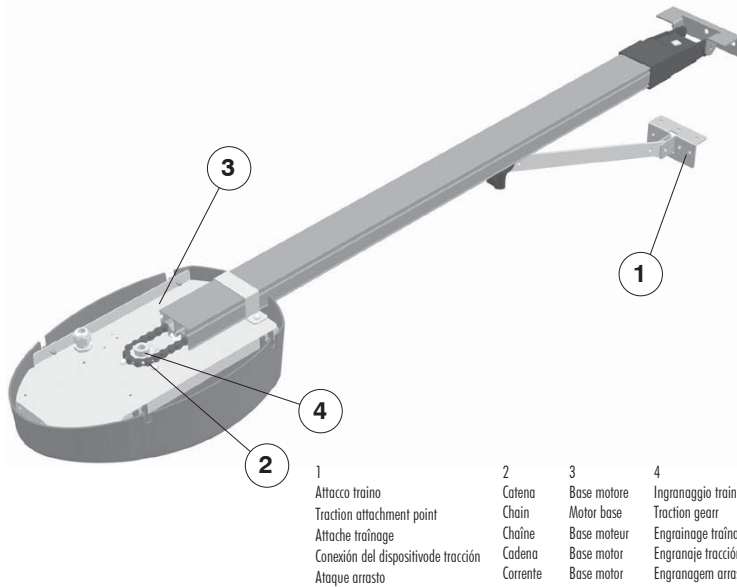


Applicazioni tipiche - Applicazioni tipiche - Applicazioni tipiche - Applicazioni tipiche - Applicazioni tipiche

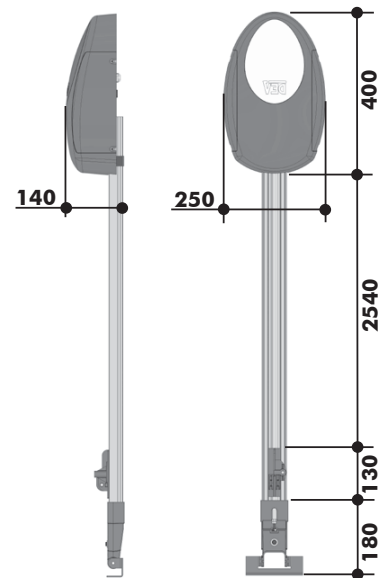




F1 Elementi del prodotto, Product elements, Eléments du produit, Elementos del producto, Elementos do produto

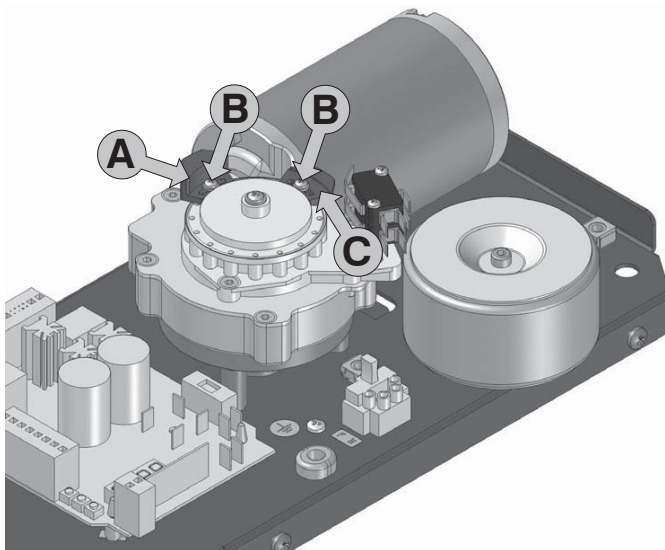


F2 Ingombri prodotto, Product dimensions, Cotes d'encombremet du produit, Espaço ocupado por el producto, Medidas máximas do produto

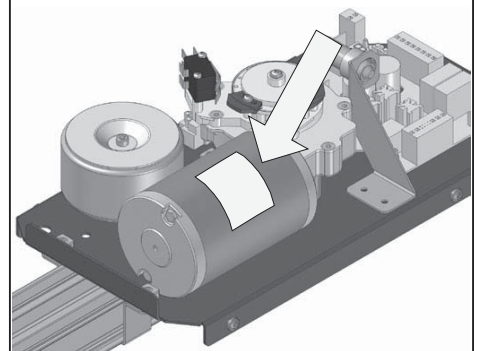


F4 Installazione e regolazione finecorsa, Limit switch installation and adjustment, Installation et réglage fin de course, Instalación y regulación del sensor de tope, Instalação e regulação fim de curso

