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ROGER BRUSHLESS

centrale di comando 2 motori B70/2DC

ROGER TECHNOLOGY
automazioni evolute

INDEX PARAMETER ADVANCED SETUP MODE

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1 Introduction to the instructions and warnings

This manual is only intended for personnel qualified to perform the installation.
No information contained in this document may be considered of interest to the end user.
This manual refers to control panel B70/2DC for automations comprising 1 or 2 ROGER brushless motors and should not be used for other motors.

Read the instructions carefully before starting the installation.

To avoid the risk of electrocution and physical injury always cut the power before intervening on the device.The installation must only be carried out by qualified service personnel according to applicable regulations.Make the connections to the currents and voltages required with the appropriate cables; observe the product's technical characteristics. Check the conformity of the earth system and the continuity between the earth on the motor side and the control unit's terminal block.
The same type of motors must be used for both wings.The slowdowns can be set independently: ensure that they are appropriate for the type of installation, in order to prevent the wings from overlapping.

2 Technical product characteristics B70/2DC

SUPPLY VOLTAGE	230Vac ± 10% 50Hz (**B70/2DC115/BOX**: 115Vac ± 10% 60Hz)
MAXIMUM POWER CONSUMPTION	350W
CONNECTIBLE MOTORS	2
POWER SUPPLY MOTORS	24Vac with self-protected invert
MOTOR TYPES	brushless sinusoidal (ROGER BRUSHLESS)
MOTOR CONTROL TYPE	Field oriented control (FOC), sensorless
RATED POWER FOR MOTOR	40W
MAXIMUM POWER FOR MOTOR	110W
MAXIMUM POWER FLASHING	25W (24Vdc)
INTERMITTENT FLASHING	50%
MAXIMUM POWER COURTESY LIGHT	100W 230Vac - 40W 24Vac/dc (pure contact)
GATE OPEN LIGHT POWER	3W (24Vdc)
ELECTRIC LOCK POWER	15W (12Vdc)
ACCESSORIES OUTPUT POWER	10W (24Vdc)
OPERATING TEMPERATURE	-20°C … +55°C
DEGREE OF PROTECTION	IP54
PRODUCT DIMENSIONS	Dimension in mm. 330 x 230 x 115 Weight: 3,9Kg

3 Product description

The B70/2DC system controls 1 or 2 ROGER brushless motors with very complex algorithms which allow the information on the position of the wing to be obtained and impact situations to be detected.
You can connect photocells, safety edges, push-button panels, key selectors, a flashing light, a radio receiver, an gate open light, an electric lock, a courtesy light and a clock. There are two configuration levels: a simple one which satisfies most of the installations and an extended (advanced) one where it is possible to extensively customise the behaviour of the automation.

3.1 Description of connections and fuses

Figure 1 hows the connection diagram of the power supply, the motors and the fuses. The power supply terminal block is equipped with a 5 x 20 mm delayed type 1A 250V (T1A), F3 fuse which protects the primary of the transformer.
The board has 2 automotive style fuses (ATO257), F1 of 15A end F2 of 4A.
In **figure 2 and 3** the connections of the inputs and the outputs are shown below the description of the individual terminals:

1,2 Power from transformer
3,4,5 Phases **X,Y,Z** motor ROGER brushless **M1**
6,7,8 Phases **Z,Y,X** motor ROGER brushless **M2** (the arrangement of the phases is reversed compared to **M1**)
9,10 **COR**, courtesy light (pure contact): maximum voltage 230 VAC, see technical characteristics
11 **COM**, common to low voltage inputs and outputs
12 **LAM**, flashing (+24Vdc): max 25 W with 50% intermittency
13 **ES**, electric lock (+12 VDC): max 15 W
14 **+24Vdc**, power for external devices: max 10 W (400mA)
15 **COM**, common to low voltage inputs and outputs
16 **SC**, gate open light (24Vdc, 3W); alternatively, you can connect the power supply for the transmitters (TX) of the photocells to this terminal (provided that you set parameter A8 to the value 02, in extended mode) to have the "photocell test" features. As an alternative (values 03 and 04) it is possible to connect the power supply of all external devices to save the service life of the backup battery (if installed, see paragraphs 4.5)
17 **COM**, common to low voltage inputs and outputs
18 **FT2**, photocell 2 (N.C. contact) [a]
19 **FT1**, photocell 1 (N.C. contact) [a]
20 **INP2**, auxiliary input 2, the function depends on the value of the parameter C- and 8- in simplified mode (par. A1 and 72 in extended mode): [a]
- function **COS2**, safety edge 2 (N.C. contact or 8,2kOhm) see **figure 4** [a]
- function **FCA2**, wing opening limit switch 2 (N.C. contact.) only with articulated arm motor **figure 5**

21 **COS1**, safety edge 1 (N.C. contact or 8.2 kOhm) [a]
22 **COM**, common for low voltage inputs and outputs
23 **ST**, STOP command (N.C. contact) [a]
24 Antenna pole for radio receiver coupling (if you are using an external antenna, connect with RG58 cable)
25 Receiving antenna sheath
26 **COM**, common to low voltage inputs and outputs
27 **INP1**, auxiliary input 1, the function depends on the value of the parameter C- and 8- in simplified mode (par. A1 and 72 in extended mode): [b]
- **ORO** function , clock command input (N.O. contact) see **figure 4**
- **FCA1** function,wing opening limit switch 1 (N.C. contact) only with articulated motor, see **figure 5**

28 **AP**, opening input command (N.O. contact)
29 **CH**, closing input command (N.O. contact)
30 **PP**, step-by-step input command(N.O. contact)
31 **PED**, pedestrain opening input command(N.O. contact):set by factory opens wing 1 completely (if configured for 2 wings) or half wing 1 (if it is configured as a single wing)
32 **COM**, common to low voltage inputs and outputs

IMPORTANT NOTES

[a] All of the safety protections not installed that provide for a normally closed contact must be electrically bridged to the COM terminals (shared by inputs/outputs), or deactivated by adjusting the appropriate extended parameters (par. 50, 51, 53, 54, 73, 74 –see paragraphs 3.2 and 3.3

[b] The two terminal **INP1** e **INP2** can have different functions depending on the motor type selected, see **figures 4 e 5**. If the motor for the articulated arm is selected by selecting parameter C- to the value 03 in simplified mode (or A1 to the value 03 in extended mode), and the limitswitch are provided during opening by selecting parameter

8- to the value 01 in simplified mode (or 72 to the value 01 in extended mode), the limit switch when opening motor 1 will be connected to **INP1** and the limit switch when opening motor 2 to **INP2**. All other cases: **INP1** has the clock control function (**ORO**) and **INP2** of safety edge 2 (**COS2**).

3.1.1 Motor connection

The brushless motors have three phases (X, Y, Z) which can be connected in various ways while achieving the desired direction of rotation; if the motor rotates in the direction opposite to that required, and sufficient to switch any two of the three connections X,Y,Z.
WARNING!!!
If articulated arms are used, if switching M1 and M2, you must switch the connections of the limit switch on terminal blocks 27 (INP1) and 20 (INP2).
To connect the motors to the control unit you must use a 3 x 2.5 mm² cable, which is a maximum of 10 metres long; the use of a smaller section (minimum 1.5 mm²) results in reduced maximum torque. If you are using a cable 3 x 1.5 mm² for lengths longer than 3 metres there is a loss of maximum torque, quantifiable to 5% extra per metre (with length 8 metres, therefore the maximum torque would be reduced by 25%). If a length greater than 10 metres is requested, the use of a section 4 mm² is required for optimum performance.

3.2 Standard photocells configuration

Inputs **FT1** and **FT2** are enabled as a production standard.
Below is the standard configuration of the photocells and related parameters of the extended mode:

FT1 ignored during opening	50 00
FT1 interruption during closure causes a reversal of motion, i.e. it opens	51 02
allows for the activation of the motors to opening even if FT1 is obscured	52 01
FT2 interruption during opening causes a stop; once the beam is released it continues to open	53 03
FT2 interruption during closing causes a stop; once released the beam is reversed, i.e. it opens	54 04
allows for the activation of the motors opening even if FT2 is obscured	55 01

IF THE PHOTOCELLS ARE NOT INSTALLED
Set 50 00 , 51 00 , 53 00 and 54 00
Or electrically bridge their terminals with the COM terminal block.

3.3 Standard safety edges configuration

Inputs COS1 e COS2 are enabled as a production standard.
Below is the standard configuration of the safety edges and related parameters of the extended mode:

Intervention safety edge 1 (type with switch) always reverses the movement	73 03
Intervention safety edge 2 (type with switch) only reverses the movement when closing	74 01

IF THE SAFETY EDGE ARE NOT INSTALLED
Set 73 00 and 74 00.
Or electrically bridge their terminals with the COM terminal block.

