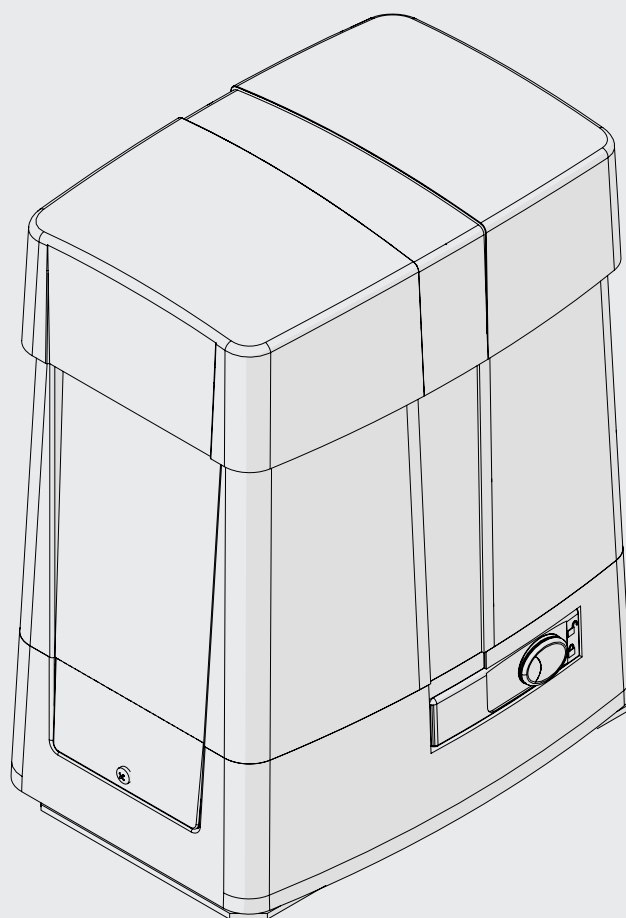


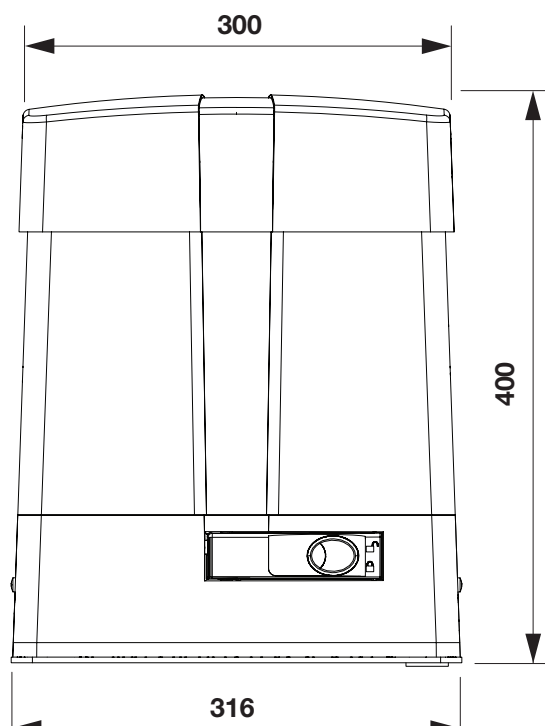
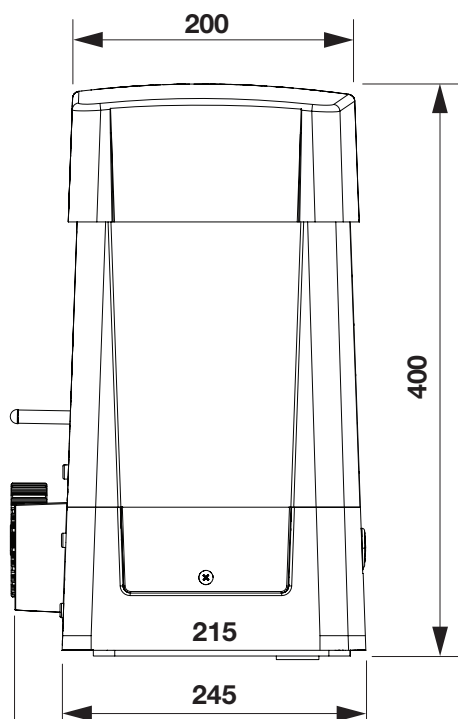
BULL 1224 TURBO



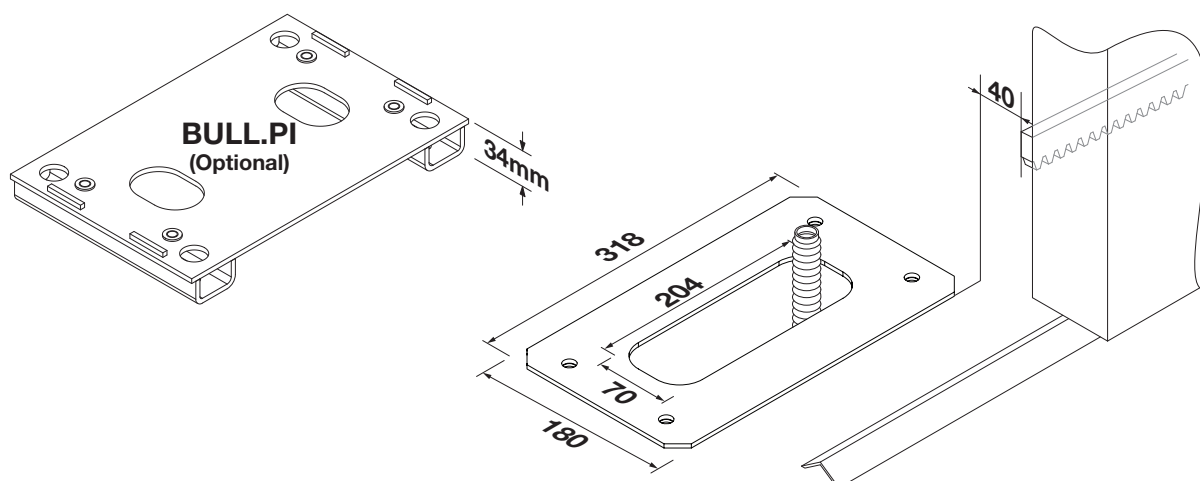
BENINCA[®]
TECHNOLOGY TO OPEN



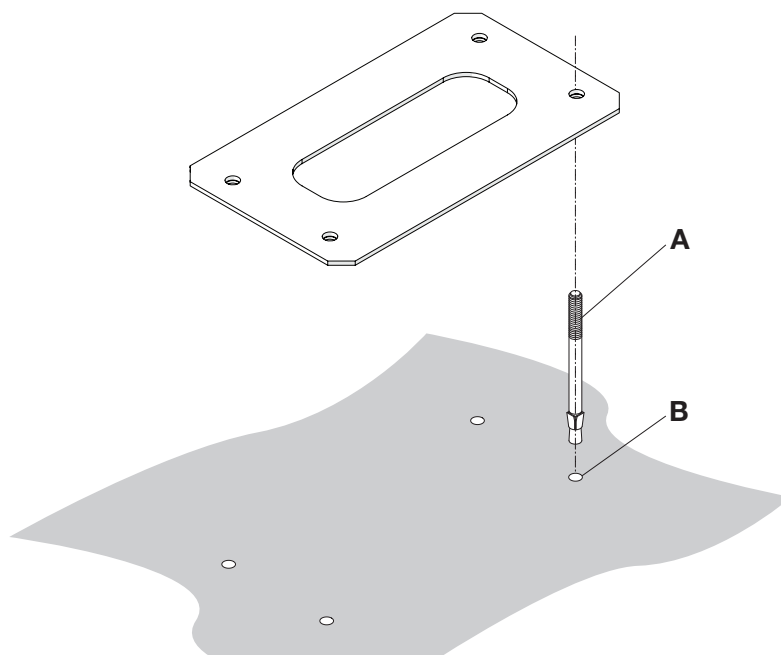
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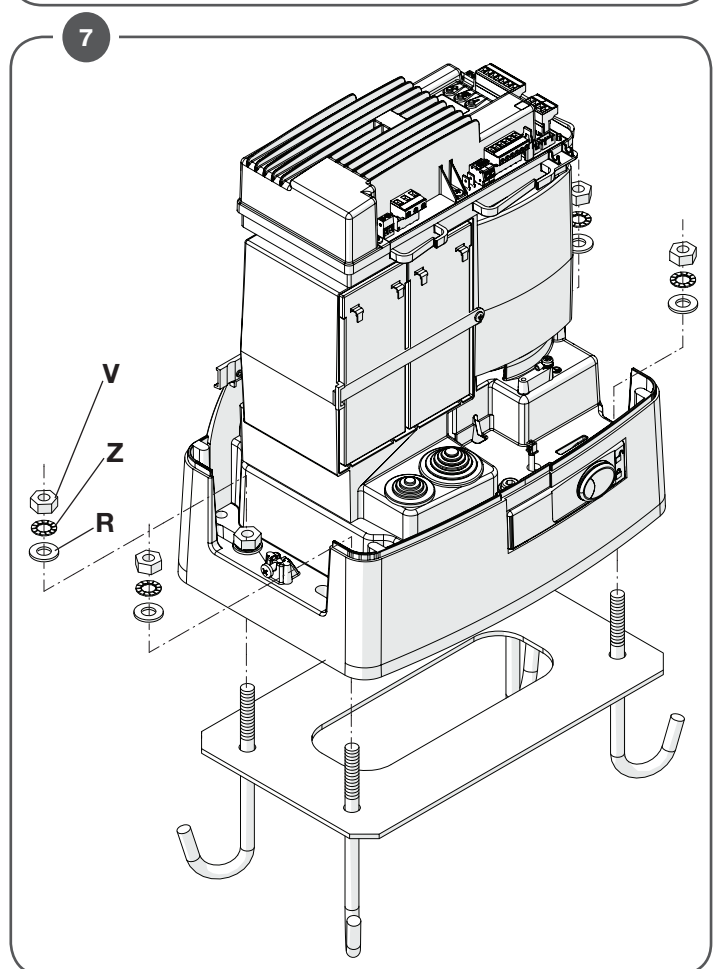
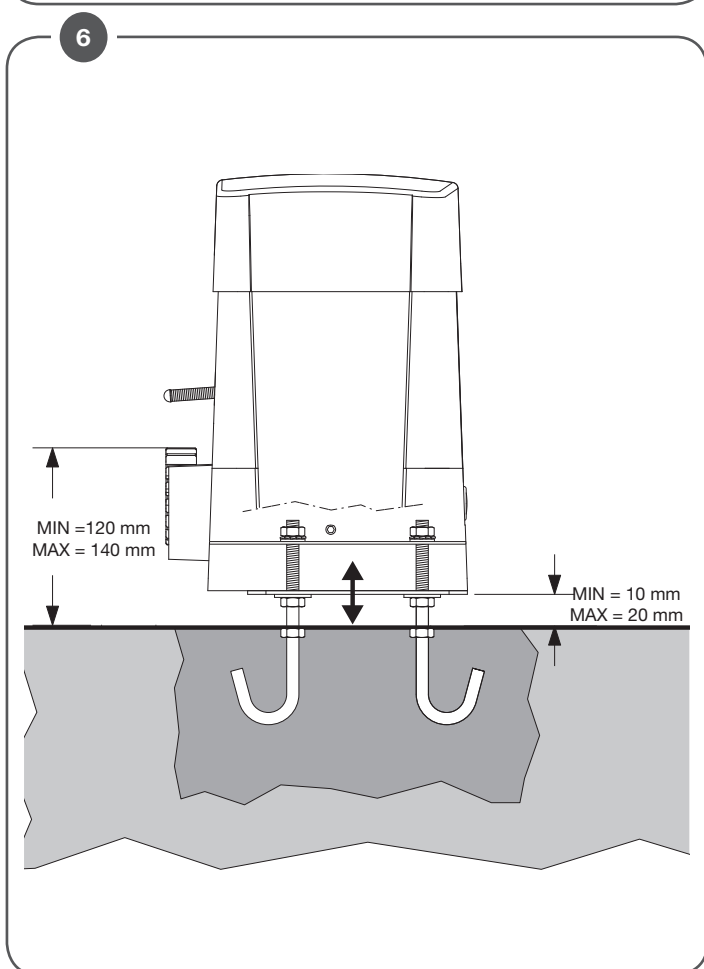
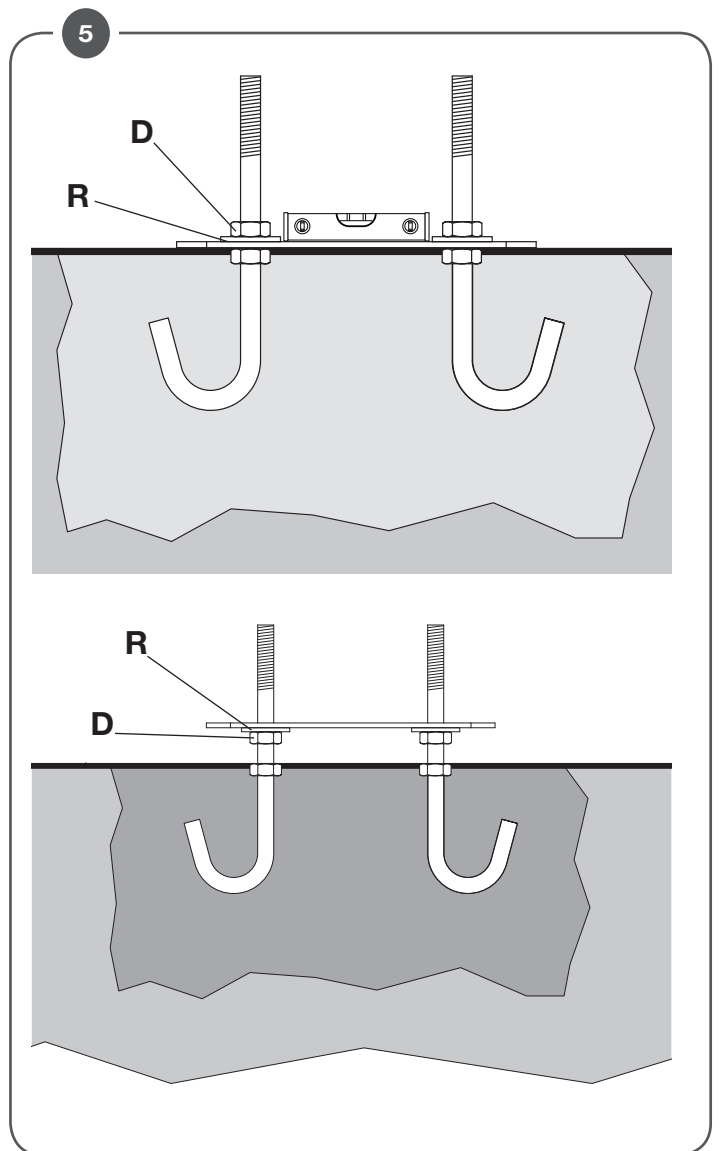
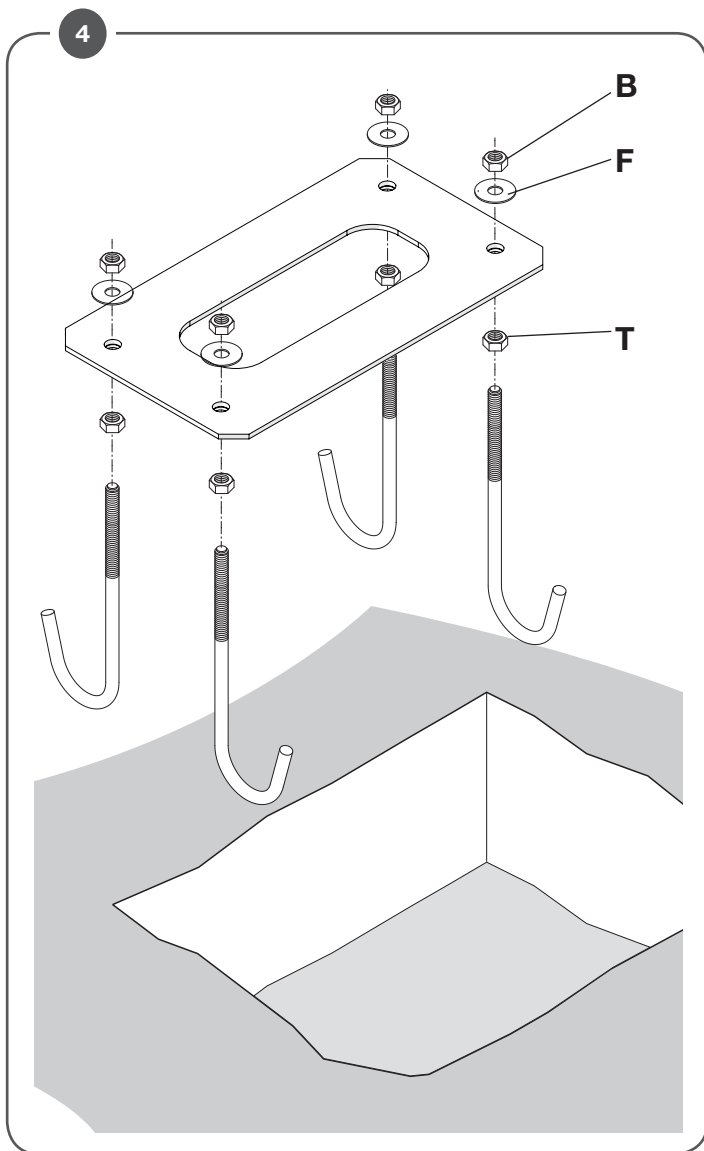


