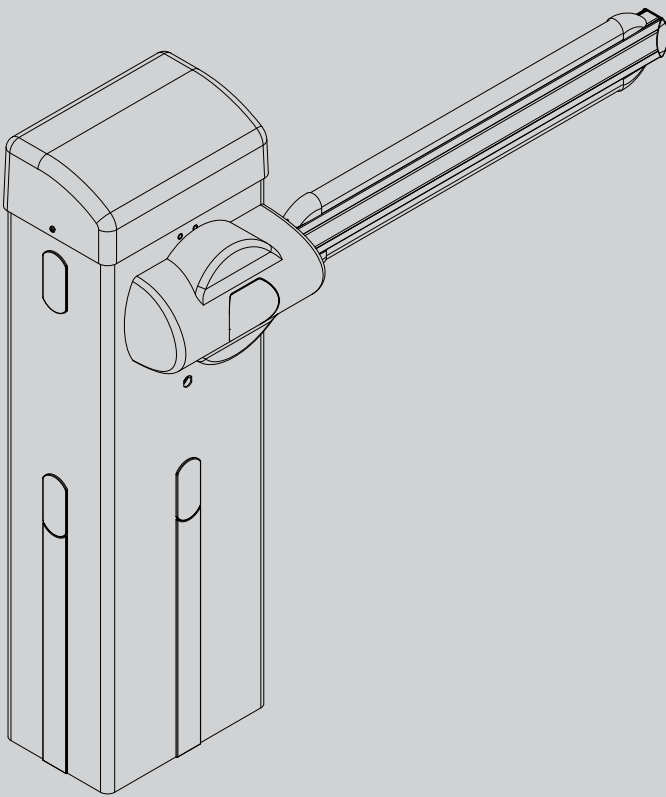




24 V

D812433 00100_06 19-04-18

ELECTROMECHANICAL CONTROL DEVICE FOR VEHICULAR BARRIERS A



INSTALLATION AND USER'S MANUAL

GIOTTO BT A 30-60S U
GIOTTO BT A 30-60 U

Bft



AZIENDA CON
SISTEMA DI GESTIONE
CERTIFICATO DA DNV GL
= ISO 9001 =
= ISO 14001 =

Caution! Read "Warnings" inside carefully!

WARNING! Important safety instructions. Carefully read and comply with the Warnings and Instructions that come with the product as improper use can cause injury to people and animals and damage to property. Keep the instructions for future reference and hand them on to any new users.

This product is meant to be used only for the purpose for which it was explicitly installed. Any other use constitutes improper use and, consequently, is hazardous. The manufacturer cannot be held liable for any damage as a result of improper, incorrect or unreasonable use.

GENERAL SAFETY

Thank you for choosing this product. The Firm is confident that its performance will meet your operating needs.

This product meets recognized technical standards and complies with safety provisions when installed correctly by qualified, expert personnel (professional installer).

If installed and used correctly, the automated system will meet operating safety standards. Nonetheless, it is advisable to observe certain rules of behaviour so that accidental problems can be avoided:

- Keep adults, children and property out of range of the automated system, especially while it is moving.
- Do not allow children to play or stand within range of the automated system.
- The unit can be used by children over 8 years old and by people with reduced physical, sensory or mental capabilities or with no experience or necessary knowledge on condition they are supervised or trained about the safe use of the equipment and understand the risks involved. Children must not play with the unit. Cleaning and maintenance must not be performed by unsupervised children.
- Children must be supervised to ensure they do not play with the device. Do not allow children to play with the fixed controls. Keep remote controls out of reach of children.
- Do not work near hinges or moving mechanical parts.
- Do not hinder the leaf's movement and do not attempt to open the door manually unless the actuator has been released with the relevant release knob.
- Keep out of range of the motorized door or gate while they are moving.
- Keep remote controls or other control devices out of reach of children in order to avoid the automated system being operated inadvertently.
- The manual release's activation could result in uncontrolled door movements if there are mechanical faults or loss of balance.
- When using roller shutter openers: keep an eye on the roller shutter while it is moving and keep people away until it has closed completely. Exercise care when activating the release, if such a device is fitted, as an open shutter could drop quickly in

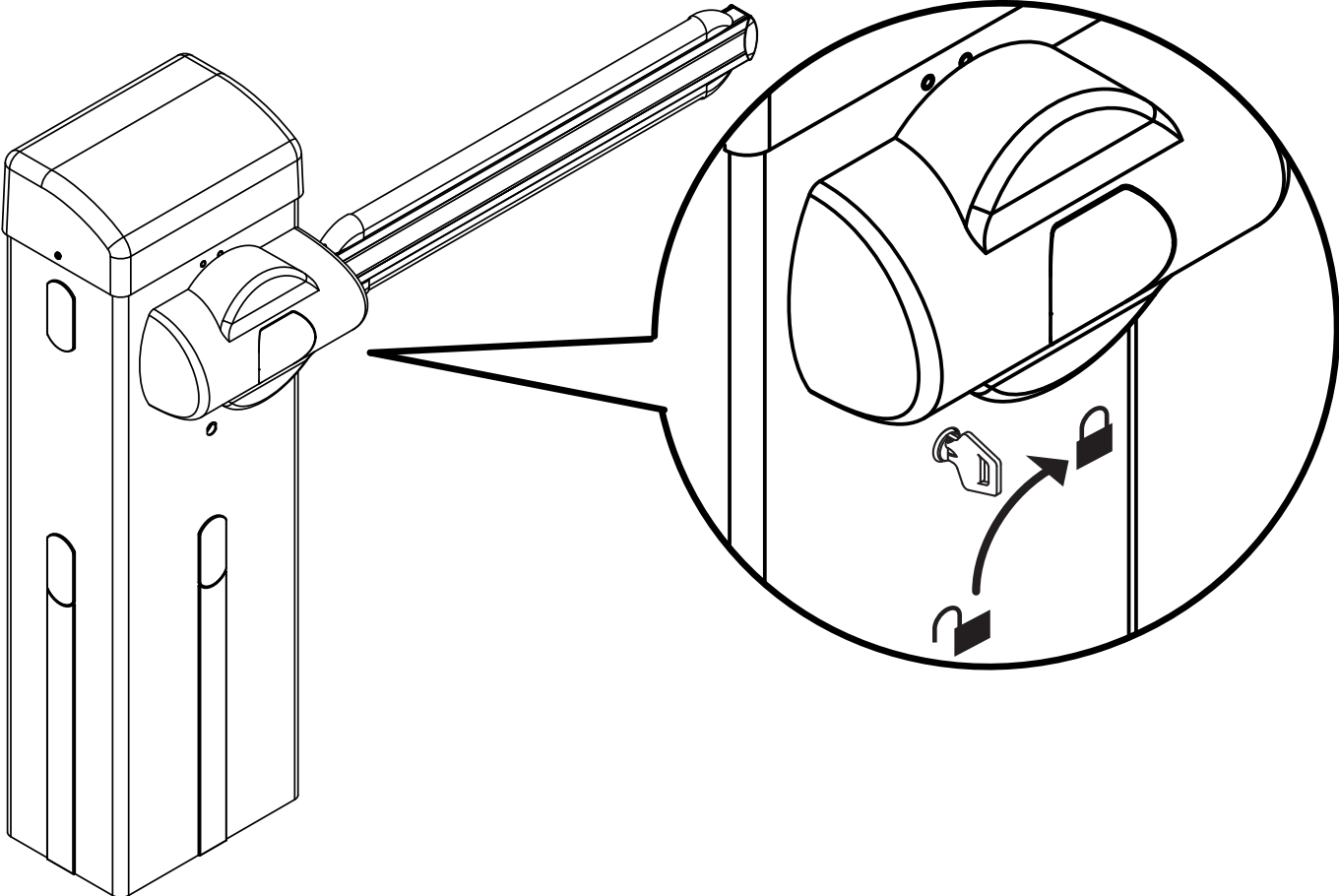
the event of wear or breakage.

- The breakage or wear of any mechanical parts of the door (operated part), such as cables, springs, supports, hinges, guides..., may generate a hazard. Have the system checked by qualified, expert personnel (professional installer) at regular intervals according to the instructions issued by the installer or manufacturer of the door.
- When cleaning the outside, always cut off mains power.
- Keep the photocells' optics and illuminating indicator devices clean. Check that no branches or shrubs interfere with the safety devices.
- Do not use the automated system if it is in need of repair. In the event the automated system breaks down or malfunctions, cut off mains power to the system; do not attempt to repair or perform any other work to rectify the fault yourself and instead call in qualified, expert personnel (professional installer) to perform the necessary repairs or maintenance. To allow access, activate the emergency release (where fitted).
- If any part of the automated system requires direct work of any kind that is not contemplated herein, employ the services of qualified, expert personnel (professional installer).
- At least once a year, have the automated system, and especially all safety devices, checked by qualified, expert personnel (professional installer) to make sure that it is undamaged and working properly.
- A record must be made of any installation, maintenance and repair work and the relevant documentation kept and made available to the user on request.
- Failure to comply with the above may result in hazardous situations.

Anything that is not explicitly provided for in the user guide is not allowed. The operator's proper operation can only be guaranteed if the instructions given herein are complied with. The Firm shall not be answerable for damage caused by failure to comply with the instructions featured herein.

While we will not alter the product's essential features, the Firm reserves the right, at any time, to make those changes deemed opportune to improve the product from a technical, design or commercial point of view, and will not be required to update this publication accordingly.

Fig. Y



 MANUAL

 AUTOMATIC



INSTALLER WARNINGS

D812493 001 00_06

WARNING! Important safety instructions. Carefully read and comply with all the warnings and instructions that come with the product as incorrect installation can cause injury to people and animals and damage to property. The warnings and instructions give important information regarding safety, installation, use and maintenance. Keep hold of instructions so that you can attach them to the technical file and keep them handy for future reference.

GENERAL SAFETY

This product has been designed and built solely for the purpose indicated herein. Uses other than those indicated herein might cause damage to the product and create a hazard.

- The units making up the machine and its installation must meet the requirements of the following European Directives, where applicable: 2014/30/UE, 2014/35/UE, 2006/42/UE, 2011/305/UE, 2014/53/UE and later amendments. For all countries outside the UE, it is advisable to comply with the standards mentioned, in addition to any national standards in force, to achieve a good level of safety.
- The Manufacturer of this product (hereinafter referred to as the "Firm") disclaims all responsibility resulting from improper use or any use other than that for which the product has been designed, as indicated herein, as well as for failure to apply Good Practice in the construction of entry systems (doors, gates, etc.) and for deformation that could occur during use.
- Installation must be carried out by qualified personnel (professional installer, according to EN 12635), in compliance with Good Practice and current code.
- Before installing the product, make all structural changes required to produce safety gaps and to provide protection from or isolate all crushing, shearing and dragging hazard areas and danger zones in general in accordance with the provisions of standards EN 12604 and 12453 or any local installation standards. Check that the existing structure meets the necessary strength and stability requirements.
- Before commencing installation, check the product for damage.
- The Firm is not responsible for failure to apply Good Practice in the construction and maintenance of the doors, gates, etc. to be motorized, or for deformation that might occur during use.
- Make sure the stated temperature range is compatible with the site in which the automated system is due to be installed.
- Do not install this product in an explosive atmosphere: the presence of flammable fumes or gas constitutes a serious safety hazard.
- Disconnect the electricity supply before performing any work on the system. Also disconnect buffer batteries, if any are connected.
- Before connecting the power supply, make sure the product's ratings match the mains ratings and that a suitable residual current circuit breaker and overcurrent protection device have been installed upline from the electrical system. Have the automated system's mains power supply fitted with a switch or omnipolar thermal-magnetic circuit breaker with a contact separation that provide full disconnection under overvoltage category III conditions.
- Make sure that upline from the mains power supply there is a residual current circuit breaker that trips at no more than 0.03A as well as any other equipment required by code.
- Make sure the earth system has been installed correctly: earth all the metal parts belonging to the entry system (doors, gates, etc.) and all parts of the system featuring an earth terminal.
- Installation must be carried out using safety devices and controls that meet standards EN 12978 and EN 12453.
- Impact forces can be reduced by using deformable edges.
- In the event impact forces exceed the values laid down by the relevant standards, apply electro-sensitive or pressure-sensitive devices.
- Apply all safety devices (photocells, safety edges, etc.) required to keep the area free of impact, crushing, dragging and shearing hazards. Bear in mind the standards and directives in force, Good Practice criteria, intended use, the installation environment, the operating logic of the system and forces generated by the automated system.
- Apply all signs required by current code to identify hazardous areas (residual risks). All installations must be visibly identified in compliance with the provisions of standard EN 13241-1.
- Once installation is complete, apply a nameplate featuring the door/gate's data.
- This product cannot be installed on leaves incorporating doors (unless the motor can be activated only when the door is closed).
- If the automated system is installed at a height of less than 2.5 m or is accessible, the electrical and mechanical parts must be suitably protected.
- For roller shutter automation only
 - 1) The motor's moving parts must be installed at a height greater than 2.5 m above the floor or other surface from which they may be reached.
 - 2) The gearmotor must be installed in a segregated and suitably protected space so that it cannot be reached without the aid of tools.
- Install any fixed controls in a position where they will not cause a hazard, away from moving parts. More specifically, hold-to-run controls must be positioned within direct sight of the part being controlled and, unless they are key operated, must be installed at a height of at least 1.5 m and in a place where they cannot be reached by the public.
- Apply at least one warning light (flashing light) in a visible position, and also attach a Warning sign to the structure.
- Attach a label near the operating device, in a permanent fashion, with information on how to operate the automated system's manual release.
- Make sure that, during operation, mechanical risks are avoided or relevant protective measures taken and, more specifically, that nothing can be banged, crushed, caught or cut between the part being operated and surrounding parts.
- Once installation is complete, make sure the motor automation settings are correct and that the safety and release systems are working properly.
- Only use original spare parts for any maintenance or repair work. The Firm disclaims all responsibility for the correct operation and safety of the automated system if parts from other manufacturers are used.
- Do not make any modifications to the automated system's components unless explicitly authorized by the Firm.
- Instruct the system's user on what residual risks may be encountered, on the control systems that have been applied and on how to open the system manually in an emergency. Give the user guide to the end user.

-Dispose of packaging materials (plastic, cardboard, polystyrene, etc.) in accordance with the provisions of the laws in force. Keep nylon bags and polystyrene out of reach of children.

WIRING

WARNING! For connection to the mains power supply, use: a multicore cable with a cross-sectional area of at least 5x1.5mm² or 4x1.5mm² when dealing with three-phase power supplies or 3x1.5mm² for single-phase supplies (by way of example, type H05RN-F cable can be used with a cross-sectional area of 4x1.5mm²). To connect auxiliary equipment, use wires with a cross-sectional area of at least 0.5 mm².

- Only use pushbuttons with a capacity of 10A-250V or more.
- Wires must be secured with additional fastening near the terminals (for example, using cable clamps) in order to keep live parts well separated from safety extra low voltage parts.
- During installation, the power cable must be stripped to allow the earth wire to be connected to the relevant terminal, while leaving the live wires as short as possible. The earth wire must be the last to be pulled taut in the event the cable's fastening device comes loose.

WARNING! safety extra low voltage wires must be kept physically separate from low voltage wires.

Only qualified personnel (professional installer) should be allowed to access live parts.

CHECKING THE AUTOMATED SYSTEM AND MAINTENANCE

Before the automated system is finally put into operation, and during maintenance work, perform the following checks meticulously:

- Make sure all components are fastened securely.
- Check starting and stopping operations in the case of manual control.
- Check the logic for normal or personalized operation.
- For sliding gates only: check that the rack and pinion mesh correctly with 2 mm of play along the full length of the rack; keep the track the gate slides on clean and free of debris at all times.
- For sliding gates and doors only: make sure the gate's running track is straight and horizontal and that the wheels are strong enough to take the weight of the gate.
- For cantilever sliding gates only: make sure there is no dipping or swinging during operation.
- For swing gates only: make sure the leaves' axis of rotation is perfectly vertical.
- For barriers only: before opening the door, the spring must be decompressed (vertical boom).
- Check that all safety devices (photocells, safety edges, etc.) are working properly and that the anti-crush safety device is set correctly, making sure that the force of impact measured at the points provided for by standard EN 12445 is lower than the value laid down by standard EN 12453.
- Impact forces can be reduced by using deformable edges.
- Make sure that the emergency operation works, where this feature is provided.
- Check opening and closing operations with the control devices applied.
- Check that electrical connections and cabling are intact, making extra sure that insulating sheaths and cable glands are undamaged.
- While performing maintenance, clean the photocells' optics.
- When the automated system is out of service for any length of time, activate the emergency release (see "EMERGENCY OPERATION" section) so that the operated part is made idle, thus allowing the gate to be opened and closed manually.
- If the power cord is damaged, it must be replaced by the manufacturer or their technical assistance department or other such qualified person to avoid any risk.
- If "D" type devices are installed (as defined by EN12453), connect in unverified mode, foresee mandatory maintenance at least every six months
- The maintenance described above must be repeated at least once yearly or at shorter intervals where site or installation conditions make this necessary.