3.4 Radio receiver coupling

The receiver (see **figure 1**) provides two functions for radio remote control that are assigned in the following way as a production standard:

PR1 step-by-step control (can be changed by adjusting parameter 76 of extended mode)

PR2 command pedestrianopeningcontrol (can be changed by adjusting parameter 77 of extended mode)

3.5 Display operation modes

The screen can display the following information, depending on the operating mode the control unit is in:

- **COMMANDS AND SAFETY PROTECTIONS STATUS MODE**: the status of the control inputs is shown by two digits on the left, in the two digits on the right the status of the safety protections is shown by two digits on the right
- **PARAMETERS MODE**: the two digits on the left will display the name of the parameter, the two digits on the right display its numerical value

In the simplified mode, standard production, for example:

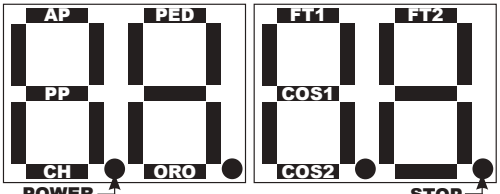
In extended mode, to be activated intentionally, for example:

NOTE: in extended mode the parameter name is highlighted by the presence of two illuminated decimal points, and by the letter A for parameters below 10, which are different from the first 10 parameters of simplified mode .

- **MODALITA' STANDBY**: makes the LED "POWER" flash which indicates the presence of the power supply voltage (decimal point of the furthest left digit). It automatically switches to standby after 30 minutes of inactivity of the buttons around the display
- **TEST MODE** the two digits on the left display the name of the active command (for 5 seconds, then it goes off), the two figures on the right display, flashing, display the number of the safety protection terminal block possibly in a state of alarm (00 if no safety protection is in a state of alarm, then the control unit is enabled to run commands; the only exception is when a limit switch is activated, which is displayed, but is not an obstacle to issuing a command). The safety protection in a state of alarm will be displayed until it returns to rest; if there are two safety protections in a state of alarm, the second one which is still in a state of alarm appears after the first one has been resolved, before displaying the safety protections with the highest priority and then the other ones.

3.5.1 Commands and safety protections status mode

The inputs are shown on the display in the following way:

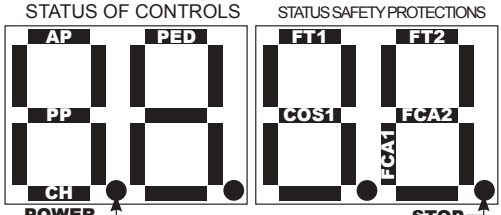


FT = Photocells
COS = safety edge

If the input is closed the corresponding segment comes on. The segments corresponding to the controls will normally be turned off (normally open contacts), will be turned on upon receipt of a command. The segments corresponding to the safety protections installed must be turned on (normally closed contacts); if they are turned off it means that they are in a state of alarm.

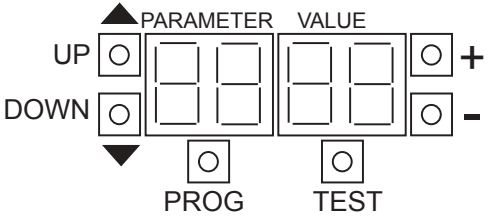
SAFETY PROTECTIONS DEACTIVATED: the corresponding LED segment flashes

In the case of using articulated arms, therefore with parameter C- set to value 03 in simplified mode or A1 to value 03 in extended mode, and the limit switch are provide during opening by parameter the parameter b- to value 01 in simplified mode, or 72 to value 01 in extended mode, the inputs **ORO** and **COS2** are displayed flashing (deactivated), and inputs **FCA1** and **FCA2** are not shown. However, the LEDs will flash if you do not enable the limit switch. The meaning of the display segments becomes the following:



FCA = limit switch on opening
FT = Photocells
COS = safety edge

3.5.2 Parameters mode



UP	next parameter
DOWN	previous parameter
+	increases the parameter value by 1
-	decreases the parameter value by 1
PROG	programming the stroke (see par. 4.1)
TEST	enables test mode (see par. 3.5.4)

3.5.2.1 Changing a parameter

Using the UP and DOWN buttons to view the parameter to be changed, then with the + and - buttons change its value (the number on the right starts flashing).
While holding down a button, after one second quick sliding is activated, allowing you to change the parameter quicker. To save the value set on the display, wait a few seconds, or move to another parameter with the UP and DOWN buttons: the whole display will flash quickly indicating that the parameter has been saved.

NOTE: Changing the numerical value of the parameters with the + and - buttons is only possible with the engine stopped, while consultation of the parameters is always possible.

The sequence of parameters in the mode simplified is shown in the table below.

STANDARD PARAMETER AND VALUE	FUNCTION	VALUE ON DISPLAY	DESCRIPTION
0 - 02	Number of motors	01	1 motor
		02	2 motors
1 - 00	Automatic reclosing	00	deactivated
		01 - 15	number of attempts to reclose (interrupted by photocell) before finally staying opened
		99	always tries to reclose, without limitation
2 - 30	Pause time	00 - 90	seconds of pause
		92 - 99	2 minutes...9 minutes of pause
3 - 00	Emergency blackout	00	deactivates the reclosing when power returns
		01	enables the reclosing when power returns
4 - 05	Phase shift closing M1	00	deactivated
		01 - 30	phase shift seconds
5 - 00	Pre-flashing	00	deactivated
		01 - 10	pre-flashing seconds
		99	5 seconds of pre-flashing only when closing
6 - 00	Step-by-step mode	00	opens stops closes stops opens stops closes ..
		01	condominium, refreshes the pause time
		02	condominium, closes from completely open
		03	opens closes opens closes
		04	opens closes stops opens
7 - 00	Flashing configuration	00	constant (the light flashes)
		01	slow flashing while active
		02	slow flashing while opening, fast while closing
8 - 00	Enabling limit switch	00	no limit switch connected
		01	limit switch on opening connected
9 - 15	Impact of force level motor 1	01 - 10	low torque motor 1 minimum impact force ... 10 max. impact force
		11 - 19	medium torque motor 11 minimum impact force ... 19 max. impact force
		20	Maximun torque motor Without anti-crushing protection (obligatory safety edges)
A - 15	Livello forza d'impatto motore 2	01 - 10	low torque motor 1 minimum impact force ... 10 max. impact force
		11 - 19	medium torque motor 11 minimum impact force ... 19 max. impact force
		20	Maximun torque motor Without anti-crushing protection (obligatory safety edges)
b - 00	Pressure surge	00	deactivated
		01	enabled
C - 02	Motor model	01	piston BM20 BRUSHLESS
		02	piston BR20 BRUSHLESS
		03	articulated arm BH23 BRUSHLESS
		04	underground motor BR21 BRUSHLESS
		05	piston BE20 BRUSHLESS

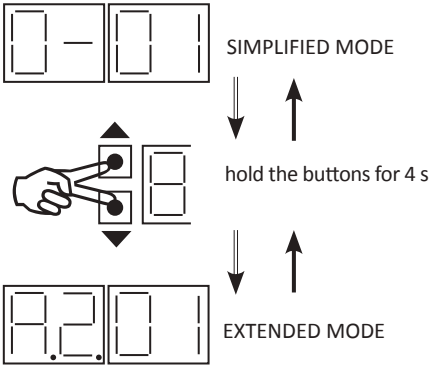
ATTENTION!
Some parameters (0- and C-) are particularly critics, and change them with the system already started,may cause malfunction; to give effect to the change in their value you have to disconnect the power supply and then restart the system and re-programming the stroke

3.5.2.2 Restoring standard factory parameters

N.B.: this procedure is only possible if you have not entered the password to protect your data.
Turn off the control unit, simultaneously press and hold the UP and DOWN buttons then turn on again and keep up pressing the buttons: after 4 seconds the display will show the writing rESt flashing, which indicates that the values have been restored.
N.B.: parameter A1 in extended mode (C- in simplified mode) is not restored; it must always be set manually.

3.5.2.3 Simplified/extended parameters mode change

The control unit provides two modes of configuration: extended or simplified.
In extended mode the installer can change a lot of parameters, but you need a more in-depth knowledge of the product.
Simplified mode has been designed for ease of installation, only a few parameters can be changed. It is the recommended mode for an installer who is not very familiar with the product and who does not need special configurations.
WARNING!
The product leaves the factory set in simplified mode, with standard values which satisfy the majority of installations.



If you want to go to extended mode hold the UP and DOWN buttons both for 4 seconds, after this time the first of the parameters of the extended version will be displayed on the display, which is highlighted:

- by the presence of two decimal points on the first two left digits (representing the parameter number)
- of the letter A in parameters less than 10, to distinguish them from those of the simplified version (which are different)

N.B.: The operation can be performed several times, switching from one mode to another at will.

The table in paragraph 4.6 contains the parameters for extended mode.

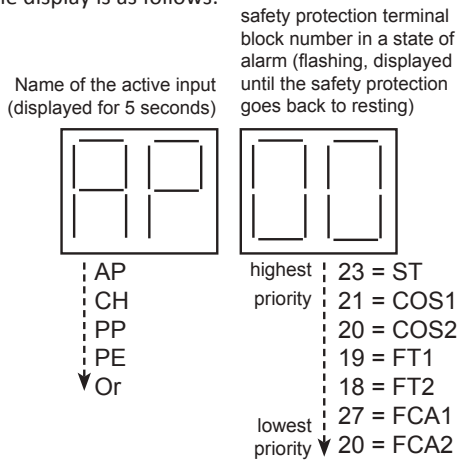
N.B.: the sequence of parameters for simplified mode is not the same as that of extended mode, therefore always refer to the instructions or the label on the inside of the cover.

3.5.3 Standby mode

After 30 minutes of inactivity, the control unit enters standby mode, and the display only indicates a flashing dot.
The activation of standby automatically resets the simplified parameters mode.
The mode remains at rest on the display, but the control unit is always ready to perform commands; to turn the display back on you have to press one of the buttons UP,DOWN,+,-.

