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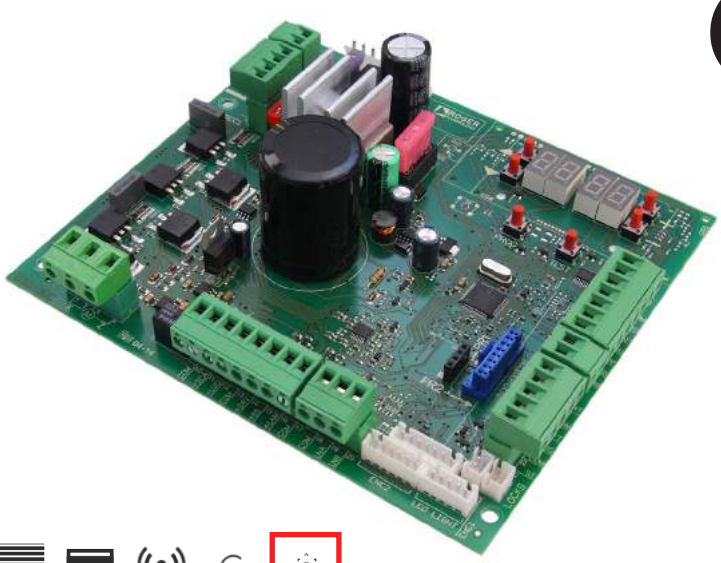


ROGER BRUSHLESS

centrale di comando AG/CTRL per 1 motore barriera elettromeccanica AGILIK

ROGER TECHNOLOGY
automazioni evolute

INDEX PARAMETER ADVANCED SETUP MODE

CONTENTS Page

1 Introduction to instructions and warnings

This manual is intended only for qualified technical staff authorized to install the machine.
The informations in this manual are not intended for the final user.
This manual refers to AG/CTRL control units for automation made of a ROGER AGILIK barrier; it should not be used for other devices.

Danger of Electric shock

WARNINGS

Carefully read this section before installing the machine.

In order to avoid risk of electrocution and physical injuries, before performing any operation on the device, please cut off the power supply.
The machine must be installed only by qualified staff, following the laws in force.
Perform the connections using appropriate cables for the required current and voltage, respecting the technical features of the product. Check the compliance of the grounding system and the continuity between the grounding of the motor and the terminal of the control unit.

2 Product description

AG/CTRL control unit enables automation control by means of two high resolution magnetic encoders: encoder 1 mounted on the rear side of the brushless motor and controls the motor, while encoder 2 is mounted on the side of the gear reducer controls the position of the barrier, even when is set to manual mode; digital signal generation ensures high performance, reliability and intensive use. The cover cap is suitable for the installation of a double LED signalling system, consisting of a MASTER board and a SLAVE board; it can be configured as either flashing or - alternatively - as semaphore signalling (in this case the flashing system should be installed externally).

It is also possible to install the lights on the barrier, the photocells, a safety edge, keyboards, key selectors, an external flash, a radio receiver, a led that indicates the open/closed status, an electric locking system and a clock.
There are two configuration levels: a simple one that satisfies the majority of the installations and an extended one (advanced level) where the automation can be customised.

3 Technical features

SUPPLY VOLTAGE:	230Vac ± 10% 50Hz
MAXIMUM POWER ABSORBED BY THE NETWORK	270W
NUMBER OF MOTORS THAT CAN BE CONNECTED	1
MOTOR POWER SUPPLY	36Vac
TYPE OF MOTOR	sinusoidal brushless (ROGER BRUSHLESS)
TYPE OF MOTOR CONTROL	"sensored" with field orientation (FOC)
MAXIMUM MOTOR POWER	130W
MAXIMUM EXTERNAL FLASHING LIGHT RATING	5W 24Vdc (model R92/LED24 ROGER)
MAXIMUM BARRIER LIGHTS rating	12W 24Vdc
MAXIMUM ELECTRIC LOCKING SYSTEM RATING	10W 12Vdc
MAXIMUM LIGHT SIGNALLING RATING	3W 24Vdc
ACCESSORIES POWER OUTPUT	10W 24Vdc
OPERATING TEMPERATURE	-20°C … +55°C
PROTECTION RATING	IP4X
PRODUCT SIZE	size in mm. 166x150x48 Weight: 0,254 Kg

4 Connections and fuses description

Figure 1 shows the position of the board inside the unit, the power supply connection and the fuses.
The supply terminal is provided with a 5x20mm delayed-action fuse of 1A 250V (T1A), **F4**, that protects the main circuit of the transformer.
The board is equipped with 3 automotive-type blade fuses (ATO257):

F1 10A, for the protection of the power circuit
F2 4A, for the protection of the electric locking system
F3 3A, for the protection of the control logic and of the peripheral devices

Figures 2,**3** and **4** indicate the connections of the inputs and of the outputs. The description of each terminal can be found below:

1 **BATTERY+**, positive terminal of the 24V battery
2 **BATTERY-**, negative terminal of the 24V battery
3,4 **SEC2**, secondary circuit of the transformer for logic and peripheral devices supply (19Vac)
5,6 **SEC1**, secondary circuit of the transformer for motor supply (26Vac)
7,8,9 Phases **X,Y,Z** motor Roger Brushless
10 **COM**, common terminal for low voltage inputs and outputs
11 **+SC**, "open/closed" led (24Vdc, 3W); optional, to this terminal can also be connected the supply cable of the photocells TX (only after setting the parameter A B 0 2, on "extended" mode) so that the "test photocell" function is enabled; as an alternative, by connecting both TX and RX of the photocells to this terminal and setting par. A B 0 3 or 0 4 with battery supply, you can obtain the shut-down of the photocells when the barrier is completely closed or opened (par. A B 0 4 also enables the photo-test)
12 **+LUCI,** signalling lights on the bar (+24Vdc), optional
13 **COM**, common terminal for low voltage inputs and outputs
14 **+24V**, power supply for external devices maximum 10W
15 **+ES**, electric locking system (+12Vdc): max.10W
16 **+LAM**, external flashing light (+24Vdc): max.5W
17,18 **COM**, common terminal for low voltage inputs and output
21 **ST**, STOP command (contact N.C.) [(a)]
22 **COM**, common terminal for low voltage inputs and output
23 **COS**, anti-crushing safety edge (NC contact, or 8.2kOhm) [(a)]
24 **FT**, photocell (NC contact) [(a)]
25 **COM**, common terminal for low voltage inputs and output
26 **ANT**, antenna pole for plug-in radio receiver (if using an external antenna, connect it with the RG58 cable)
27 Receiver antenna braid
28 **COM**, common terminal for low voltage inputs and output
29 **PED**, input of the pedestrian opening command (contact N.A.)

30 **PP**, input of the step-by-step command (contact N.A.)
31 **CH**, input of the closing command (contact N.A.)
32 **AP**, input of the opening command (contact N.A.)
33 **ORO**, input of the clock command (contact N.A.)
34 **COM**, common terminal for low voltage inputs and output

IMPORTANT REMINDERS:
[a] all uninstalled safety devices that are provided with a closed contact, must be bridged to the **COM** terminals (common terminal for all inputs/outputs) or disabled using the appropriate extended parameters (par. 50, 51, for the photocells; par. 73 for the sensitive board – see paragraphs below).