WARNING!

Remember that the drive is designed to make the gate/door easier to use and will not solve problems as a result of defective or poorly performed installation or lack of maintenance



SCRAPPING

Materials must be disposed of in accordance with the regulations in force. Do not throw away your discarded equipment or used batteries with household waste. You are responsible for taking all your waste electrical and electronic equipment to a suitable recycling centre.

DISMANTLING

If the automated system is being dismantled in order to be reassembled at another site, you are required to:

- Cut off the power and disconnect the whole electrical system.
- Remove the actuator from the base it is mounted on.
- Remove all the installation's components.
- See to the replacement of any components that cannot be removed or happen to be damaged.

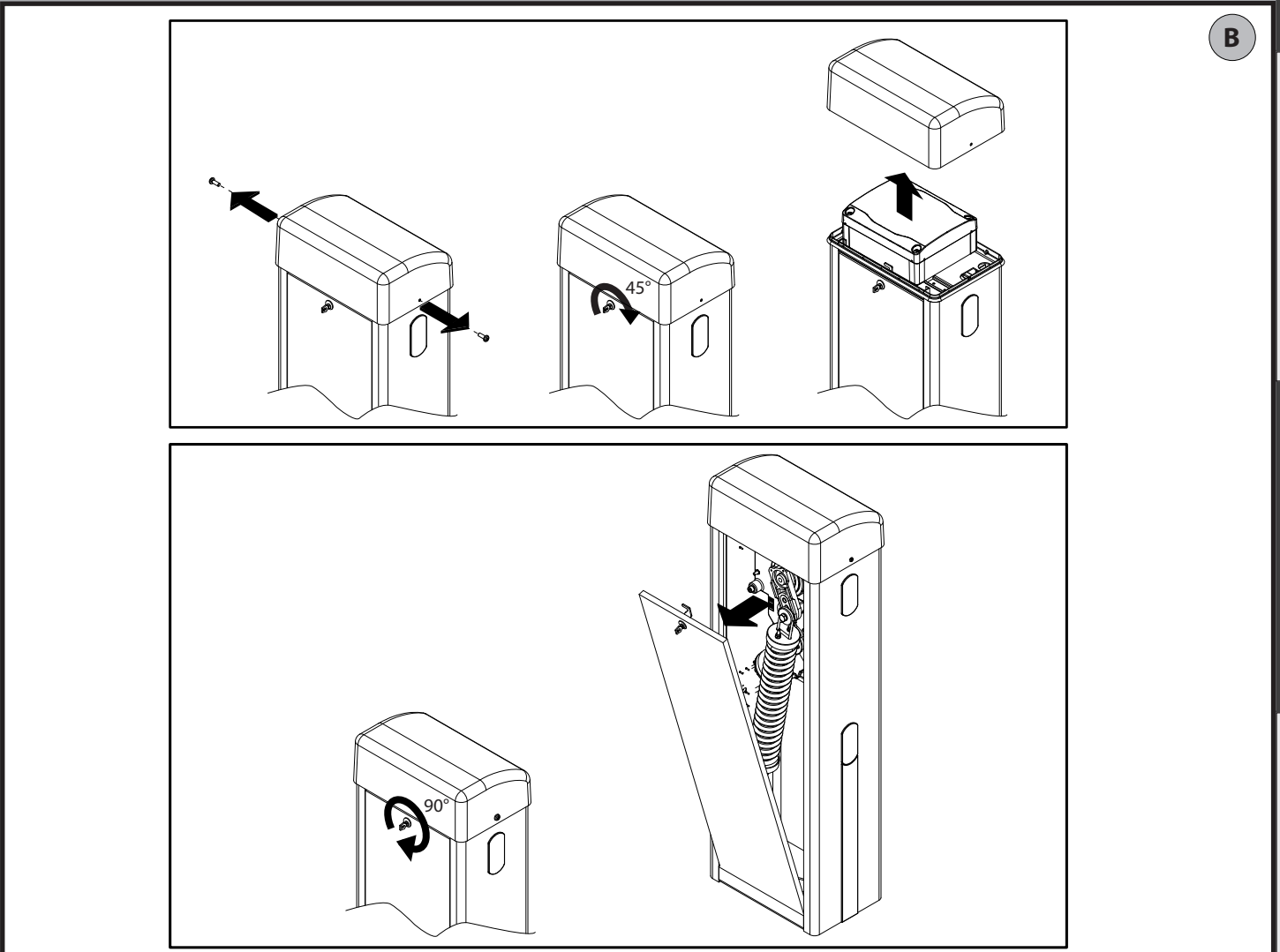
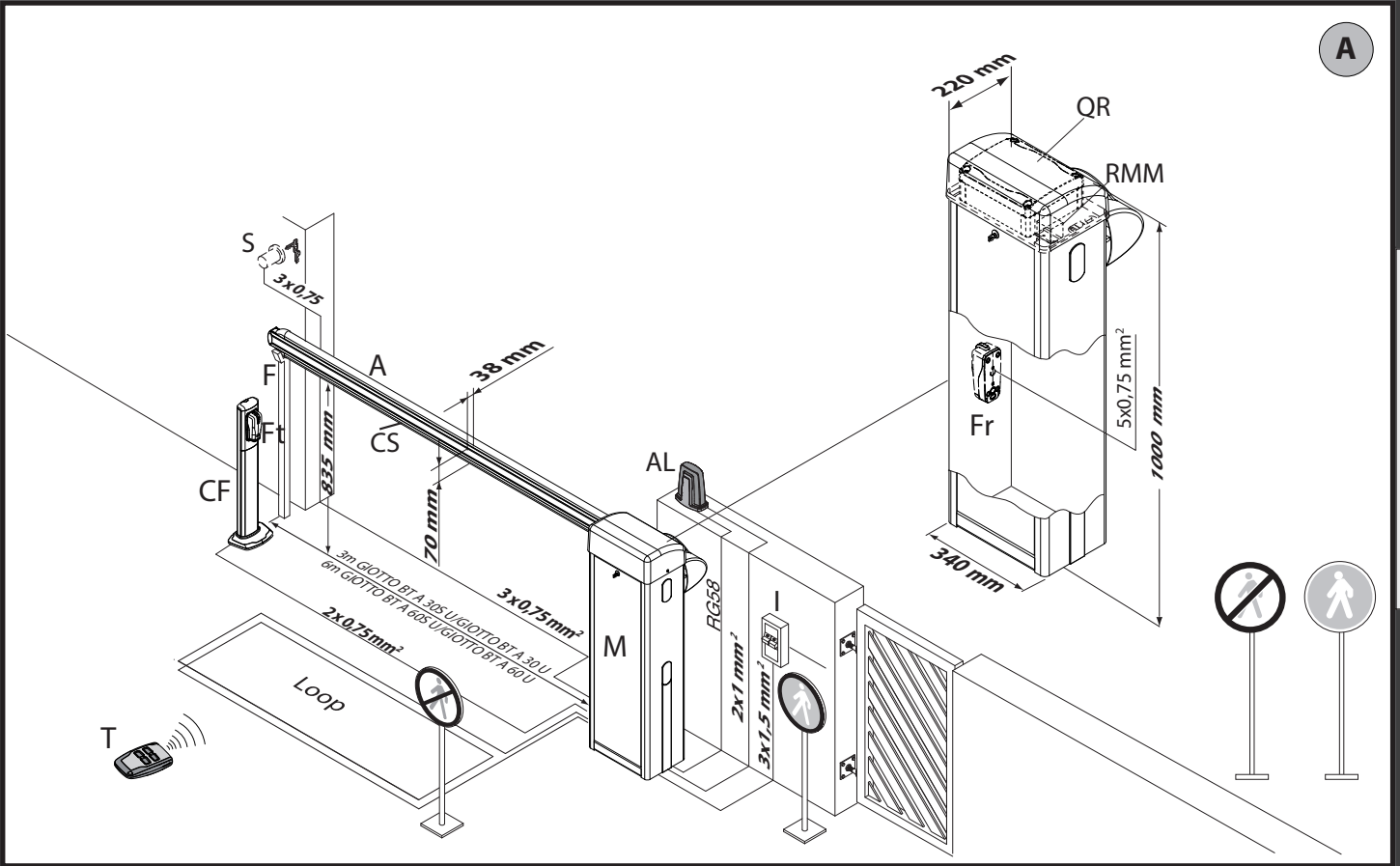
**DECLARATIONS OF CONFORMITY CAN BE FOUND AT <http://www.bft-automation.com/CE>
INSTRUCTIONS FOR USE AND ASSEMBLY CAN BE FOUND IN THE DOWN-LOAD SECTION.**

Anything that is not explicitly provided for in the installation manual is not allowed. The operator's proper operation can only be guaranteed if the information given is complied with. The Firm shall not be answerable for damage caused by failure to comply with the instructions featured herein.

While we will not alter the product's essential features, the Firm reserves the right, at any time, to make those changes deemed opportune to improve the product from a technical, design or commercial point of view, and will not be required to update this publication accordingly.

QUICK INSTALLATION

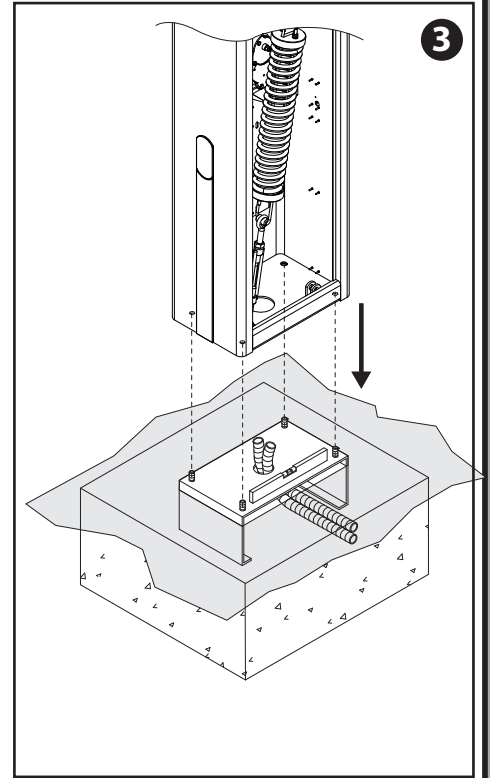
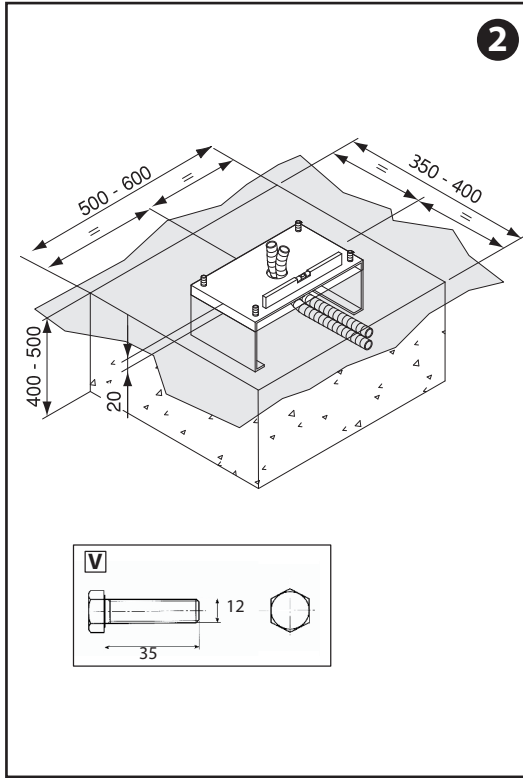
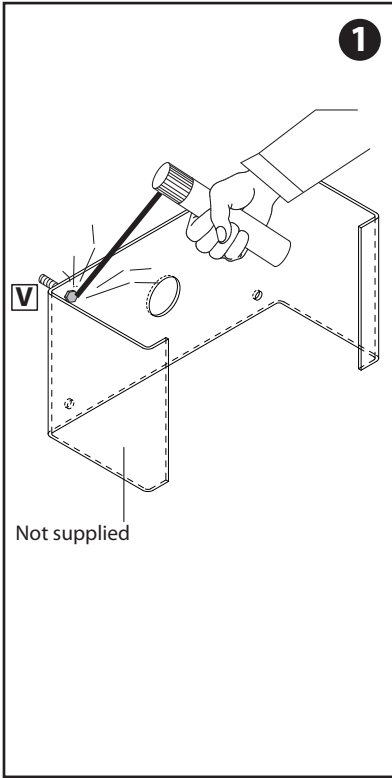
D812433 00100_06



With foundation plate embedded in ground:

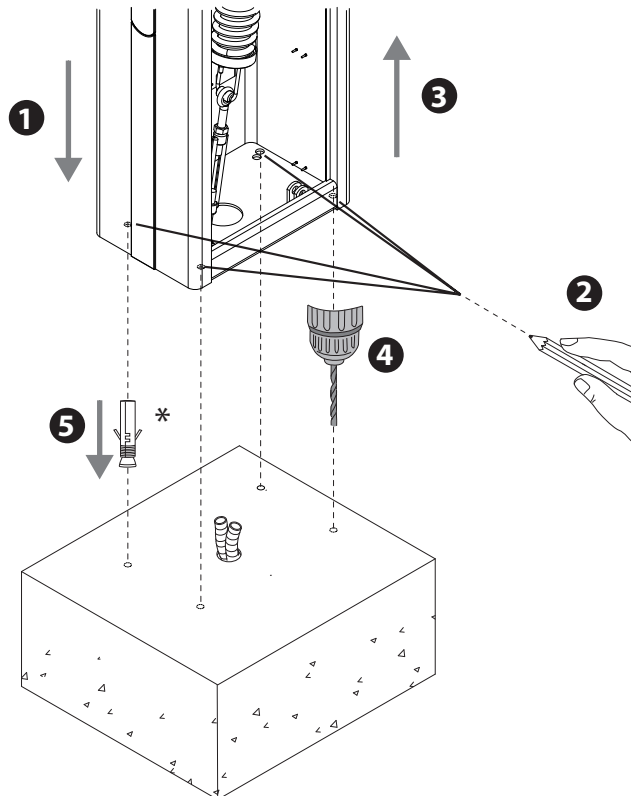
B1

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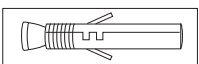