3.5.4 TEST mode

This is activated by pressing the TEST button, only if the motors are stationary; otherwise, the TEST button performs a STOP command and only the subsequent operation of the button enables test mode.
The display is as follows:



Allows you to visually inspect the activation of the commands and the safety protections: upon each of their activations, the control unit briefly activates the flashing and the Gate Open Light (terminal block no. 16, **SC**).
The display indicates:

- the command activated, in fixed letters (on the left-hand side, for a period of 5 seconds)
- in a flashing number, the safety protection terminal block in a state of alarm (right part, displayed as long as the safety protection is in a state of alarm)

After 10 seconds of inactivity it will return to commands and safety protections status mode. To immediately exit test mode just press the TEST button again

4 Installation

It is necessary to program the stroke to allow the correct operation of the control panel.

WARNING! Before proceeding, make sure that:

- The doors are in a fully closed position: bring the doors into position by giving a close command, so that they come right against the mechanical stop. Pay attention to the position of the lever arm of the BR21 underground motors: it must be properly hooked onto the door. To facilitate the operation, it is recommended to power off and then restart, so that you can give the close command regardless of the position of the door: the motor stops automatically when it reaches the mechanical closure stop. For the program starting from the fully closed position is important because the control unit performs a mapping of the absorption of current along the entire movement, while opening and then closing. For this reason, if a different path is detected between opening and closing the program fails and returns an error message of APPL
- The motor has been correctly selected with parameter A1 in extended mode (L- in simplified mode).
- The safety protections connected are at rest and those not present are electrically bridged or excluded by a special parameter
- If you are trying to access programming mode but one of the safety protections is in a state of alarm, you will not be able to do so. The display changes to test mode and displays the input that is in a state of alarm and which prevents you from proceeding.
- If you are trying to access programming mode but "man present" is enabled(par. A701), you will not be able to do so and the display will show APPE.
- The leaf are in the fully closed position, or at least

NOTE:

- **Leaf 1 (terminal blocks 3, 4 and 5): it is the first wing to open**, this is also the wing on which the pedestrian opening is performed.
- **Leaf 2 (terminal blocks 6, 7 and 8): this is the first wing to close.**
- It is mandatory to have a gate stop also when opening, or alternatively, use at least the limit switch(also in this case it is a good idea to have the gate stop, for additional safety).
- **Programming is interrupted (with error message APPE) in the following situations:**
  - The TEST button is pressed.
  - One of the safety protections (photocells, safety edges) is turned on.
  - An abnormal operation condition was detected (e.g.: excessive drop in voltage network).

  In such an event you have to repeat the programming of the stroke.
- If at the end of the program the display shows the message APPL (path length error) then repeat the procedure, ensuring that the two doors are initially in the fully closed position

4.1 Stroke programming sequence

WARNING!

- If the limit switch are connected, the motion stops when they are activated, otherwise it stops on the gate stop.
- If you change the value of par. 31 and/or 32 in extended mode (9- and A- in simplified mode) it is necessary to repeat the programming.

To enter programming press the PROG button for 4 s.: the display will show APP-; at this point, you can programme the stroke by pressing the PROG button again, or by pressing the radio control button enabled by the step-by-step function.
Premere PROG (o PP): programming is performed in a fully automatic way: wait for completion avoiding crossing the ray of the photocells or activating other safety devices (safety edges, stop).
The display shows the indication AUTO and motor 1 starts opening, after the phase shift time

established in par. 25, motor 2 is also automatically activated; when the wings both reach the fully open position, stopping on the mechanical gate stop (or on the limit switch in the case of a motor with an articulated arm) the writing AUTO flashes on the display for 2 seconds indicating that it is going to close, then the indication AUTO stops flashing and the closing operation starts.

NOTE: the phase shift performed when closing is that in memory (established by parameter 26): this value is set in the factory to 5 s; if both wings require a greater value, for example, when the stroke of wing 1 is less than that of wing 2, before programming set the phase shift when closing high enough to prevent the wings from overlapping.
NOTE: given that the programming is done at half speed the phase shift times are automatically doubled.Although parameter 26 set to 00 closure never starts simultaneously in the two doors, but is performed with a phase shift of 2 seconds.
If the programming is completed properly, the display returns to the status of the commands and the safety protections.
If the program is successfully finished, the display goes back to showing the control and safety status. Otherwise, APPE appears (acquisition error) or APPL (path length error) and the program will have to be repeated.

4.2 PHOTOCELL TEST mode

By connecting the power of the transmitters of the photocells to terminal block **SC** (no. 16) instead of to terminal no 14 and by selecting the parameter A8 02 in the parameters extended mode, the photocells test mode is activated (see **figure 6**).
For each command issued the control unit turns the photocells off and on and checks that the status of the contact changes correctly: only if this is so will the command activate the motors, otherwise the locked status is maintained.
NOTE: in this mode 24 VDC of voltage is still present in the **SC** terminal block, therefore you can no longer use that output for the gate open light.
If the battery is installed, another feature available on SC terminal is for “battery saving”, described in paragraph 4.5

4.3 Error reporting

The operating parameters are stored in a non-volatile memory (EEPROM) with appropriate control codes which ensure its validity; an error in the parameters is shown on the display and at the same time the control unit will not allow the command to be activated.
Example: in the case an error occurring in parameter 21, the display would present the following type of indication: 21 EE
“EE” indicates the presence of the error, the control unit will be locked until the correct value is restored; you must use the + and - buttons, selecting the numeric value appropriate to the installation, and then save it.
NOTE: in the case of an error in the parameter, the “extended numbering shown in the table in paragraph 4.6 is always displayed, even if the simplified method has been activated.

The following errors relating to motor control are also indicted:

OFSt calibration error (offset), system locked. Cut the power, wait 10” and then try again.

PrOt amperometric motor intervention. To start the motor, press the **TEST** button twice (unlocks protection) or give 3 motion commands where the third command starts the motors.

dAtA error in the data related to the length of the path or the mapping of the absorption of current; you will need to run a new program. It is possible to unlock the display in order to see the parameters by pressing the **TEST** key.

Mot1 Motor not detected
Mot2 (connect the cables to the motor)

4.4 Position recovery mode

When you see both wings close at a slower rate than usual and the flashing light is active in a different way than usual (Also the two doors close one at a time, first door 1 and then door 2), it means that the control unit is retrieving the references: in this situation you have to wait until the flashing has stopped to issue new

commands, as it is necessary to let the manoeuvre finish. If you do not let the manoeuvre finish, the movement of the wings will remain imprecise because the correct references on the fully opening and closing positions are not available. The only exception is given by the motor with articulated arm if it uses the opening limit switches: the activation of the limit switch enables instant recovery of door position.

During the repositioning manoeuvre the flashing is activated in a differentiated manner (3 seconds on, 1.5 seconds off) to highlight that this is a special manoeuvring stage: only when the flashing returns to normal will the control unit have recovered the position references. The repositioning manoeuvre is performed at low speeds, different from that set; in the case where the set speed is very low, then the repositioning is performed at that speed (without further decreases).

The loss of references is caused by a blackout or if the obstacle detection based on the current consumed by the motor is active three times at the sam point, thus indicating that there is a stable obstacle on the road.

4.5 Battery operation mode

If the battery kit is installed, in the absence of mains voltage, the operation is guaranteed by 24Vdc backup batteries that can be: 1200mAh if installed in the housing of the charger **(B71/BC/INT)** or 4500mAh if installed in a separate box **(B71/BC/EXT)**. The 4500mAh ones are preferred in the case of prolonged blackouts and when a remarkable number of manoeuvres is to be carried out.

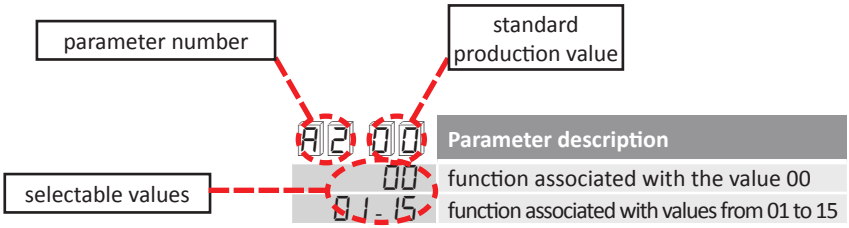
For best performance it is recommended to power the photocells (transmitter and receiver) and possibly other devices that do not activate the system (therefore excluding external radio receivers) by connecting their positive terminals to the **SC** terminal **(Figure 7)**. Set the parameter A803 (or A804 if you want to also include the photo-test). In this way, when the doors are fully open or fully closed and the battery is delivering current, power is cut to the devices connected to the SC terminal The battery operation is shown on the display by the message bAtt and by the occasional activation of the flashing light (saving consumption). At the drop of the battery voltage the speed of the doors decreases When the battery voltage drops below a minimum value for its integrity, the commands given to the control panel are no longer performed, and the display shows bt LO (Low battery); the function is restored when the mains voltage is back or in case of possible recovery of battery power, during the forced inactivity. Even if the phase shifts are disabled, at every movement command executed under backup power, a phase shift equal to 1.5” is performed. If the power failure occurs during the travel, a stop of engine can be generated, with automatic resume of motion after a stabilization break (2”).