There are also some connectors present; their function is described below:
ENC1, connector for encoder 1 (7 wires, installed on the motor, **figure 6**)
ENC2, connector for encoder 2 (6 wires, installed on the gear reducer, **figure 6**)
LED LIGHT, connector for lamps or semaphore signalling (**figure 7**).
LOCKS, connectors for safety stops (release system, inspection door opening). Both connectors must be connected; if there is only one safety device connected, please insert the bridge on the other connector (**figure 5**).
RECEIVER CARD, connector for plug-in radio receiver
BATTERY CHARGER, connector for battery charge board with coupling

4.1 Standard configuration of the photocells

In standard configuration the input **FT** is enabled.
Below is indicated the standard configuration of the photocell and relative parameters:

FT ignored during opening	50 00
interruption of the FT while closing, generates backward movement, therefore it opens	51 02
It allows the activation of the motors opening mode if the FT is engaged	52 01

IF THE PHOTOCELL IS NOT INSTALLED
Set 5000 and 5100
Or bridge the **FT** terminal with the **COM** terminal.

4.2 Standard configuration of the safety edge

In standard configuration the input **COS** is disabled.
If the safety edge is present, please set parameter 73 of the extended version on 1 if it is switch type (normally closed contact) or on 2 if it is resistive types (8k2Ω).
The sensitive board is active only while the barrier is closing, causing its complete aperture.

4.3 Connection of the motor to the encoder

The motor is connected in factory.
WARNING! If for any reason, the wires of the motor get disconnected from its terminal, a stroke programming should be performed (because along with it is also performed the motor timing).
WARNING! Disconnect and reconnect the connection cable to the encoder only if the power supply to the control unit is cut off: otherwise, a motor malfunction may appear, generating possible abnormal activation.

4.4 Plug-in radio recceiver

The receiver (see **figure 1**) offers tow remote control functions via radio; in standard configuration, they are assigned as follows:
PR1 step-by-step command (can be changed using parameter 76 in the extended mode)
PR2 pedestrian opening command (can be changed using parameter 77 in the extended mode)

5 Display functioning mode

Depending on the operating mode of the control unit, on the display can be viewed the following information:

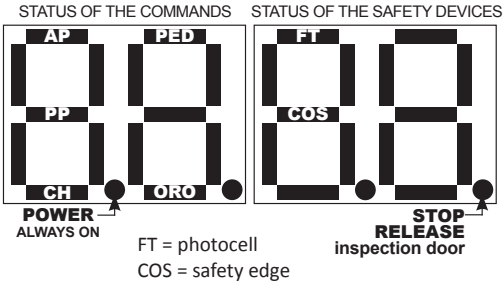
- **SAFETY DEVICES AND CONTROLS STATUS MODE**: in the two digits on the left is indicated the status of the control inputs; in the two digits on the right is indicated the status of the safety devices. After powering up the control unit, the display enters this mode. If the display appears differently, you just need to press more times keys **UP** or **DOWN** until the status of the inputs is no longer displayed or you can press shortly key **PROG**. The status of the inputs can be found after the last parameter and before the first parameter. Please see paragraph 5.1 for complete description.
- **PARAMETERS MODE**: the two digits on the left

indicate the name of the parameter; the two digits on the right indicate its numerical value. Please see paragraph 5.2 for complete description.

- **STANDBY MODE**: the LED "POWER" blinks indicating the presence of power (decimal point of the left-most digit). Please see paragraph 5.3 for complete description.
- **TEST MODE**: the two digits on the left indicate the name of the active command (for 5 seconds, then it turns off); the two digits on the right display, blinking, the number of the terminal of the safety device in alarm (if any); the blinking code 00 is displayed if the control unit is ready to perform a command. In order to exit this mode, press once again the **TEST** button. Please see paragraph 5.4 for complete description.

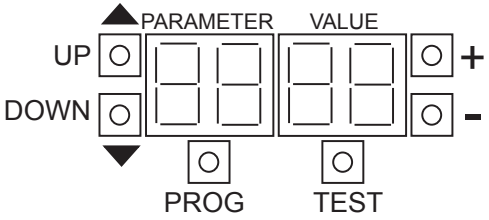
5.1 Controls and safety device status mode

The inputs are indicated on the display as follows:



If the input is closed, the corresponding segment is on. The segments corresponding to the commands are usually off (the contacts are usually opened); they will turn on when a command will be received. The segments corresponding to the installed safety devices must be on (the contacts are usually closed); if they are turned off, they are in alarm status.
SAFETY DEVICES DISABLED FROM PARAMETER: the corresponding LED segment blinks.

5.2 Parameters mode



UP next parameter
DOWN previous parameter
+ increases by 1 the value of the parameter
- decreases by 1 the value of the parameter
PROG stroke programming (see paragraph 6)
TEST it activates the test mode (see paragraph 5.4)

5.2.1 Modification of a parameter

Use the keys **UP** and **DOWN** to view the parameter to be changed, then using keys **+** and **–** change its value (the number on the right starts blinking).
By keeping the key pressed, after a second the quick scroll will be activated, allowing you to change the settings more quickly. In order to save the value set on the display, wait 4 seconds or move to another parameter using the keys **UP** and **DOWN**: the entire display flashes quickly indicating that the setting was saved.

NOTE: the modification of the parameters numerical value using the keys + and - is possible only if the motor is stopped; the parameters can be viewed at any time.

The parameters sequence in the simplified mode is indicated in the table of the next page.

IMPORTANT NOTE: the selection of the parameter 0- (A1 in extended mode) must comply with the body of the machine, keeping in mind that the 6 meters barrier uses a different gear reducer from the one corresponding to the 3m and 4m versions.
WARNING! The selection of this parameter is very important for proper functioning of the automation and for avoiding mechanical damages to the gear reducer; this is why the factory set parameter is that corresponding to the 6m barrier that has lower speed and acceleration.
In relation to the selection of the parameter 0- (A1 in extended mode) not all the indicated values of the parameters 8-, 9-, A-, b-, C- and d- (respectively 33, 40, 11, 34, 41 and 12 in extended mode) will be available: this happens for safety reasons and is the responsibility of the installer to set them correctly.

WARNING! The parameters 0- and C- (A1 and 71 in extended mode) are particularly critical and their modification, if the system is already on, may cause malfunctions; in order to avoid them, the power supply must be cut off while changing their values; after this, the system must be restarted and the stroke must be set once again.

5.2.2 Restoring the standard factory parameters

NOTE: this procedure can be performed only if a data protection password has not been set.

Cut off the power supply of the control unit, keep the keys **UP** and **DOWN** pressed, then restore the power supply and hold the keys pressed: after 4 seconds, on the display appears rES- blinking, indicating that the values were restored.