- | | |
|--|--|
| A Camma apertura verde
Opening green cam
Came ouverture vert
Leva apertura verde
Came abertura verde | C Camma chiusura rossa
Closing red cam
Came fermeture rouge
Leva cierre rojo
Came fecho vermelho |
|--|--|

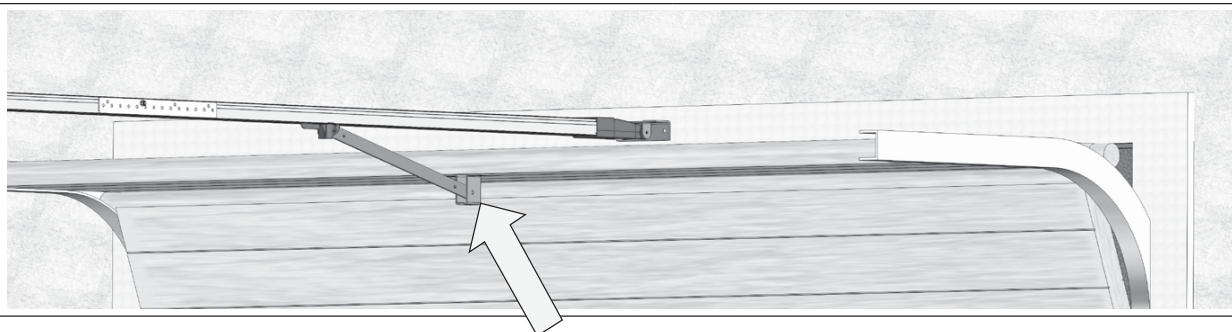
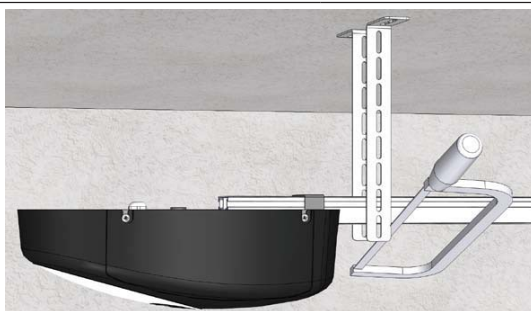
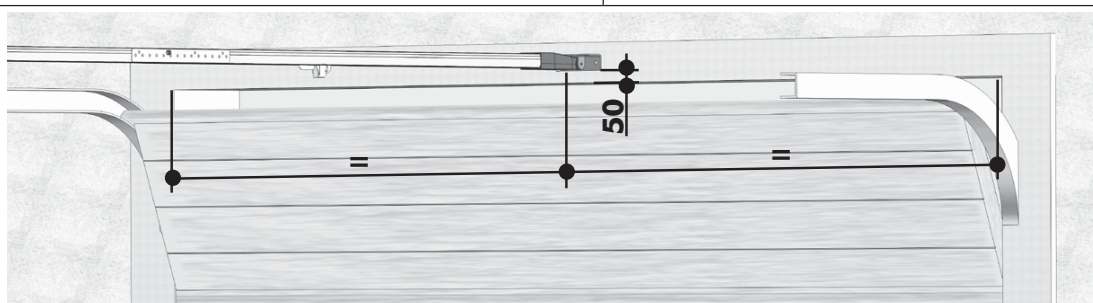
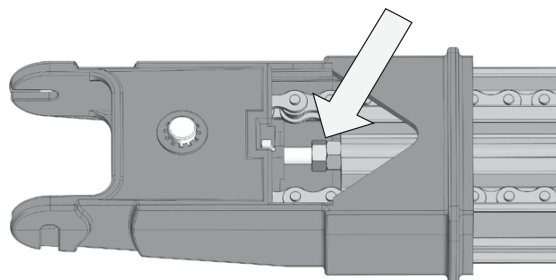
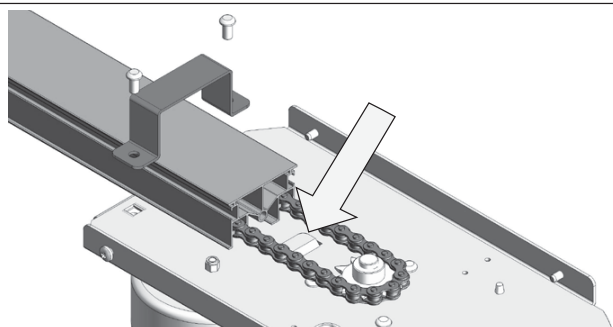
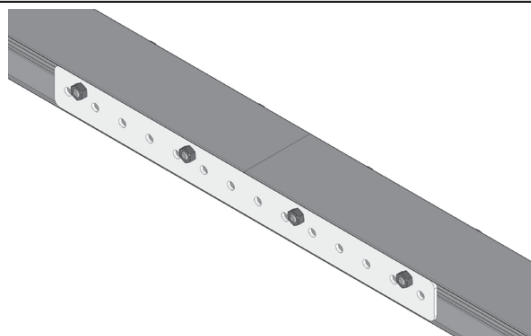
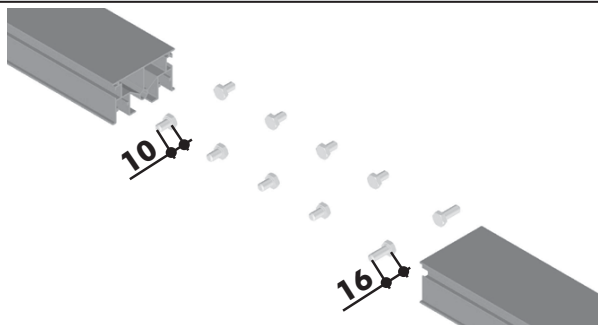