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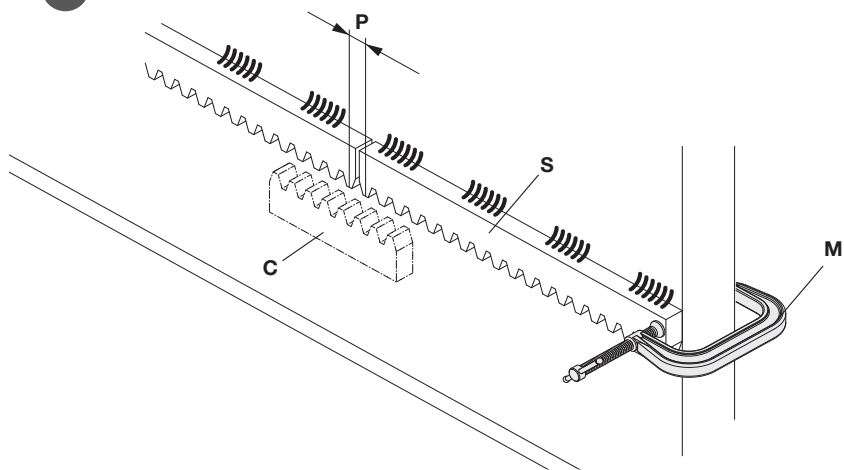


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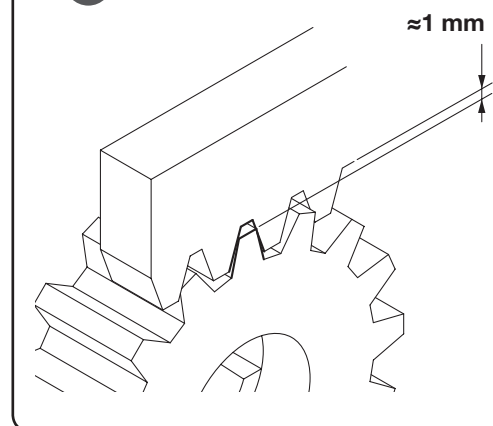




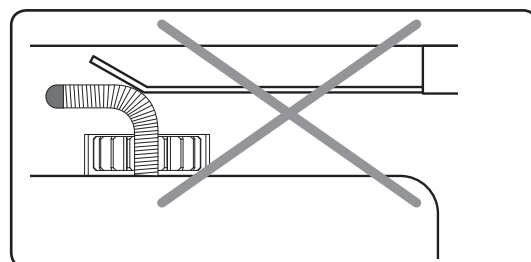
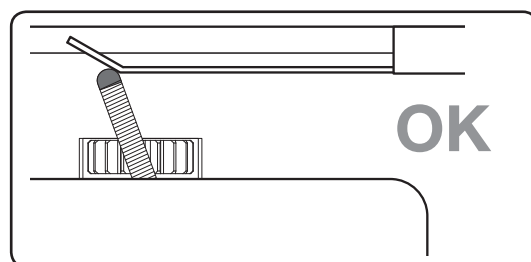
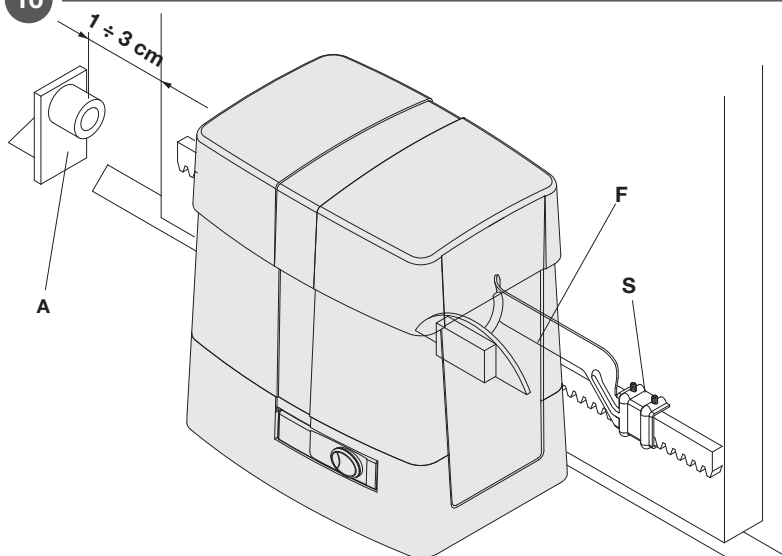
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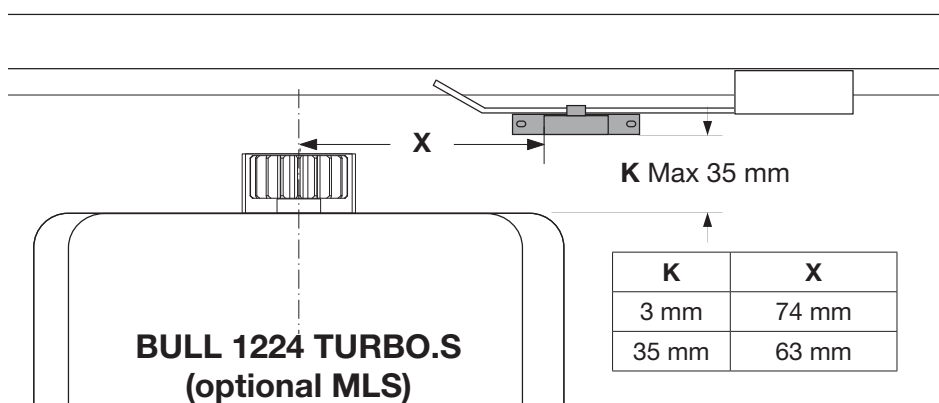
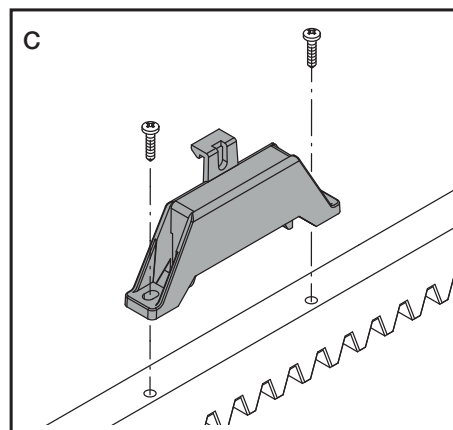
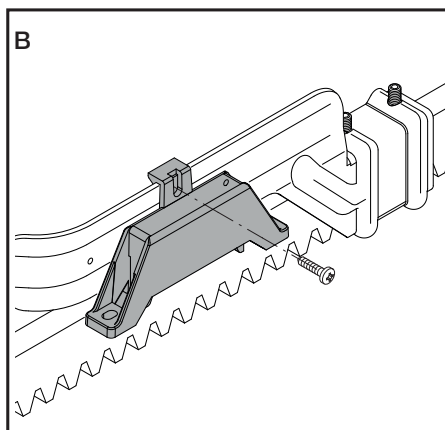
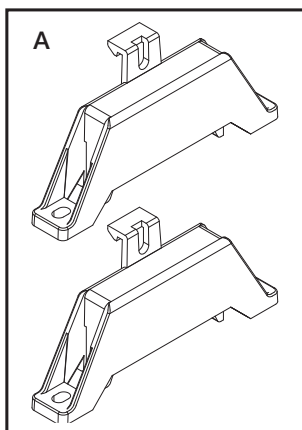
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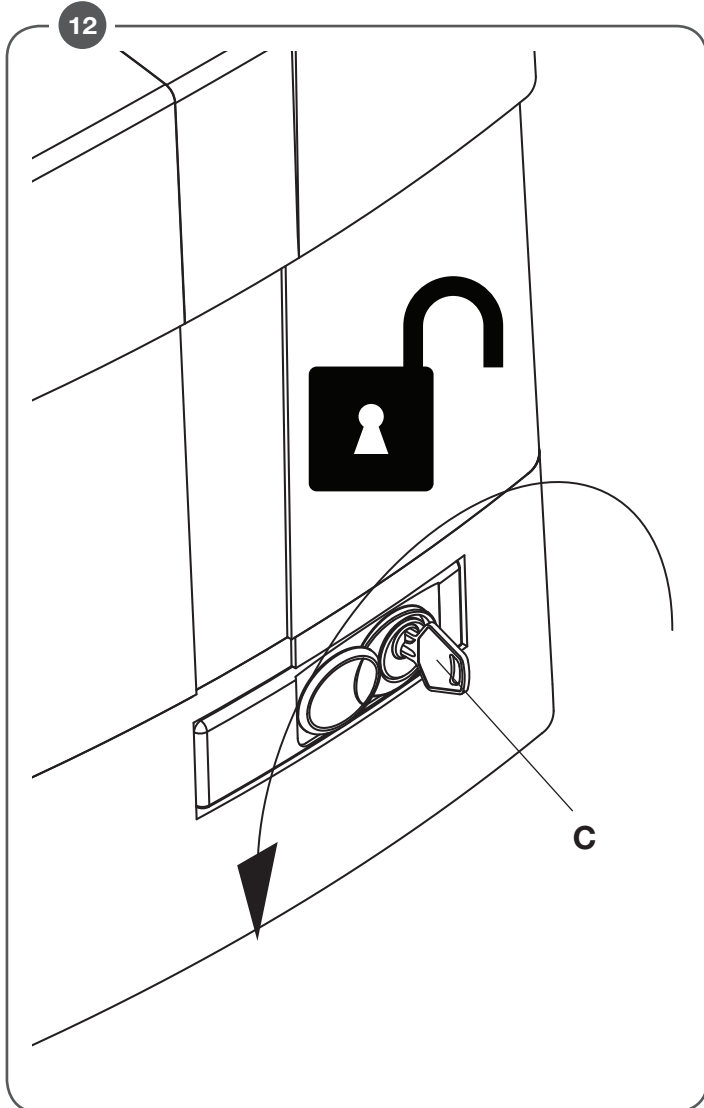
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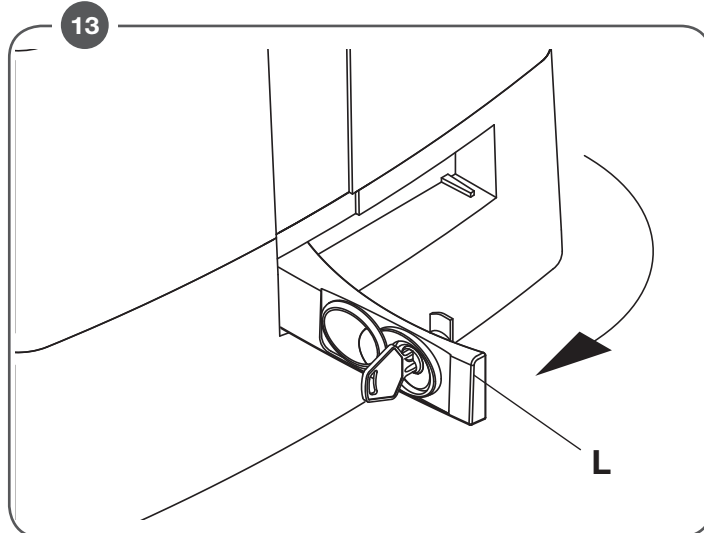
BULL 1224 TURBO.S
(optional MLS)