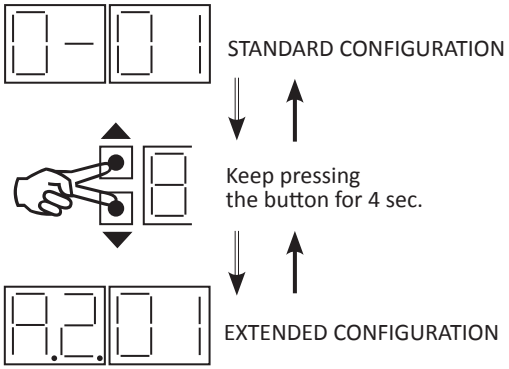
5.2.3 Change between standard/ extended parameters mode

The control unit allows two configuration modes:

PARAMETER AND STANDARD VALUE	FUNCTION	VALUE ON DISPLAY	DESCRIPTION
0 - 02	Barrier length selection	00	up to 3m.
		01	from 3m to 4.5.
		02	from 4.5m to 6m
1 - 00	Automatic closure	00	Disabled
		01 - 15	NUMBER of closing attempts (interrupted by the photocell) before leaving it opened
		99	always try to close
2 - 30	Break time	00 -90	Break Time
		92 -99	2 minutes...9 minutes of time-out
3 - 00	Automatic closure after restoring power supply	00	disables the closing after restoring the power supply
		01	enables the closing after restoring the power supply
4 - 00	Barrier light setup	00	always off
		01	always on
		02	on while it is closed, blinking when it is moving
		03	quick flashing while it stands still, blinking when it is moving
5 - 00	Pre-flashing	00	disabled.
		01 -60	pre-flashing seconds
		99	5 seconds of pre-flashing while closing
6 - 00	Step-by-step input setup	00	open stop close stop open stop close ...
		01	shared, restores the break time
		02	shared, closes the barrier from completely open position
		03	open close open close ...
		04	open close stop open ...
7 - 02	Flashing light setup	00	fixed
		01	slow blinking activation
		02	slow blinking while opening, quick blinking while closing
8 - 10	Duration of acceleration phase while opening	01 - 10	01 = short acceleration period ... 10 = prolonged acceleration period
9 - 04	Speed during the opening movement	01 - 10	01 = minimum speed .... 10 = maximum speed
A - 10	Duration of deceleration phase while opening	01 - 10	01 = short deceleration period ... 10 = prolonged deceleration period
b - 10	Duration of deceleration phase during closing	01 - 10	01 = short acceleration period ... 10 = prolonged acceleration period
C - 04	Speed during the closing movement	01 - 10	01 = minimum speed ... 10 = maximum speed
d - 10	Duration of deceleration phase while closing	01 - 10	01 = short deceleration period ... 10 = prolonged deceleration period
E - 09	Anti-crushing function adjustment	01 -09	01 = fast response ... 09 = slow response
		10	disabled.
F - 08	Brake adjustment	01 - 10	01 = sudden braking ... 10 = soft braking
G - 01	Position of the barrier body in relation with the passage	00	placed to the left, watching the passage from the inside
		01	placed to the right, watching the passage from the inside

standard or extended (advanced level).
In the extended configuration, the installer may change a large number of parameters, but more accurate knowledge of the product is required.
The standard configuration was designed to facilitate the installation; there is only a reduced number of parameters that can be changed, satisfying the most of the installations. This is a recommended mode for an installer that is unfamiliar with the product and when no particular configurations are required.

WARNING!
The product leaves the factory with the standard configuration



If you want to switch to the extended mode, keep both keys **UP** and **DOWN** pressed for 4 seconds; then on the display will appear the first one of the extended version parameters, that is indicated:
- by the presence of two decimal points on the first two digits on the left (that represent the number of the parameter)
- by letter A for parameters lower than 10, to distinguish them from the ones corresponding to the standard configuration (that are different)

NOTE: the operation can be performed more than once, switching from one configuration to another.

The table in paragraph 10 contains the parameters corresponding to the extended configuration.

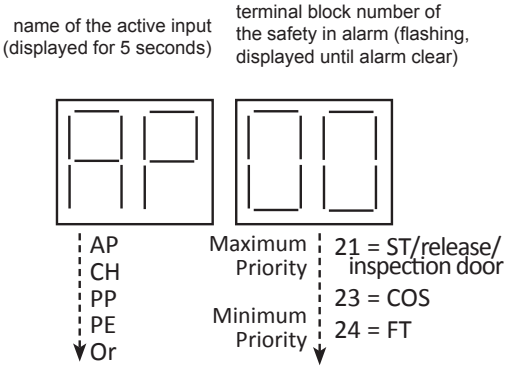
NOTE: the sequence of the parameters in the simplified configuration is not the same as the one corresponding to the extended configuration; therefore, always consult the instructions.

5.3 Standby mode

After 30 minutes of inactivity, the control unit enters in standby mode, and on the display will appear only a blinking point.
The activation of the standby, automatically restores the standard configuration.
This mode keeps the display in standby, but the control unit is always ready to perform the commands; in order to restart the display, one of the keys **UP,DOWN,+,-** should be pressed.

5.4 TEST mode

It can be activated by pressing the key **TEST**, only if the motors are shut down; otherwise, the **TEST** key performs a **STOP** command; in order to enable the test mode, you must press this key once again.
The display is as follows:



It allows to visually check the activation of the command and of the safety devices: every time they are activated, the control unit shortly activates the flashing light as well as the Open Door Light (terminal no. **11**, **SC**).
On the display is indicated:
- the active command, as a stationary message (on the left side, for 5 seconds)
- the terminal block number of the safety device in alarm, as a blinking number (on the right side, displayed as long as the safety device is in alarm).

If no other safety device is in alarm, the code 00 is displayed and the control unit is enabled to perform the commands.
After 10 seconds of inactivity, it returns to safety devices and commands status. In order to exit the test mode, just press **TEST**. The output **SC** returns to its standard function.

6 Installation

The stroke length must be programmed to allow proper functioning of the control unit.

WARNING! Before proceeding, make sure that:

- the spring is properly balanced: unlock the mechanical release of the barrier and bring it to the half of the stroke (45°); the barrier must stay balanced; by moving it upwards, it tends to go up; by moving it downwards, it tends to go down. If this condition is not met, adjust the spring as indicated in the mechanical installation instructions. Before locking the barrier, manually move it until reaching complete closure position.
- The connected safety devices are in standby and those that are not present, are bridged or excluded from the relative parameter.
- The setup mode cannot be accessed if one of the safety devices is active. The display switches to TEST mode and indicates the input in alarm that obstructs the activities.
- The setup mode cannot be accessed if the mode "human present" is enabled (par. A7 0 1), on display appears AP PE.

PLEASE NOTE:

- **The setup will be interrupted (error message** AP PE will appear**) if**:
  - **TEST** key is pressed.
  - One of the safety devices is activated (photocells, safety edge, **STOP** key).

  In this case, the stroke setup must be repeated.
- Once in setup mode, instead of **PROG** key can be used the radio-control key enabled for the step-by-step function.

6.1 Stroke programming sequence

WARNING!

- Before proceeding make sure that the mechanical stops are adjusted as to ensure vertical and horizontal position of the barrier; any change in the position of the stops requires a new stroke setup.
- Place the barrier in complete close position before entering the setup mode.

In order to access the setup mode, keep the key **PROG** pressed for 4 sec.: on display appears the message AP P- .

Turn the mechanical release system key counter-clockwise more than once, until it reaches the end of the stroke: after a few seconds on the display will appear PH A5 and motor tuning phase will start (this consists of measuring its operating parameters).
If the motor tuning phase fails, on the display will appear the message no PH: repeat the setup procedure.
If the problem persists, make sure that the encoder 1 connection cable (**ENC1**, **figure 6**) on the motor is in proper shape and properly inserted in its connector.