F5 Posizione etichetta, Label position, Position étiquette, Posición etiqueta, Posição da etiqueta





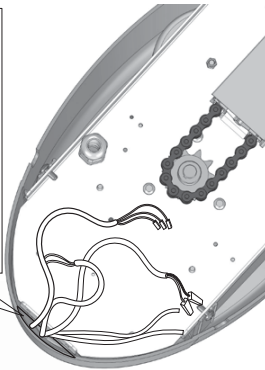
F3 Misure intallazione, Installation measurements, Mesures pour l'installation, Medidas instalación, Medidas para instalação



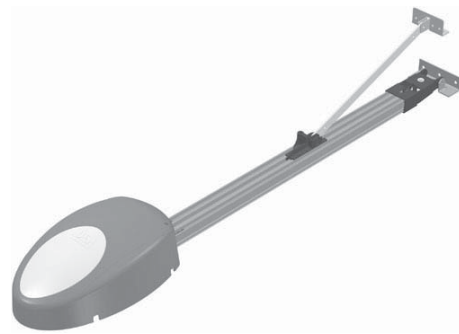


**F7 Assemblaggio riduttore, Gear motor assembly,
Assemblage réducteur, Montaje del reductor,
Ensamblagem redutor**

Uscita cavi per connessione accessori/comandi
Accessories /control devices connection cables plug
Sortie câbles pour connexion accessoires/commandes
Salida de cables para la conexión de accesorios/mandos
Saída cabos para conexão acessórios/comandos

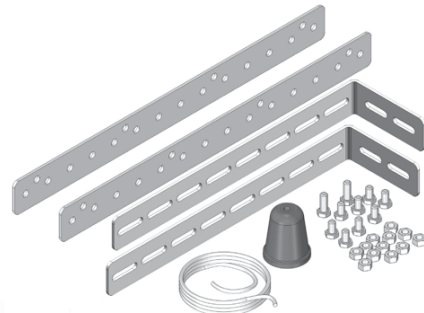
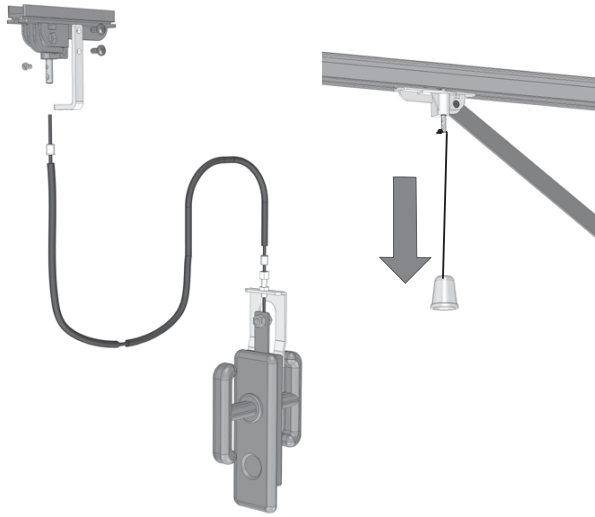