4.6 Extended operation mode

N.B.: if you are only using the simplified mode the value of the invisible parameters - for a control unit leaving the factory, or after a reset of the standard parameters - this is the one shown next to the parameter, and is considered to be of greater usefulness in installations.

WARNING! Depending on the selected mode, some parameters may not be displayed, as they do not relate to the installation.

The table for the extended mode parameters is below. The standard production value is next to the parameter number.



A1 02	Motor model
01	piston BM20 BRUSHLESS
02	piston BR20 BRUSHLESS
03	articulated arms BH23 BRUSHLESS
04	underground motor BR21 BRUSHLESS
05	piston BE20 BRUSHLESS

NOTE: parameter C- in simplified mode
The correct selection of the motor is critical for proper operation of the automation; an incorrect setting of parameter A1 may prevent operation but also in certain not particularly onerous cases, create occasional malfunctions which are difficult to fathom.
So pay a lot of attention to the value of this parameter; and because of its importance, when doing a factory parameters restore this is the only parameter not to be changed.

A2 00	Automatic reclosing after the pause time
00	OFF (doesn't automatically relock)
01 - 15	NUMBER of reclosure attempts (interrupted by photocell) before finally staying open
99	try to close without limitation to the number of attempts

NOTE: parameter 1- in simple mode.
To enable automatic reclosing you must set this parameter to a different number from 00; only by parameter the value 99 will it always reclose after the pause time. However, if you set a number between 01 and 15, is the maximum number of attempts at reclosing carried out. For example, by setting the value 01, f a person crosses the ray of the reversal photocells when reclosing, the wings would re-open but would no longer close (only performs one reclosing attempt).
NOTA: the value of the parameter 49 is subordinate to that selected for parameter A2; parameter 49 has a maximum value equal to that of parameter A2.

A3 00	Reclosing after blackout
00	OFF (does not reclose when the power is restored)
01	ON (recloses when the power is restored)

NOTE: parameter 3- in simplified mode.
If this parameter is set to 01 the control unit, when on, performs the reclosing after a pre-flashing lasting 5 s (even if not enabled on parameter A5). This feature is useful when there is no longer the supply voltage during the reclosing because it guarantees that the gate is closed when the supply voltage is restored.
After the blackout the position of the wings is unknown, and if the phase shift in closure is enabled, reclosing takes place one wing at a time in "position recovery" mode.

A4 00	STEP-BY-STEP MODE (PP)
00	OPENS - STOPS - CLOSES - STOPS - OPENS
01	PP CONDOMINIUM, command PP refreshes the rest time from fully opened
02	PP CONDOMINIALE, command PP closes from fully opened
03	OPENS – CLOSES – OPENS - CLOSES
04	OPENS – CLOSES – STOPS – OPENS

NOTE: parameter 6- in simplified mode
Condominium means that the command PP is ignored when opening.
In installations where multiple users may arrive at the same time, and therefore trigger the radio control while the gate is operating, is useful to ensure the completion of the opening: it is possible to prevent two activations by different users from reversing the motion by closing the gate.
By setting the parameter to the value 01, if the gate is open, the activation of the step-by-step command does not perform a closure but restarts the count of the rest time.

A5 00	**Pre-flashing**
00	OFF (the flashing light is only on when there is movement)
01 - 10	DURATION IN SECONDS of the early activation of the flashing
99	not performed when opening; 5 seconds of pre-flashing when closing

NOTE: parameter 5- in simplified mode

A6 00	**Condominium function with PEDESTRIAN (PED)**
00	OFF (pedestrian control performs AP-ST-CH-ST-AP- …)
01	ON (pedestrian control operated when opening is ignored)

A7 00	**Man present**
00	OFF (the controls work normally)
01	ON (the gate only moves by holding down AP or CH)

The motors will only remain active in the presence of a continued command; only the commands AP and CH are enabled; the motors will stop upon release of the command.
The commands must be positioned so as to be able to check the movement of the gate.

A8 00	**Gate open light**
00	when the gate is closed the light is off, otherwise it is on
01	slow flashing when opening, quick when closing, fixed from fully open, turns off twice in succession every 15 seconds if the gate has stopped in the intermediate position
02	the **SC** output is used to supply power to the photocells and perform the test on them
03	The output **SC** in battery mode does not power the external loads when the doors are fully open or fully closed; in the presence of network voltage the output SC always supplies power
04	as for value 03, and in addition even the phototest function is run

11 04	**Incoming deceleration motor 1**
12 04	**Incoming deceleration motor 2**
01 - 05	deceleration duration (1 = rapid deceleration … 5 = slow deceleration)

Can be set separately for both motors, thus adapting the control to the mechanical situation; however you should always make sure the choice is appropriate, and does not cause wings which may have had a phase shift to overlap.
A low value (01) involves quick deceleration, just before reaching the limit switch, a high value (05) will start the slowdown very much in advance.
NOTE: these parameters can be changed even after you have programmed the stroke.

13 05	**Tolerance of the position in which wing 1 is considered fully open or closed**
14 05	**Tolerance of the position in which wing 2 is considered fully open or closed**
01 - 10	rpm

Establishes the maximum tolerance in the control of the position of full opening and closing (where the motor has stopped due to “position reached” or due to impact on the gate stop, or due to activation of the limit switch on a motor with an articulated arm). Too narrow a parameter is likely to cause the reversal of the motion when the wing arrives at the gate stop.
WARNING! If you have installed the mechanical closure stop by fixing it to the ground, you should properly adjust the stop inside the BR21 motor. When the door reaches the fully closed position, the gear lever must be able to move only a few millimeters.

15 99	**Pedestrian stroke length**
01-99	PERCENTAGE of the total stroke

As a production standard on a double wing it fully opens wing 1. In the case of a single wing the standard value is 50.

19 00	**Advance for stop during motor 1 opening**
20 00	**Advance for stop during motor 2 opening**
00	the door always comes to rest on the opening line
01- 15	number of advance engine rpm for stopping the engine, before complete opening

NOTE: it is always necessary to have the opening line, or the limit switch (because it is sought during the repositioning phase)

21 30	**Pause time for automatic reclosing**
00-90	SECONDS
92-99	from 2 to 9 MINUTES

NOTE: parameter 2- in simplified mode.
When one of the photocells is obscured the timer is reset and the count restarts upon the return of the safety protection at pause.

25 03	**Phase shift when opening (for motor 2)**
00- 10	SECONDS

26 05	**Phase shift when closing (for motor 1)**
00-30	SECONDS

NOTE: parameter 4- in simplified mode .

27 03	**Time taken to move back after the intervention of the safety edge or the anti-crushing protection**
00-60	SECONDS

Establishes how many seconds the reversal operation on obstacle lasts; set to a value high enough to reach the opening limit switch it also performs automatic reclosing according to parameter 49.

29 01	**Electric lock**
00	DEACTIVATED
01	ENABLED

Activation occurs 0.5 seconds before the start of the movement and lasts 3 seconds.
The controller takes into account when door 1 is approaching the closure stop, and helps the electric lock to hook. WARNING! For proper operation, adjust the mechanical stop inside the BR21 motor carefully (see also Note 13 and 14 relating to the parameters).

30 05	Fine adjustment of the impact forces (combined with par. 31 and 32)
01-09	motor torque reduction 1 = -8%, 2 = -6%, 3 = -4%, 4 = -2% 5 = the motor torque is at the factory setting motor torque increase 6 = +2%, 7 = +4%, 8 = +6%, 9 = +8%

NOTE: increasing / decreasing the parameter increases / decreases the nominal torque of the motors, and accordingly adjusts the force of impact. During the path program the controller stores the consumption of current of the motors, and uses this information to always give a margin more than what is needed for the actual path. However, this margin is reduced to 0 if you set parameter 30 to 01. The value 01 is therefore to be used only for particularly light installations that are not affected by environmental effects such as strong winds or particularly cold weather.
ATTENTION! For gates with very different lengths, you can separately adjust the impact force: to do this, you need to set par.33 at a different value than 10. By doing so, par.30 only adjusts motor 1, while the impact force of motor 2 adjusts using par.33.

31 15	Impact force level motor 1
32 15	Impact force level motor 2
01-10	low torque motor : 1 minimum impact force ... 10 maximum impact force
11-19	medium torque motor : 11 minimum impact force ... 19 maximum impact force
20	Maximun torque motor : without any adjustment of the anti-crushing protection

NOTE: parameter 9- and A- in simplified mode
In order to fall within the limits of impact forces, usually use the values from 11 to 19; the check is to be performed at each installation. The values from 01 to 10 are to be used only in case the values 11- 19 are not adequate. The value 20 should be used only in the presence of sensitive edges.
Low and medium motor torque values can be set using parameter 30: if the setting of parameters 31 and 32 causes the impact to be too hard, try decreasing parameter 30 (and, if necessary, if separate adjustment is chosen for the two motors, also on par.33). If the reaction time is however too long, reduce the value of parameter 31 for door 1 (or parameter 32, for door 2).

33 10	Impact force separate adjustment motor 2
01-09	motor torque reduction: 1 = -35%, 2 = -25%, 3 = -16%, 4 = -8% 5 = the motor torque is that of the factory motor torque increase: 6 = +8%, 7 = +16%, 8 = +25%, 9 = +35%
10	the torque of both motors is determined by parameter 30

Value 10 establishes there is a unique identical adjustment for motor 1 and 2 (determined by par.30); instead, if you want to adjust the impact force separately for the two motors, you need to set par.33 with a different lesser value of 10.
In this case, the par.33 function is identical to that described for par.30, but is only limited to motor 2.