If the motor tuning phase has been completed successfully, the parameters will be saved in the non-volatile EEPROM memory and the message PH A5 blinks on the display.
Turn the mechanical release system key clockwise until reaching the end of the stroke: the mechanical system is once again connected to the motor, and at this point the actual stroke setup begins.
On display appears the message Auto and the motor is started. After reaching the mechanical coupling, the barrier will move inside the opening at low speed (the speed is established by selecting the parameter A 1 and it cannot be changed). After reaching the opening stop, after a short pause (indicated by the message Auto blinking on the display) the closing process starts, after which:

- if the setup failed, the message AP PE appears: repeat the setup procedure
- if completed successfully, on the display appears the status of the inputs and of the safety devices: proceed with the adjustments (paragraph 6.2).

6.2 Adjustments

After setting up the stroke, proceed with setting up the accelerations, the cruise speed and the decelerations, making sure that the chosen values are appropriate for the proper operation of the barrier.
When the barrier reaches the end of the stroke, it must come intro contact with the mechanical stop at a very low speed, and lean on it, generating just a slight pressure to block the movement.
This phase is adjusted using parameters 42, 43 and 44. The par.42 sets up the approaching speed towards the mechanical stop; usually, a value within 0 1 and 03 is suitable, as slower the approaching speed, the better the overall movement (free of vibrations).
The approaching distance is set by par.43 (for the opening stop) and by par.44 (for the closing stop): for barriers up to 4m long a maximum value 10 (1 mechanical turn of the motor) should meet all the requirements, while for the 6m long barrier will be necessary a greater value, also in relation to the presence of a supporting foot. The approaching adjustment in closing phase, allows avoiding a possible incorrectly leaning of the foot as well as

a series of noisy oscillations that may affect the mechanics of the barrier.

7 PHOTOCELLS TEST mode

To enable the test mode of the photocells connect the supply of the photocells transmitter to the terminal **SC** (no. **11, figure 8**) instead of terminal no. **13** and set the parameter A8 02 in the extended configuration.
For every transmitted command, the control unit turns off and on the photocells and makes sure that the contact status changes accordingly: if all goes well, the command will activate the engine; otherwise, the system remains locked as there is a fault at the photocells level.
NOTE: in this mode, at the terminal **SC** is always present a voltage of 24Vdc, therefore that output can no longer be used for the open door light.
If the battery is installed, it is advisable to connect the supply of all external devices to terminal **11** (**SC**, see **figure 9**) and set A8 03 or A8 04. For both settings, the supply to terminal **11** (**SC**) is cut off when the automation is still in fully opened or fully closed mode and it is powered by battery, thus limiting the consumption of the back-up battery. If using the setting A8 04, the test function at the photocells input will be activated.

8 Error signals

The operating parameters are stored in a non-volatile memory (EEPROM) using control codes that ensure their validity; "a possible" error at the parameters level will be indicated on the display and at the same time the control unit will block the command activation.
Example: if an error should appear in parameter 21, on the display will appear the error message 21EE.
EE indicates the presence of the error; the control unit will be locked until the correct value is restored; the operator must use the keys **+** and **-** to select the numerical value appropriate for the installation and then save it.
NOTE: if an error should appear, on the display will always appear the "extended mode" numbering indicated in the table on paragraph 10, even if activated the simplified mode.
The following errors regarding the motor control will be displayed:

- OF 5t calibration error (offset), system blocked. Cut off the power supply and wait for 10" then repeat the calibration.
- Pr 0t intervention of the motor ampere level (excessive force). In order to start the motor press 2 times the key TEST or give 3 movement commands.
- dAtA error in the data regarding the length of the stroke; a new setup should be performed. The display can be unlocked to display the parameters, by pressing the TEST key.
- Not Motor not connected
- St oP The mechanical release is active, or the inspection door is open, or the **STOP** button (if installed) is active for more than 3 seconds. The signal is blinking

There are also encoder-related errors:

- En E1 encoder 1 not connected; check the connection and if the error does not disappear, consider to replace the device
- En E2 encoder 2 not connected
- En E3 serious malfunction of encoder 1; press the **TEST** key and see if it recurs or not; in this case cut off the power supply and after 5" power up once again the control unit. If the error persists, please replace the encoder
- En E4 serious malfunction of encoder 2. Proceed as indicated for error En E3
- En E5 transitory malfunction of encoder 1; press the **TEST** key and see if the problem disappears; otherwise, please replace the encoder
- En E6 transitory malfunction of encoder 2; act as indicated for error En E5
- En E7 error in measuring the angle of encoder 1
- En E8 error in measuring the angle of encoder 2

In order to temporarily cancel the alarm from the display, press the **TEST** key; the message will not be displayed once the system enter in the parameters display mode. When a command is received, if the cause was not removed, the signal will re-appear on the display.

9 Mechanical release enabling

When mechanically unlocking the barrier, in order to manually move it, if the control unit is powered up, the following functions will be performed:

- Unlocking will be signalled by blinking message St oP on the display; it will disappear as soon as the blocking situation will be restored
- The manual movement of the barrier will be indicated by activating the flashing light and the signalling lights on the barrier

- starting from the moment in which the barrier stands still (mechanically hooked) the control unit will perform a second position reading, with subsequent blinking signalling.

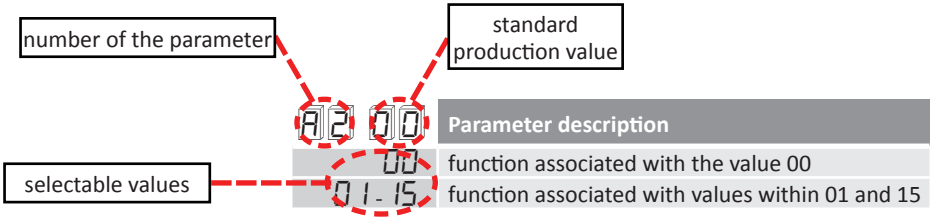
Controlling the angular position of the barrier, the first command after the manual movement of the barrier will be fully operative, allowing therefore the performance of standard accelerations and decelerations.

10 Extended operating mode

NOTE: if using only the standard mode, the value of the hidden parameters - for a new control unit or after every restore of the standard parameters - is the one indicated next to the parameter, and is the one considered to be the most useful in installations.

WARNING! Depending on the selected mode, some parameters may not be displayed, as they do not concern the installation. For the same reason, for parameters 11, 12, 33, 34, 40, 41, 43, 44 and 65 may not be available all the values indicated in the table.

Below is indicated the table with the parameters concerning the extended mode. Next to the number of the parameter is indicated the standard production value.



Parameter description	
00	function associated with the value 00
01 - 15	function associated with values within 01 and 15

A1 02	Selection of the barrier length
00	up to 3m
01	from 3m to 4.5
02	from 4.5m to 6m (the barrier body contains a gear reducer specific for this application)

NOTE: parameter 0- in standard mode
A correct selection of the length of the barrier, also made in relation to the body of the machine to be used, is fundamental for obtaining a proper functioning without risking causing any damages to the mechanical part. Regarding the value of this parameter, there are some limitations concerning the parameters: 11, 12, 33, 34, 40, 41, 43, 44 and 65.