K	X
3 mm	74 mm
35 mm	63 mm

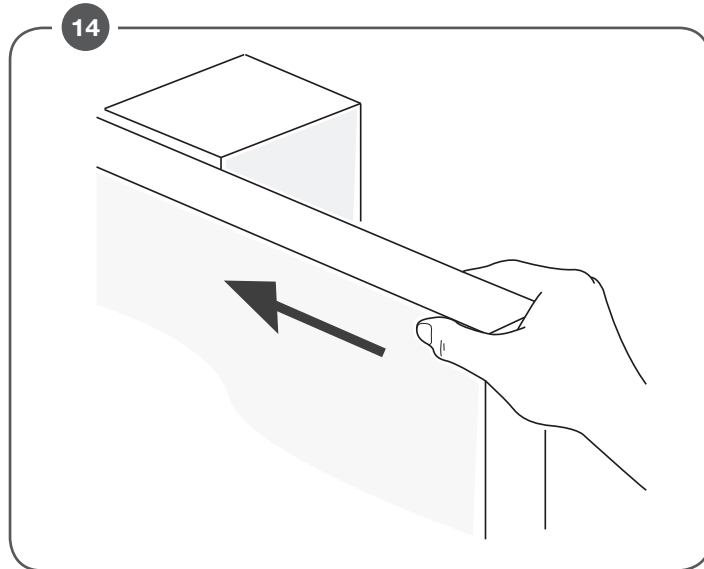
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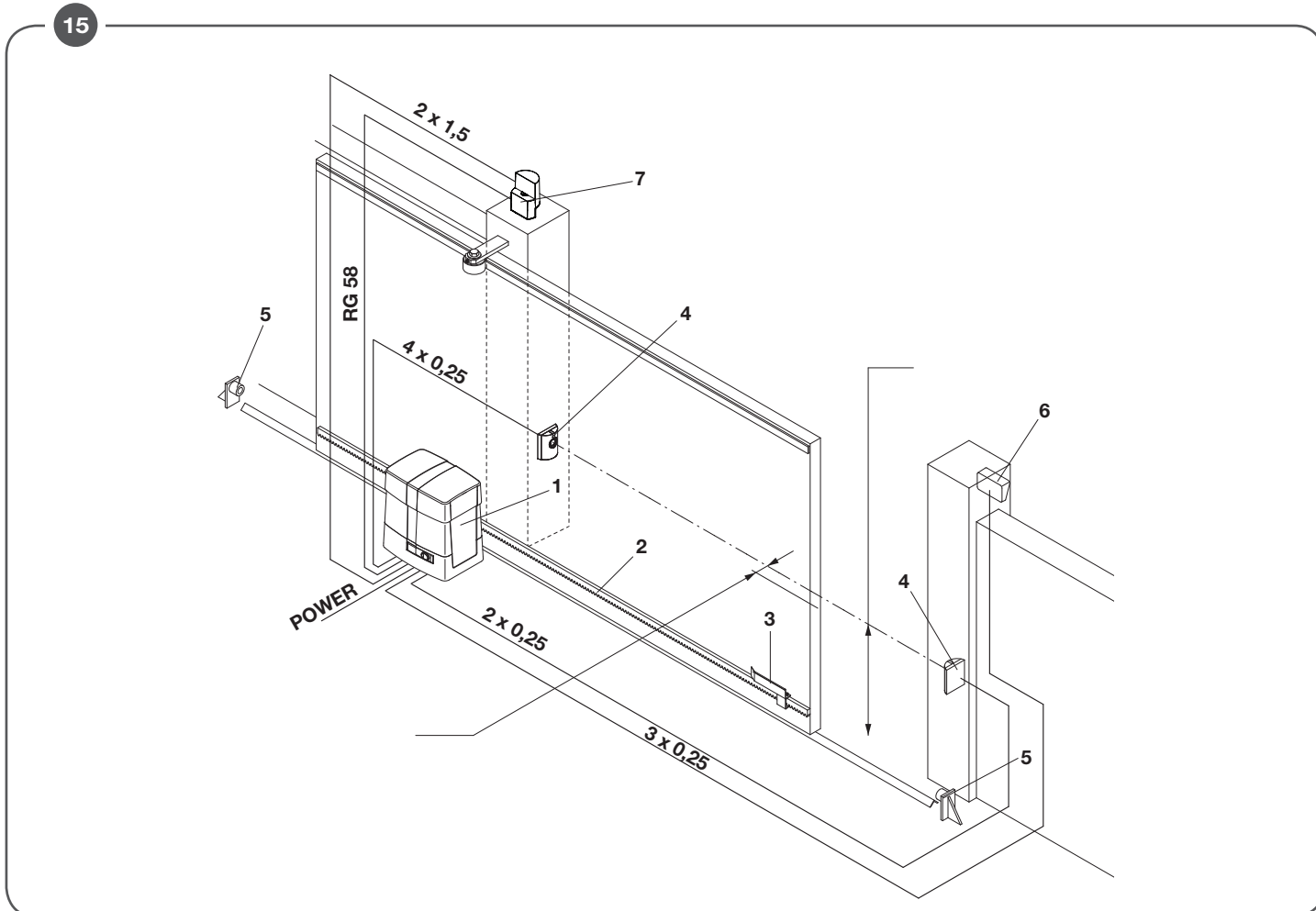
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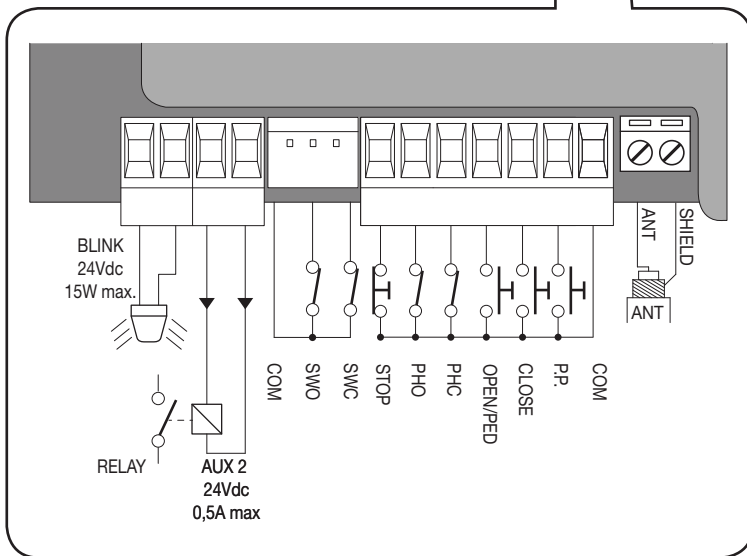


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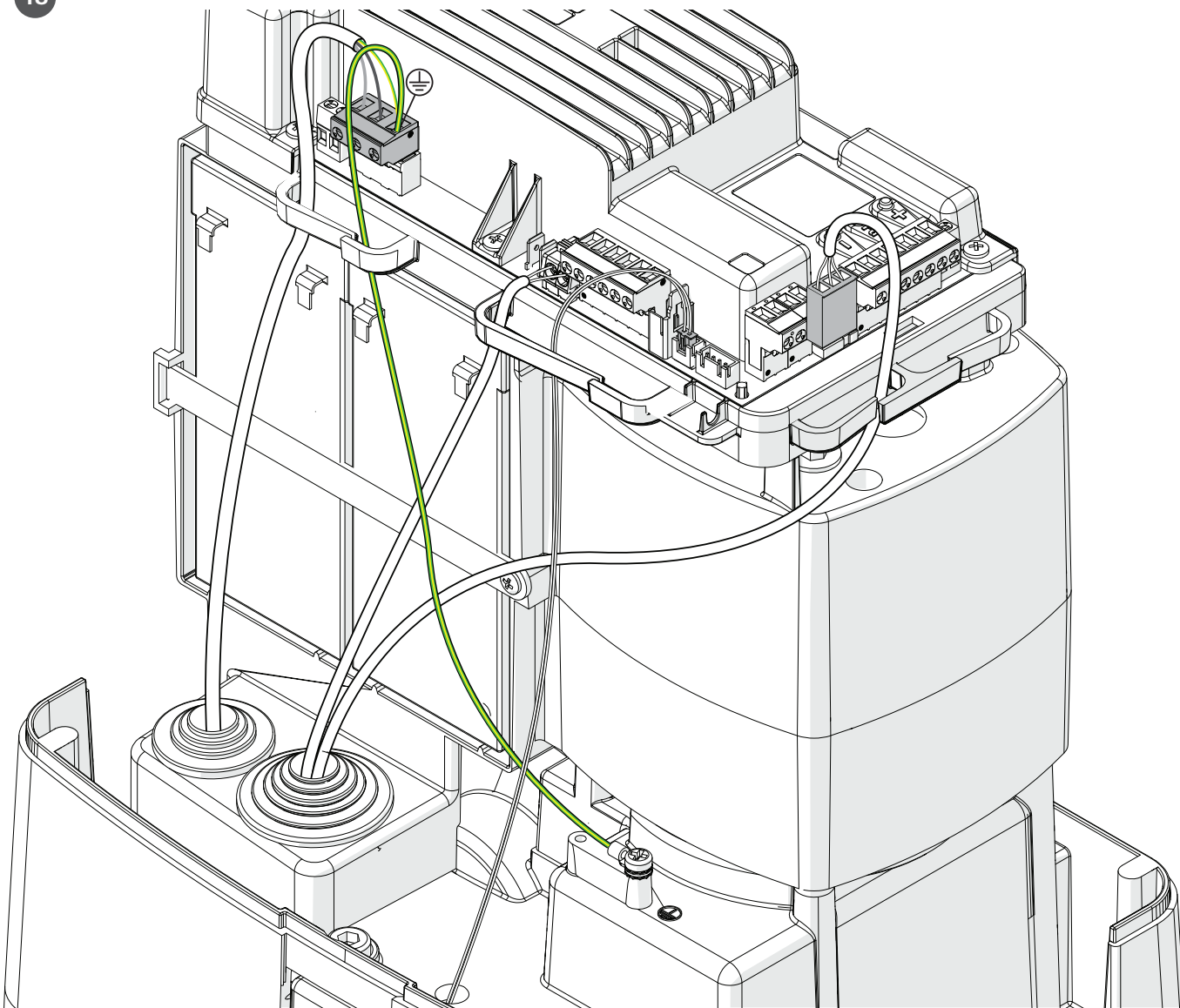