34 08	Acceleration when starting motor 1
35 08	Acceleration when starting motor 2
01-10	1 = quick start … 10 = very slow start

Can be set separately for both motors, thus adapting the control to the mechanical situation; however you should always make sure the choice is appropriate, and does not cause wings which may have had a phase shift to overlap.
A low value (01) involves rapid acceleration, while a high value (10) means reaching the operating speed more slowly, thus allowing a more gentle and gradual start of the wing.
NOTE: these parameters can be changed even after you have programmed the stroke.

38 00	Pressure surge
00	ENABLE
01	DISABLE

Enabled in order to facilitate the release of the electric lock, which could be hindered by the leafs that press on the coupling point (for example, due to the wind): the opening operation is preceded by a short closing for no more than 4 seconds.
Enabling the pressure surge also automatically enables the electric lock.
The pressure surge is only performed when starting from the fully closed position, every opening operation is performed until the position of the wings is known by carrying out a closing movement for 1.5" before opening.

40 05	Rated speed
01-05	1 = minimum speed ... 5 = maximum speed

The values 01 - 02 - 03 - 04 - 05 respectively correspond 60%, 70%, 80%, 90% e 100% of the maximum speed.

49 00	Automatic reclosing attempts after safety edge or the anti-crushing protection intervention
00	does not automatically reclose after the safety edge or the anti-crushing protection intervention
01-03	number of attempts at reclosing

If the value exceeds that of parameter A2, it will be automatically considered to be equal to that of parameter A2. Only recloses after the impact if it is moved back until fully open (check the value of parameter 27).

50 00	Mode if photocell FT1 is interrupted when opening
00	IGNORE, no action or FT1 not installed
01	STOP, the gate remains stationary until the next command
02	REVERSE IMMEDIATELY, thus closing
03	TEMPORARILY STOP, the beam released, it continues to open
04	INVERT WHEN RELEASED, the beam released, it reverses thus closing

51 02	Mode if photocell FT1 is interrupted when closing
00	IGNORE, no action or FT1 not installed
01	STOP, the gate remains stationary until the next command
02	REVERSE IMMEDIATELY, thus closing
03	TEMPORARILY STOP, the beam released, it continues to open
04	INVERT WHEN RELEASED, the beam released, it reverses thus closing

52 01	With the gate closed permits opening with FT1 obscured
00	does not permit opening
01	permits opening
02	OPENS WHEN IT IS OBSCURED

53 03	Mode if photocell FT2 is interrupted when opening
00	IGNORE, no action or FT2 not installed
01	STOP, the gate remains stationary until the next command
02	REVERSE IMMEDIATELY, thus closing
03	TEMPORARILY STOP, the beam released, it continues to open
04	INVERT WHEN RELEASED, the beam released, it reverses thus closing

S4 04	Mode if photocell FT2 is interrupted when closing
00	IGNORE, no action or FT2 not installed
01	STOP, the gate remains stationary until the next command
02	REVERSE IMMEDIATELY, thus closing
03	TEMPORARILY STOP, the beam released, it continues to open
04	INVERT WHEN RELEASED, the beam released, it reverses thus closing

S5 01	With the gate closed it permits opening with FT2 obscured
00	does not permit opening
01	permits opening
02	OPENS WHEN IT IS OBSCURED

S6 00	With the gate completely open, recloses 6 seconds after photocell interruption
00	OFF (photocell interruption does nothing)
01	the interruption of FT1 causes the closure
02	the interruption of FT2 causes the closure

NOTE: the parameter is not visible if you set parameter A8 to 03 or 04.

65 05	Stop space when braking
01-05	1 = quick brake/minimum stopping distance … 5 = gentle braking

70 02	Number of motors
01	1 MOTOR
02	2 MOTORS

NOTE: parameter 0- in simplified mode.

72 00	Limit switch enabling
00	no limit switch connected
01	opening limit switch connected

NOTE: parameter 8- in simplified mode,
Visible only if you set A1 03.

73 03	Safety edge 1 configuration
00	NOT PRESENT
01	SWITCH, only reverses when opening
02	8k2, only reverses when opening
03	SWITCH, always reverses
04	8k2, always reverses

74 01	Safety edge 2 configuration
00	NOT PRESENT
01	SWITCH, only reverses when closing
02	8k2, only reverses when closing
03	SWITCH, always reverses
04	8k2, always reverses

If you choose A103 and 7201 the parameter is not displayed: COS2 is not managed as a safety protection and it uses input INP2 (terminal block no.20) for limit switch opening wing 2.

76 00	1st radio channel configuration
77 01	2nd radio channel configuration
00	PP
01	PEDESTRIAN
02	OPEN
03	CLOSE
04	STOP
05	COURTESY the relay is only driven by the radio, it is deactivated in normal operation
06	COURTESY PP (turn light on-off) the relay is only driven by the radio, it is deactivated in normal operation
07	PP with safety confirmation (via radio function no. 2)
08	PEDESTRIAN with safety confirmation (via radio function no. 2)
09	OPEN with safety confirmation (via radio function no. 2)
10	CLOSE with safety confirmation (via radio function no. 2)

Activation of the radio control with confirmation (programming with values 07 - 08 - 09 - 10)
The radio control with the confirmation of the request is used to prevent the incorrect pressure on a button of the remote control being able to activate the automation; this feature is enabled so that it is free and independent for both functions PR1 and PR2 available on the receiver coupling.

Example: programming 7607 and 7701, with the CHA button of the remote control stored under function 1 of the radio and the CHB button of the remote control stored under function 2 of the radio, activating the CHA button starts a countdown, and only if, the CHB button is activated within a period of 2" then the "step-by-step" command is actually executed. On the other hand, if CHB is activated the pedestrian control opening is immediately activated.

7800	Flashing configuration
00	FIXED (the intermittent operation is carried out by the electronics of the flashing)
01	slow intermittent activation
02	slow intermittent activation when opening; quick intermittent activation when closing

NOTE: parameter 7- in simplified mode
The flashing starts when there is a movement phase; you can have continued activation (for flashing lights with electronics timed on-board) or controlled directly by the control unit (for flashing lights with a simple lamp).

79 60	Duration courtesy light
00	OFF (deactivated)
01	PULSE (brief activation at the start of each operation)
02	ACTIVE DURING THE ENTIRE OPERATION
03 - 90	SECONDS OF ILLUMINATION AFTER THE END OF THE OPERATION
92 - 99	FROM 2 TO 9 MINUTES AFTER THE END OF THE OPERATION

80 00	**Clock configuration**
00	When the clock input is closed (ORO) it opens and then ignores all the commands
01	When the clock input is closed (ORO) it opens and accepts all the commands

If you choose par. A103 and 7201 the parameter is not displayed.

81 00	**Closure enabling guaranteed**
00	DEACTIVATED (NOTE: as a result par 82 is not displayed)
01	ENABLED

Enabled when you want the wings to never remain open in unexpected situations; for example for an activation not due to a step-by-step command keeping away from the gate while it was closing, or due to a strong gust of wind which activates the anti-crushing protection, the gates would remain open while waiting for a new command.
After a time set by parameter 82 the control unit activates a pre-flashing of 5" (even if not enabled from par. A5) and then by a closing command.
The function will only be able to intervene if a STOP command has been given (from the push-button pad) or the safety edge has intervened and the number set by parameter A2, has been exceeded, or control of the position has been lost (needs to be repositioned).

82 01	**Waiting time to activate the closure guaranteed**
01 - 90	SECONDS
92 - 99	from 2 to 9 MINUTES

90 00	**Restoring standard factory values**

After having displayed the number 90, press the + and - buttons simultaneously for 4 seconds, the display shows rES- flashing which signals a standard factory values reset has taken place (indicated next to the parameter numbers).
WARNING! A1 is not restored.
WARNING! After the reset, check that the parameters are adjusted to the type of installation.

n0 01	**Version HW**
n1 23	**Year of manufacture**
n2 45	**Week of manufacture**
n3 67	**Serial number**
n4 89	
n5 01	
n6 23	**FW version**

The serial number is obtained by combining the values of the parameters from n0 to n6. For example this table shows the values (next to the parameters, they are not default values) from which you get the serial number 01 23 45 67 89 01 23.

o0 01	**Operations performed**
o1 23	

The number of operations performed is obtained by combining the values of the parameters from o0 to o1 and by adding 2 zeros. For example this table shows the values next to the parameters (they are not default values) from which you get the number 01 23 00, i.e. 12300 operations.

h0 01
h1 23

Manoeuvre hours performed

The number of manoeuvre hours performed is obtained by combining the values of the parameters from h0 to h1. For example this table shows the values next to the parameters (they are not default values) from which you get the number 01 23 i.e. manoeuvre hours.

d0 01
d1 23

Days the control unit is on

The number of days the control unit is on is obtained by combining the values of the parameters from d0 to d1. For example this table shows the values next to the parameters (they are not default values) from which you get the number 01 23 i.e. 123 days of the control unit being on.

P1 00
P2 00
P3 00
P4 00

Password

CP 00

Change password

Storing a password enables the data to be protected in the memory, only allowing those who know it to change its value. The procedure for entering the password is as follows:

- enter the eight numbers chosen for the password in parameters P1, P2, P3 e P4
- view parameter CP: on the display: simultaneously press and hold the + and - buttons for 4 seconds. When the display flashes it means that the new parameter has been saved.