A2 00	Automatic closing after pause time
00	OFF (automatic closing will not be performed)
01 - 15	NUMBER of closing attempts (interrupted by the photocell) before leaving it opened
99	tries to close without limiting the number of attempts

NOTE: parameter 1- in standard mode
In order to restore closing, this parameter should be set to a number different from 00; only by setting the value 99 the closing will always be performed after the pause time. If setting a number within 01 and 15, that is the maximum number of closing attempts that will be performed. For example, by setting the value 01, if during the closing process, something will cross the beam of the inversion photocells, the barrier would reopen without closing (only one closing attempt is just been performed).
The automatic closing is performed only if the barrier reaches the full opened position.
NOTE: the value of the parameter 49 is subordinated to the value chosen for parameter A2; the maximum value of parameter 49 can be equal to that of parameter A2.

A3 00	Automatic closing after blackout
00	OFF (closing procedure will not be performed after restoring the power supply)
01	ON (closing procedure will be performed after restoring the power supply)

NOTE: parameter 3- in standard mode

If this parameter is set to 01 at power-up, the control unit performs the closing procedure after a 5 sec pre-flashing (even if parameter A5 disabled). This function is useful when the supply voltage is missing during the closing process as it ensures that the barrier gets closed after power supply restoration.

A4 00	STEP-BY-STEP (PP) setup
00	OPEN - STOP - CLOSE - STOP - OPEN
01	PP SHARED, when completely open, the command PP renews the pause time
02	PP SHARED, when completely open, the command PP closes
03	OPEN - CLOSE - OPEN - CLOSE
04	OPEN - CLOSE - STOP - OPEN

NOTE: parameter 6- in standard mode

Shared means that during the opening process, the command **PP** is ignored.

In installations where there is the possibility that multiple users arrive at the same time, and therefore activate the remote control while the barrier is being handled, it is useful to ensure the completion of the opening: prevents two activations by two different users that may cause the barrier to close.

WARNING: by setting the shared mode (value 01 and 02) the automatic closing will be automatically activated (parameter A2).

By setting the parameter to 01, if the barrier is closed, the activation of the step-by-step command will not trigger the closing process; it will reset the standby time counter.

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

NOTE: parameter 5- in standard mode

A6 00	Shared function on the pedestrian command (PED)
00	OFF (pedestrian command performs OP-ST-CL-ST-OP- ...)
01	ON (pedestrian command activated while the opening process is ignored)

A7 00	Man present
00	OFF (the commands function normally)
01	ON (the door moves only if keys OP or CL are kept pressed)

The motor remains active only if there is a continuous command active; the only enabled commands are **OP** and **CL**; when the command is released, the motor stops.

Controls should be located in order to enable visual check of the barrier.

A8 00	Open barrier light / +SC output operating mode
00	if the barrier is closed, the light is off; otherwise it is on
01	slow blinking during opening, fast blinking during closing, standing still light if completely opened, turns off for two times after every 15 seconds if the barrier stops in an intermediate position
02	the output **+SC** is used to supply the photocells and performs a test on them
03	the output **+SC** in battery mode does not supply the external charges when the barrier is completely opened or completely closed; if supply voltage is present, the output **+SC** always provides power
04	the same as for value 03, plus the photo-test function

11 10	Duration of the incoming deceleration when the barrier is completely opened
12 10	Duration of the incoming deceleration when the barrier is completely closed
01 - 10	01 quick deceleration … 10 slow deceleration

NOTE: parameters A- and d- in standard configuration

A low value (01) implies a quick deceleration, just before reaching the limit stroke, a high value (10) triggers the start of the deceleration in advance. By choosing a high value, the maximum speed of the barrier may be limited.

These parameters can be changed even if the stroke has already been set.

NOTE: the available values can be limited by choosing the par. A 1.

15 60	Pedestrian stroke length
01 - 99	PERCENTAGE of the total stroke

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

NOTE: parameter 2- in standard mode.

When one of the photocells is engaged, the timer will be reset and the counter restarts once the photocell is disengaged.

29 00	Enabling the electric locking system
00	DISABLED
01	ENABLED

The output is enabled for a fixed period of time (2”).

31 09	Adjustment of the anti-crushing
01 - 09	01 = low intervention time … 09 = high intervention time
10	disabled

NOTE: parameter E- in standard mode.

The intervention of the anti-crushing safety device is enabled during the entire closing process, and immediately reverses the movement, bringing the barrier in complete open position, exactly as if the safety edge would have interfered. During the opening process, it reverses the movement only if it occurs in the first 60 ° of movement.

The ability to perform an automatic closing is then determined by the selection of par.49 (max 3 attempts).

33 04	**Acceleration duration during opening movement**
34 04	**Acceleration duration during closing movement**
01 - 10	01 quick start ... 10 very slow start

NOTE: parameters 8- and 6- in simplified mode.
A low value (01) implies a quick acceleration, a high value (10) implies a slower acceleration. By choosing a high value, the maximum speed of the barrier may be limited.
These parameters can be changed even if the stroke has already been set.
NOTE: the available values can be limited by choosing the par. A1:

40 04	**Nominal speed during opening movement**
41 04	**Nominal speed during closing movement**
01 - 10	01 = 10% ... 10 = 100%, maximum speed

NOTE: the available values can be limited by choosing the par. A1:

42 01	**Slow approaching speed towards the stop**
01 - 10	01 = 10 RPM ... 10 = 100 RPM

It establishes the speed of the motor while approaching the opening/closing stop; the duration of this phase is determined by the values set for par.43 and 44.

43 10	**Approach distance to the opening stop**
44 10	**Approach distance to the closing stop**
01 - 30	tenths of one mechanical revolution of the engine at a speed set in par.42

NOTE: the available values can be limited by choosing the par. A1:

49 00	**Attempts of automatic closing after the intervention of the safety edge or of the anti-crushing device**
00	no automatic closing after the intervention of the safety edge or of the anti-crushing device
01-03	number of closing attempts

If the value exceeds the one set in parameter A2, it will automatically be considered equal to the value of parameter A2.

50 00	**Mode if photocell FT is interrupted while opening**
00	IGNORE, no action or FT1 not installed
01	STOP, the door stands still until the next command
02	QUICK REVERSE, closes
03	TEMPORARY STOP, the opening movement continues even if the beam is not engaged
04	REVERSE WHEN DISABLED, if the beam is not engaged, the closing movement starts

S1 02	Mode if photocell FT is interrupted while closing
00	IGNORE, no action or FT1 not installed
01	STOP, the door stands still until the next command
02	QUICK REVERSE, opens
03	TEMPORARY STOP, the closing movement continues even if the beam is not engaged
04	REVERSE WHEN DISABLED, if the beam is not engaged, the opening movement starts

S2 01	If the barrier is closed, the opening movement is allowed even if FT is engaged
00	does not allow the opening movement
01	opening movement enabled
02	OPEN WHEN ENGAGED

S6 00	If the barrier is completely open, it closes after 6 seconds from the moment in which the photocell is engaged
00	OFF (the interruption of the photocell triggers no action)
01	the interruption of the photocell generates the closing movement

NOTE: this parameter is not available if the parameters A8 03 or A8 04 are set.

65 08	Brake regulation
01 - 10	01 sudden braking ... 10 soft braking

The brake is applied when reversing due to user commands, or to intervention of the photocells; does not apply in the case of intervention of the safety edge, of the anti-crushing device or of the STOP (because in these cases is used and instantaneous brake).
By setting this parameter to a low value, the braking distance is reduced to a minimum; by setting this parameter to a high value, a “soft-stop” will be obtained, this being very useful for the 4m barriers or longer, avoiding sudden shocks and vibrations.
Make sure that the adjustment does not cause an excessive stop movement, that may generate a risk of collision.