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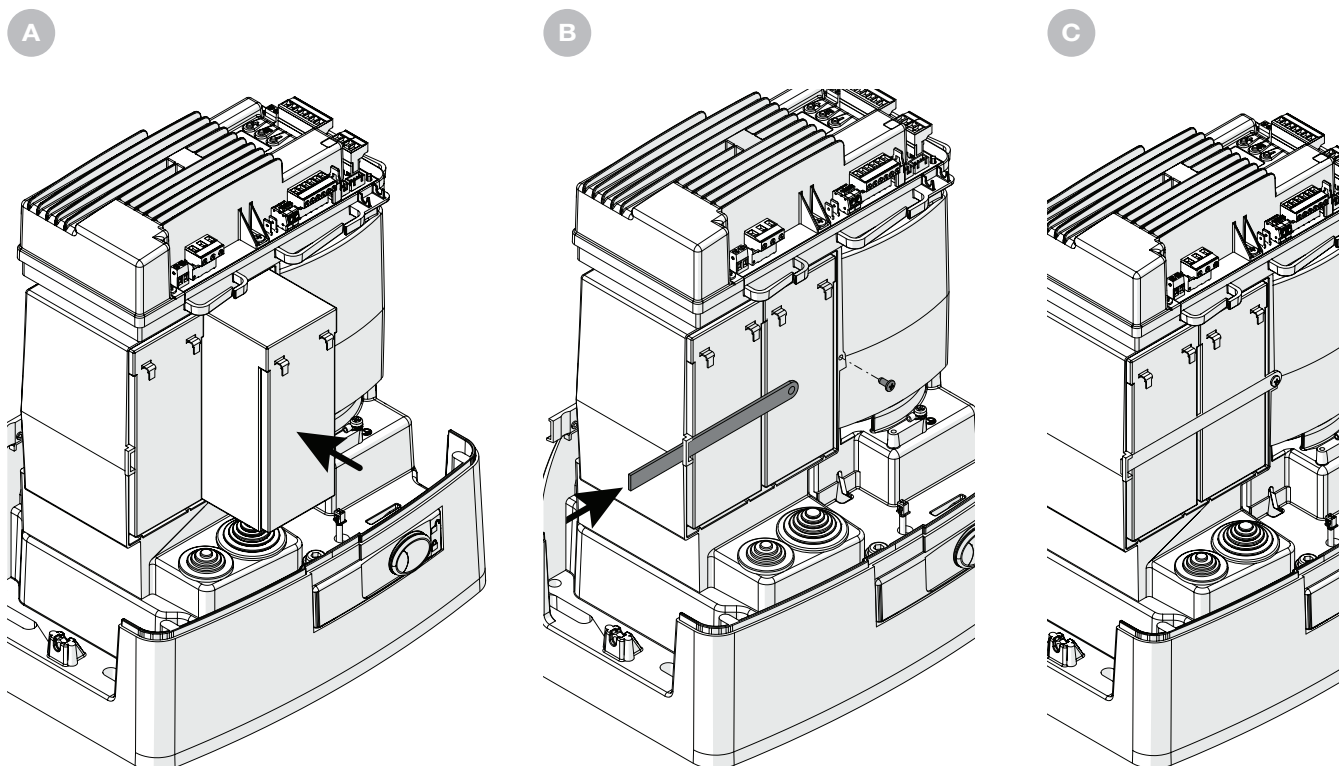




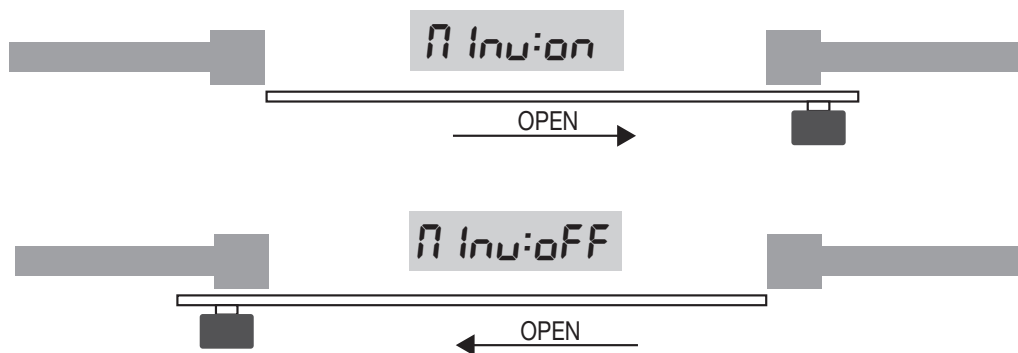
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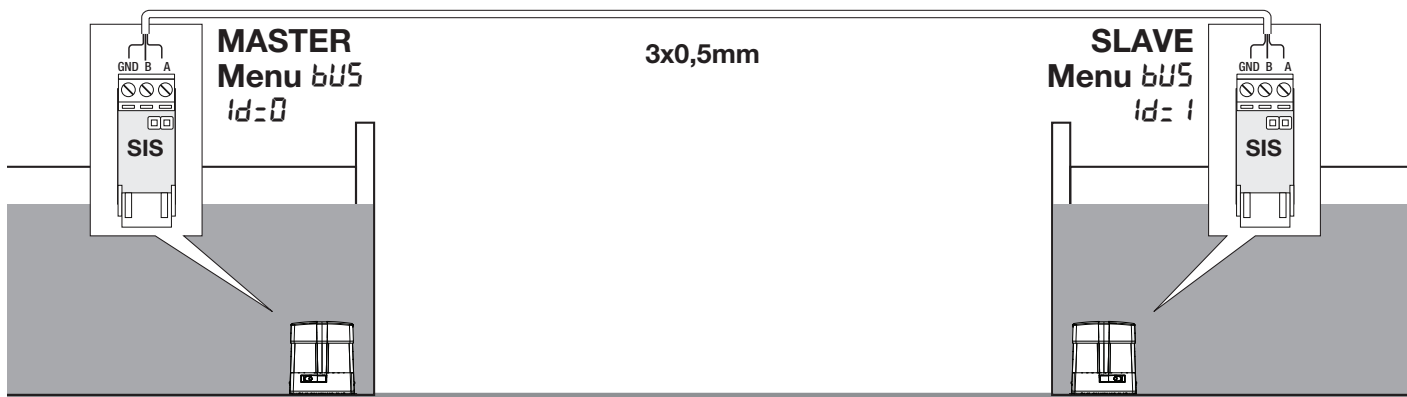
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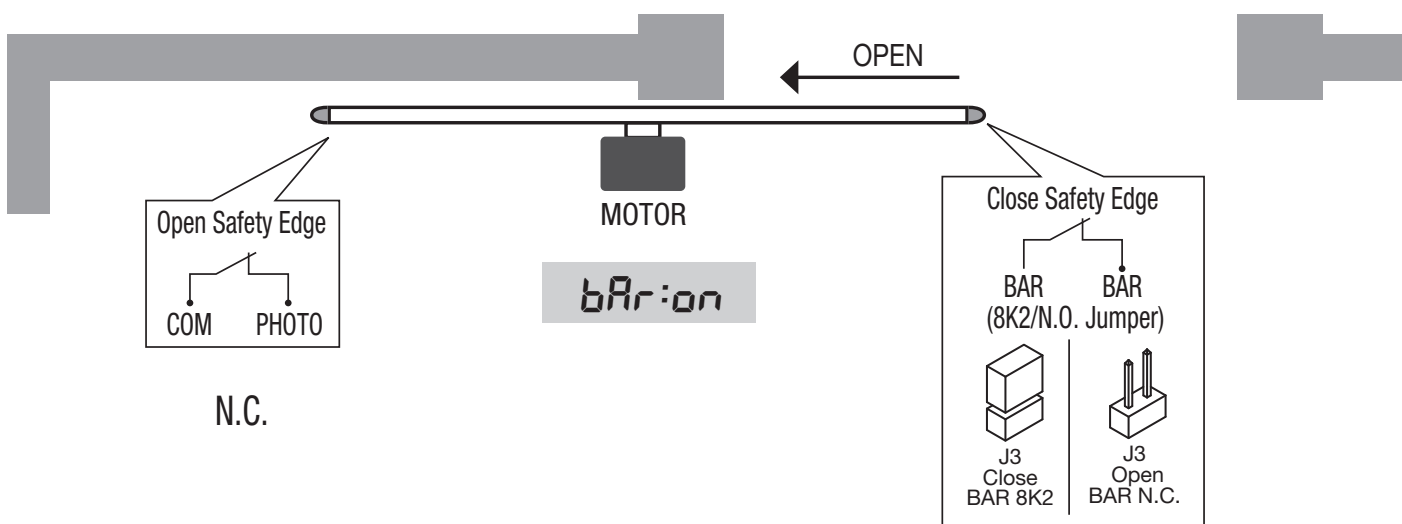
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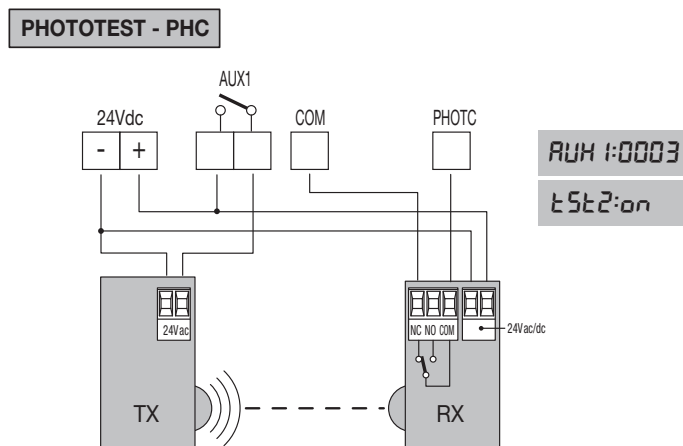
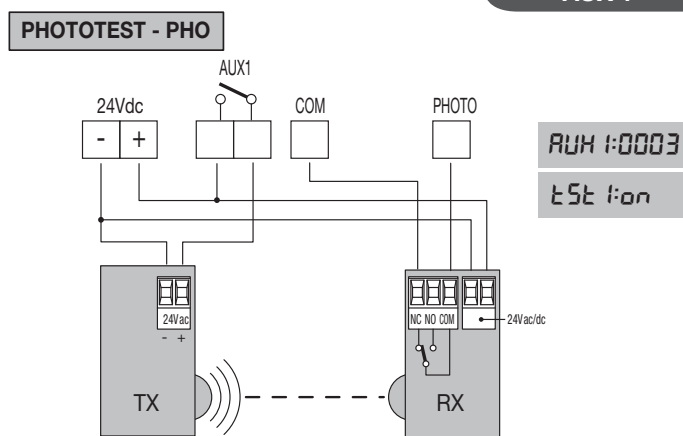
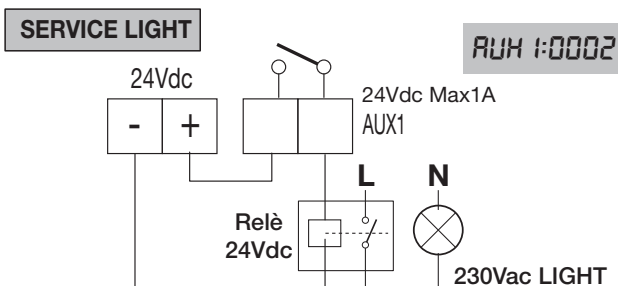
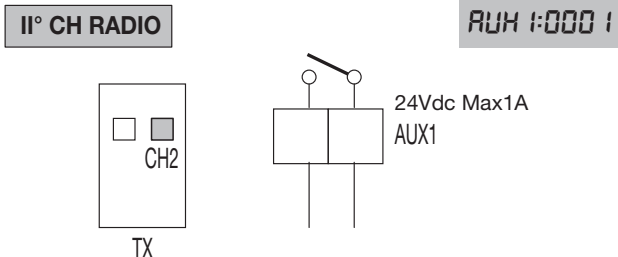
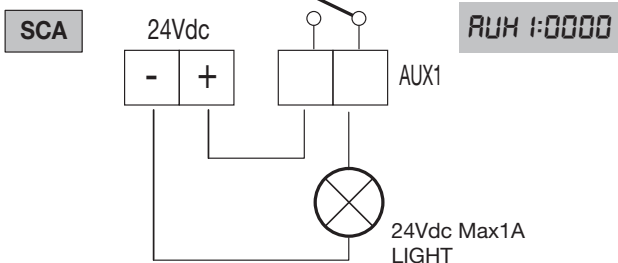
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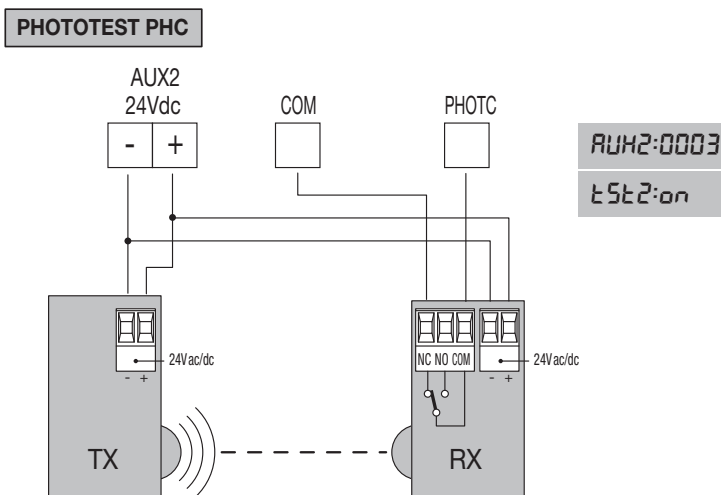
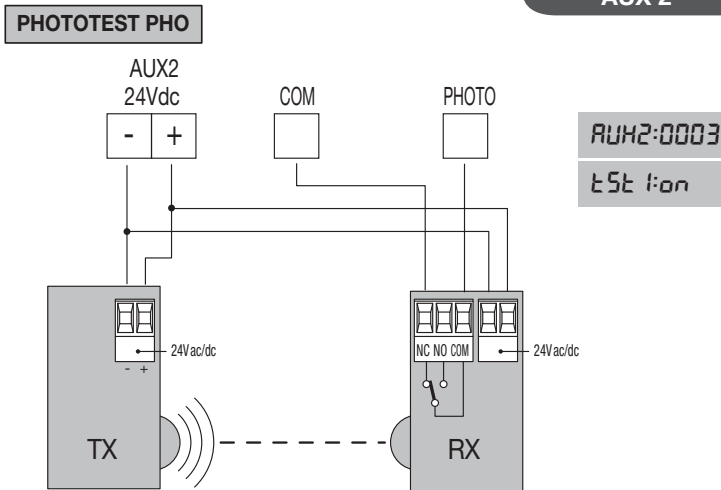
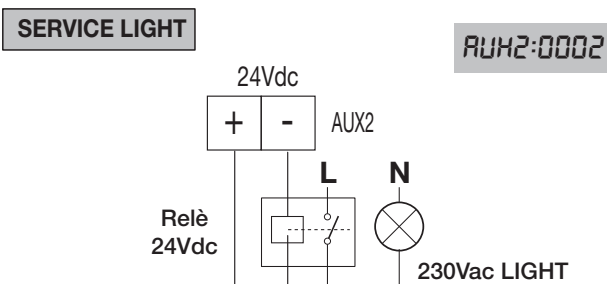
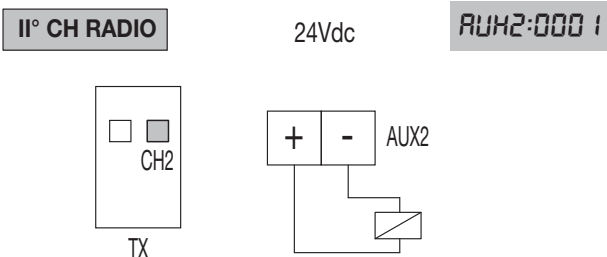
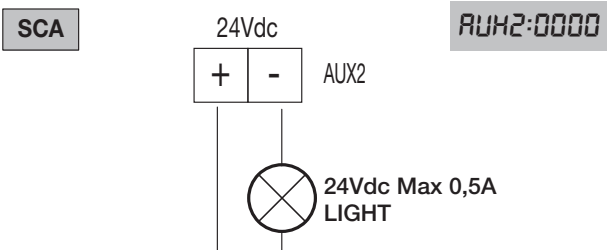
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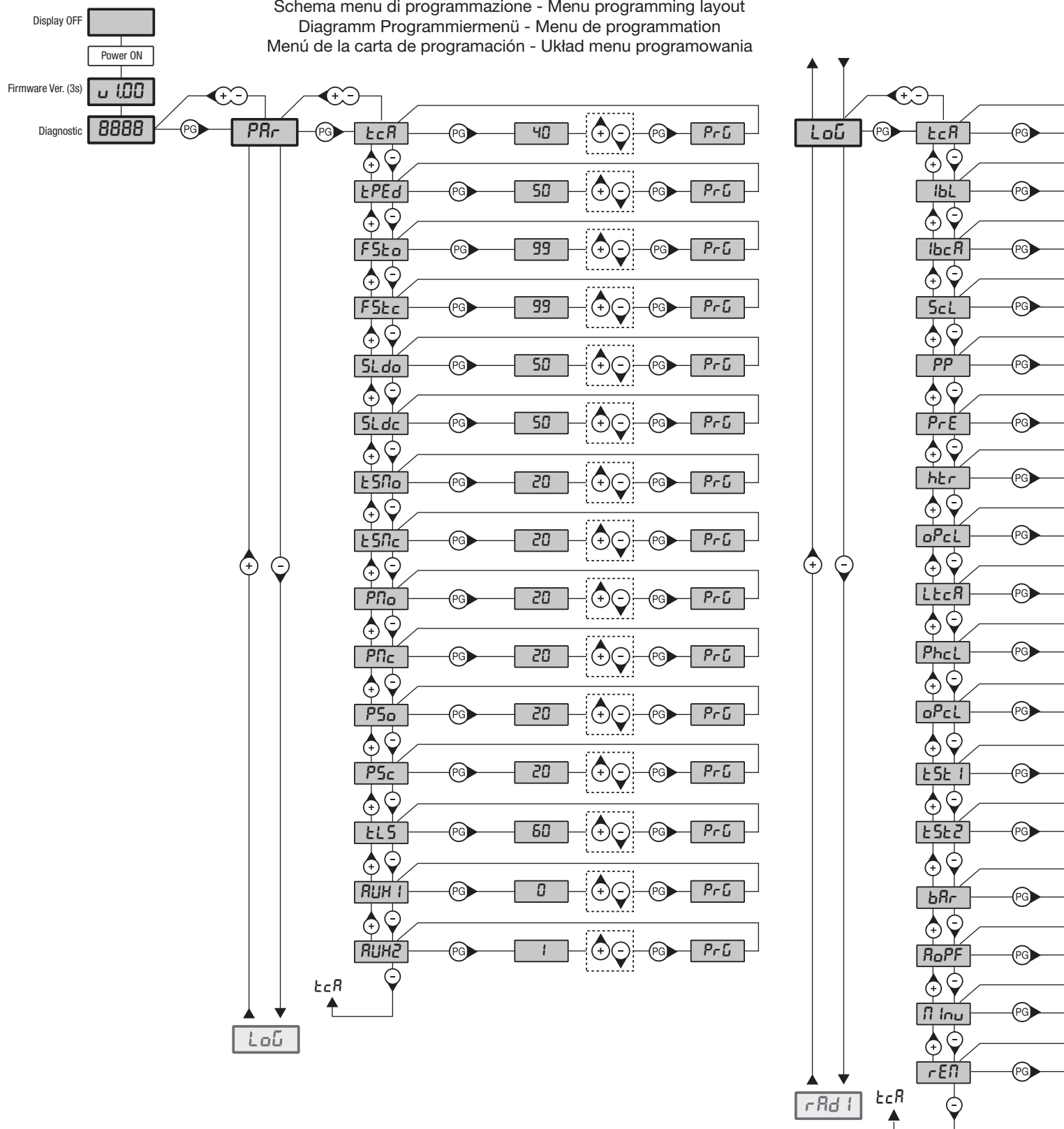
AUX 1