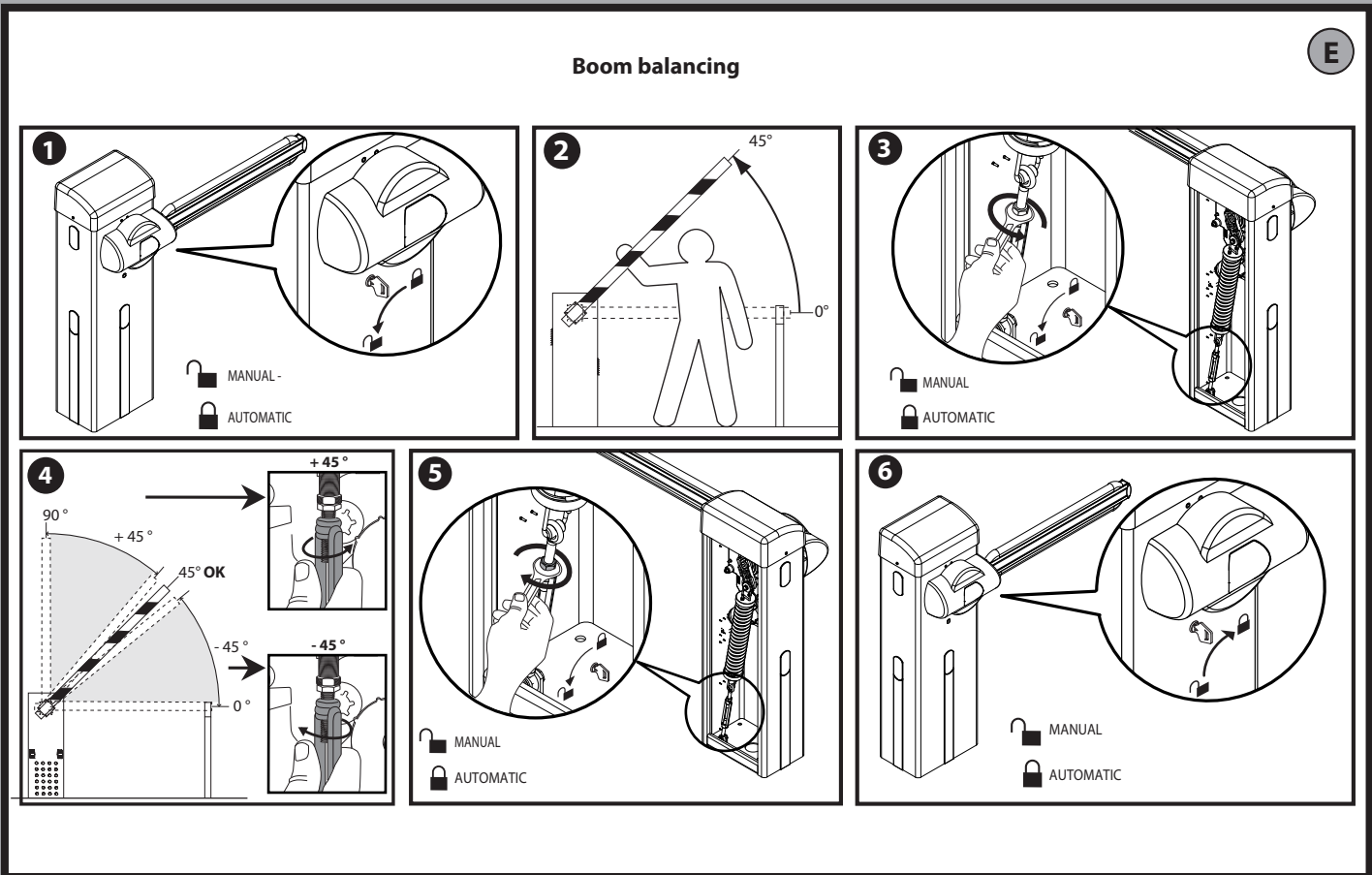
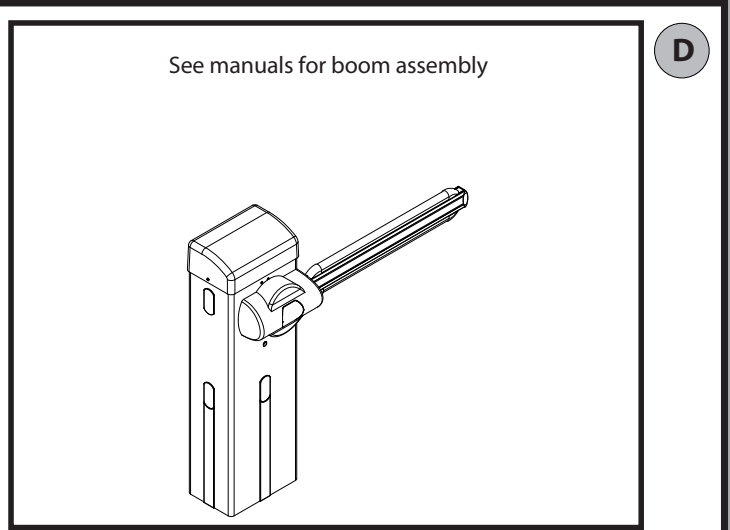
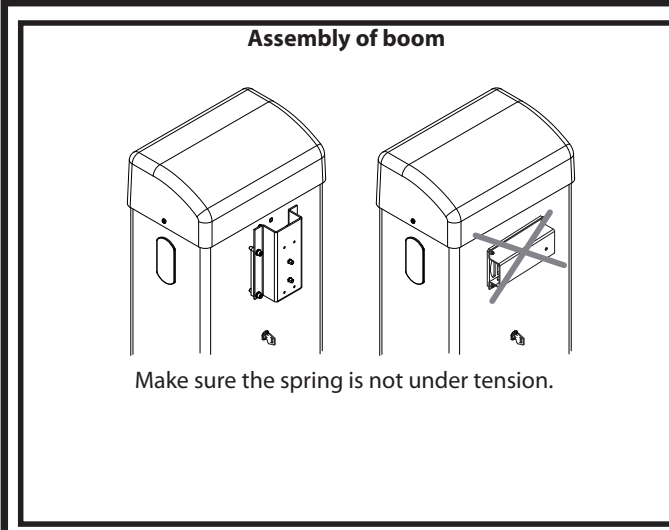
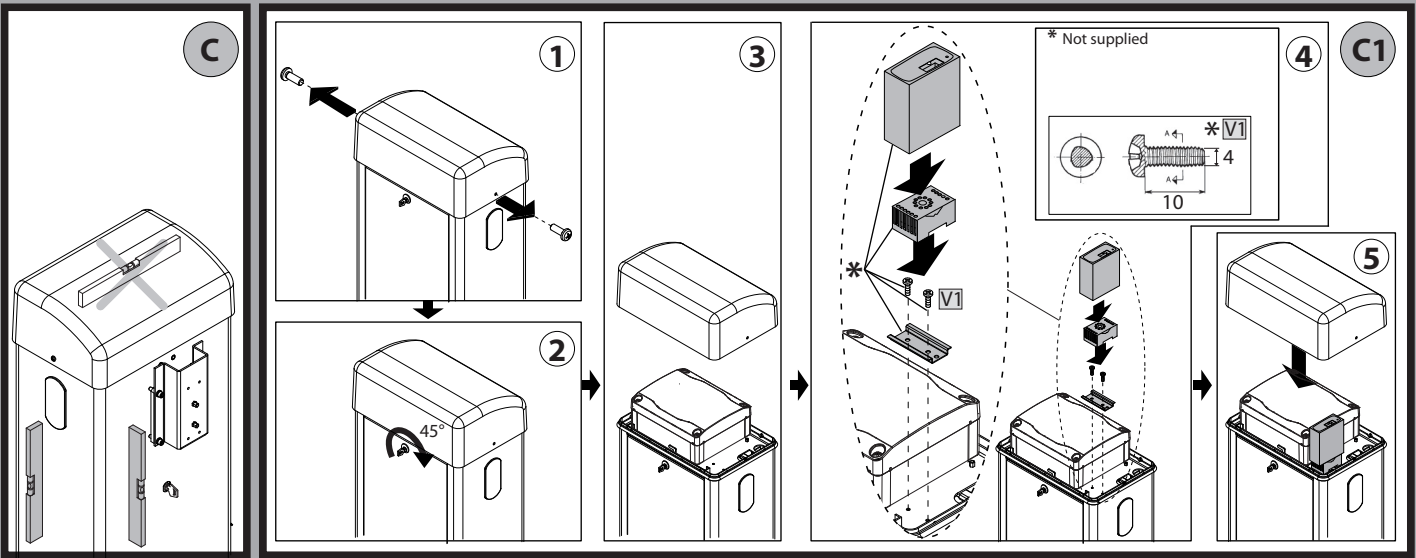
With anchor bolts:

B2



*
Not supplied

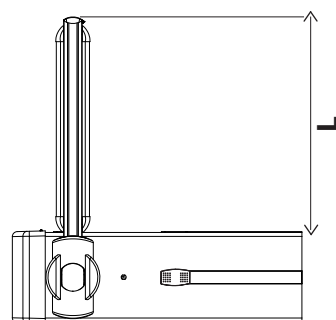




GIOTTO BT A 30U/ GIOTTO BT A 60U
GIOTTO BT A 30S U/ GIOTTO BT A 60S U

Accessories: working length of boom and balancing.

	SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	
GA AQ AT - GAMA AQ AT	MIN L	6 m	3,2 m	3,2 m	3,7 m	3,8 m	4 m	4,2 m	4,3 m	4,5 m	4,8 m	4,5 m	4,8 m	3,4 m	3,4 m	3,6 m	4,1 m	4,2 m	4,4 m	4,6 m	5 m
	MAX L	6 m	3,5 m	3,6 m	4,2 m	4,3 m	4,5 m	4,7 m	4,8 m	5 m	5 m	5 m	3,8 m	3,8 m	4 m	4,5 m	4,6 m	4,9 m	5 m	5 m	5 m
	MIN L	4,4 m	2,4 m	2,5 m	2,6 m	2,9 m	2,9 m	3,1 m	3,2 m	3,3 m	3,7 m	3,5 m	3,7 m	2,7 m	2,8 m	2,8 m	3,2 m	3,3 m	3,4 m	3,6 m	3,9 m
GIOTTO BT A 60 U	MIN L	5 m	3,3 m	3,3 m	3,5 m	4 m	4,2 m	4,3 m	4,4 m	4,7 m	5 m	5 m	3,5 m	3,6 m	3,7 m	4,2 m	4,3 m	4,5 m	4,7 m	4,9 m	5 m
	MAX L		2,4 m	2,5 m	2,5 m	2,9 m	2,9 m						2,7 m	2,7 m	2,8 m						
	MIN L	2,1 m	1 m	1,1 m	1,1 m	1,2 m	1,3 m	1,3 m	1,4 m	1,4 m	1,6 m	1,5 m	1,6 m	1,3 m	1,3 m	1,3 m	1,5 m	1,6 m	1,7 m	1,7 m	1,8 m
GIOTTO BT A 30 U	MIN L	3 m	1,9 m	2 m	2 m	2,3 m	2,5 m	2,5 m	2,6 m	2,8 m	2,9 m	2,9 m	2,2 m	2,2 m	2,3 m	2,6 m	2,7 m	2,8 m	2,9 m	3 m	3 m
	MAX L		2,7 m	2,7 m	2,8 m	3 m	3 m						2,9 m	2,9 m	3 m						
	MIN L		1,9 m	2 m	2 m	2,3 m	2,3 m	2,5 m	2,5 m	2,6 m	2,9 m	2,8 m	2,2 m	2,2 m	2,3 m	2,6 m	2,7 m	2,8 m	2,9 m	3 m	3 m
GIOTTO BT A 30S U	MIN L		2,3 m	2,3 m	2,4 m	2,8 m	2,9 m	3 m	3 m	3 m	3 m	3 m	2,5 m	2,5 m	2,6 m	3 m	3 m	3 m	3 m	3 m	3 m
	MAX L		2,3 m	2,3 m	2,7 m	2,8 m	2,9 m	3 m	3 m	3 m	3 m	3 m	2,5 m	2,5 m	2,6 m	3 m	3 m	3 m	3 m	3 m	3 m
	MIN L		1 m	1,1 m	1,1 m	1,2 m	1,3 m	1,3 m	1,4 m	1,4 m	1,6 m	1,5 m	1,6 m	1,3 m	1,3 m	1,3 m	1,5 m	1,6 m	1,7 m	1,7 m	1,8 m
KIT LIGHT			+ LIGHT		+ LIGHT			+ LIGHT		+ LIGHT		+ LIGHT		+ LIGHT		+ LIGHT		+ LIGHT		+ LIGHT	
			+ GA/ GAMA	+ GA/ GAMA	+ GA/ GAMA	+ GA/ GAMA	+ GA/ GAMA	+ GA/ GAMA	+ GA/ GAMA	+ GA/ GAMA	+ GA/ GAMA	+ GA/ GAMA	+ GA/ GAMA	+ GA/ GAMA	+ LIGHT						
			+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB	+ SB
PCAN			+ PCAN		+ PCAN		+ PCAN		+ PCAN		+ PCAN		+ PCAN		+ PCAN		+ PCAN		+ PCAN		+ PCAN
			+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR	+ BIR
PCAN																					
PCAN																					
PCAN																					
KIT LIGHT																					
GAMA AQ AT																					
GAMA AQ AT																					



L: Working boom length.

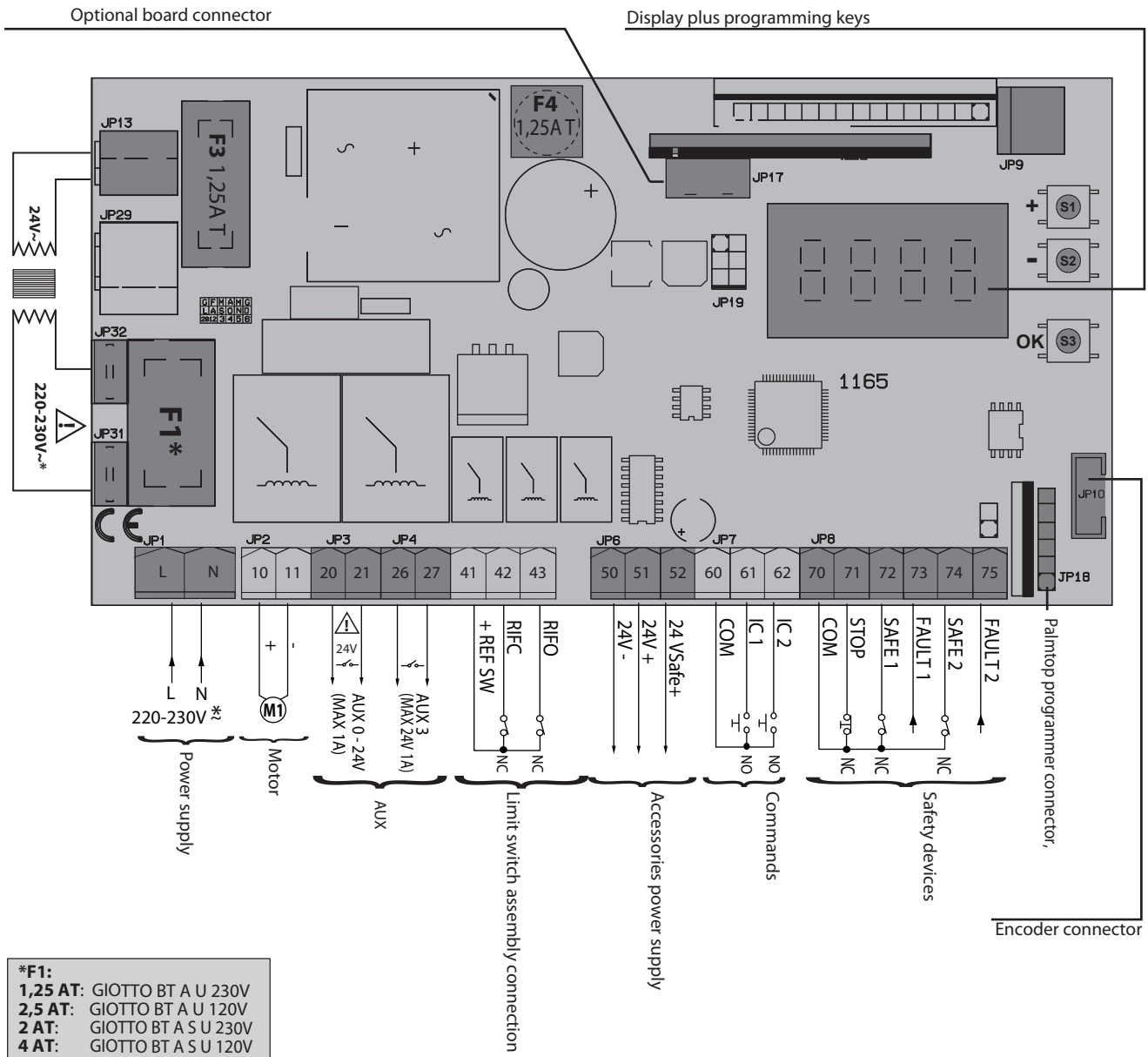
* (above boom only)

* (below boom only)