71 01	Position of the barrier body in relation with the passage
00	placed to the left, watching the passage from the inside
01	placed to the right, watching the passage from the inside

NOTE: parameter G- in standard mode.

73 00	Safety edge Configuration
00	Not present
01	SWITCH, inverts only while closing
02	8k2, inverts only while closing

76 00	Configuration radio channel 1°
77 01	Configuration radio channel 2°
00	PP
01	PEDESTRIAN
02	OPEN
03	CLOSE
04	STOP
07	PP with safety configuration (through radio function no.2)
08	PEDESTRIAN with safety confirmation (through radio function no.2)
09	OPEN with safety confirmation (through radio function no.2)
10	CLOSE with safety confirmation (through radio function no.2)

The remote command with safety confirmation (values 07 - 08 - 09 - 10) prevents the erroneous pressure of a button on the remote control that can enable the automation; this function can be enabled in a freely and independently manner for both of the two functions **PR1** and **PR2** available on the plug-in receiver.

Example: by setting parameters 76 07 and 77 01, using the key CHA from the remote control stored on function 1 of the radio and key CHB from the remote control stored on function 2 of the radio, by activating the key CHA a count-down will start, and only if within 2" the key CHB activates, the "step-by-step" command will be performed. If CHB is enabled, the pedestrian opening command will be immediately activated.

78 02	Flashing light/ lamps Configuration
00	STILL (the flashing is given by the electronics of the lamp)
01	slow flashing activation
02	slow flashing activation while opening; quick flashing activation while closing

NOTE: parameter 7- in standard mode

The flashing light turns on when there is a movement phase there can be a continuous activation (for flashing lights with temporised electronics on board) or directly controlled by the control unit (for flashing lights made of a simple light).

If setting the parameter 78 01 or 02, in the final movement phase, when the barrier approaches the mechanical stop, the flashing frequency decreases.

79 00	Configuration of the signalling lights on the barrier
00	OFF (lights always disabled)
01	lights always on
02	lights on when the barrier still, flashing when the barrier is moving
03	quick blinking lights when the barrier is still, flashing when the barrier is moving

NOTE: parameter 4- in standard mode

80 00	Clock Configuration
00	When the clock input is closed (ORO), opens it and then ignores all other commands
01	When the clock input is closed (ORO), opens it but accepts any other commands

A1 00	**Closing enabling ensured (“anti-wind” function)**
00	DISABLED (NOTE: par. A2 will not be displayed)
01	ENABLED

It is enabled when you want to make sure that the barrier does not remain open under unforeseen circumstances; for example due to an unexpected activation of the step-by-step command moving away from the gate while it was closing, or due to a strong wind blow that activates the anti-crushing protection, the barrier would remain open waiting for a new command.
After a period of time set in parameter A2 the control unit starts a 5” pre-flashing (even if not enabled by par. A5) and then commands the start of the closing process.
The function will be enabled only if a **STOP** command was given (from the keyboard) or if the safety edgeintervened and the value set in parameter A2 was exceeded.

A2 01	**Waiting time to activate the ensured closure**
01-90	SECONDS
02-99	from 2 to 9 MINUTES

90 00	**Restoring the factory settings**

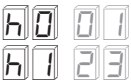
After displaying number 90, press the keys **+** and **-** at the same time for 4 seconds: on the display appears the message rES- blinking indicating that the standard factory settings were restores (indicated next to the parameters numbers).
WARNING! After the restoration, make sure that the parameters are appropriate for the type of installation.

n0 01	**Version HW**
n1 23	**Year of production**
n2 45	**Week of production**
n3 67	**Serial Number:**
n4 89	
n5 01	
n6 23	**Version FW**

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

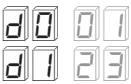
o0 01	**Performed operations**
o1 23	

The number of performed operations can be obtained by combining the values of the parameters o0 up to o1 and adding 2 zeros. For example in this table are indicated the values (next to the parameters, are not default values) from which is obtained the the number of 01 23 00, that are 12300 operations.



Operating hours

The number of operating hours is obtained by combining the values of the parameters h0 up to h1. For example in this table are indicated the values (next to the parameters, are not default values) from which is obtained the number 01 23, that are 123 operating hours.



Number of days in which the control unit was on

The number of days in which the control unit was on is obtained by combining the values of the parameters d0 up to d1. For example in this table are indicated the values (next to the parameters, are not default values) from which is obtained the number 01 23, that are 123 days in which the control unit was on.

Password

Password change

Storing a password enables the protection of data in memory, allowing only those who know it to change its value. The password entering procedure is the following:

- enter the eight numbers that form the password in parameters P1, P2, P3 and P4
- view on display the parameter CP: press at the same time the keys **+** and **-** for 4 seconds. When the display flashes, the new setting has been saved.

The protection will be immediately activated after restarting the control unit or after 30 minutes of standby.

WARNING! When the password protection is active, the keys **+** and **-** do not allow changing the value of a certain parameter and parameter CP is set to 01.

Parameters unlocking procedure (temporary): enter in parameters P1, P2, P3 and P4 the previously stored password, then view on display the parameter CP and make sure that its value is 00 (protection disabled).

The password can be removed only by someone who knows it, proceeding as follows: enter the password, store the password P1 00, P2 00, P3 00, P4 00, and confirm it with parameter CP.

If the password is forgotten, the control unit can be unlocked by contacting the technical support.