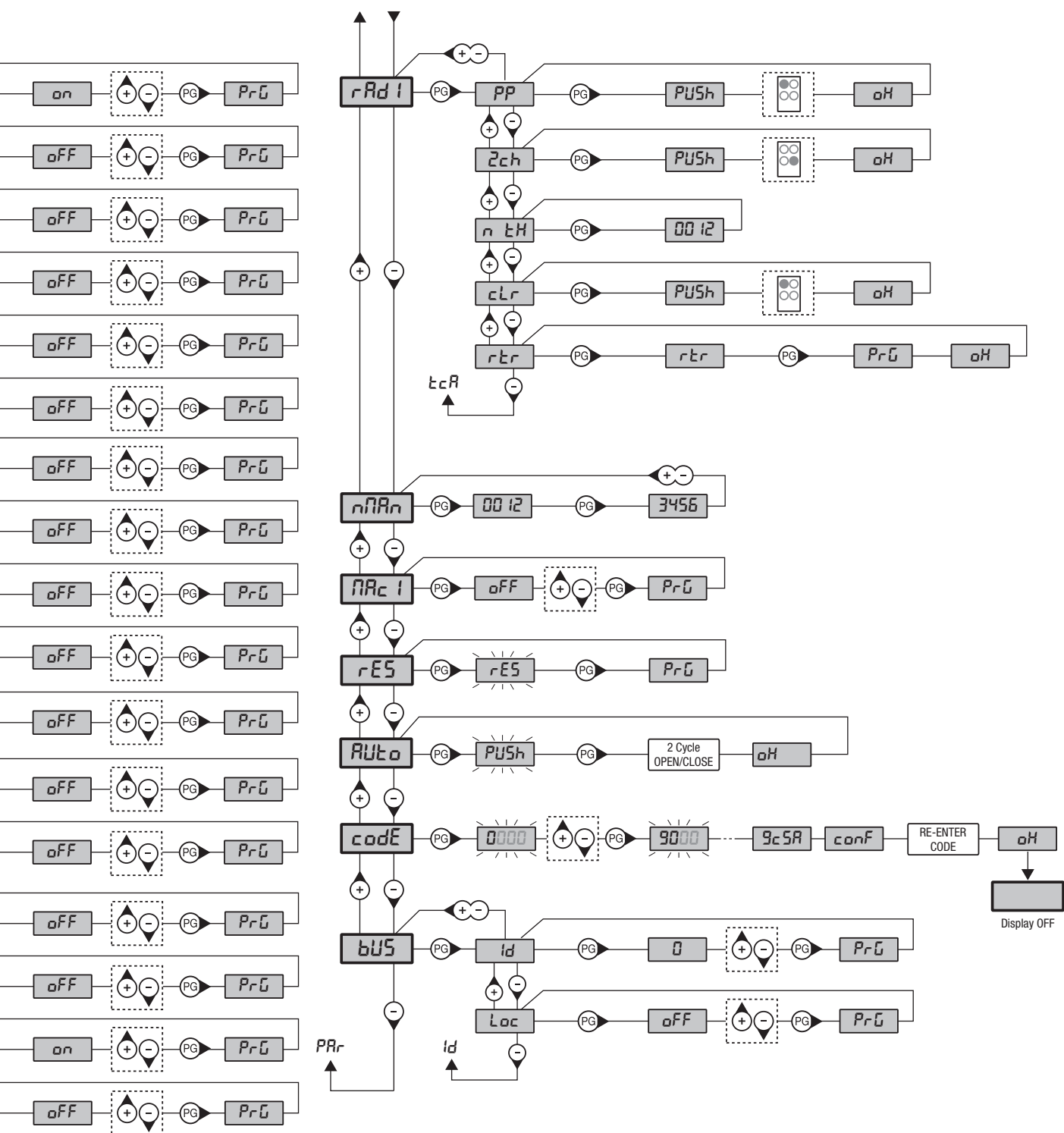


AUX 2



Schema menu di programmazione - Menu programming layout
 Diagramm Programmiermenü - Menu de programmation
 Menú de la carta de programación - Układ menu programowania





Legenda

	Premere il tasto (-) / Press key (-) / Die Taste (-) drücken Appuyez sur la touche (-) / Presionar la tecla (-) / Wcisnąć przycisk (-)		Premere simultaneamente (+) e (-) / Press simultaneously keys (+) and (-) Gleichzeitig (+) und (-) drücken / Presser simultanément (+) et (-) Presionar simultáneamente (+) y (-) / Naciskać jednocześnie (+) i (-)
	Premere il tasto (+) / Press key (+) / Die Taste (+) drücken Appuyez sur la touche (+) / Presionar la tecla (+) / Wcisnąć przycisk (+)		Selezionare il valore desiderato con i pulsanti (+) e (-) Increase/decrease the value with keys (+) and (-) Mit den Tasten (+) und (-) kann man eingerichtete Werte ändern Régler la valeur désirée avec les touches (+) et (-) Establecer con las teclas (+) y (-) el valor deseado Nastawia przyciskami (+) i (-) obraną wartoś
	Premere il tasto (PG) / Press key (PG) / Die Taste (PG) drücken Appuyez sur la touche (PG) / Presionar la tecla (PG) / Wcisnąć przycisk (PG)		Selezionare il pulsante del trasmettitore da associare alla funzione Press the transmitter key, which is to be assigned to function Taste des Sendergeräts drücken, dem diese Funktion zugeteilt werden soll. Appuyer sur la touche du transmetteur qu'e l'on désire affecter à cette fonction. Presionar la tecla del transmisor que se desea asignar a esta función. Wcisnąć przycisk nadajnika, który zamierza się skojarzyć z tą funkcją.

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EN

ENG

WARNING



GENERAL INFORMATIONS

The product shall not be used for purposes or in ways other than those for which the product is intended for and as described in this manual. Incorrect uses can damage the product and cause injuries and damages.

The company shall not be deemed responsible for the non-compliance with a good manufacture technique of gates as well as for any deformation, which might occur during use. Keep this manual for further use.



INSTALLER GUIDE

This manual has been especially written to be use by qualified fitters.

Installation must be carried out by qualified personnel (professional installer, according to EN 12635), in compliance with Good Practice and current code.

Make sure that the structure of the gate is suitable for automation.

The installer must supply all information on the automatic, manual and emergency operation of the automatic system and supply the end user with instructions for use.



GENERAL WARNINGS

Packaging must be kept out of reach of children, as it can be hazardous.

For disposal, packaging must be divided the various types of waste (e.g. carton board, polystyrene) in compliance with regulations in force.

Do not allow children to play with the fixed control devices of the product.

Keep the remote controls out of reach of children.

This product is not to be used by persons (including children) with reduced physical, sensory or mental capacity, or who are unfamiliar with such equipment, unless under the supervision of or following training by persons responsible for their safety.