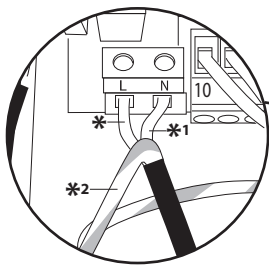
F

G

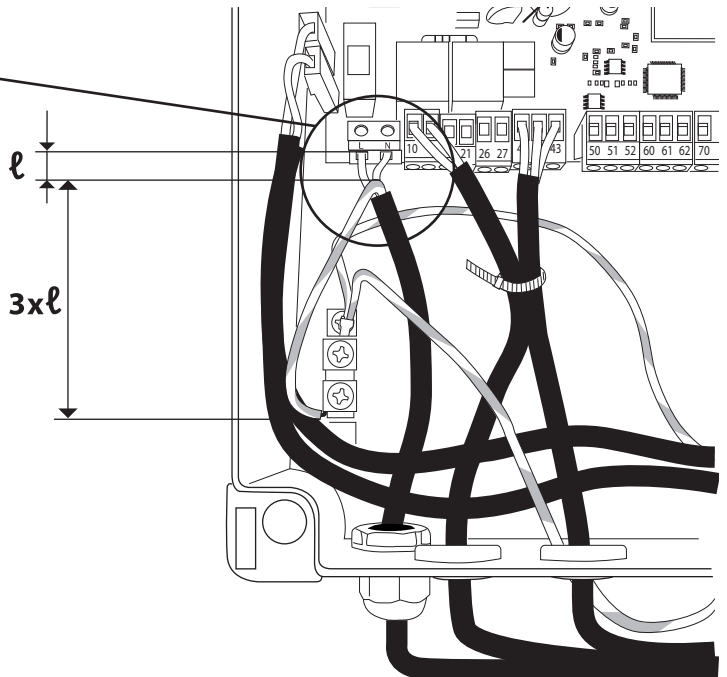
Terminal board wiring



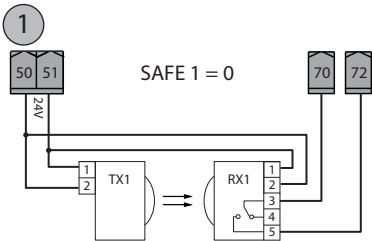
*F1:
 1,25 AT: GIOTTO BT A U 230V
 2,5 AT: GIOTTO BT A U 120V
 2 AT: GIOTTO BT A S U 230V
 4 AT: GIOTTO BT A S U 120V



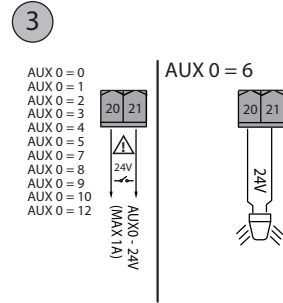
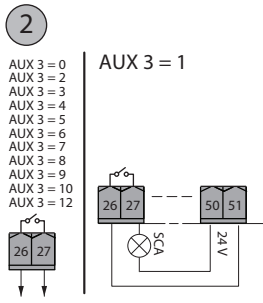
* (L)	*1 (N)	*2
Brown	Bleu	Yellow/ Green



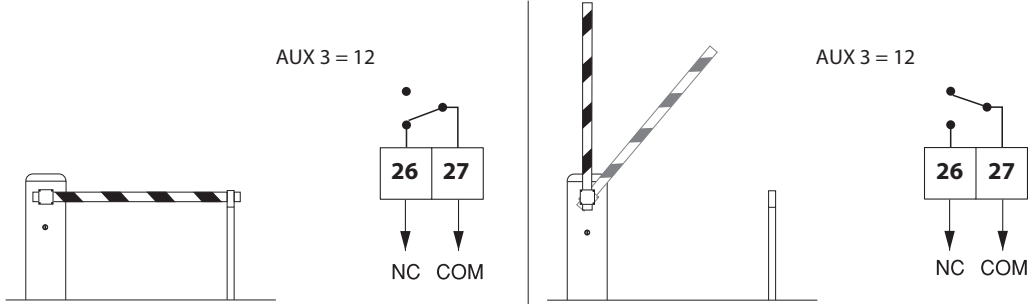
H



Connection of 1 pair of non-tested photocells,

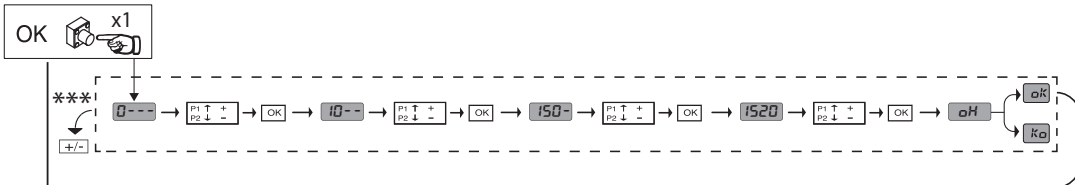


4 Connection To Car-park Management System

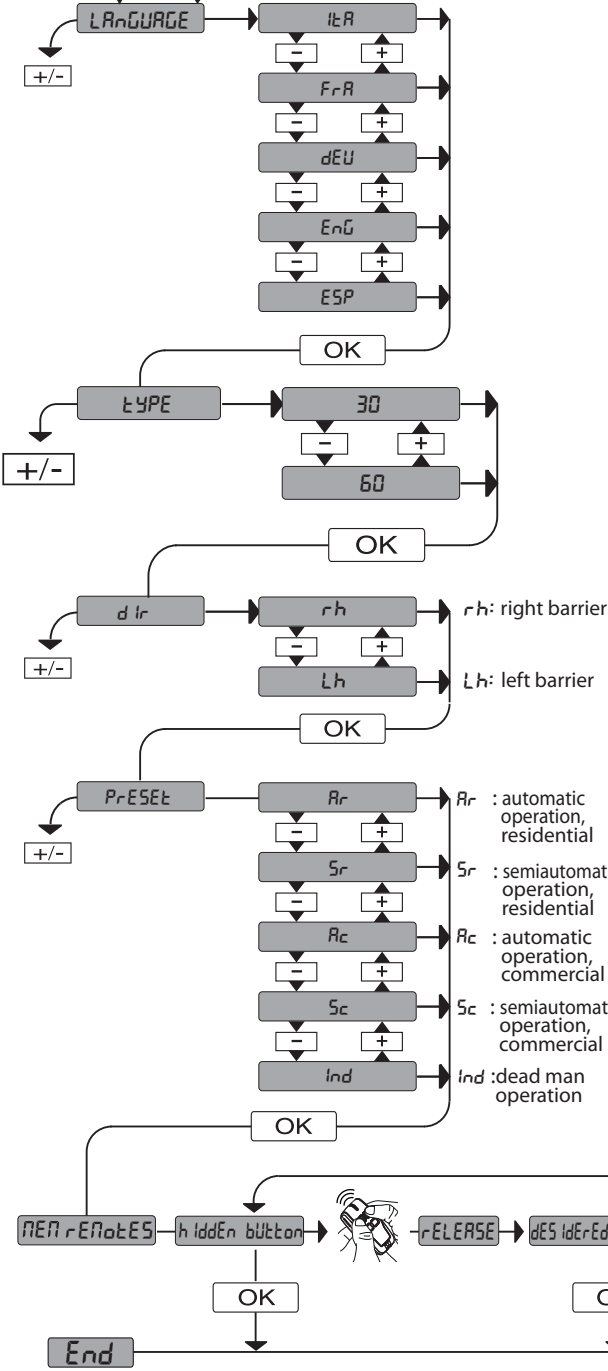


SIMPLIFIED MENU (FIG. 1)

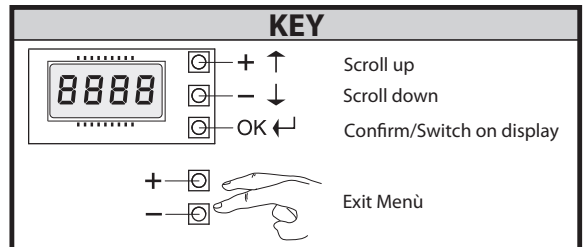
D812433 00100_06



*** Password entry.
Request with Protection Level logic set to 1, 2, 3, 4



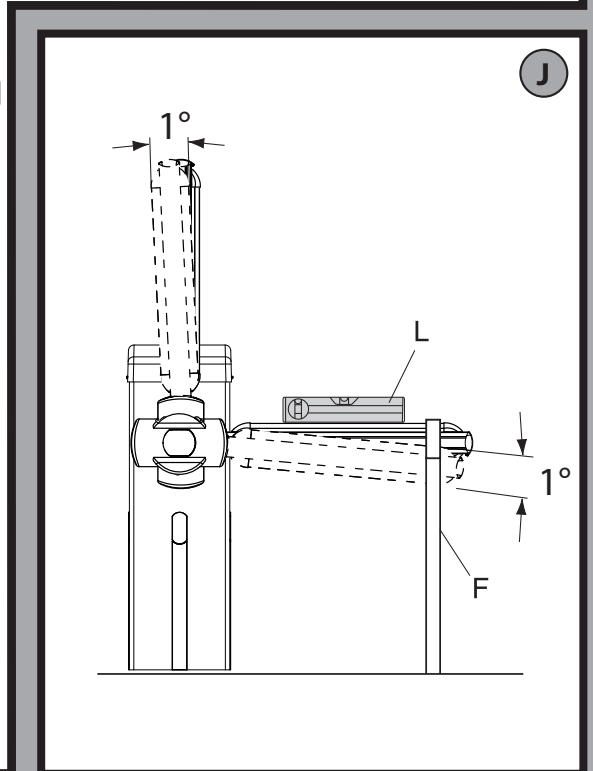
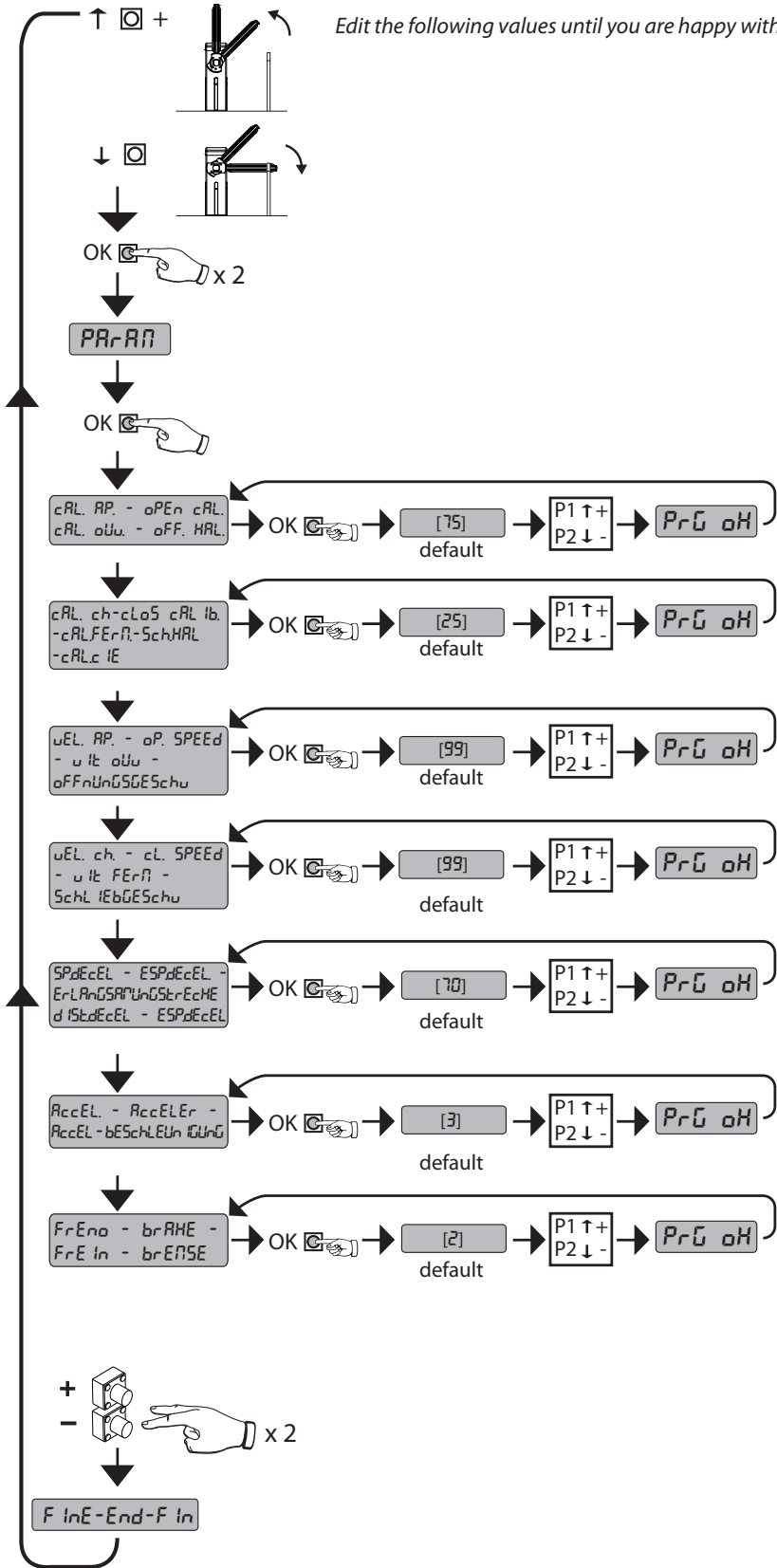
PRESET	DEFAULT	Rr	Sr	Rc	Sc	ind
PARAMETERS						
Automatic closing time [s]	10	10	10	5	5	5
LOGIC						
Automatic Closing Time	1	1	0	1	0	0
Step-by-step movement	1	1	0	1	0	0
Pre-alarm	0	0	0	1	1	0
Deadman	0	0	0	0	0	1
Block pulses during opening	1	0	0	1	1	0