The protection is activated immediately after turning the control unit off and on again or after 30 minutes of inactivity when the display switches to standby mode.

WARNING! When password protection is enabled, the + and - buttons do not allow the value of a parameter to be changed and the parameter CP has value 01.

Unlocking parameters procedure (temporary): enter the password previously stored in parameters P1, P2, P3 e P4 then view parameter CP n the display and check that its value is 00 (protection deactivated).

You can only delete the password if you know it, by proceeding as follows: enter the password, then store the password P100, P200, P300, P400, remembering to confirm it with parameter CP.

If you have forgotten your password, you can unlock the control unit by contacting support.

5 Inspection

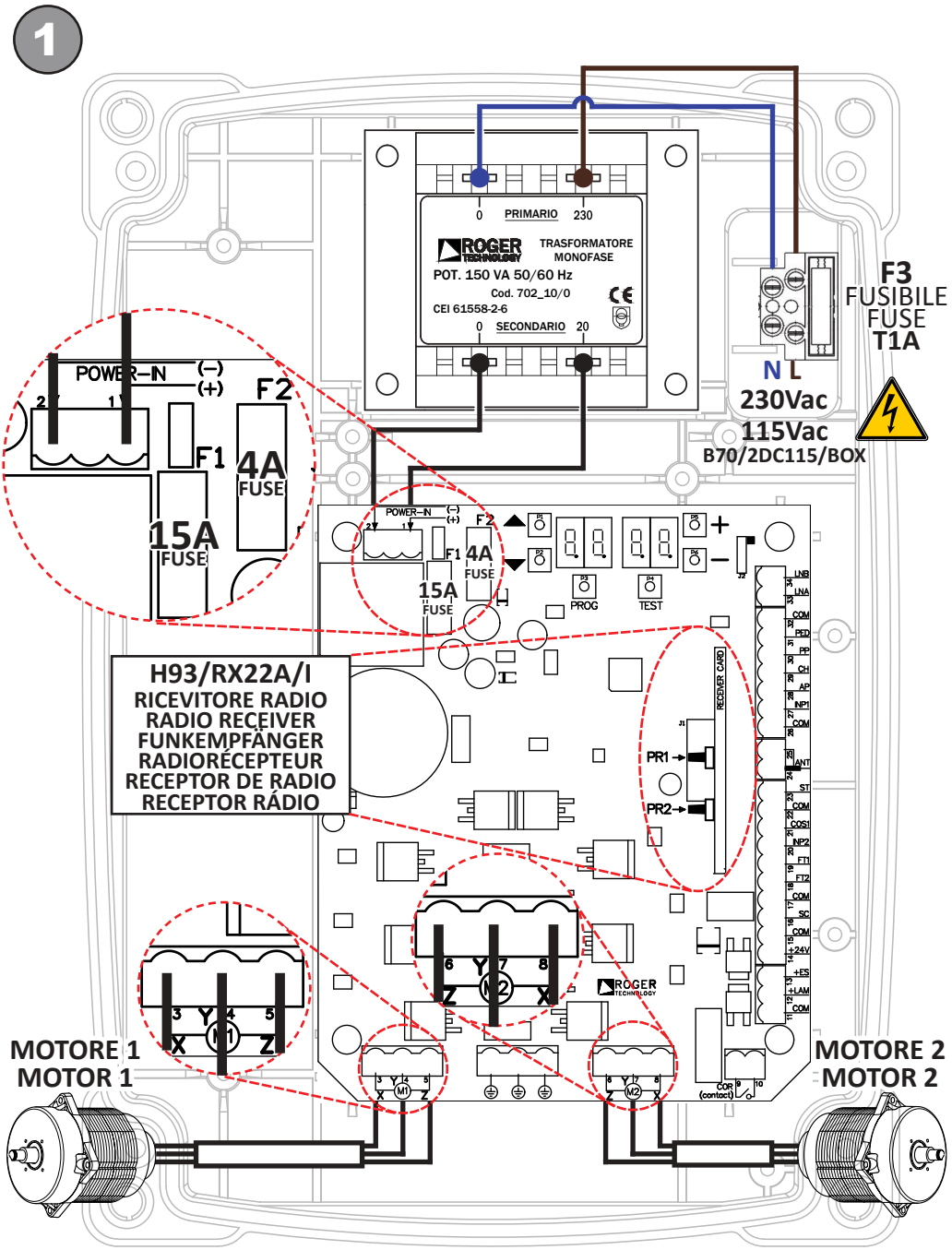
Check the response to all of the commands connected.
Check the stroke and the slowdowns.
Check the impact forces.
Check the behaviour when the safety protections intervene.When the anti-crushing protection is checked be sure to move away from the limit switch or obstacles which increase the risk of crushing.
If the battery kit is installed: disconnect the mains power supply and check the battery operation. Remove the mains supply (and disconnect the battery), power on again and check that proper repositioning is completed.

6 Maintenance

Perform scheduled maintenance every 6 months by checking the condition of cleanliness and operation. If there is dirt, moisture, insects or other items, cut the power and clean the card and the container. Perform the inspection procedure again.
In the case of noticing oxide on the printed circuit consider replacing it.
Check the battery charge by performing a complete operation and measuring the voltage at its terminals.