11 Testing

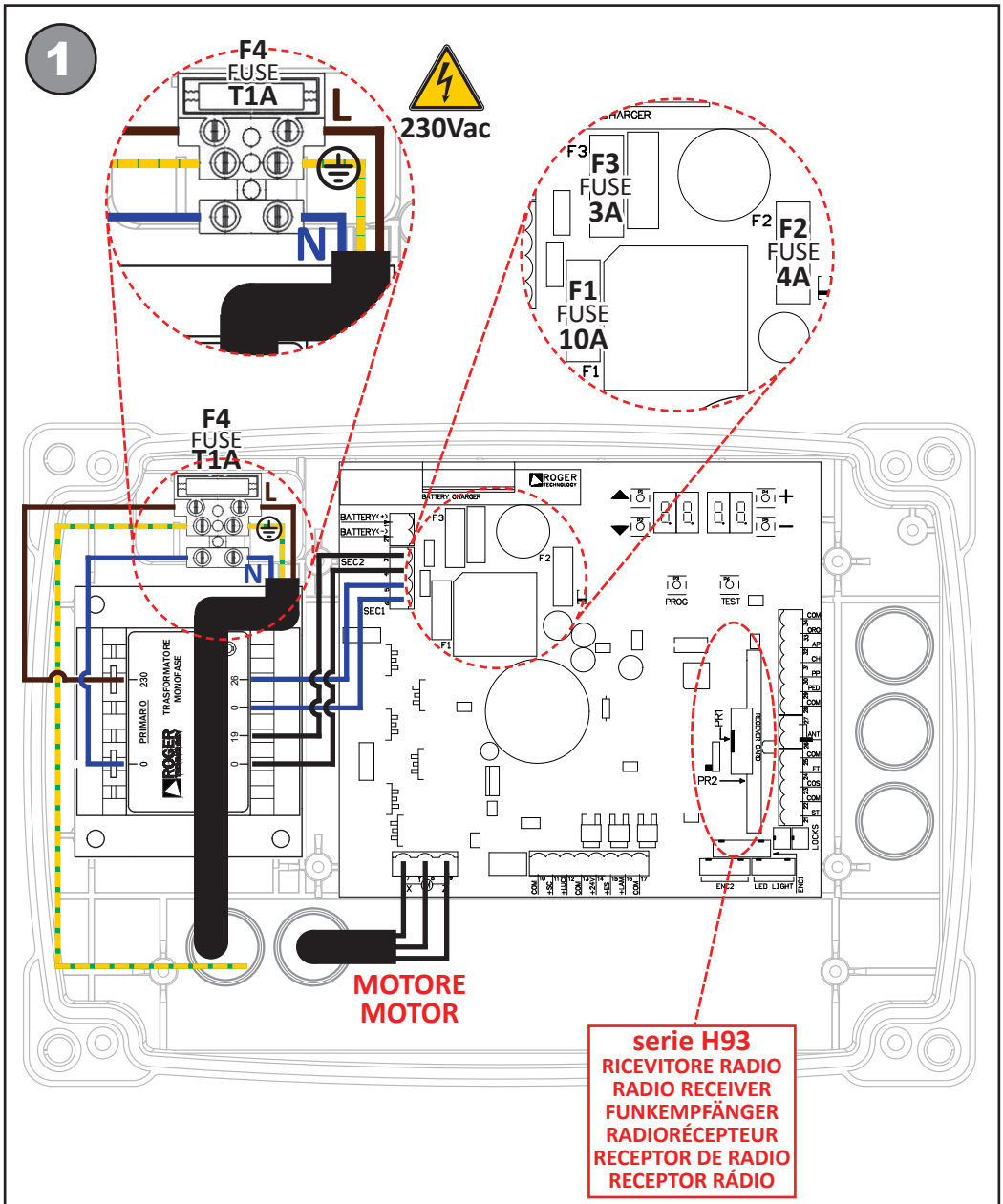
Check the response to all the connected commands.
Check the stroke and the decelerations.
Check the forces of impact.
Check the way in which the safety devices intervene.
If any crushing occurs, make sure to be far away from the limit switch or any obstacles that increase the risk of crushing.

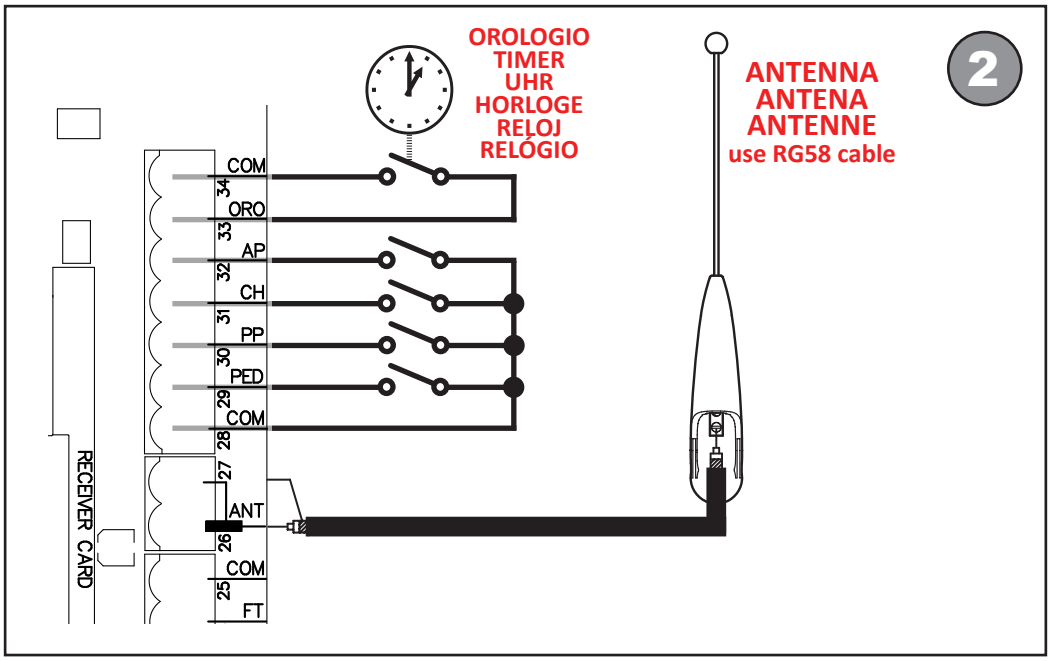
12 Maintenance

Perform a scheduled maintenance once every 6 months making sure that they are clean and operational.
If there are any signs of dirt, moisture, insects or other, cut off the power, disconnect the battery and clean the board and the support. Run again the Testing procedure.
If there is oxide on the printed circuit evaluate the replacement.

13 Disposal

The product should always be uninstalled by qualified personnel using the appropriate procedures for the proper removal of the product.
This product is made of various kinds of materials, some of them can be recycled, others must be disposed of through recycling or disposal systems according to the local regulations concerning this category of product.
You should not dispose of this product using normal recycle bins. Perform the "separate collection" for disposal in accordance with the methods specified by local regulations; or return the product to the retailer when buying an equivalent new product.
Local regulations may set heavy penalties for illegal disposal of this product.
Warning: Some parts of the product may contain pollutants or toxic substances; if disposed of, could cause harmful effects on the environment and human health.


1
F4
FUSE
T1A
L
N
230Vac
CHARGER
F3
F3
FUSE
3A
F2
F2
FUSE
4A
F1
FUSE
10A
F1
F4
FUSE
T1A
L
N
ROGER
TECHNOLOGY
BATTERY CHARGER
BATTERY(+)
BATTERY(-)
F3
F2
F1
SEC2
SEC1
PRIMARIO
230
TRASFORMATORE
MONOFASE
PROG
TEST
PR1
PR2
ANT
LOCKS
ENC2
LED LIGHT
ENC1
MOTORE
MOTOR
serie H93
RICEVITORE RADIO
RADIO RECEIVER
FUNKEMPFÄNGER
RADIORÉCEPTEUR
RECEPTOR DE RADIO
RECEPTOR RÁDIO