PRELIMINARY ADJUSTMENTS

I

Edit the following values until you are happy with boom movement,



ITALIANO

ENGLISH

FRANÇAIS

DEUTSCH

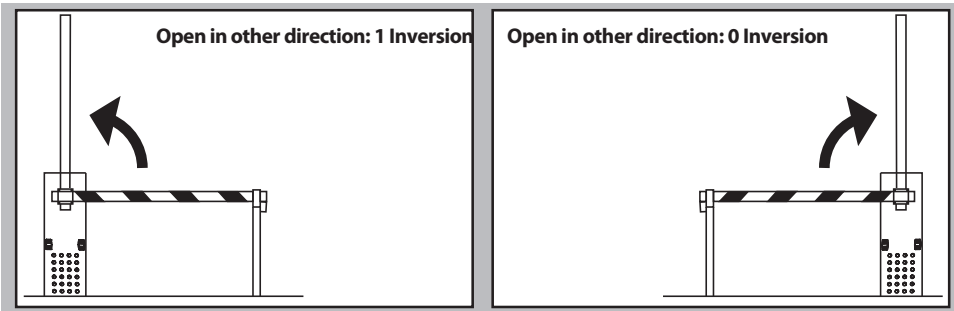
ESPAÑOL

PORTUGUÊS

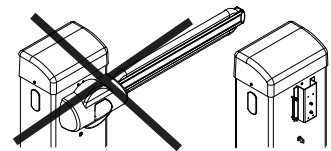
ASSEMBLY OF RIGHT BOOM

AA

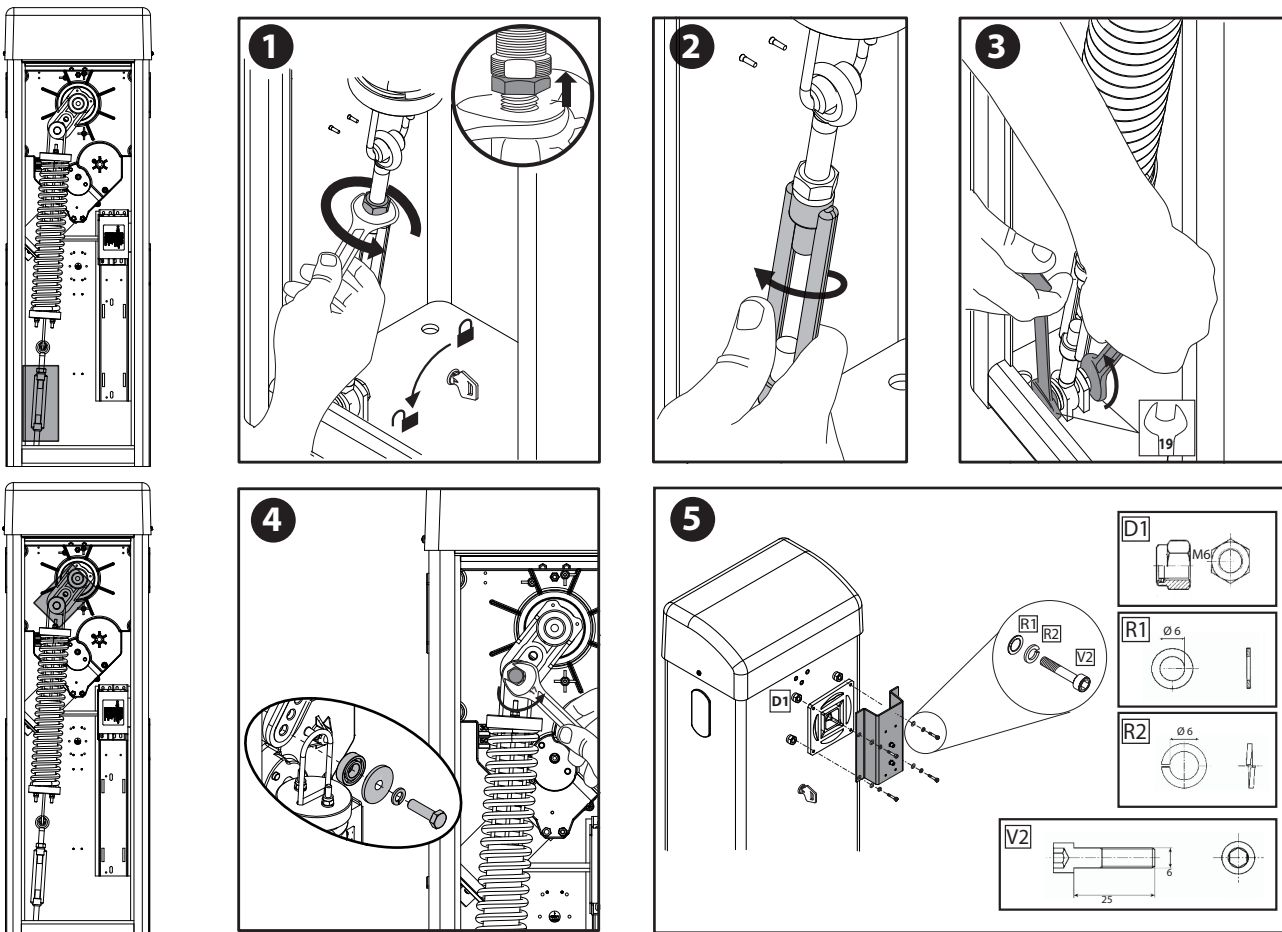
D812433 00100_06



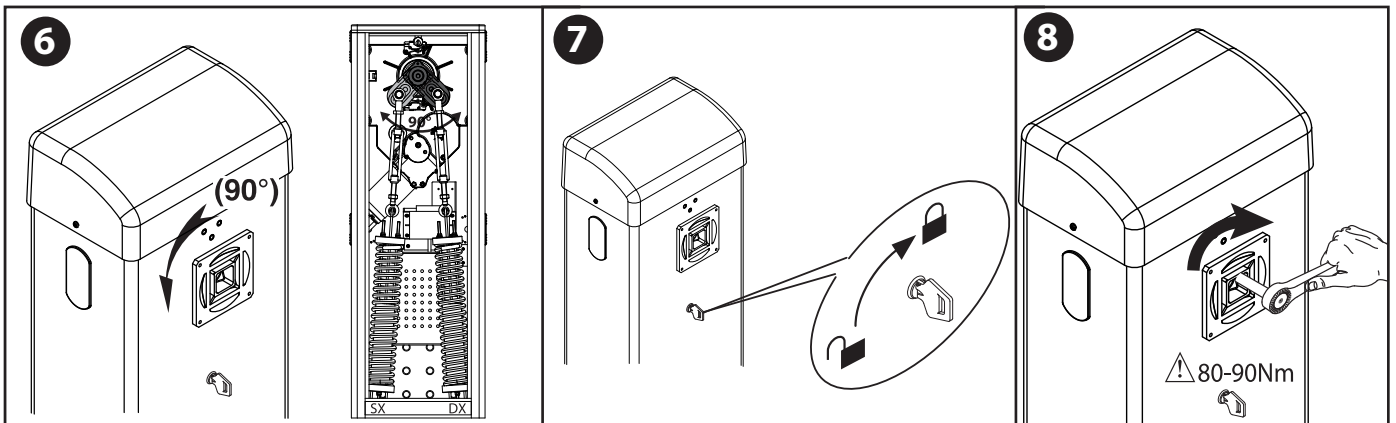
Make sure the spring is not under tension and the boom is not fitted.



Remove the spring assembly



Ret the right-hand spring assembly



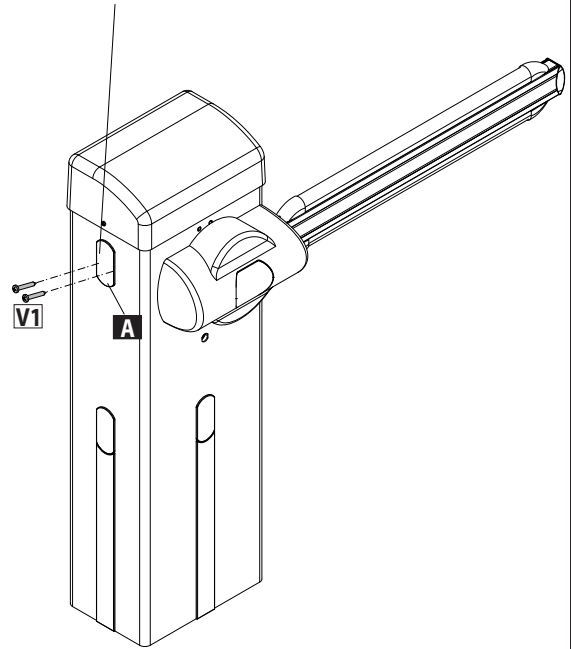
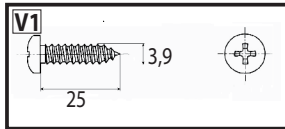
FITTING THE FLASHING LIGHT**AB**

See the flashing light's manual for instructions on installing the flashing light

Installing the flashing light

PLEASE NOTE! Remove cover A

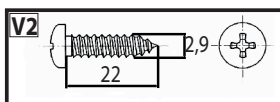
PLEASE NOTE! Fasten the flashing light on the barrier using the screw (V1)

**FITTING THE PHOTOCELL****AC**

See the photocell's manuals and post mount's manuals for instructions on installing the photocell and photocell with post mount

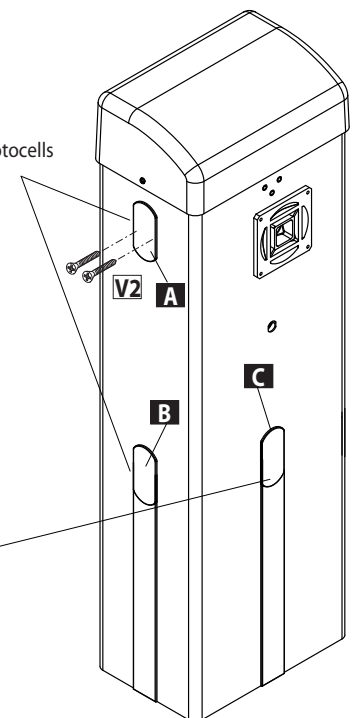
PLEASE NOTE! Remove cover A, B or C to install the photocell or post mount

PLEASE NOTE! Fasten the photocell on the barrier using the screw (V2)

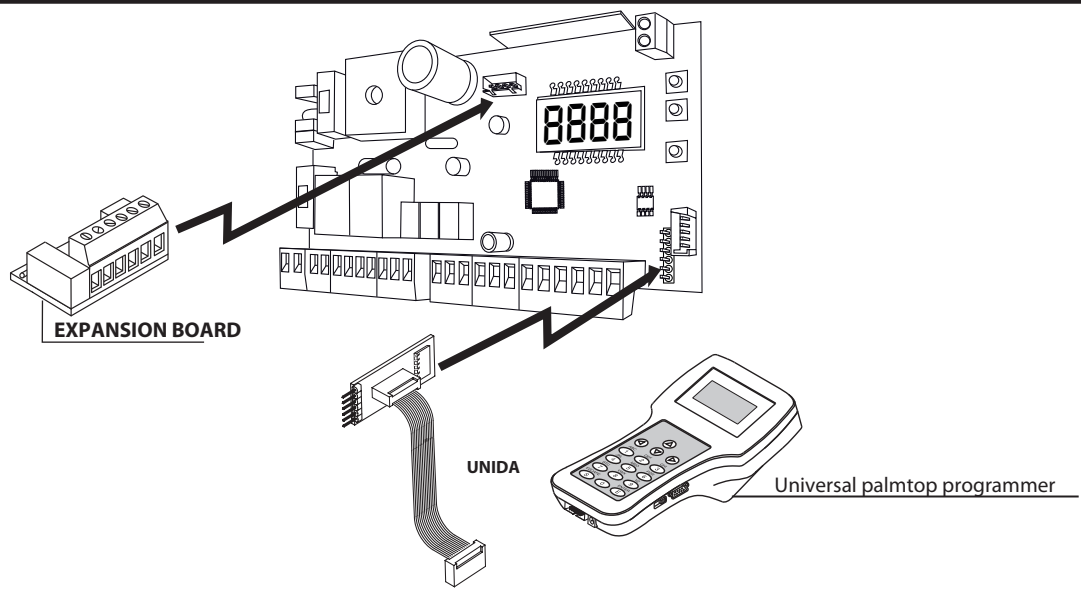


Installing the photocells

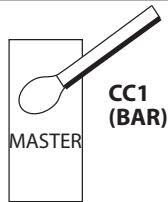
Installing the photocell with post mount



K

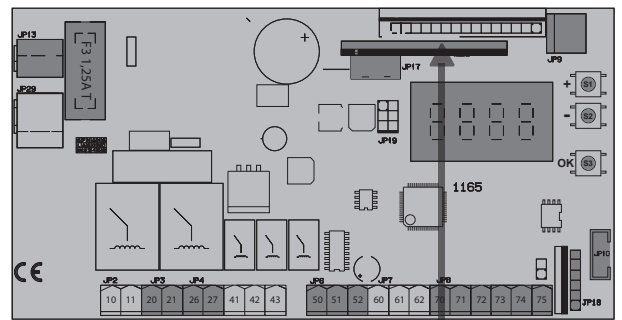
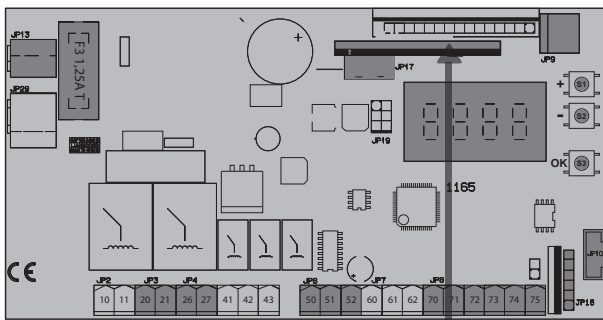


AddrE55=0
SEr iRL PodE=3

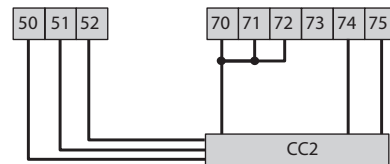
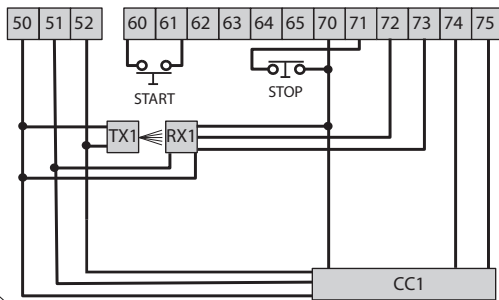
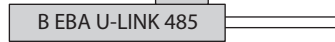


AddrE55=0
SEr iRL PodE=2

L



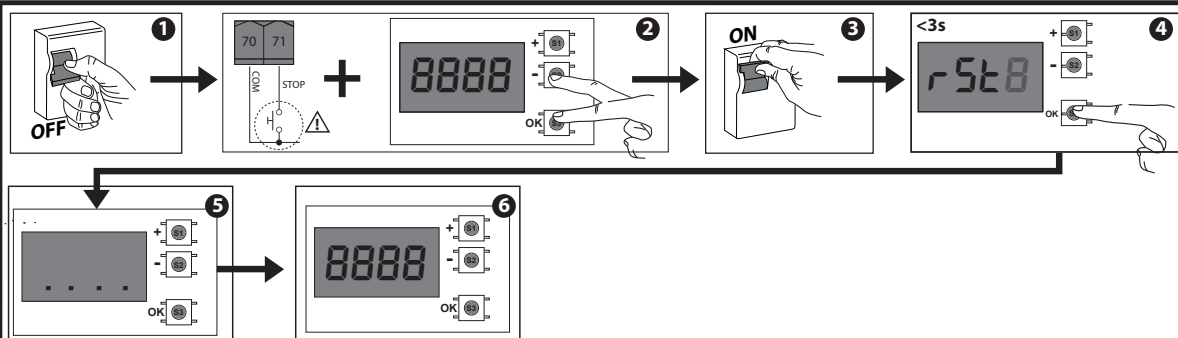
MAX 250m



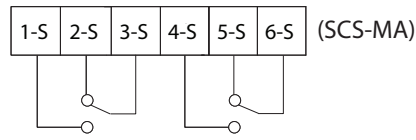
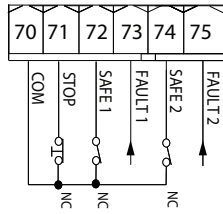
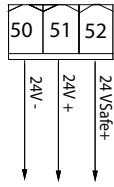
SAFE 1 = 1
SAFE 2 = 7 (≥6)