7 Disposal

The product must always be uninstalled by qualified personnel using the appropriate procedures for the correct removal of the product.
This product comprises various types of materials, some can be recycled others must be disposed of through recycling or disposal systems provided by local regulations for this product category.
This product may not be disposed of in household rubbish. Perform a separate collection for disposal according to the methods provided by local regulations; or by returning the product to the seller when purchasing a new equivalent product.
Local regulations may include severe penalties in the event of improper disposal of this product
Warning: some parts of the product may contain toxic or hazardous substances, if dispersed they could cause harmful effects to the environment and human health.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FUSIBILE
FUSE
T1A
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115Vac
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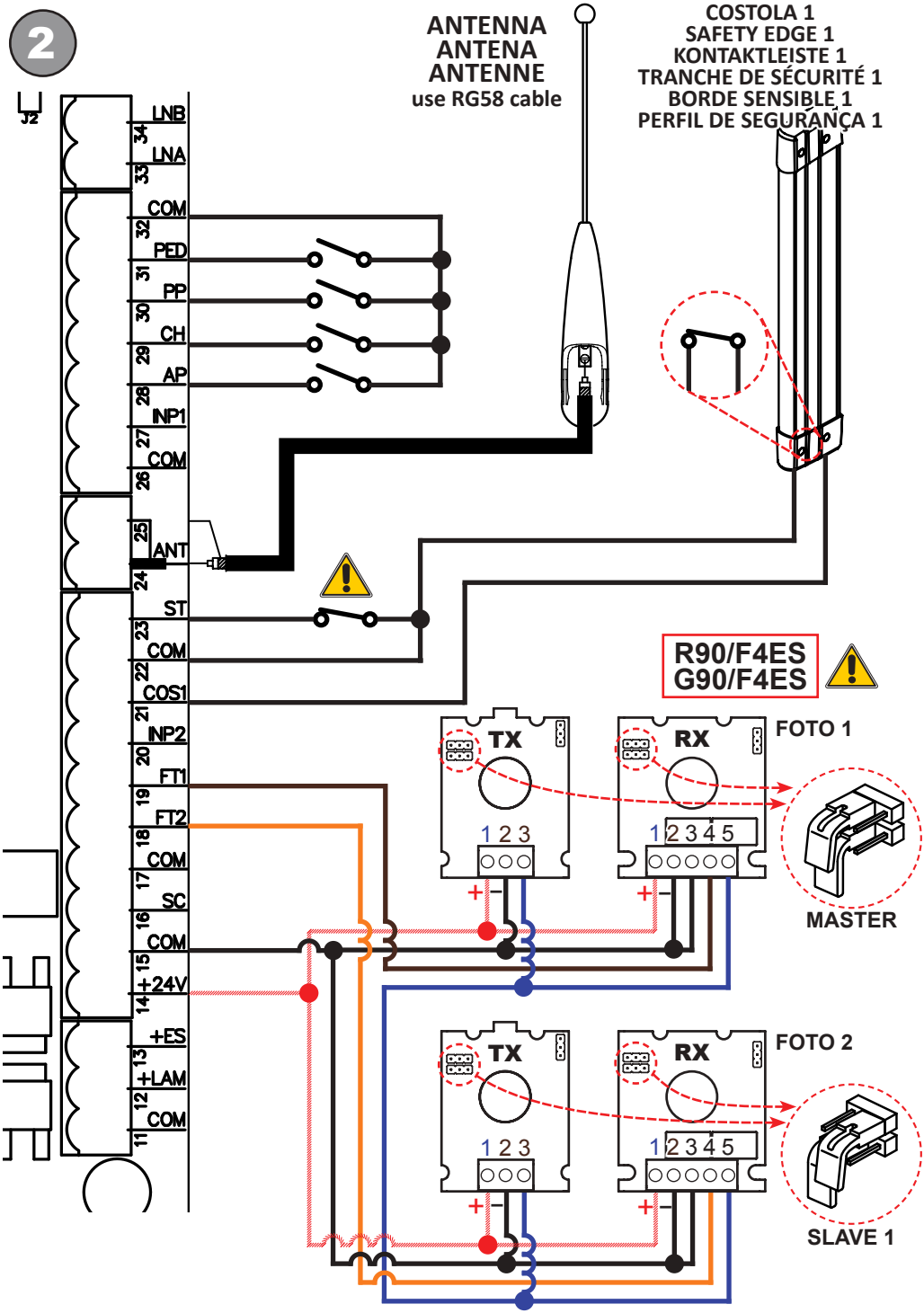
POWER-IN
(-)
(+)
F2
4A
FUSE
F1
15A
FUSE
H93/RX22A/I
RICEVITORE RADIO
RADIO RECEIVER
FUNKEMPFÄNGER
RADIORÉCEPTEUR
RECEPTOR DE RADIO
RECEPTOR RÁDIO
PROG
TEST
RECEIVER CARD
PR1
PR2
MOTORE 1
MOTOR 1
MOTORE 2
MOTOR 2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LNB
LNA
COM
PED
PP
CH
AP
INP1
COM
ANT
ST
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COS1
INP2
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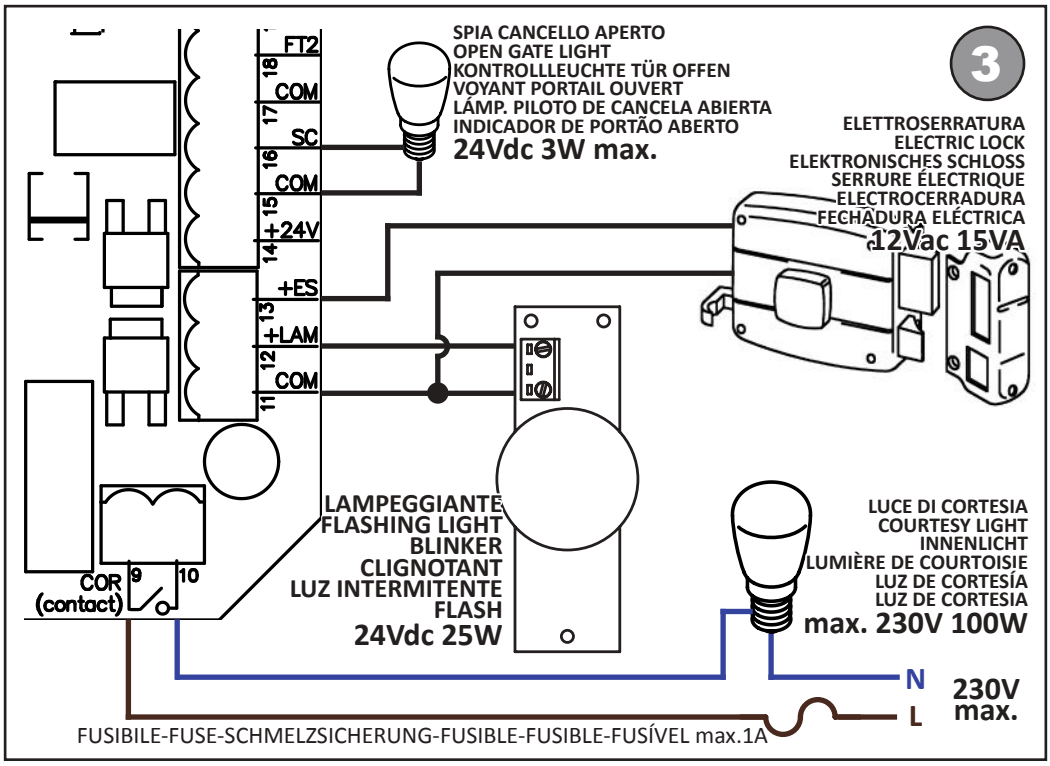
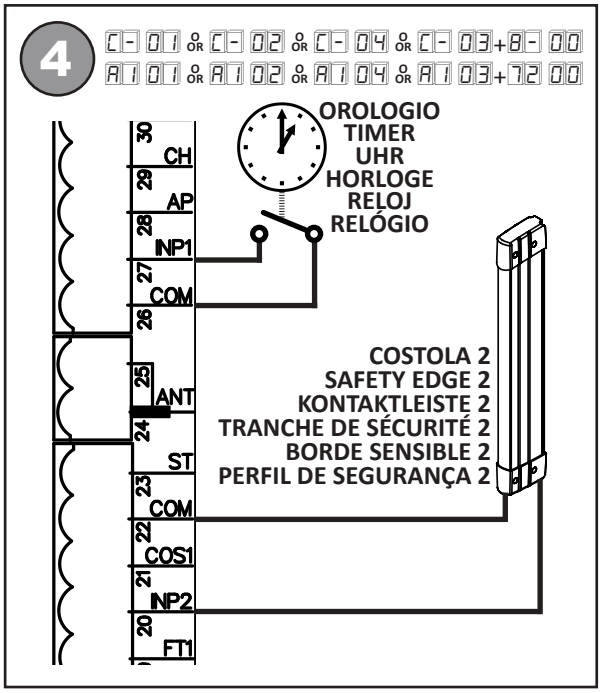
FT2
COM
SC
COM
+24V
+ES
+LAM
COM
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
ANTENNA
ANTENA
ANTENNE
use RG58 cable
COSTOLA 1
SAFETY EDGE 1
KONTAKTLEISTE 1
TRANCHE DE SÉCURITÉ 1
BORDE SENSIBLE 1
PERFIL DE SEGURANÇA 1
R90/F4ES
G90/F4ES
TX
RX
1 2 3
1 2 3 4 5
FOTO 1
MASTER
FOTO 2
SLAVE 1


3
SPIA CANCELLO APERTO
OPEN GATE LIGHT
KONTROLLLEUCHTE TÜR OFFEN
VOYANT PORTAIL OUVERT
LÁMP. PILOTO DE CANCELA ABIERTA
INDICADOR DE PORTÃO ABERTO
24Vdc 3W max.
ELETTROSERRATURA
ELECTRIC LOCK
ELEKTRONISCHES SCHLOSS
SERRURE ÉLECTRIQUE
ELECTROCERRADURA
FECHADURA ELÉCTRICA
12Vac 15VA
FT2
COM
SC
COM
+24V
+ES
+LAM
COM
18
17
16
15
14
13
12
11
LAMPEGGIANTE
FLASHING LIGHT
BLINKER
CLIGNOTANT
LUZ INTERMITENTE
FLASH
24Vdc 25W
LUCE DI CORTESIA
COURTESY LIGHT
INNENLICHT
LUMIÈRE DE COURTOISIE
LUZ DE CORTESÍA
LUZ DE CORTESIA
max. 230V 100W
COR
(contact)
9
10
N
L
230V
max.
FUSIBILE-FUSE-SCHMELZSICHERUNG-FUSIBLE-FUSIBLE-FUSÍVEL max.1A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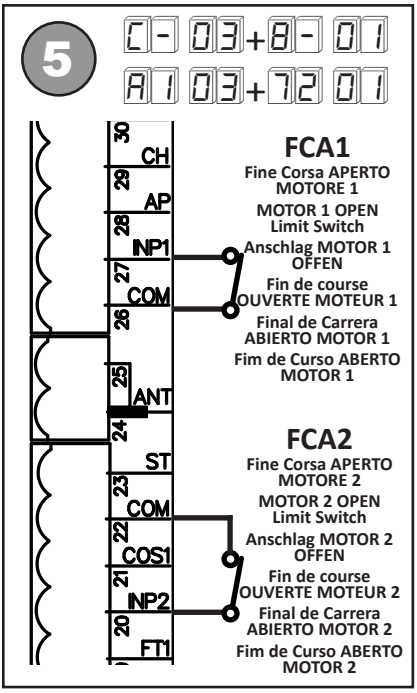
C- 01 OR C- 02 OR C- 04 OR C- 03+8- 00
A1 01 OR A1 02 OR A1 04 OR A1 03+72 00
OROLOGIO
TIMER
UHR
HORLOGE
RELOJ
RELÓGIO
30
CH
29
AP
28
INP1
27
COM
26
25
ANT
24
ST
23
COM
22
COS1
21
INP2
20
FT1
COSTOLA 2
SAFETY EDGE 2
KONTAKTLEISTE 2
TRANCHE DE SÉCURITÉ 2
BORDE SENSIBLE 2
PERFIL DE SEGURANÇA 2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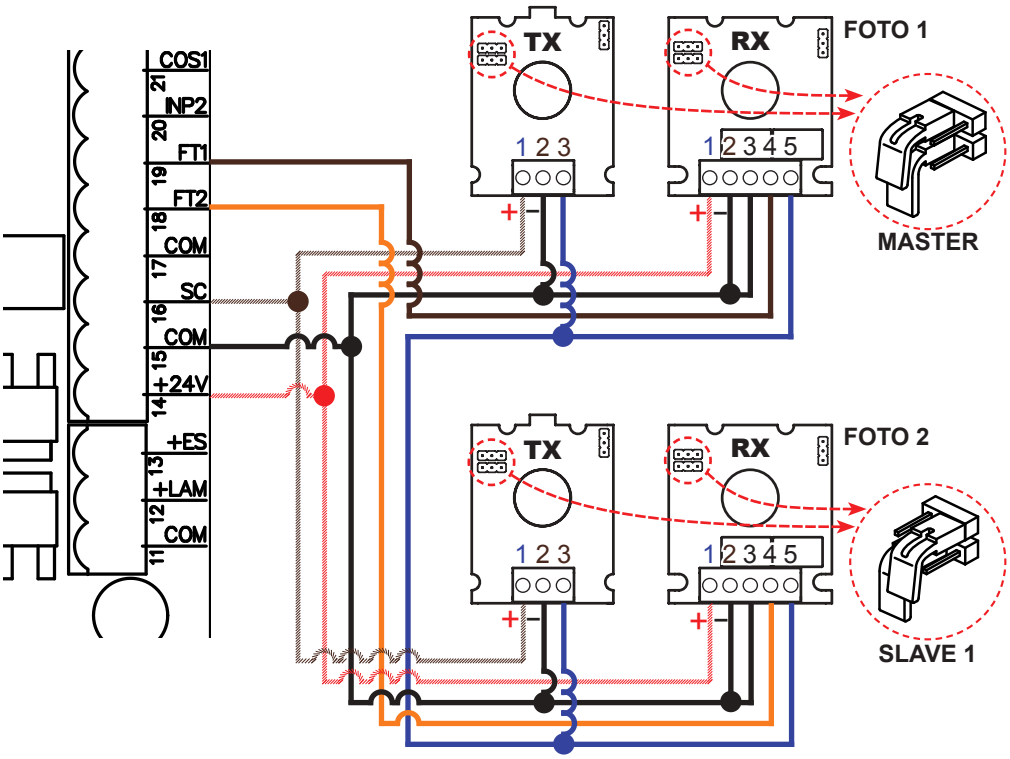
C- 03+8- 01
A1 03+72 01
FCA1
Fine Corsa APERTO
MOTORE 1
MOTOR 1 OPEN
Limit Switch
Anschlag MOTOR 1
OFFEN
Fin de course
OUVERTE MOTEUR 1
Final de Carrera
ABIERTO MOTOR 1
Fim de Curso ABERTO
MOTOR 1
FCA2
Fine Corsa APERTO
MOTORE 2
MOTOR 2 OPEN
Limit Switch
Anschlag MOTOR 2
OFFEN
Fin de course
OUVERTE MOTEUR 2
Final de Carrera
ABIERTO MOTOR 2
Fim de Curso ABERTO
MOTOR 2