Contenuto dell'imballo, Contents of the package,
Contenu de l'emballage, Contenido del embalaje,
Conteúdo da embalagem



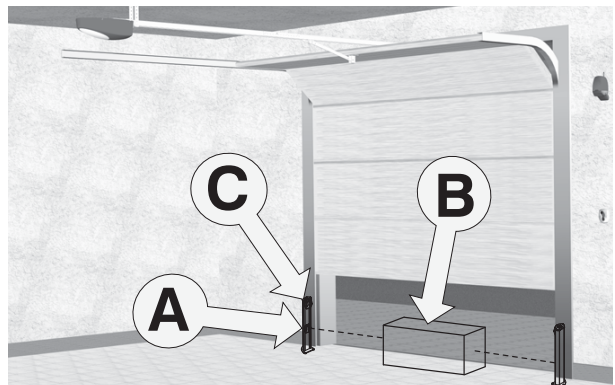
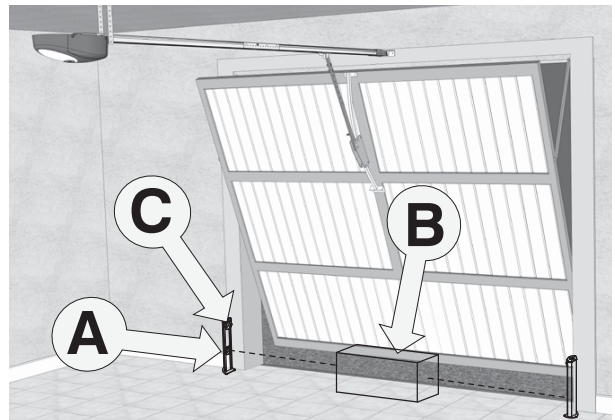
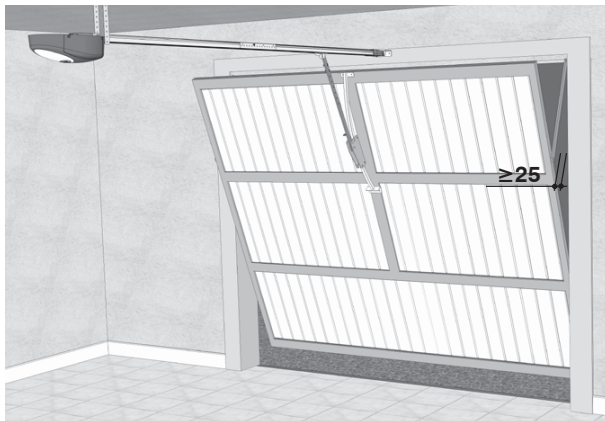
x1

**F9 Sblocco manuale, Manual release, Déverrouillage ma-
nuel, Desbloqueo manual, Desbloqueio manual**



x1

**F10 Distanze antischiacciamento, Crushing prevention
safety distances, Distances anti-écrasement, Distancias anti
aplastamiento, Distância para evitar esmagamento**