SAFE 2 SLAVE = SAFE 2 MASTER

TO CONNECT SEVERAL PHOTOCELLS, REFER TO FIG. P



M



N

ITALIANO

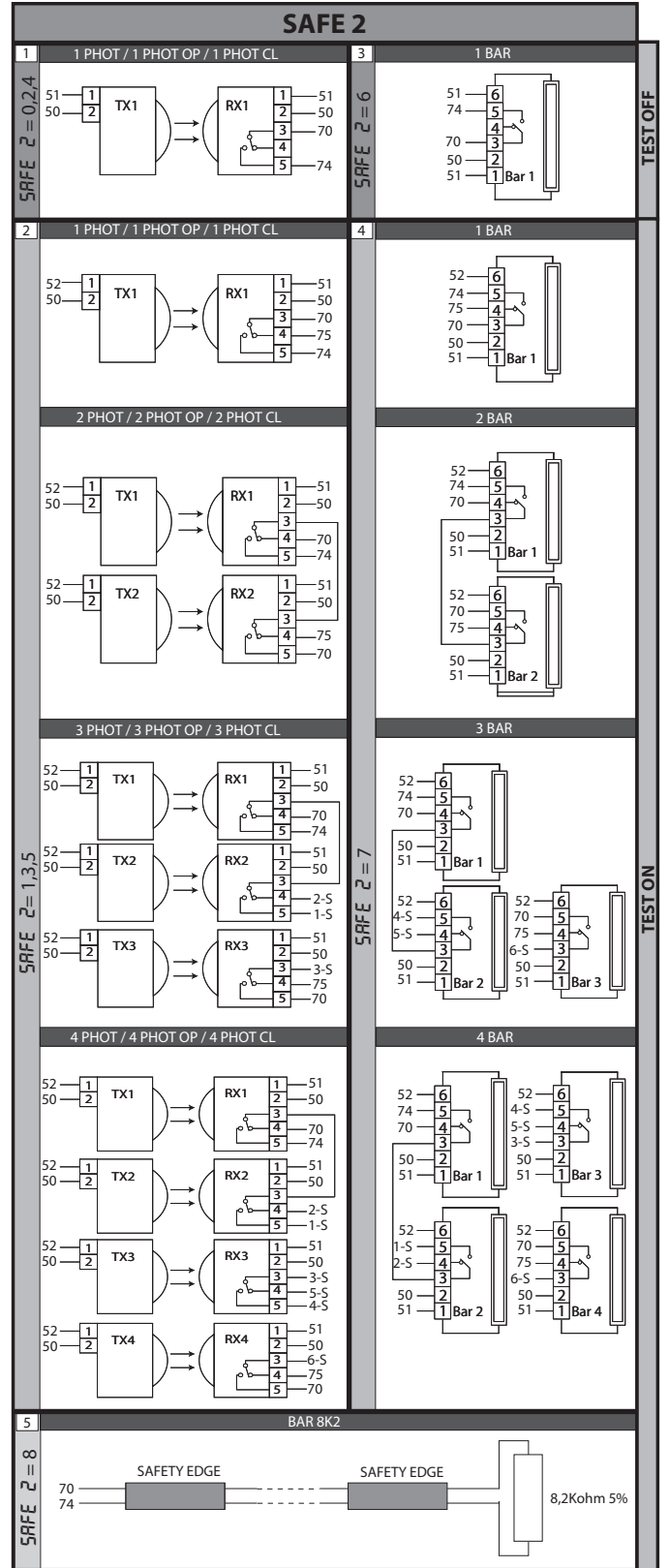
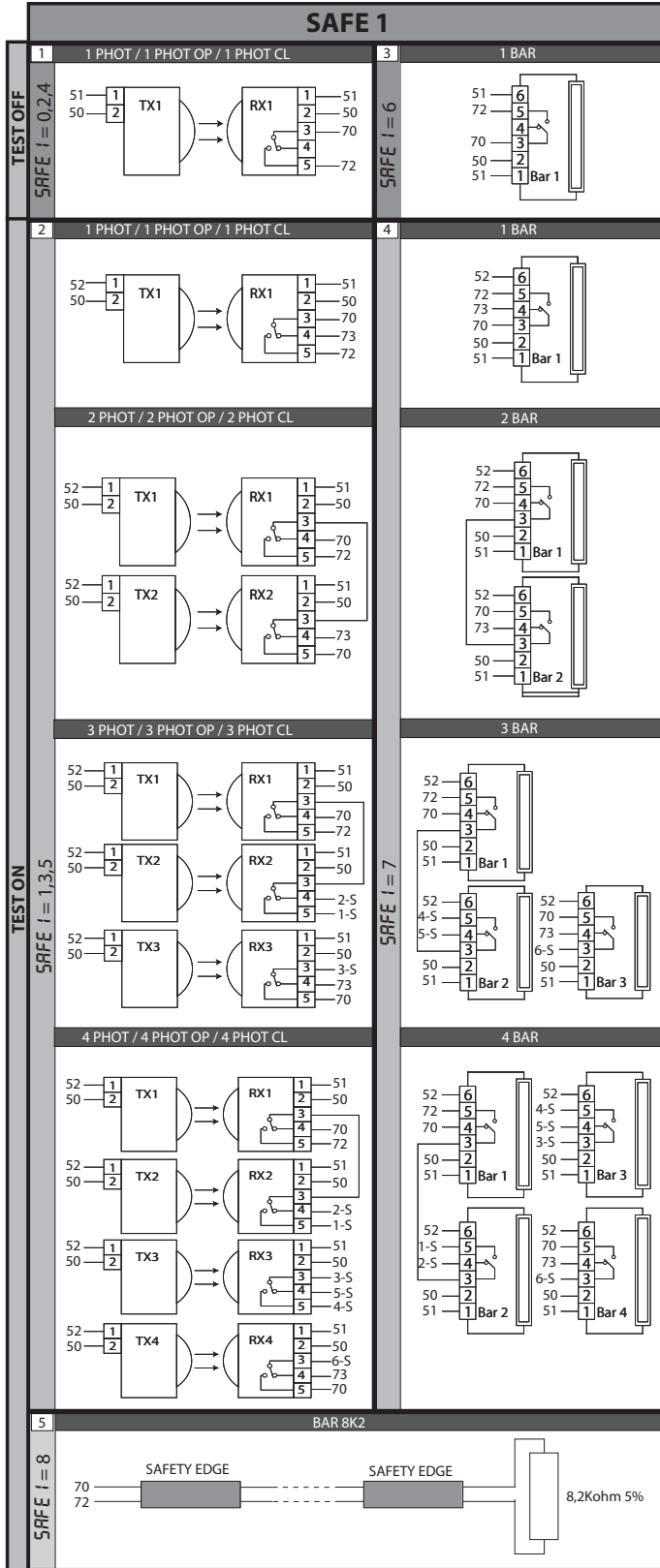
ENGLISH

FRANÇAIS

DEUTSCH

ESPAÑOL

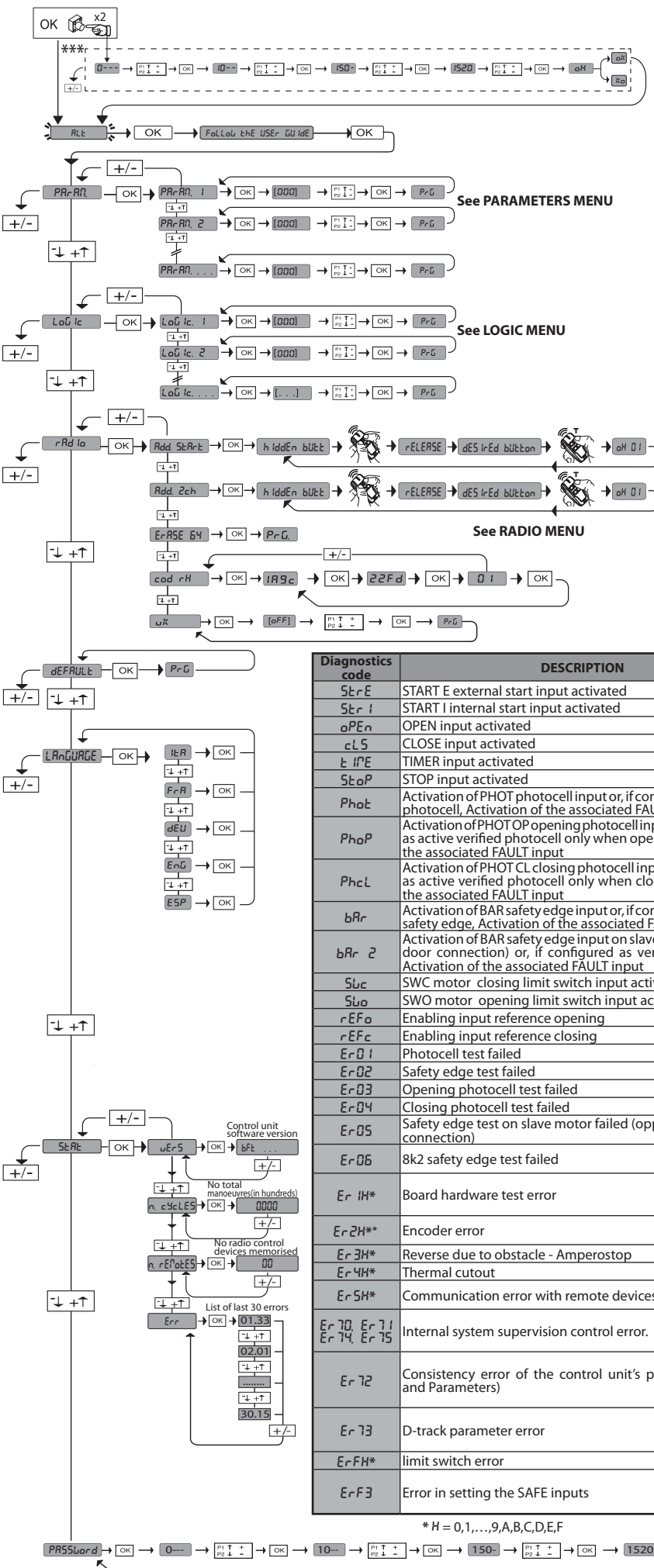
PORTUGUÊS



Maximum number of tested devices: 6 (but no more than 4 per type),

ACCESS MENU Fig. 2

D812433 00100_06



*** Password entry.
Request with Protection Level logic set to 1, 2, 3, 4

LEGENDA

+ ↑

- ↓

OK ↵

Scroll up

Scroll down

Confirm/Switch on display

+

-

Exit Menü

Diagnostics code	DESCRIPTION	NOTES
StErE	START E external start input activated	
StEr I	START I internal start input activated	
oPEn	OPEN input activated	
cLS	CLOSE input activated	
tImE	TIMER input activated	
StoP	STOP input activated	
Phot	Activation of PHOT photocell input or, if configured as verified photocell, Activation of the associated FAULT input	
PhoP	Activation of PHOT OP opening photocell input or, if configured as active verified photocell only when opening, Activation of the associated FAULT input	
PhcL	Activation of PHOT CL closing photocell input or, if configured as active verified photocell only when closing, Activation of the associated FAULT input	
bAr	Activation of BAR safety edge input or, if configured as verified safety edge, Activation of the associated FAULT input	
bAr 2	Activation of BAR safety edge input on slave motor (opposing door connection) or, if configured as verified safety edge, Activation of the associated FAULT input	
Swc	SWC motor closing limit switch input activated	
Swo	SWO motor opening limit switch input activated	
rEFo	Enabling input reference opening	
rEFc	Enabling input reference closing	
Er01	Photocell test failed	Check photocell connection and/or logic settings
Er02	Safety edge test failed	Check safety edge connection and/or logic settings
Er03	Opening photocell test failed	Check photocell connection and/or parameter/logic setting
Er04	Closing photocell test failed	Check photocell connection and/or parameter/logic setting
Er05	Safety edge test on slave motor failed (opposite leaves connection)	Check safety edge connection and/or parameter/logic settings
Er06	8k2 safety edge test failed	Check safety edge connection and/or parameter/logic settings
Er1H*	Board hardware test error	-Check connections to motor -Hardware problems with board (contact technical assistance)
Er2H**	Encoder error	Check the cable, the encoder card and the motor direction (if necessary) and reset the card
Er3H*	Reverse due to obstacle - Amperostop	Check for obstacles in path
Er4H*	Thermal cutout	Allow automated device to cool
Er5H*	Communication error with remote devices	Check connection with serial-connected accessory devices and/or expansion boards
Er70, Er71, Er74, Er75	Internal system supervision control error.	Try switching the board off and back on again. If the problem persists, contact the technical assistance department.
Er72	Consistency error of the control unit's parameters (Logics and Parameters)	Pressing OK, the detected settings are confirmed. The board will keep on working with the detected settings. ⚠ The board settings must be checked (Parameters and Logics)
Er73	D-track parameter error	Pressing OK, the board will keep on working with D-track as a default. ⚠ An autotest is required
ErFH*	limit switch error	Check limit switch connections
ErF3	Error in setting the SAFE inputs	Check if the SAFE inputs are correctly set; during the operation of opposed barriers, SAFE2 must be set up as safety edge. Fig. L

* H = 0,1,...,9,A,B,C,D,E,F

2) GENERAL OUTLINE

Compact electromechanical barrier suitable for limiting private areas, parkings, access areas for vehicles only. Available for passageways from 3 to 6 metres. Adjustable electronic limit switches, they guarantee correct boom stopping position.

The emergency release device for manual manoeuvre is controlled by a personalised key lock.

The actuator is always supplied for left-hand side fitting. However, when necessary, the opening direction can be reversed by means of simple operations.

The CBO mod. foundation base (on request) makes barrier installation easier. Appropriate fittings make it easy to install accessories.

The **MERAK BG - MERAK BG S** control panel is supplied by the manufacturer with standard setting. Any change must be set by means of the incorporated display or by means of the universal programmer.

Fully supports EELINK and U-LINK protocols.

Its main features are:

- Control of 1 low-voltage motor
- Obstacle detection
- Separate inputs for safety devices
- Configurable command inputs
- Built-in radio receiver rolling code with transmitter cloning.

The board has a terminal strip of the removable kind to make maintenance or replacement easier. It comes with a series of prewired jumpers to make the installer's job on site easier. The jumpers concern terminals: 70-71, 70-72, 70-74. If the above-mentioned terminals are being used, remove the relevant jumpers.

3) TECHNICAL SPECIFICATIONS

MOTOR	
Power supply	110-120V 50/60Hz 220-230V 50/60 Hz(*)
Power absorbed	300W (GIOTTO BT A 30S U/ GIOTTO BT A 60S U) 250W (GIOTTO BT A 30 U/ GIOTTO BT A 60 U)
Internal lubrication	permanent grease
Max torque	280 Nm (GIOTTO BT A 30S U)
	380 Nm (GIOTTO BT A 60S U)
	250 Nm (GIOTTO BT A 30 U)
	350 Nm (GIOTTO BT A 60 U)
Impact reaction	Electronic torque limiter
Opening time	2,5s (GIOTTO BT A 30S U)
	4s (GIOTTO BT A 60S U / GIOTTO BT A 30 U)
	5s (GIOTTO BT A 60 U)
Boom length	3 m (GIOTTO BT A 30S U/ GIOTTO BT A 30 U)
	6 m (GIOTTO BT A 60S U/ GIOTTO BT A 60 U)
Manual mechanical release	customised key
Type of boom	rectangular
Limit devices	electrical incorporated and electronically adjustable
Type of use	intensive (GIOTTO BT A 30S U/ GIOTTO BT A 60S U)
	semi intensive (GIOTTO BT A 30 U/ GIOTTO BT A 60 U)
Buffer batteries (optional extras)	Two 12V 1.2Ah batteries
Environmental conditions	from -20°C to +55°C
Degree of protection	IP 54
Noise level	<70dBA
Operator weight (without boom)	41 Kg (GIOTTO BT A 30S U/ GIOTTO BT A 60U)
	42 Kg (GIOTTO BT A 60S U)
	40 Kg (GIOTTO BT A 30 U)
Dimensions	see fig. A
CONTROL UNIT	
Mains/low voltage insulation	> 2MΩ 500V~
Dielectric strength	mains/low voltage 3750V~ for 1 minute
Thermal overload protection	Software
Supply to accessories	24V~ (demand max. 0,5A) 24V~ safe
AUX 0	NO 24V ~powered contact (max.1A)
AUX 3	N.O. Contact (24V~ /1A max)
Fuses	see Fig. G
N° of combinations	4 billion
Built-in Rolling-Code radio-receiver	frequency 433.92MHz
Max. n° of remotes that can be memorized	63
Setting of parameters and options	Universal handheld programmer/LCD display

(*)= special power supply voltages on request.

Usable transmitter versions:
AI ROLLING CODE transmitters compatible with:  ((CR-Ready))

4.1) FOUNDATION PLATE (Fig. B1).

4.2) FASTENING ANCHOR BOLTS (Fig. B2).

5) FITTING OF THE ACTUATOR

⚠ WARNING! The barrier must be exclusively used for vehicles to drive through. Pedestrians must not walk within the operator manoeuvring area. An appropriate pedestrian passageway must be provided for.

The passageway must be suitably indicated by means of the warning signs illustrated in Fig.A.

⚠ WARNING: before opening the door, the spring must be unloaded (vertical boom). The door of the box must be facing towards the inside of the property. When you stand in the middle of the passageway, facing outwards, if the box is on your left, the barrier is left-hand fitted, if the box is on your right, the barrier is right-hand fitted.

The actuator is always supplied for left-hand side fitting.

6) Right-hand fitting (Fig. A, B, C, D).

7) Left-hand fitting (Fig. AA)

- Carry out bar balancing.
- Set the Direction Reversal logic to ON in the control panel.

⚠ Warning: the Direction Reversal logic must be configured to OFF for left-hand fitted barriers, and to ON for right-hand fitted barriers. Otherwise, the limit devices will not operate or an encoder direction error will be displayed.

8) BAR BALANCING (Fig. E).

9) Accessories: boom length limits and balancing (Fig. F).

For further information about the installation and use of accessories, refer to the respective instruction manuals.

10) FITTING THE FLASHING LIGHT (FIG.AB)

Complete assembly and wiring as directed in instructions provided for the flashing light

11) FITTING THE PHOTOCELL (FIG. AC).

Complete assembly as directed in instructions provided for the photocell

12) ELECTRICAL INSTALLATION SET-UP

⚠ WARNING: before opening the door, the spring must be unloaded (vertical boom). Set up the electrical installation (fig. A) with reference to the current regulations for electrical installations. Keep the mains power supply con-nections definitely separate from the service connections (photocells, electric edges, control devices etc.).

Fig. A shows the number of connections and section for a 100m length of power supply cables; for greater lengths, calculate the section for the true automation load. When the auxiliary connections exceed 50 metre lengths or go through critical disturbance areas, it is recommended to decouple the control and safety devices by means of suitable relays.

The main automation components are (fig. A):

I) Type-approved adequately rated omnipolar circuit-breaker with at least 3,5 mm contact opening, provided with protection against overloads and short circuits, suitable for cutting out automation from the mains. Place, if not already installed, a type-approved differential switch with a 0.03A threshold just before the automation system.

QR) Control panel and incorporated receiver.

S) Key selector.

AL) Blinker

M) Actuators.

A) Bar.

F) Rest fork.

CS) Electric edge.

Ft,Fr) Pair of photocells.

CF) Photocell post.

T) 1-2-4 channel transmitter.

RMM) Inductive metal mass detector (**Fig. C1**).

LOOP) Mass detector loops.