6 AB 02 FOTO TEST

R90/F4ES
G90/F4ES

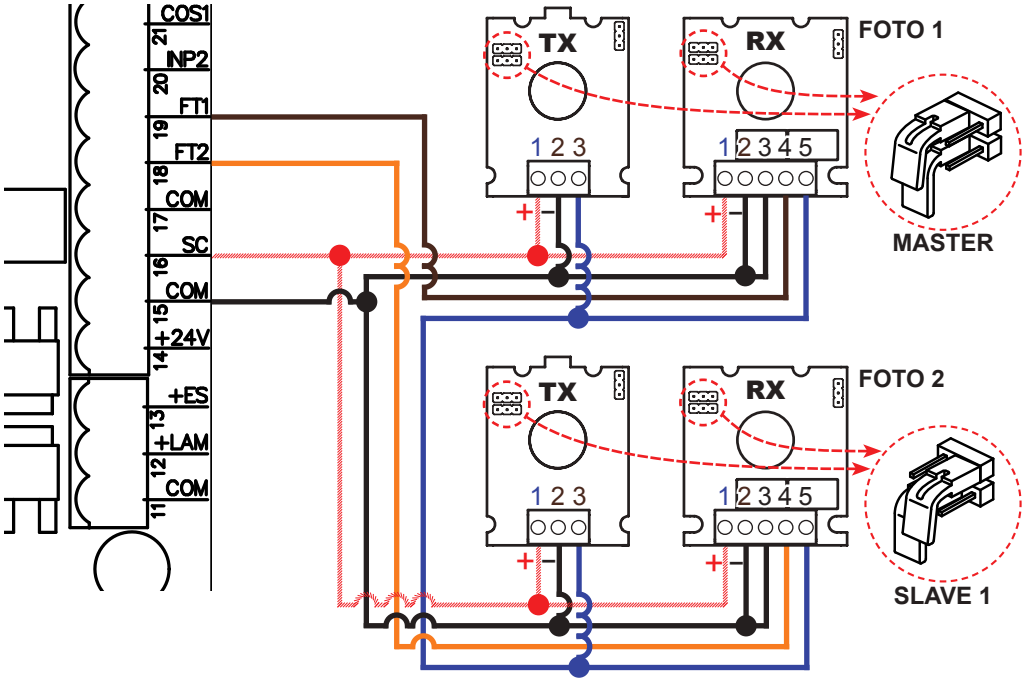


7

A8 03 BATTERY SAVING

A8 04 BATTERY SAVING + FOTO TEST

R90/F4ES
G90/F4ES



DICHIARAZIONE DI CONFORMITA'

Il sottoscritto, rappresentante il seguente costruttore
Roger Technology
Via Botticelli 8
31020 Bonisiolo di Mogliano V.to (TV)
DICHIARA che l'apparecchiatura descritta in appresso:
Descrizione: Centrale di controllo per cancelli automatici
Modello: B70/2DC
È conforme alle disposizioni legislative che traspongono le seguenti direttive:
- 2006/42/CE
- 2004/108/CE
- 2011/65/CEE

che sono state applicate tutte le norme e/o specifiche tecniche di seguito indicate:
EN 61000-6-3
EN 61000-6-2
Ultime due cifre dell'anno in cui è stata affissa la marcatura CE 13.
Luogo: Mogliano V.to
Data: 04-02-2013 Firma

DECLARATION OF CONFORMITY

The undersigned, representing the following manufacturer
Roger Technology
Via Botticelli 8
31020 Bonisiolo di Mogliano V.to (TV)
DECLARES that the equipment described below:
Description: Automatic gates control board
Model: B70/2DC
Is in conformity with the legislative provisions that transpose the following directives:
- 2006/42/CE
- 2004/108/CE
- 2011/65/CEE

And has been designed and manufactured to all the following standards or technical specifications
EN 61000-6-3
EN 61000-6-2
Last two figures of the year in which the CE mark was affixed is 13.
Place: Mogliano V.to
Date: 04-02-2013 Signature

KONFORMITÄTSERKLÄRUNG

Der Unterzeichnete, Vertreter des folgenden Herstellers
Roger Technology
Via Botticelli 8
31020 Bonisiolo di Mogliano V.to (TV)
ERKLÄRT, dass die im Folgenden beschriebene Anlage:
Beschreibung: Kontrollsteuerung für automatische Türen
Modell: B70/2DC
Den gesetzlichen Anforderungen folgender Richtlinien entspricht:
- 2006/42/CE
- 2004/108/CE
- 2011/65/CEE

Alle im Folgenden aufgeführten Normen und/oder Spezifikationen wurden angewendet:
EN 61000-6-3
EN 61000-6-2
Die letzten beiden Ziffern des Jahres, in dem die Markierung angebracht wurde CE 13.
Ort: Mogliano V.to
Datum: 04.02.013 Unterschrift

DÉCLARATION DE CONFORMITÉ

Le soussigné, représentant le fabricant suivant
Roger Technology
Via Botticelli 8
31020 Bonisiolo di Mogliano V.to (TV)
DÉCLARE que l'appareil décrit ci-après:
Description: Centrale de commande pour portails automatiques
Modèle: B70/2DC
est conforme aux dispositions législatives qui transposent les directives suivantes:
- 2006/42/CE
- 2004/108/CE
- 2011/65/CEE

et qu'ont été appliquées toutes les normes ou spécifications techniques indiquées ci-après:
EN 61000-6-3
EN 61000-6-2
Les deux derniers chiffres de l'année au cours de laquelle le marquage a été apposé CE 13.
Lieu: Mogliano V.to
Date: 04-02-2013 Signature

DECLARACIÓN DE CONFORMIDAD

Quien suscribe, en calidad de representante del fabricante
Roger Technology
Via Botticelli 8
31020 Bonisiolo di Mogliano V.to (TV)
DECLARA que el equipo que se describe a continuación:
Descripción: Central de mando para cancelas automáticas
Modelo: B70/2DC
Cumple con las disposiciones legales de las siguientes directivas:
- 2006/42/CE
- 2004/108/CE
- 2011/65/CEE

Y que se aplicaron todas las normas y/o especificaciones técnicas que se indican a continuación:
EN 61000-6-3
EN 61000-6-2
Últimos dos dígitos del año en el cual se colocó el marcado CE 13.
Lugar: Mogliano V.to
Fecha: 04-02-2013 Firma

DECLARAÇÃO DE CONFORMIDADE

O abaixo assinado, representante do seguinte construtor
Roger Technology
Via Botticelli 8
31020 Bonisiolo di Mogliano V.to (TV)
DECLARA que o equipamento descrito abaixo:
Descrição: Unidade de controlo para portões automáticos
Modelo: B70/2DC
Está conforme as disposições legislativas que transpõem as seguintes directivas:
- 2006/42/CE
- 2004/108/CE
- 2011/65/CEE

E que foram aplicadas todas as normas e/ou especificações técnicas a seguir indicadas:
EN 61000-6-3
EN 61000-6-2
Últimos dois dígitos do ano em que foi publicada a marcação CE 13.
Local: Mogliano V.to
Data: 04-02-2013 Assinatura

ROGER TECHNOLOGY
automazioni evolute

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