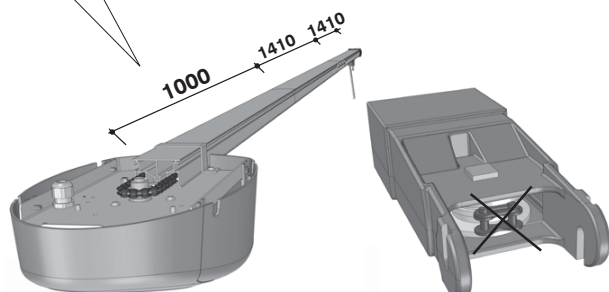




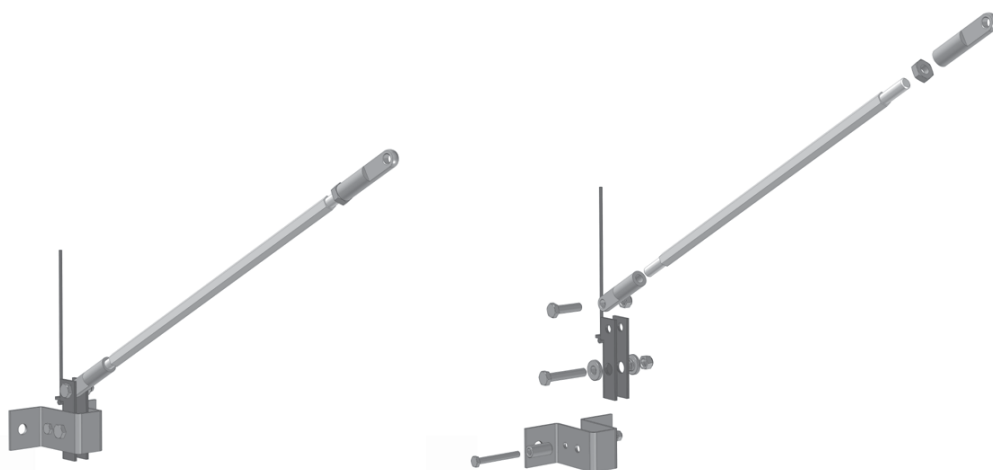
Art. 720 cod. 639300

Art. 721 cod. 639310 - Art. 721B cod. 639320

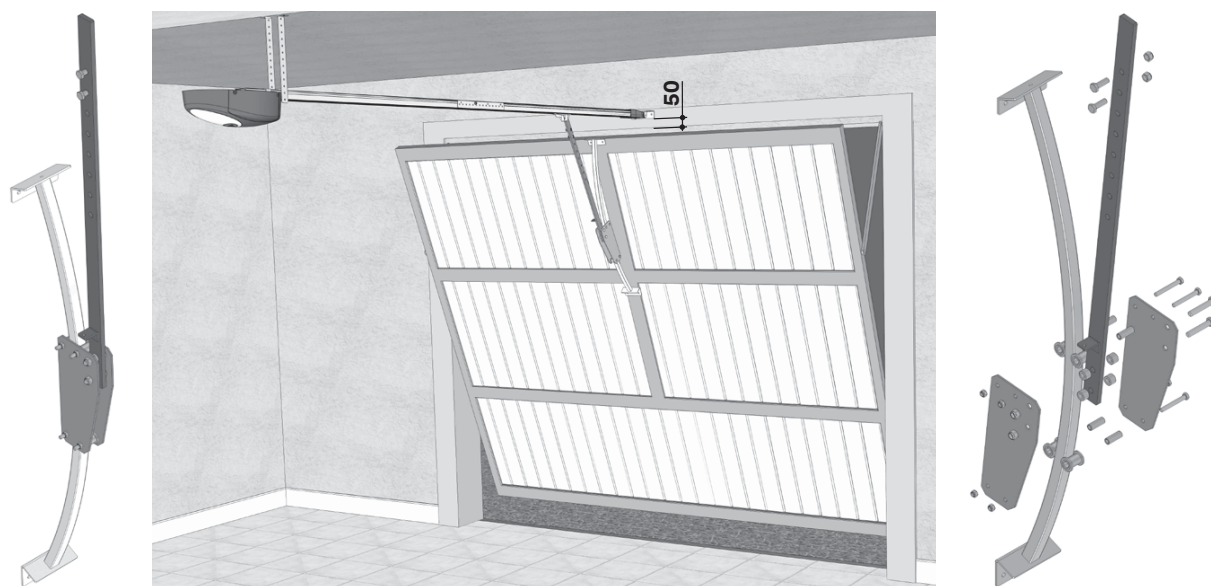
Eseguire l'unione dal lato motore.
Connect on motor side.
Exécutez l'union du côté moteur.
Realizar la unión por el lado motor.
Executar a união do lado motor.



Art. 721C cod. 639330



Art. 722 cod. 639340



Questo manuale è stato realizzato utilizzando carta ecologica riciclata certificata Ecolabel per contribuire alla salvaguardia dell'ambiente.

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