Apply all safety devices (photocells, safety edges, etc.) required to keep the area free of impact, crushing, dragging and shearing hazard.

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.

Installation must be carried out using safety devices and controls that meet standards EN 12978 and EN 12453.

Only use original accessories and spare parts, use of non-original spare parts will cause the warranty planned to cover the products to become null and void.

All the mechanical and electrical parts composing automation must meet the requirements of the standards in force and outlined by CE marking.



ELECTRICAL SAFETY

An omnipolar switch/section switch with remote contact opening equal to, or higher than 3mm must be provided on the power supply mains.

Make sure that before wiring an adequate differential switch and an overcurrent protection is provided.

Pursuant to safety regulations in force, some types of installation require that the gate connection be earthed.

During installation, maintenance and repair, cut off power supply before accessing to live parts.

Also disconnect buffer batteries, if any are connected.

The electrical installation and the operating logic must comply with the regulations in force.

The leads fed with different voltages must be physically separate, or they must be suitably insulated with additional insulation of at least 1 mm.

The leads must be secured with an additional fixture near the terminals.

During installation, maintenance and repair, interrupt the power supply before opening the lid to access the electrical parts

Check all the connections again before switching on the power.

The unused N.C. inputs must be bridged.



WASTE DISPOSAL

As indicated by the symbol shown, it is forbidden to dispose this product as normal urban waste as some parts might be harmful for environment and human health, if they are disposed of incorrectly.

Therefore, the device should be disposed in special collection platforms or given back to the reseller if a new and similar device is purchased.

An incorrect disposal of the device will result in fines applied to the user, as provided for by regulations in force.

Descriptions and figures in this manual are not binding.

While leaving the essential characteristics of the product unchanged, the manufacturer reserves the right to modify the same under the technical, design or commercial point of view without necessarily update this manual.

QUICK PROGRAMMING

NOTE: Quick programming conditions:

- Transmitter memory empty
- Autoset never run previously.
- Only valid with ARC (Advanced Rolling Code) transmitters

If you make a mistake during the quick programming procedure, you can disconnect the power supply and restart the procedure.

Quick programming steps

- 1 - Unlock the gate manually, put it in closed position with the relative end stop enabled, and lock the gate.
 - 2 - Supply mains voltage.
 - 3 - The flashing light turns on (make sure it is connected).
 - 4 - The system starts saving the transmitters automatically and the control unit is put on hold, waiting for a transmitter.
To skip the quick programming step and proceed with manual programming press + and - (ESC) simultaneously.
 - 5 - On display starts flashing the message **TX00**.
 - 6 - Press the hidden key of the transmitter to be saved.
 - 7 - **Push** appears on the display.
 - 8 - Press the key you want to associate with the receiver.
 - 9 - TX01 appears on the display (if the second transmitter **TX02** is present).
 - 10 - Repeat steps 6 and 7 for the subsequent transmitters to store, up to 99, checking the increase on the display (example **TX 15**).
 - 11 - To go to the next **AUTOSET*** step, press the key of a previously memorised transmitter until **Auto** appears on the display.
 - 12 - The message **Auto** appears on display and the gate automatically performs 3 manoeuvres by calculating the optimal operating parameters. If the autoset operation has been completed successfully, the gate stops in open position and the message **OK** appears on display.
- The maximum time for programming the first transmitter is 60 seconds.
- If necessary, proceed with the manual setup of PARAMETERS and LOGIC, depending on the type of installation.

*This function is **NEEDED** to set the optimal functioning values of the installation,

ARC CONTROL UNIT

IMPORTANT, PLEASE READ CAREFULLY:

The radio receiver in this product is compatible only with the new ARC (Advanced Rolling Code) transmitters which, thanks to 128-bit encryption ensure superior copy-security. Storing new ARC transmitters is quite similar to that of normal rolling code transmitters with HCS coding

1) DESCRIPTION AND INTENDED USE

Gear motor 24Vdc for heavy-duty sliding gates up to 1500 Kg for residential or industrial buildings, with built-in controller CP.B24 TURBO

We would like to remind you that if you register on the site www.beninca.com you will have access to the technical documentation updated for all the Benincà products and accessories and the guide for compiling the technical file and documents required under Annex V of the Machinery Directive, mandatory under the regulations in force..

2) SPECIFICATIONS

	BULL 1224 TURBO
Motor power supply	115 o 230 Vac 50/60 Hz
Consumption	3A (230V) - 5A (115V)
Torque	20 Nm
Operating jogging	intensive use
Protection level	IP44
Operating temperature	-20°C / +50°C
Gate max. weight	1200 kg
Rack module	M4/M6 accessory - RI.P6
Opening speed	25 m/min
Noise level	<70 dB
Lubrication	GREASE
N° of storable TX	2048
Central control	CP.B24 TURBO
Weight	- kg

3) PRELIMINARY CHECKS

Before proceeding with installation, check the following:

- The structure (gate, pillar, guide rail) must be sturdy and stable.
- The guide rail and its wheels must be suitably sized and maintained to avoid excess friction during gate sliding.
- If available, check the CE declaration of conformity of the gate and perform the risk analysis according to the machinery directive.
- Check that the gate travel during opening/ closing is limited by sturdy mechanical stops.

4) INSTALLATION

4.1) OVERALL DIMENSIONS

Dimensions of the foundation plate are shown in Fig. 2.

IMPORTANT: It is essential to keep the distance from the rack (40 mm), in order to position and remove the actuator once the rack is fitted to the gate leaf. The types of fittings of the foundation plate are mainly the following:

4.2) INSTALLATION WITH OPTIONAL BULL.PI RAISED BEDPLATE

The BULL.PI accessory that facilitates quick fixing on existing concrete floor, is available on request.

For more information refer to the instructions supplied with the accessory.

4.3) INSTALLATION WITH ADJUSTMENT IN HEIGHT ON THE ALREADY EXISTING BASE IN CONCRETE

By using the plate as drilling template, drill 4 holes, and insert the Ø 10mm steel screw anchors for threaded bars.

Tighten the 4 threaded bars "S", M10/120mm, and anchor the screw "T" anchors by tightening the nuts "B" to floor with the corresponding washers.

With reference to Fig. 3, position the foundation plate by means of the adjustment nuts "A". After carrying out the required regulations, position the motor as shown in Fig.6 and lock it, as indicated in Fig.7.

4.4) INSTALLATION WITH ADJUSTMENT IN HEIGHT ON CONCRETE BASE

With reference to Fig. 4, fit the stretcher bolts on the foundation plate and provide for a hole of adequate size.

Immerse the stretcher bolts in concrete, then remove the nuts "D" and the 11x30, large band washers "R". Move them under the plate to allow for regulations in height of the actuator (Fig. 5).

Carry out the regulations shown in Fig. 6 and lock the motor as indicated in Fig.7.

CAUTION: apart from the fitting modality used, carefully check that the actuator is steadily positioned and the materials are suited to the intended use.

4.5) RACK FIXING

Galvanized steel rack, 123x30mm.

Position the spacers D by welding or fit them to the gate with screws at 130/150mm height from the centre line of the slot used for fitting to the base on which the foundation plate is to be fixed.

Keep the pitch of teeth between the two parts of the rack; the joining with another piece of rack would make it easier to achieve (see Fig.8)

Secure the rack with the screws V making sure, once the actuator has been installed, that between rack and the drive gear there is always approx. 1mm clearance (see Fig.9); to get this clearance use the slots on the rack.

5) MANUAL OPERATION (FIG. 12-13-14)

In the event of power failure or malfunction, to manually operate the gate proceed as follows:

- After inserting the customized key C, turn it anti-clockwise and pull the lever L (opened padlock)
- The geared motor is unlocked and the gate can be moved by hand.
- To return to the normal operating mode, close the lever L again and manually activate the gate until it is geared.

6) HOW TO POSITION THE LIMIT SWITCH BRACKETS

Open manually the gate and leave approximately of 1÷3cm, depending on gate weight, between gate and positive mechanical stop A; tighten the limit stop flask S with the grains G to press the limit stop micro. Repeat the sequence with closing gate.

7) HOW TO INSTALL THE MAGNETS (BULL 1224 TURBO.S OR ACCESSORY MLS) FIG.11

The magnets are housed in special supports (fig.12-"A"). These magnets are to be fitted to the limit switch brackets or the rack and cause the triggering of sensors when they approach them.

7.1) FITTING ONTO THE LIMIT SWITCH BRACKETS

The bases are complete with hooking tongue allowing the fitting of the magnets to the limit switch bracket supplied with the operator, as shown in Fig.12-B. This type of fitting allows to rapidly adjust the position of magnets. After calculating the correct distance, fix the support in the correct position by means of a screw, so as to avert the moving of the bracket.

7.2) FITTING ONTO THE RACK

As an alternative, the supports can be fitted directly to the rack, by using the slots shown in Fig. 12-C. This fitting mode does not allow for subsequent regulations. It is therefore advised to make some trials with temporarily fitted supports before carrying out the final fitting.

IMPORTANT: The correct distance of the magnet with respect to the sensor depends on the installation characteristics. This space cannot be preset and must be adjusted on a trial basis.

The distances regarding the triggering of the sensor (value X) with respect to distance K of 3 and 35 mm, which are shown in Fig. 12 are only indicative.

In any case, distance K must not exceed 35 mm as a higher distance will not allow the triggering of the magnetic sensor.

8) CP.B24 TURBO CONTROL UNIT

8.1) WIRE DIAGRAM

Wire connections shown in Fig. 17 are described hereunder:

M2 SEL. 115V	Mains power supply selection	230Vac 50/60Hz (from 207Vac to 253Vac) M2 OPEN jumper 115Vac 50/60Hz (from 102Vac to 125 Vac) M2 CLOSED jumper
L-N-GND	Mains power supply	Mains power supply input selectable via M2 jumper.
+ BATT -	Batteries	Input for connecting buffer batteries (accessory) 2x12V 2.1Ah
M11	Motor	24Vdc motor connection
+ 24 -	24 Vdc	Accessories power supply output 24Vdc 0.8 A max (respect accessories polarity).
AUX1	AUX 1 Auxiliary output	Output with N.O. contact configurable by AUX1 operating logic
BAR J3	Responsive sensor	Responsive sensor contact input Resistive sensor: Jumper "DAS" closed Mechanical sensor: Jumper "DAS" open The sensor stops the movement of the door and reverses it for about 3s. If the sensor is not used: Jumper "DAS" open, jumper between BAR terminals.
RELEASE SW.	Magnetic Sensor	Input for safety microswitch connected to the release lever. Motor stops IF RELEASE LEVER OPEN. All LED segments are on.
S.I.S.	Synchronisation card optional	Optional SIS card input for synchronising two opposing automations. See paragraph synchronisation of two automations.
BLINK	Flashing	24Vdc output 15W max. for connection to the flashing light.
AUX2	Auxiliary output AUX 2	24 Vdc output configurable by AUX2 operating logic (0.5A max)
COM	Common Inputs	Common for all control inputs.
SWO	Limit switch opens	Limit switch input OPENS (N.C. contact).
SWC	Limit switch closes	Limit switch input CLOSES (N.C. contact).
STOP	STOP	Button input STOP (N.C. contact).
PHO	Photocell opening/closing	Input, (N.C. contact) for safety devices (e.g. photocells). During closure: if the contact is opened, the motor stops. With OPCL logics, when the photocell is no longer obscured, the motor reversion occurs (gate opens). During opening: if the contact is opened, the motor stops. with OPCL logics When the photocell is no longer obscured, the motor restarts opening.
PHC	Photocell closing	Input, (N.C. contact) for safety devices (e.g. photocells). During closure: it can be preset by PHCL logics. During opening: it can be preset by PHCL logics.
OPEN	Opens	Input for configurable opening command as pedestrian input (N.O. contact)
CLOSE	Closes	Close command input (N.O. contact)
PP	Step-by-step	Step-by-Step button input (N.O. contact)
COM	Common Inputs	Common for all control inputs.
ANT-SHIELD	Antenna	Built-in radio transmitter card antenna connection (ANT-signal/SHIELD-screen).

8.2) PROGRAMMING

The programming of the various functions of the control unit is carried out using the LCD display on the control unit and setting the desired values in the programming menus described below.

The parameters menu allows you to assign a numerical value to a function, in the same way as a regulating trimmer.

The logic menu allows you to activate or deactivate a function, in the same way as setting a dip-switch.

8.2.1) TO ACCESS MANUAL PROGRAMMING

- 1 -Press the <PG> button to enter the first Installation menu "INST".
- 2 -Choose with <+> or <-> button the menu you want to select (see menu at page 10-11)
- 3 - Press the button <PG>, the display shows the first function available on the menu.
- 4 - With the <+> or <-> button, select the function you want.
- 5 - Press the button <PG>, the display shows the value currently set for the function selected.
- 6 - With the <+> or <-> button, select the value you intend to assign to the function.
- 7 - Press the button <PG>, the display shows the signal "PRG" which indicates that programming has been completed.

8.2.2) PROGRAMMING NOTES

Simultaneously pressing <+> and <-> from inside a function menu allows you to return to the previous menu without making any changes. Hold down the <+> key or the <-> key to accelerate the increase/decrease of the values.

Hold down the <+> key or the <-> key to accelerate the increase/decrease of the values.