WARNINGS - When performing wiring and installation, refer to the standards in force and, whatever the case, apply good practice principles. Wires carrying different voltages must be kept physically separate from each other, or they must be suitably insulated with at least 1mm of additional insulation.

Wires must be secured with additional fastening near the terminals, using devices such as cable clamps. All connecting cables must be kept far enough away from dissipaters.

13) CONNECTION (Fig. G)

Once suitable electric cables have been run through the raceways and the automated device's various components have been fastened at the predetermined points, the next step is to connect them as directed and illustrated in the diagrams contained in the relevant instruction manuals. Connect the live, neutral and earth wire (compulsory). The mains cable must be clamped in the relevant cable gland, and the accessories' wires in the cable gland, while the earth wire with the yellow/green-coloured sheath must be connected in the relevant terminal.

WARNING: The electrical connections must be carried out workmanlike by qualified experienced personnel, in conformity with all the current standards and with the use of appropriate materials.

Lay out the electrical installation with reference to the current electrical standards.

Keep the mains supply connections clearly separated from the service connections.

In the initial section of the electrical installation, fit a circuit breaker with a contact opening distance equal to or greater than 3,5 mm, provided with magnetothermal protection and a differential switch having adequate capacity for the appliance consumption. For the wiring, only use cables conforming to the harmonised or national standards, having a cross section corresponding to the initial protection, the appliance consumption and the installation conditions, for example a 3x1.5 sq mm (H 05 VV-F) cable.

	Terminal	Definition	Description
Power supply	L	LINE	Single-phase power supply 220-230V ~50/60 Hz*
	N	NEUTRAL	
	JP31	TRANSF PRIM	Transformer primary winding connection, 220-230V ~.
	JP32		
	JP13	TRANSF SEC	Board power supply: 24V~ Transformer secondary winding
Motor	10	MOT +	Connection motor 1
	11	MOT -	
Aux	20	AUX 0 - 24V POWERED CONTACT (N.O.) (MAX. 1A)	AUX 0 configurable output - Default setting FLASHING LIGHT. 2ND RADIO CHANNEL/ SCA GATE OPEN LIGHT/ COURTESY LIGHT command/ ZONE LIGHT command/ STAIR LIGHT/ GATE OPEN ALARM/ FLASHING LIGHT/ SOLENOID LATCH/ MAGNETIC LOCK/ MAINTENANCE/ FLASHING LIGHT AND MAINTENANCE/ BARRIER STATUS OUTPUT. Refer to "AUX output configuration" table.
	21		
	26	AUX 3 - FREE CONTACT (N.O.) (Max. 24V 1A)	AUX 3 configurable output - Default setting 2ND RADIO CHANNEL Output. 2ND RADIO CHANNEL/ SCA GATE OPEN LIGHT/ COURTESY LIGHT command/ ZONE LIGHT command/ STAIR LIGHT/ GATE OPEN ALARM/ FLASHING LIGHT/ SOLENOID LATCH/ MAGNETIC LOCK/ MAINTENANCE/ FLASHING LIGHT AND MAINTENANCE/ BARRIER STATUS OUTPUT. Refer to "AUX output configuration" table.
	27		
Limit switches	41	+ REF RIF	Common references
	42	RIFC	Reference closing RIFC (N.C.)
	43	RIFO	Reference opening RIFO (N.C.)
Accessories power supply	50	24V-	Accessories power supply output.
	51	24V+	
		52	24 Vsafe+
Commands	60	Common	IC 1 and IC 2 inputs common
	61	IC 1	Configurable command input 1 (N.O.) - Default OPEN. START E / START I / OPEN / CLOSE / TIMER / OPEN Refer to the "Command input configuration" table.
	62	IC 2	Configurable command input 2 (N.O.) - Default CLOSE. START E / START I / OPEN / CLOSE / TIMER / OPEN Refer to the "Command input configuration" table.
Safety devices	70	Common	STOP, SAFE 1 and SAFE 2 inputs common
	71	STOP	The command stops movement. (N.C.) If not used, leave jumper inserted.
	72	SAFE 1	Configurable safety input 1 (N.C.) - Default PHOT. PHOT / PHOT TEST / PHOT OP / PHOT OP TEST / PHOT CL / PHOT CL TEST / BAR / BAR TEST / BAR 8K2 Refer to the "Safety input configuration" table.
	73	FAULT 1	Test input for safety devices connected to SAFE 1.
	74	SAFE 2	Configurable safety input 2 (N.C.) - Default BAR. PHOT / PHOT TEST / PHOT OP / PHOT OP TEST / PHOT CL / PHOT CL TEST / BAR / BAR TEST / BAR 8K2 Refer to the "Safety input configuration" table.
	75	FAULT 2	Test input for safety devices connected to SAFE 2.
Antenna	Y	ANTENNA	Antenna input.
	#	SHIELD	Use an antenna tuned to 433MHz. Use RG58 coax cable to connect the Antenna and Receiver. Metal bodies close to the antenna can interfere with radio reception. If the transmitter's range is limited, move the antenna to a more suitable position.

AUX output configuration

Aux logic= 0 - 2ND RADIO CHANNEL output.

Contact stays closed for 1s when 2nd radio channel is activated.

Aux logic= 1 - SCA GATE OPEN LIGHT output.

Contact stays closed during opening and with leaf open, intermittent during closing, open with leaf closed.

Aux logic= 2 - COURTESY LIGHT command output.

Contact stays on for 90 seconds after the last operation.

Aux logic= 3 - ZONE LIGHT command output.

Contact stays closed for the full duration of operation.

Aux logic= 4 - STAIR LIGHT output.

Contact stays closed for 1 second at start of operation.

INSTALLATION MANUAL

D812433 00100_06

ENGLISH

<p>aUX Logic= 5 - OPEN GATE ALARM output. The contact remains closed if the door stays open for longer than the "RLRR" parameter. O for Obstacle detected</p>
<p>Aux logic= 6 - FLASHING LIGHT output. Contact stays closed while leaves are operating.</p>
<p>Aux logic= 7 - SOLENOID LATCH output. Contact stays closed for 2 seconds each time gate is opened.</p>
<p>Aux logic= 8 - MAGNETIC LOCK output. Contact stays closed while gate is closed.</p>
<p>Aux logic= 9 - MAINTENANCE output. Contact stays closed once the value set for the Maintenance parameter is reached, to report that maintenance is required.</p>
<p>Aux logic= 10 - FLASHING LIGHT AND MAINTENANCE output. Contact stays closed while leaves are operating. If the value set for the Maintenance parameter is reached, once the gate has finished moving and the leaf is closed, the contact closes for 10 sec. and opens for 5 sec. 4 times to report that maintenance is required.</p>
<p>Aux Logic=11 Not available</p>
<p>Aux Logic=12 - barrier status output: the contact stays closed when the barrier is totally closed.</p>

Command input configuration

<p>IC logic= 0 - Input configured as Start E. Operation according to SEEP-bY-SEEP Pdu. logic. External start for traffic light control.</p>
<p>IC logic= 1 - Input configured as Start I. Operation according to SEEP-bY-SEEP Pdu. logic. Internal start for traffic light control.</p>
<p>IC logic= 2 - Input configured as Open. The command causes the leaves to open. If the input stays closed, the leaves stay open until the contact is opened. When the contact is open, the automated device closes following the TCA time, where activated.</p>
<p>IC logic= 3 - Input configured as Closed. The command causes the leaves to close.</p>
<p>IC logic= 4 - Not available</p>
<p>IC logic= 5 - Input configured as Timer. Operation same as open except closing is guaranteed even after a mains power outage.</p>

Safety input configuration

<p>SAFE logic= 0 - Input configured as Phot (photocell) non tested . (fig.N, ref.1). Enables connection of devices not equipped with supplementary test contacts. When beam is broken, photocells are active during both opening and closing. When beam is broken during closing, movement is reversed only once the photocell is cleared. If not used, leave jumper inserted.</p>
<p>SAFE logic= 1 - Input configured as Phot test (tested photocell). (fig.N, ref.2). Switches photocell testing on at start of operation. When beam is broken, photocells are active during both opening and closing. When beam is broken during closing, movement is reversed only once the photocell is cleared.</p>
<p>SAFE logic= 2 - Input configured as Phot op (photocell active during opening only) non tested . (fig.N, ref.1). Enables connection of devices not equipped with supplementary test contacts. In the event beam is broken, photocell operation is disabled during closing. During opening, stops motion for as long as the photocell beam stays broken. If not used, leave jumper inserted.</p>
<p>SAFE logic= 3 - Input configured as Phot op test (tested photocell active during opening only (fig.N, ref.2). Switches photocell testing on at start of operation. In the event beam is broken, photocell operation is disabled during closing. During opening, stops motion for as long as the photocell beam stays broken.</p>
<p>SAFE logic= 4 - Input configured as Phot cl (photocell active during closing only) non tested . (fig.N, ref.1). Enables connection of devices not equipped with supplementary test contacts. In the event beam is broken, photocell operation is disabled during opening. During closing, movement is reversed immediately. If not used, leave jumper inserted.</p>
<p>SAFE logic= 5 - Input configured as Phot cl test (tested photocell active during closing only (fig.N ref.2). Switches photocell testing on at start of operation. In the event beam is broken, photocell operation is disabled during opening. During closing, movement is reversed immediately.</p>
<p>SAFE logic= 6 - Input configured as Bar (safety edge) non tested . (fig.N, ref.3). Enables connection of devices not equipped with supplementary test contacts. The command reverses movement for 2 sec.. If not used, leave jumper inserted.</p>
<p>SAFE logic= 7 - Input configured as Bar (tested safety edge (fig.N, ref.4). Switches safety edge testing on at start of operation. The command reverses movement for 2 sec.</p>
<p>SAFE logic= 8 - Input configured as Bar 8k2 (fig.N, ref.5). Input for resistive edge 8K2. The command reverses movement for 2 sec.</p>

*) If "D" type devices are installed (as defined by EN12453), connect in unverified mode, foresee mandatory maintenance at least every six months.

14) LIMIT SWITCH SETTING

WARNING: before opening the door, the spring must be unloaded (vertical boom).

The barrier is provided with programmable electronic limit switches and mechanical stop devices. There must be a rotation margin (about 1°) on closing and opening between the electrical limit switches and mechanical stop devices (Fig. j). The adjustment is carried out as follows:

The end-of-stroke opening and closing positions must be set by modifying the parameters of the control panel for Opening value Calibration and Closing value Calibration: if the value is increased, the end-of-stroke positions move towards the opening direction. The extent of the movement depends on the effective boom length: in the case of a 6-m boom, a unit change (1.0) entails a movement of about 4,4 cm which, proportionally, becomes about 5,8 cm for an 8-m boom.

The effective closing value also depends, in part, on the manoeuvring speed. It is therefore convenient to proceed to end-of-stroke calibration only after having set the other opening parameters.

To evaluate correctly the values set, you are advised to carry out a few complete consecutive manoeuvres.

15) EMERGENCY RELEASE (Fig. E)

WARNING! When an actuator without bar needs to be released, ensure that the balancing spring is not compressed (bar in the opening position).

15.1) LOCAL COMMANDS Fig.G

While the display is off, pressing the + key commands the gate to Open and pressing the - key commands it to Close. Pressing either key again while the automated device is moving commands the gate to STOP.

16) SAFETY DEVICES

Note: only use receiving safety devices with free changeover contact.

16.1) TESTED DEVICES Fig.N

16.2) CONNECTION OF 1 PAIR OF NON-TESTED PHOTOCELLS FIG. G1

17) ACCESS TO THE SIMPLIFIED MENU: FIG.1

17.1) CALLING UP MENUS: FIG. 2

17.2) PARAMETERS MENU (PR-RN) (PARAMETERS TABLE "A")

17.3) LOGIC MENU (LGG IC) (LOGIC TABLE "B")

17.4) RADIO MENU (RRD IO) (RADIO TABLE "C")

- IMPORTANT NOTE: THE FIRST TRANSMITTER MEMORIZED MUST BE IDENTIFIED BY ATTACHING THE KEY LABEL (MASTER).

In the event of manual programming, the first transmitter assigns the RECEIVER'S KEY CODE: this code is required to subsequently clone the radio transmitters.

The Clonix built-in on-board receiver also has a number of important advanced features:

- Cloning of master transmitter (rolling code or fixed code).
- Cloning to replace transmitters already entered in receiver.
- Transmitter database management.
- Receiver community management.

To use these advanced features, refer to the universal handheld programmer's instructions and to the general receiver programming guide.

17.5) DEFAULT MENU (DEFAULT)

Restores the controller's DEFAULT factory settings.

17.6) LANGUAGE MENU (LANGUAGE)

Used to set the programmer's language on the display.

17.7) STATISTICS MENU (SELE)

Used to view the version of the board, the total number of operations (in hundreds), the number of transmitters memorized and the last 30 errors (the first 2 digits indicate the position, the last 2 give the error code). Error 01 is the most recent.

17.8) PASSWORD MENU (PR55LORD)

Used to set a password for the board's wireless programming via the U-link network. With "PROTECTION LEVEL" logic set to 1,2,3,4, the password is required to access the programming menus. After 10 consecutive failed attempts to log in, you will need to wait 3 minutes before trying again. During this time, whenever an attempt is made to log in, the display will read "BLOC". The default password is 1234.

18) CONNECTION WITH EXPANSION BOARDS AND UNIVERSAL HANDHELD PROGRAMMER VERSION > V1.40 (Fig. K) Refer to specific manual.

WARNING! Incorrect settings can result in damage to property and injury to people and animals.

19) U-LINK OPTIONAL MODULES

Refer to the U-link instructions for the modules.

20) Opposite Barriers (Fig. L)

Refer to the U-link instructions for the modules.

NOTE: On the board set as the Slave, the Safety Edge input (Safety Edge/ Test Safety Edge/ 8k2 Safety Edge) should only be set to SAFE2.

21) RESTORING FACTORY SETTINGS (Fig.M)

WARNING: this operation will restore the control unit's factory settings and all transmitters stored in its memory will be deleted.

WARNING! Incorrect settings can result in damage to property and injury to people and animals.

- Cut off power to the board (Fig.M ref.1)
- Open the Stop input and press the - and OK keys together (Fig.M ref.2)
- Switch on the board's power (Fig.M ref.3)
- The display will read RST; confirm within 3 sec. by pressing the OK key (Fig.O ref.4)
- Wait for the procedure to finish (Fig.M ref.5)
- Procedure finished (Fig.M ref.6)

22) PARKING MANAGEMENT SYSTEM CONNECTION

The board has an output for the control of the barrier status configured this way (Fig. G4).

The logic must be set to AUX3/AUX0=12.

closed contact between terminals **26-27** with the barrier **lowered**
open contact between terminals **26-27** with the barrier **not lowered**.

TABLE "A" - PARAMETERS MENU - (PRR-RF)

Parameter	min.	max.	Default	Personal	Definition	Description
t c R	0	180	10		Automatic closing time [s]	Waiting time before automatic closing.
t r F L G h t c L r t	1	180	40		Time-to-clear traffic light zone [s]	Time-to-clear for the zone run through by traffic controlled by the traffic light.
R L R r n t i n E	0	240	30		Alarm time [s]	If an obstacle is sensed or the photocells are engaged for longer than the set time, the AUX contact configured as OPEN GATE ALARM output closes. The contact is then opened by the Stop command or by the closing limit switch.
a P E n c R L i b. (Special par.1)***	0	100	75		Opening value calibration	Opening value calibration [%] Set the reference value from 0,0 to 100,0 for the required opening position (see Paragraph Limit Switch Setting).
c L o S c R L i b. (Special par.6)***	0	100	25		Closing value calibration	Closing value calibration [%] Set the reference value from 0,0 to 100,0 for the required closing position (see Paragraph Limit Switch Setting).
A c c e L. (Special par.6)***	1	10	3		Acceleration	Acceleration [%] Set the acceleration to be applied at the beginning of each movement.
d i S t d E c e L	0	99	70		Deceleration distance [%]	Deceleration distance (switch from running speed to slow-down speed) for motor(s) both during opening and during closing, given as a percentage of total travel.
a P F o r c E	40	99	75		Leaf force during opening [%]	Force exerted by the barrier while opening. WARNING: It affects impact force directly: make sure that current safety requirements are met with the set value (*). Install anti-crush safety devices where necessary (**).
c L S F o r c E	40	99	70		Leaf force during closing [%]	Force exerted by the barrier while closing. WARNING: It affects impact force directly: make sure that current safety requirements are met with the set value (*). Install anti-crush safety devices where necessary (**).
b r A M E	1	10	2		Braking [%]	Braking [%] Set braking to be applied during slow-down phase.
a P. S P E E D	15	99	99		Speed during opening	Running speed during opening [%] Sets the running speed that the barrier must reach during opening, as a percentage of the maximum speed the actuator can reach.
c L S P E E D	15	99	99		Speed during closing	Running speed during closing [%] Sets the running speed that the barrier must reach during closing, as a percentage of the maximum speed the actuator can reach.
P R i n t E n R n c E	0	250	0		Programming number of operations for maintenance threshold [in hundreds]	Allows you to set a number of operations after which the need for maintenance will be reported on the AUX output configured as Maintenance or Flashing Light and Maintenance .

(*) In the European Union, apply standard EN 12453 for force limitations, and standard EN 12445 for measuring method.

(**) Impact forces can be reduced by using deformable edges.

(***)=Reference for universal handheld programmer.

TABLE "B" - LOGIC - (L o G i c)

Logic	Definition	Default	Cross out setting used	Optional extras
t c R	Automatic Closing Time	1	0	Logic not enabled
			1	Switches automatic closing on

INSTALLATION MANUAL

D812433 00100_06

Logic	Definition	Default	Cross out setting used	Optional extras																						
<i>FAST CLS.</i>	Fast closing	0	0	Logic not enabled																						
			1	Closes 1 second after the photocells are cleared before waiting for the set TCA to elapse.																						
<i>STEP-BY-STEP MOVEMENT</i>	Step-by-step movement	1	0	Inputs configured as Start E, Start I, Ped operate with 4-step logic.																						
			1	Inputs configured as Start E, Start I, Ped operate with 3-step logic. Pulse during closing reverses movement.																						
			2	Inputs configured as Start E, Start I, Ped operate with 2-step logic. Movement reverses with each pulse.																						
			<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="4">step-by-step mov.</th> </tr> <tr> <th></th> <th>2 STEP</th> <th>3 STEP</th> <th>4 STEP</th> </tr> </thead> <tbody> <tr> <td>CLOSED</td> <td rowspan="2">OPENS</td> <td rowspan="2">OPENS</td> <td>OPENS</td> </tr> <tr> <td>DURING CLOSING</td> <td>STOPS</td> </tr> <tr> <td>OPEN</td> <td rowspan="2">CLOSES</td> <td>CLOSES</td> <td>CLOSES</td> </tr> <tr> <td>DURING OPENING</td> <td>STOP + TCA</td> <td>STOP + TCA</td> </tr> <tr> <td>AFTER STOP</td> <td>OPENS</td> <td>OPENS</td> <td>OPENS</td> </tr> </tbody> </table>		step-by-step mov.					2 STEP	3 STEP	4 STEP	CLOSED	OPENS	OPENS	OPENS	DURING CLOSING	STOPS	OPEN	CLOSES	CLOSES	CLOSES	DURING OPENING	STOP + TCA	STOP + TCA	AFTER STOP
step-by-step mov.																										
	2 STEP	3 STEP	4 STEP																							
CLOSED	OPENS	OPENS	OPENS																							
DURING CLOSING			STOPS																							
OPEN	CLOSES	CLOSES	CLOSES																							
DURING OPENING		STOP + TCA	STOP + TCA																							
AFTER STOP	OPENS	OPENS	OPENS																							
<i>PRE-ALARM</i>	Pre-alarm	0	0	The flashing light comes on at the same time as the motor(s) start.																						
			1	The flashing light comes on approx. 3 seconds before the motor(s) start.																						
<i>hold-to-run</i>	Deadman	0	0	Pulse operation.																						
			1	Deadman mode. Input 61 is configured as OPEN UP. Input 62 is configured as CLOSE UP. Operation continues as long as the OPEN UP or CLOSE UP keys are held down. WARNING: safety devices are not enabled.																						
			2	Emergency Deadman mode. Usually pulse operation. If the board fails the safety device tests (photocell or safety edge, Er0x) 3 times in a row, Deadman mode is enabled which will stay active for 1 minute after the OPEN UP - CLOSE UP keys are released. Input 61 is configured as OPEN UP. Input 62 is configured as CLOSE UP. WARNING: with the device set to Emergency Deadman mode, safety devices are not enabled.																						
<i>IBL OPEN</i>	Block pulses during opening	1	0	Pulse from inputs configured as Start E, Start I has effect during opening.																						
			1	Pulse from inputs configured as Start E, Start I has no effect during opening.																						
<i>* IBL TCA</i>	Block pulses during TCA	0	0	Pulse from inputs configured as Start E, Start I has effect during TCA pause.																						
			1	Pulse from inputs configured as Start E, Start I has no effect during TCA pause.																						
<i>IBL CLOSE</i>	Block pulses during closing	0	0	Pulse from inputs configured as Start E, Start I has effect during closing.																						
			1	Pulse from inputs configured as Start E, Start I has no effect during closing.																						
<i>OPEN in other direction</i>	Open in other direction	0	0	Standard operating mode (left barrier).																						
			1	Opens in other direction to standard operating mode (right barrier).																						
<i>SAFE 1</i>	Configuration of safety input SAFE 1. 72	0	0	Input configured as Phot (photocell).																						
			1	Input configured as Phot test (tested photocell).																						
			2	Input configured as Phot op (photocell active during opening only).																						
			3	Input configured as Phot op test (tested photocell active during opening only).																						
<i>SAFE 2</i>	Configuration of safety input SAFE 2. 74	6	4	Input configured as Phot cl (photocell active during closing only).																						
			5	Input configured as Phot cl test (tested photocell active during closing only).																						
			6	Input configured as Bar, safety edge.																						
			7	Input configured as Bar, tested safety edge.																						
			8	Input configured as Bar 8k2.																						
<i>IC 1</i>	Configuration of command input IC 1. 61	2	0	Input configured as Start E.																						
			1	Input configured as Start I.																						
			2	Input configured as Open.																						
			3	Input configured as Close.																						
<i>IC 2</i>	Configuration of command input IC 2. 62	3	4	Input configured as Ped.																						
			5	Input configured as Timer.																						

ENGLISH

INSTALLATION MANUAL

D812493 00100_06

Logic	Definition	Default	Cross out setting used	Optional extras
<i>AUX 0</i>	Configuration of AUX 0 output. 20-21	6	0	Output configured as 2nd Radio Channel.
			1	Output configured as SCA (gate open light).
			2	Output configured as Courtesy Light command.
			3	Output configured as Zone Light command.
			4	Output configured as Stair Light
			5	Output configured as Alarm
<i>AUX 3</i>	Configuration of AUX 3 output. 26-37	0	6	Output configured as Flashing light
			7	Output configured as Latch
			8	Output configured as Magnetic lock
			9	Output configured as Maintenance
			10	Output configured as Flashing Light and Maintenance.
			11	Not available
<i>Fixed code</i>	Fixed code	0	0	Receiver is configured for operation in rolling-code mode. Fixed-Code Clones are not accepted.
			1	Receiver is configured for operation in fixed-code mode. Fixed-Code Clones are accepted.
<i>Protection Level</i>	Setting the protection level	0	0	A - The password is not required to access the programming menus B - Enables wireless memorizing of transmitters. Operations in this mode are carried out near the control panel and do not require access: - Press in sequence the hidden key and normal key (T1-T2-T3-T4) of a transmitter that has already been memorized in standard mode via the radio menu. - Press within 10 sec. the hidden key and normal key (T1-T2-T3-T4) of a transmitter to be memorized. The receiver exits programming mode after 10 sec.: you can use this time to enter other new transmitters by repeating the previous step. C - Enables wireless automatic addition of clones. Enables clones generated with the universal programmer and programmed Replays to be added to the receiver's memory. D - Enables wireless automatic addition of replays. Enables programmed Replays to be added to the receiver's memory. E - The board's parameters can be edited via the U-link network
			1	A - You are prompted to enter the password to access the programming menus The default password is 1234. No change in behaviour of functions B - C - D - E from 0 logic setting
			2	A - You are prompted to enter the password to access the programming menus The default password is 1234. B - Wireless memorizing of transmitters is disabled. C - Wireless automatic addition of clones is disabled. No change in behaviour of functions D - E from 0 logic setting
			3	A - You are prompted to enter the password to access the programming menus The default password is 1234. B - Wireless memorizing of transmitters is disabled. D - Wireless automatic addition of Replays is disabled. No change in behaviour of functions C - E from 0 logic setting
			4	A - You are prompted to enter the password to access the programming menus The default password is 1234. B - Wireless memorizing of transmitters is disabled. C - Wireless automatic addition of clones is disabled. D - Wireless automatic addition of Replays is disabled. E - The option of editing the board's parameters via the U-link network is disabled. Transmitters are memorized only using the relevant Radio menu. IMPORTANT: This high level of security stops unwanted clones from gaining access and also stops radio interference, if any.
<i>Serial Mode</i>	Serial mode (Identifies how board is configured in a BFT network connection).	0	0	Standard SLAVE: board receives and communicates commands/diagnostics/etc.
			1	Standard MASTER: board sends activation commands (START, OPEN, CLOSE, PED, STOP) to other boards.
			2	SLAVE opposite leaves in local network : the control unit is the slave in an opposite leaves network with no smart module (fig.L)
			3	MASTER opposite leaves in local network: the control unit is the master in an opposite leaves network with no smart module (fig.L)
<i>Address</i>	Address	0	[____]	Identifies board address from 0 to 119 in a local BFT network connection. (see U-LINK OPTIONAL MODULES section)


INSTALLATION MANUAL

D812433 00100_06

ENGLISH


Logic	Definition	Default	Cross out setting used	Optional extras
<i>EHP11</i>	Configuration of EXPI1 input on input-output expansion board. 1-2	1	0	Input configured as Start E command.
			1	Input configured as Start I command.
			2	Input configured as Open command.
			3	Input configured as Close command.
			4	Input configured as Timer command
			5	Input configured as Timer command.
			6	Input configured as Timer Pedestrian command
			7	Input configured as Phot (photocell) safety.
			8	Input configured as Phot op safety (photocell active during opening only).
			9	Input configured as Phot cl safety (photocell active during closing only).
			10	Input configured as Bar safety (safety edge).
			11	Input configured as Phot test safety (tested photocell). Input 3 (EXPI2) on input/output expansion board is switched automatically to safety device test input, EXPFAULT1.
			12	Input configured as Phot op test safety (tested photocell active during opening only). Input 3 (EXPI2) on input/output expansion board is switched automatically to safety device test input, EXPFAULT1.
			13	Input configured as Phot cl test safety (tested photocell active during closing only). Input 3 (EXPI2) on input/output expansion board is switched automatically to safety device test input, EXPFAULT1.
14	Input configured as Bar safety (tested safety edge). Input 3 (EXPI2) on input/output expansion board is switched automatically to safety device test input, EXPFAULT1.			
<i>EHP12</i>	Configuration of EXPI2 input on input-output expansion board. 1-3	0	0	Input configured as Start E command.
			1	Input configured as Start I command.
			2	Input configured as Open command.
			3	Input configured as Close command.
			4	Input configured as Timer command
			5	Input configured as Timer command.
			6	Input configured as Timer Pedestrian command
			7	Input configured as Phot (photocell) safety.
			8	Input configured as Phot op safety (photocell active during opening only).
			9	Input configured as Phot cl safety (photocell active during closing only).
			10	Input configured as Bar safety (safety edge).
<i>EHPo1</i>	Configuration of EXPO2 output on input-output expansion board 4-5	11	0	Output configured as 2 nd Radio Channel.
			1	Output configured as SCA (gate open light).
			2	Output configured as Courtesy Light command.
			3	Output configured as Zone Light command.
			4	Output configured as Stair Light.
<i>EHPo2</i>	Configuration of EXPO2 output on input-output expansion board 6-7	11	5	Output configured as Alarm.
			6	Output configured as Flashing light.
			7	Output configured as Latch.
			8	Output configured as Magnetic lock.
			9	Output configured as Maintenance.
			10	Output configured as Flashing Light and Maintenance.
			11	Output configured as Traffic Light control with TLB board.
			12	output configured as barrier status
<i>trAFFic LIGHT PREFLASHING</i>	Traffic light pre-flashing	0	0	Pre-flashing switched off.
			1	Red lights flash, for 3 seconds, at start of operation.
<i>trAFFic LIGHT RED LAMP ALWAYS on</i>	Steadily lit red light	0	0	Red lights off when gate closed.
			1	Red lights on when gate closed.


TABLE "C" - RADIO MENU (*rRd Ia*)

Logic	Description
<i>Add Start</i>	Add Start Key associates the desired key with the Start command
<i>Add 2ch</i>	Add 2ch Key associates the desired key with the 2nd radio channel command.
<i>ErASE 64</i>	Erase List  WARNING! Erases all memorized transmitters from the receiver's memory.
<i>cod rH</i>	Read receiver code Displays receiver code required for cloning transmitters.
<i>Wk</i>	ON = Enables remote programming of cards via a previously memorized W LINK transmitter. It remains enabled for 3 minutes from the time the W LINK transmitter is last pressed. OFF = W LINK programming disabled.

Logica	Definitie	Default	Uitgevoerde instelling aanvinken	Opties
EHP12	Configuratie van de ingang EXPI2 in de uitbreidingskaart ingangen/uitgangen 1-3	0	0	Ingang geconfigureerd als commando Start E.
			1	Ingang geconfigureerd als commando Start I.
			2	Ingang geconfigureerd als commando Open.
			3	Ingang geconfigureerd als commando Close.
			4	Ingang geconfigureerd als commando Voetgangers.
			5	Ingang geconfigureerd als commando Timer.
			6	Ingang geconfigureerd als commando VoetgangersTimer.
			7	Ingang geconfigureerd als beveiliging Phot, fotocel.
			8	Ingang geconfigureerd als beveiliging Phot op, fotocel alleen bij opening actief.
			9	Ingang geconfigureerd als beveiliging Phot cl, fotocel alleen bij sluiting actief.
10	Ingang geconfigureerd als beveiliging Bar, gevoelige rand.			
EHP01	Configuratie van de uitgang EXPO2 in de uitbreidingskaart ingangen/uitgangen 4-5	11	0	Uitgang geconfigureerd als 2de Radiokanaal.
			1	Uitgang geconfigureerd als SCA, Verkliekerslichtsignaal Hek Open.
			2	Uitgang geconfigureerd als commando Hulplicht.
			3	Uitgang geconfigureerd als commando Plaatselijke Verlichting.
			4	Uitgang geconfigureerd als Traplicht.
EHP02	Configuratie van de uitgang EXPO2 in de uitbreidingskaart ingangen/uitgangen 6-7	11	5	Uitgang geconfigureerd als Alarm.
			6	Uitgang geconfigureerd als Knipperlicht.
			7	Uitgang geconfigureerd als Klikslot.
			8	Uitgang geconfigureerd als Magneetslot.
			9	Uitgang geconfigureerd als Onderhoud.
			10	Uitgang geconfigureerd als Zwaailicht en Onderhoud.
			11	Uitgang geconfigureerd als Beheer stoplicht met TLB kaart.
			12	uitgang geconfigureerd als status barrière
ErAFF Ic Light PrEFFLASH InG	Vooraf knipperen stoplicht	0	0	Vooraf knipperen uitgesloten.
			1	Knipperende rode lichten, 3 seconden lang, bij begin manoeuvre.
ErAFF Ic Light rEd LAMP ALWAYS on	Continu rood stoplicht	0	0	Rode lichten uit bij gesloten hek.
			1	Rode lichten aan bij gesloten hek.

TABEL "C" - MENU RADIO (rRd Ia)

Logica	Beschrijving
Rdd StArt	Toets start toevoegen associeert de gewenste toets met het commando Start
Rdd 2ch	Toets 2ch toevoegen associeert de gewenste toets met het commando 2e radiokanaal.
ErRSE 64	Verwijder Lijst  OPGELET! Verwijdert alle in het geheugen van de ontvanger opgeslagen afstandsbedieningen volledig.
cod rH	Aflesen code ontvanger Geeft de ontvangercode weer, noodzakelijk voor het klonen van de afstandsbedieningen.
uk	ON = Activeert de programmering op afstand van de kaarten door middel van een eerder in het geheugen opgeslagen W LINK-zender. Deze activering blijft 3 minuten actief na op de afstandsbediening W LINK gedrukt te hebben. OFF = Programmering W LINK gedeactiveerd.

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