After waiting 120s the control unit quits programming mode and switches off the display.

When the board is switched on, the software version is displayed for around 5 sec

The pre-set logic functions and parameters are made taking account of a typical installation.

8.3) TESTING

- Check that the safety devices work correctly.
- Check the opening/closing forces at the points set out in EN 12445 with an appropriate instrument.
- If the forces are greater, install a safety device compliant with EN12978 (e.g. safety sensitive edge) and repeat the measurements.
- Check the correct setup of the operation logic and that the manual release works properly.

8.4) PARAMETERS, LOGICS AND SPECIAL FUNCTIONS

The following tables describe the functions available on the control unit.

8.4.1) PARAMETERS (PR)			
MENU	FUNCTION	MIN-MAX-(Default)	MEMO
t_{CA}	Automatic closing time. Enabled only with logic "TCA"=ON. At the end of the set time, the control unit commands a closing maneuver .	3-240-(40)	
t_{PEd}	The passage left open by the gate leaf during the partial opening (pedestrian) is adjusted.	10-99-(50)	
FSt_o	The opening speed is adjusted.	50-99-(99)	
FSt_c	The closing speed is adjusted.	50-99-(99)	
SLdo	Adjusts the slowdown speed of sliding door during the opening phase* (Fig.10 -slow Open).	10-50-(25)	
SLdc	Adjusts the slowdown speed of sliding door during the closing phase * (Fig.11 -slow Close).	10-50-(25)	
tSN_o	Sets the starting point of the slowdown during the opening phase (Fig.10- beginning of the slow Open). The value is expressed in percentage on the entire stroke.	1-99-(20)	
tSN_c	Sets the starting point of the slowdown during the closing phase (Fig.11- beginning of the slow Close). The value is expressed in percentage on the entire stroke.	1-99-(20)	
PM_o	Adjusts the motor torque applied to sliding door during the opening phase.*	1-99-(20)	
PM_c	Adjusts the motor torque applied to sliding door during the closing phase.*	1-99-(20)	
PS_o	Adjusts the motor torque applied to sliding door during the slowdown in opening phase * (Fig.9 - Slow Open).	1-99-(20)	
PS_c	Adjusts the motor torque applied to sliding door during the slowdown in closing phase * (Fig.10 - Slow Close).	1-99-(20)	
tLS	Activation time of the courtesy light contact. Value expressed in seconds. At the beginning of each maneuver the contact latches for the set time. See the description of AUX1 parameter.	1-240 (60)	
AUX 1	It selects the operating mode of the AUX 1 output: 0: Open gate indicator light. The light is off when the door is closed, flashes with moving door and is on with open door. See wire diagram. 1: Second radio channel. The output is controlled by the radio channel of the built-in receiver (see RADIO Menu). 2: Service light. The contact closes for the time preset with TLS parameter. The countdown starts at the inception of operation. 3: Photo-test Used to power the photocell transmitters in TEST mode See wiring diagram Fig.23.	0-3-(1)	
AUX2	Same operation features as AUX1 output, but referred to terminals AUX2. ATTENTION!: Max AUX2 output voltage is 24Vdc/0,5 A Max. You can directly power 24Vdc devices, as shown in Fig. 24.	0-3-(0)	

*** ATTENTION: A WRONG SETTING OF THESE PARAMETERS CAN BE DANGEROUS.**

RESPECT THE REGULATION IN FORCE!

Measure that impact forces comply with the values laid down in regulation en 12445. change, if necessary, the operating parameters and repeat the measurements. Once you have manually modified the parameters sldo, sldc, pmo, pmc, pso, psc, the controller performs a complete manoeuvre to learn the new parameters.

8.4.2) LOGICS (LOG)			
MENU	FUNZIONE	ON-OFF-(Default)	MEMO
t_{CA}	Enables or disables automatic closing On: automatic closing enabled Off: automatic closing disabled	(ON)	
ibL	Enables or disables condominium function. On: condominium function enabled. The step-by-step impulse or transmitter impulse has no effect during the opening phase. Off: condominium function disabled.	(OFF)	
ibcA	The multi-flat function is enabled or disabled during the TCA counting. On: the bloc of flat function is enabled. The Step-by-Step signal or the transmitter signal has no effect during the TCA counting. Off: the bloc of flat function is disabled.	(OFF)	
ScL	The rapid closure is enabled or disabled On: rapid closure is enabled. When the gate is open or moving, the photocell activation causes the automatic closure of the gate after 3 s. It is activated only with t _{CA} :ON Off: rapid closure is disabled.	(OFF)	

PP	Selects the operating mode of the "Step by step button" and of the transmitter. On: Operation: OPEN > CLOSE > OPEN > Off: Operation: OPEN > STOP > CLOSE > STOP >	(OFF)	
PrE	Enables or disables pre-blinking. On: Pre-blinking enabled. Blinking is activated 3s before the motor starts. Off: Pre-blinking disabled.	(OFF)	
htr	Enabled or disables HOLD-TO-RUN function On: HOLD-TO-RUN function. The pressure of the OPENS/CLOSES button must be maintained throughout the entire manoeuvre. The opening of the STOP input stops the motor. All the safety inputs are deactivated. Off: Automatic/semiautomatic function	(OFF)	
LtCA	Selects the operating mode of the blinking light during the time TCA On: Blinking light on during TCA Off: Blinking light off during TCA	(OFF)	
PhcL	The operating mode of the PHC input is selected. On: PHC input is activated in both opening and closing phases. In the opening phase: the contact opening causes the motor stop. When the photocell is released, the motor restarts in the opening phase. In closing phase: the contact opening causes the motor stop. When the photocell is released, the motor inverts the movement direction (open). Off: The PHC input is activated in the closing phase only. In the closing phase: the contact opening causes the motor stop and the immediate reversion of the operation direction (open).	(OFF)	
oPcL	Enables OPEN input as Pedestrian input (Partial parameter TPED opening). On: OPEN input enabled as pedestrian input (PED). Off: No modification to the OPEN input	(OFF)	
tSt1	Enables or disables checking of photocells on PHOT input, active both in closing and in opening. On: Check enabled. If the check has a negative result, no manoeuvre is commanded. See Fig.23 - "PHOTO TEST". (AUX1=3) Off: Check of photocells each time a manoeuvre is disabled. This setting requires maintenance of photocells every 6 months.	(OFF)	
tSt2	Enables or disables the check of photocells on PHC input. On: Check enabled. If the check fails, no manoeuvre will be enabled. See Fig.24 - "PHOTO TEST". (AUX1=3) Off: Check of photocells each time a manoeuvre is disabled. This setting requires maintenance of photocells every 6 months.	(OFF)	
bAr	Changing the operating mode of the PHO and BAR inputs in the event the sensitive edges are installed on the mobile opening and closure edges (see Fig.21). On: The PHO input assumes a similar function to the BAR input, but inverts motion for 3s only during the opening phase. The edge connected to the BAR input is only active during the closure phase. Off: Intervention of the sensitive edge connected to the BAR input stops movement of the door and inverts for approx. 3s, both opening and closure. The PHO input re-starts functioning of the photocell active on opening.	(OFF)	
RoPF	The "forced opening in case of power cut-off" function is activated or deactivated (it can be activated only with connected and operating emergency batteries). On: Activated function. In the event of power failure, before the emergency battery completely discharged, the control unit causes an opening operation. The door remains open until the power supply is back. Off: Deactivated function.	(OFF)	
nInu	The opening direction of the motor is selected: On: Right side motor mount Off: Left side motor mount (fig.20)	(OFF)	
rEN	Enables or disables remote radiotransmitters learning, as indicated in the paragraph "Remote transmitters learning". On: Remote learning enabled. Off: Remote learning not enabled.	(ON)	

8.4.3) RADIO (rAd I)

MENU	FUNZIONE
PP	By selecting this function, the receiver goes in waiting (PuSh) for a transmitter code to assign to the step-step function. Press the key of the transmitter to assign to this function. If the code is valid, it is memorised and the message oH is displayed If the code is not valid, the message Err is displayed
2ch	By selecting this function, the receiver goes into waiting (PuSh) for a transmitter code to assign to the second radio channel. Press the key of the transmitter to assign to this function. If the code is valid, it is memorised and the oH message is displayed If the code is not valid, the message Err is displayed.
PEd	When this function is selected, the receiver awaits (Push) a transmitter code to be assigned to the PED function. Press the transmitter key, which is to be assigned to this function. If the code is valid, it will be stored in memory and OK will be displayed. If the code is not valid, the Err message will be displayed.
ntH	By selecting this function the LCD screen shows the number of transmitters memorized into the receiver.

CLR	By selecting this function, the receiver goes into waiting (<i>PU5h</i>) for a transmitter code to erase from the memory. If the code is valid, it is erased and the message <i>oH</i> is displayed If the code is not valid or not present in memory, the message <i>Err</i> is displayed
rtR	Completely erases memory of the receiver. Confirmation of the operation is requested. By selecting this function the receiver goes into waiting (<i>PU5h</i>) for a new PGM pressure to confirm the operation. At end of erasing the <i>oH</i> message is displayed

8.4.4) CYCLES NUMBER (*nRn*)

Displays the number of complete cycles (open+close) carried out by the automation. When the <PG> button is pressed for the first time, it displays the first 4 figures, the second time it shows the last 4. Example <PG> *00 12 >>>* <PG> *3455*: made 123.456 cycles.

8.4.5) MAINTENANCE CYCLES (*nRc l*)

This function enables to activate the maintenance request notice after a number of manoeuvres determined by the installer.
To activate and select the number of manoeuvres, proceed as follows:
Press button <PG>, the display will show OFF, which indicated that the function is disabled (default value).
With the buttons <+> and <-> select one of the numeric values proposed (from OFF to 100). The values are intended as hundreds of cycles of manoeuvres (for example: the value 50 indicates 5000 manoeuvres).
Press the OK button to activate the function. The display will show the message *ProG*.
The maintenance request is indicated to the user by keeping the indicator lamp lit up for other 10 sec after the conclusion of the opening or closing operation.

8.4.6) RESET (*rE5*)

RESET of the control unit. ATTENTION!: Returns the control unit to the default values.
Pressing the <PG> button for the first time causes blinking of the letters *rE5*, pressing the <PG> button again resets the control unit. Note: The transmitters are not erased from the receiver nor is the access password and the configuration of synchronism.
All the logics and all the parameters are brought back to default values, it is therefore necessary to repeat the autoset procedure.

8.4.7) AUTOSET (*RUto*)

This function sets the optimal functioning values of the installation, at the end of the procedure, it sets the average values of torque (PMO/PMC and PSO/PCS). To carry out the AUTOSET, proceed as follow:
a) Make sure that during the autoset there is no obstacle in the maneuver area, if necessary, fence off the area so that persons, animals, cars, etc., cannot interrupt the procedure.
During the autoset phase, the anti-crushing function is not active, while the activation of inputs and safety devices generates an error. (paragraph 8.10)
b) select the function AUTO and press PG.
c) the control unit waits the confirmation to start the procedure "AUTO" FLASHING.
d) press PG to start the AUTOSET procedure.
The control unit performs few maneuvers for the stroke learning and the configuration of the parameters. In case that the procedure is not successful the message ERR will be shown. Repeat the procedure after checking the wirings and the possible presence of obstacles.

8.4.8) PASSWORD (*codE*)

It allows to type in an access protection code to the programming of the control unit.
A four-character alphanumeric code can be typed in by using the numbers from 0 to 9 and the letters A-B-C-D-E-F.
The default value is 0000 (four zeros) and shows the absence of a protection code.
While typing in the code, this operation can be cancelled at any moment by pressing keys + and - simultaneously. Once the password is typed in, it is possible to act on the control unit by entering and exiting the programming mode for around 10 minutes in order to allow adjustments and tests on functions.
By replacing the 0000 code with any other code, the protection of the control unit is enabled, thus preventing the access to any other menu. If a protection code is to be typed in, proceed as follows:
- select the Code menu and press OK.
- the code 0000 is shown, also in the case a protection code has been previously typed in.
- the value of the flashing character can be changed with keys + and -.
- press OK to confirm the flashing character, then confirm the following one.
- after typing in the 4 characters, a confirmation message "CONF" appears.
- after a few seconds, the code 0000 appears again
- the previously stored protection code must be reconfirmed in order to avoid any accidental typing in.
If the code corresponds to the previous one, a confirmation message "oH" appears.
The control unit automatically exits the programming phase. To gain access to the Menus again, the stored protection code must be typed in.
IMPORTANT: TAKE NOTE of the protection code and KEEP IT IN A SAFE PLACE for future maintenance operations. To remove a code from a protected control unit it is necessary to enter into programming with the password and bring the code back to the 0000 default value. IF YOU LOOSE THE CODE, PLEASE CONTACT THE AUTHORISED SERVICE CENTER FOR THE TOTAL RESET OF THE CONTROL UNIT.

8.4.9) SYNCHRONIZATION (*bU5*)

MENU	FUNZIONE
Id	Sets the synchronizing number. It is possible to set a numeric value from 0 to 16. If the ID parameter is to 0 the control unit is set as MASTER, all the other values set the door as SLAVE.
Loc	Allows a door set as SLAVE to receive local commands. See paragraph 8.5 "SYNCHRONIZATION OF TWO OPPOSITE SLIDING DOORS"

8.5) SYNCHRONISATION OF TWO OPPOSITE SLIDING DOORS

It is possible to manage a system composed of two sliding doors by using for each CP.B24 TURBO the specific optional control unit SIS, which must be plugged into the appropriate connector as shown in Fig. 21.

Each SIS unit must be connected to the other one by means of 3 wires by 0,5 sq.mm each, as shown in Fig.21.

One of the control unit must be set as MASTER (ID=0) and the other one as SLAVE (ID=1).

All the commands (commands given by transmitters, push buttons or safety devices) received by the MASTER sliding door are sent to the SLAVE sliding door, which will replicate instantaneously the behavior of the MASTER.

The logic LOC can be set in two ways:

ON: the SLAVE sliding door can accept a local command and execute an opening/closing maneuver with no effect on the MASTER sliding door.

OFF: the SLAVE sliding door do not accept any local command and so it will replicate exclusively the behavior of the MASTER sliding door.

A SLAVE sliding door with LOC set to ON can be useful in case it is occasionally necessary the partial opening of a passage which is usually managed by two synchronized doors, since that a step by step command (or OPEN/CLOSE) given to the SLAVE will have effect only on this last one, while all the other commands given to the MASTER will be replicated by the SLAVE.

The connection of the safety devices (photocells, safety edges, etc.) can be done indifferently to the MASTER unit or to the SLAVE.

8.6) TRANSMITTERS REMOTE LEARNING

If an already memorised transmitter is available in the receiver it is possible to carry out remote radio learning (without needing to access the control unit).

IMPORTANT: the procedure must be carried out with door open. The logic REM must be ON.

Proceed as follows:

1 Press the hidden key of the transmitter which is already memorised.

2 Press, within 5s, the key of the corresponding transmitter which is already memorised to associate to the new transmitter. The flashing light will turn on.

3 Press within 10s the hidden key of the new transmitter.

4 Press, within 5s, the key of the new transmitter to associate to the channel chosen at point 2. The flashing light will turn off.

5 The receiver memorised the new transmitter and immediately exits from programming.

Note: function not enabled with TO.GO 2/4 AK

8.7) FUSES

F2 =T4A - General protection fuse

8.8) BACK UP BATTERIES

The CP.B24 TURBO control panel is equipped with built-in battery chargers to handle in series two 12V 2.1 Ah DA.BT2 batteries (optional - fig. 19) that allow the operation of the automation even in the case of temporary absence of mains power supply.

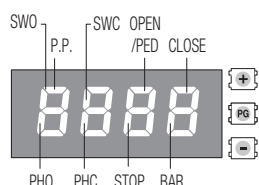
During normal mains operation, the card charges the batteries.

The maximum charge current is 1A, the average charge current is 300mA. (respect the polarity).

Charging time with 2.1Ah mod. DA.BT2 batteries: about 3h.

Number of cycles with charged battery for a 4m/600kg gate: about 20.

8.9) DIAGNOSTICS



DL 1 : Presence of mains voltage

DL 2: Control panel CP.B24 TURBO properly powered - Program operating/Control panel programmed.

DL 3: Overload or short-circuit signal warning on 24V output.

DL 4: Short-circuit warning signal on Common Commands (COM).

To each input is associated a line of the LCD screen which in case of activation it turns on according to the following diagram.

The N.C. inputs are represented by vertical lines.

The N.O. inputs are represented by horizontal lines.

Note: With unlocked motor, SWO/SWC/PHO/PHC/STOP/BAR light-up simultaneously

8.10) ERROR MESSAGES

Some messages that are displayed in case of function anomalies are listed as follows:

Err 1	Motor error	Verify the motor wirings, faulty motor or not connected, problem on the control unit.
Err 2	Photocell check error	
Err 4	SENSOR input error during Autoset	
Err 5	PHOT closing error	
Err 7	STOP input error during Autoset	
Err 8	INPUTS ACTIVATION (START/OPEN/CLOSE) error during Autoset	
ANP	Amperometric sensor intervention	Verify the presence of obstacles or friction points.
Thrn	Thermal sensor intervention	Overheating due to permanent obstacles. Unlock the gate and verify there are no points of friction.
oULd	Overload	Exceeding of the maximum power. Verify the motor and presence of friction points.
bAr	SENSOR input activation during movement	

BULL 1224 TURBO

USER'S HANDBOOK

SAFETY MEASURES

- Do not stand within the gate movement area.
- Children must not play with controls and near the gate.
- In the event of malfunctions, do not attempt to repair the failure but contact the specialised personnel.

MANUAL AND EMERGENCY MANOEUVRE

In the event of power failure or malfunction, to manually operate the gate proceed as follows:

- After inserting the customized key C, turn it anti-clockwise and pull the lever L.
- The geared motor is unlocked and the gate can be moved by hand.
- To return to the normal operating mode, close the lever L again and manually activate the gate until it is geared.

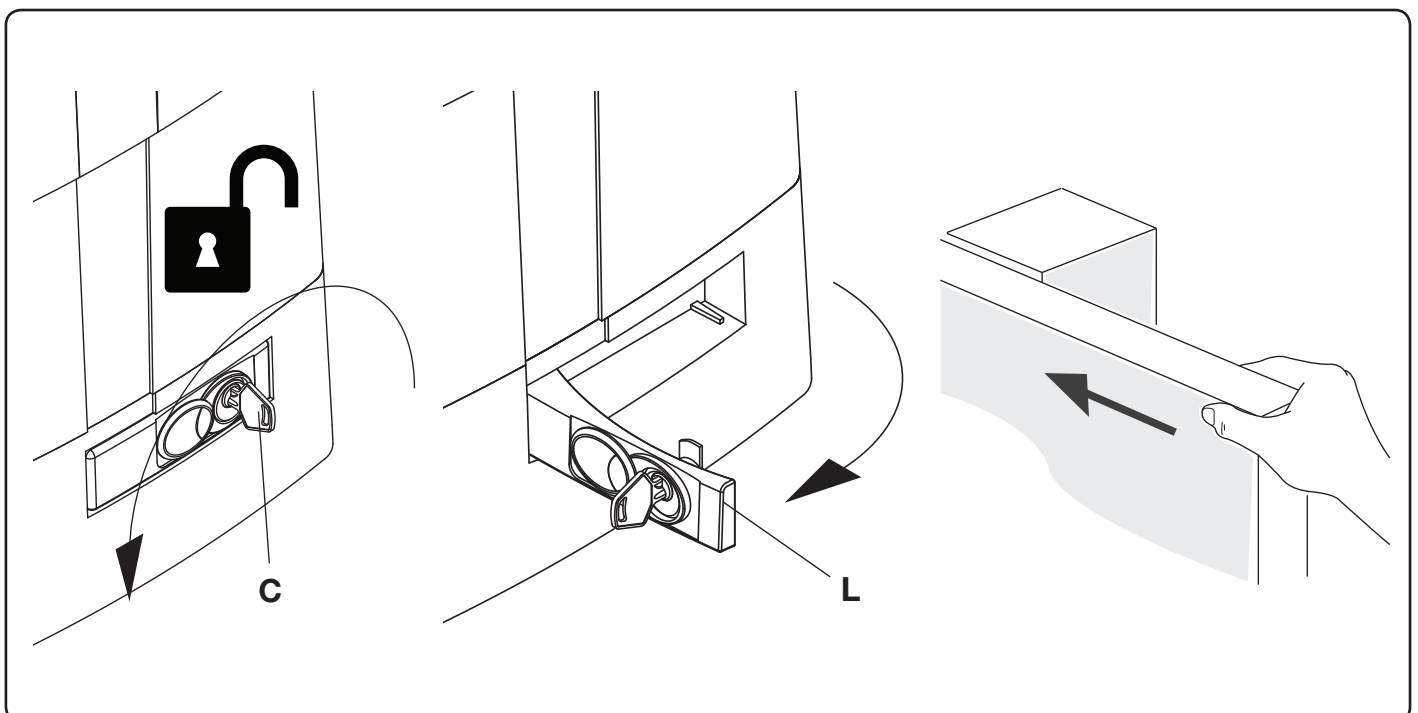
MAINTENANCE

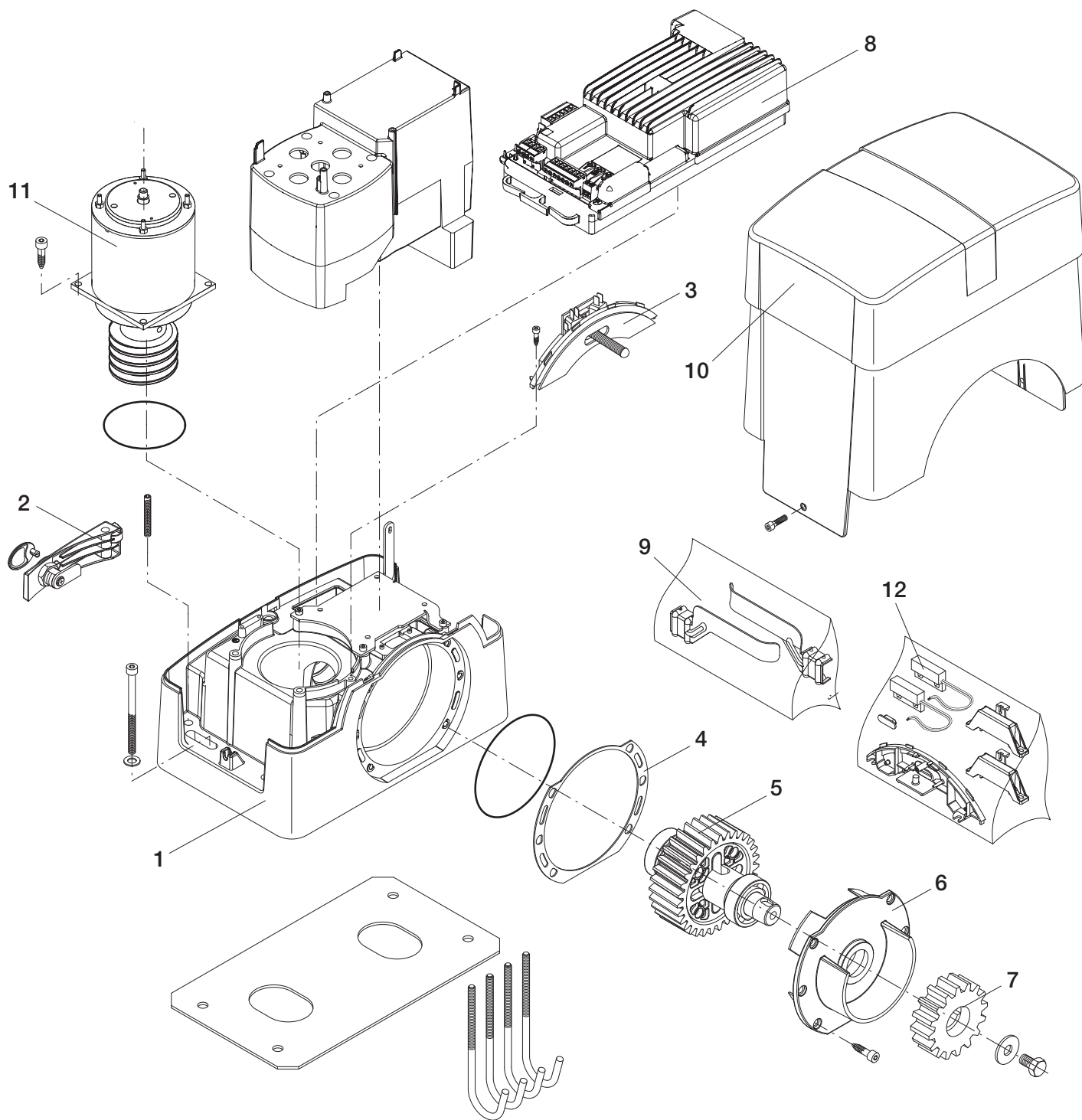
- Every month check the good operation of the emergency manual release.
- It is mandatory not to carry out extraordinary maintenance or repairs as accidents may be caused. These operations must be carried out by qualified personnel only.
- Periodically check the efficiency of the safety devices and other parts of the system that could generate hazards due to wear and tear.
- The operator is maintenance free but it is necessary to check periodically if the safety devices and the other components of the automation system work properly. Wear and tear of some components could cause dangers.
- Keep the maintenance record that must be handed to you by the installer, and comply with the maintenance schedule.
- Unplug the system from the power source when servicing or cleaning the parts.
- Regularly check that all parts of the automation system are firmly secured and check for signs of wear or damage to cables, springs and fastening screws. Do not use the automation system if the same requires repairs or maintenance.

WASTE DISPOSAL



As indicated by the symbol shown, it is forbidden to dispose this product as normal urban waste as some parts might be harmful for environment and human health, if they are disposed of incorrectly. Therefore, the device should be disposed in special collection platforms or given back to the reseller if a new and similar device is purchased. An incorrect disposal of the device will result in fines applied to the user, as provided for by regulations in force.





BULL 1224 TURBO					
Ref.	Code	Note	Ref.	Code	Note
1	968600671		7	9686032	
2	9688317		8	968600673	
3	9686329		9	9686337	
4	9686333		10	968600656	
5	9686341		11	968600674	
6	9686335		12	9688088	