OROLOGIO
TIMER
UHR
HORLOGE
RELOJ
RELÓGIO
ANTENNA
ANTENA
ANTENNE
use RG58 cable
2
COM
34
ORO
33
AP
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CH
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PP
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PED
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COM
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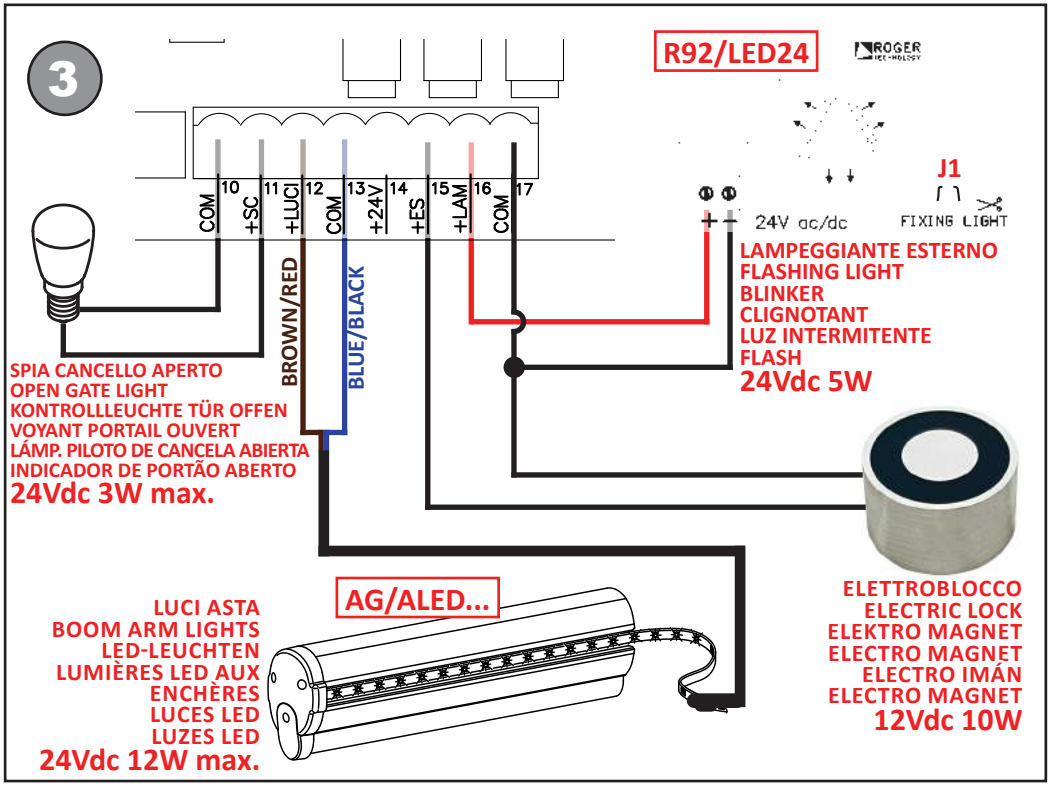
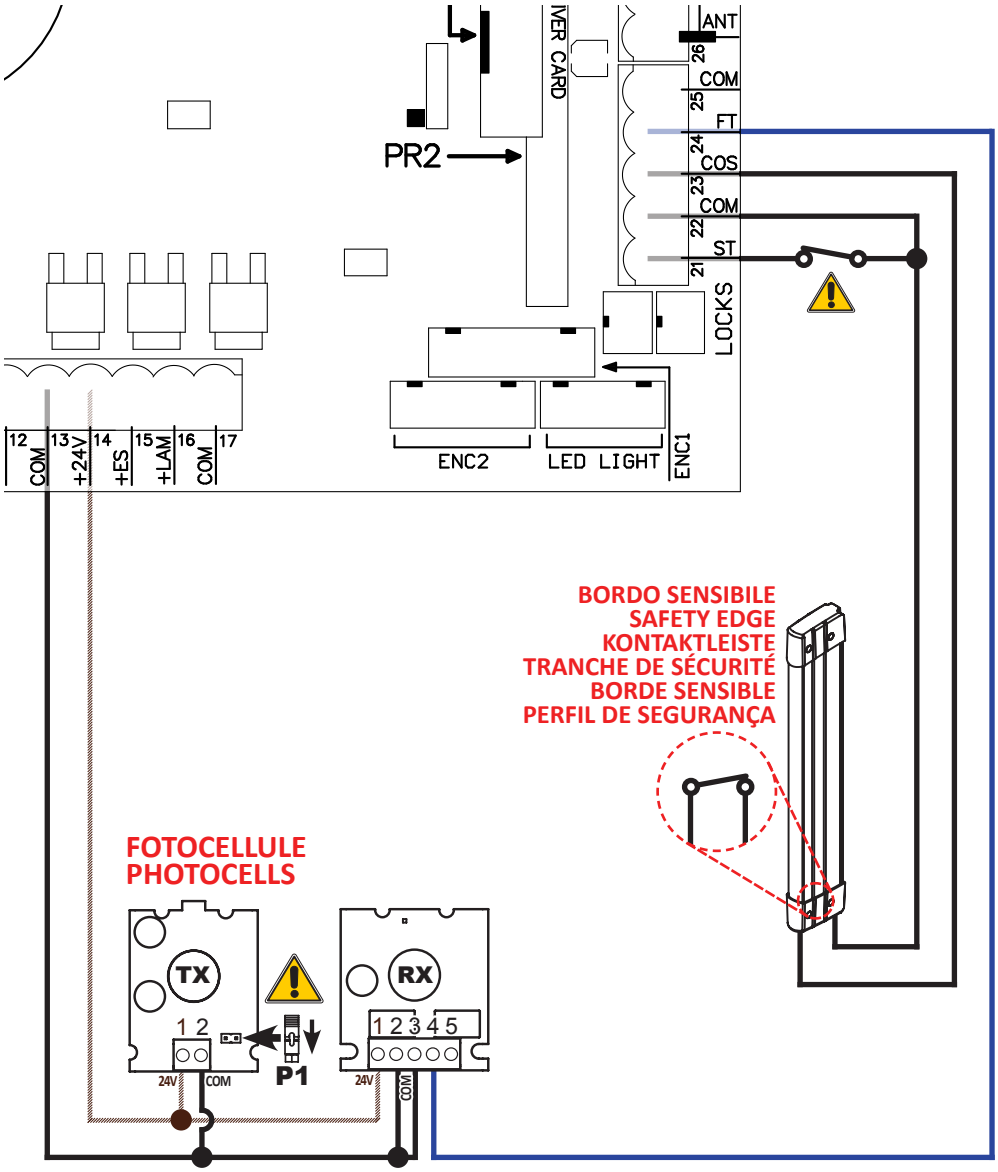
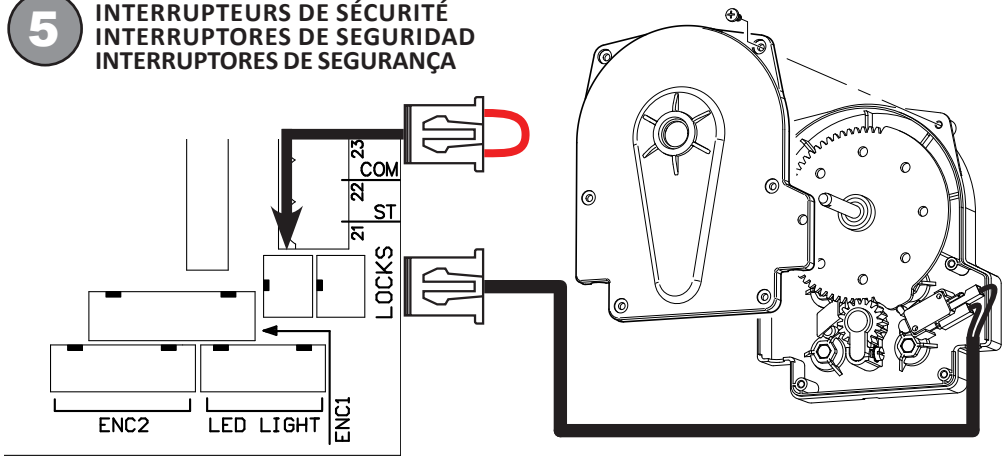
27
ANT
26
COM
25
FT
RECEIVER CARD

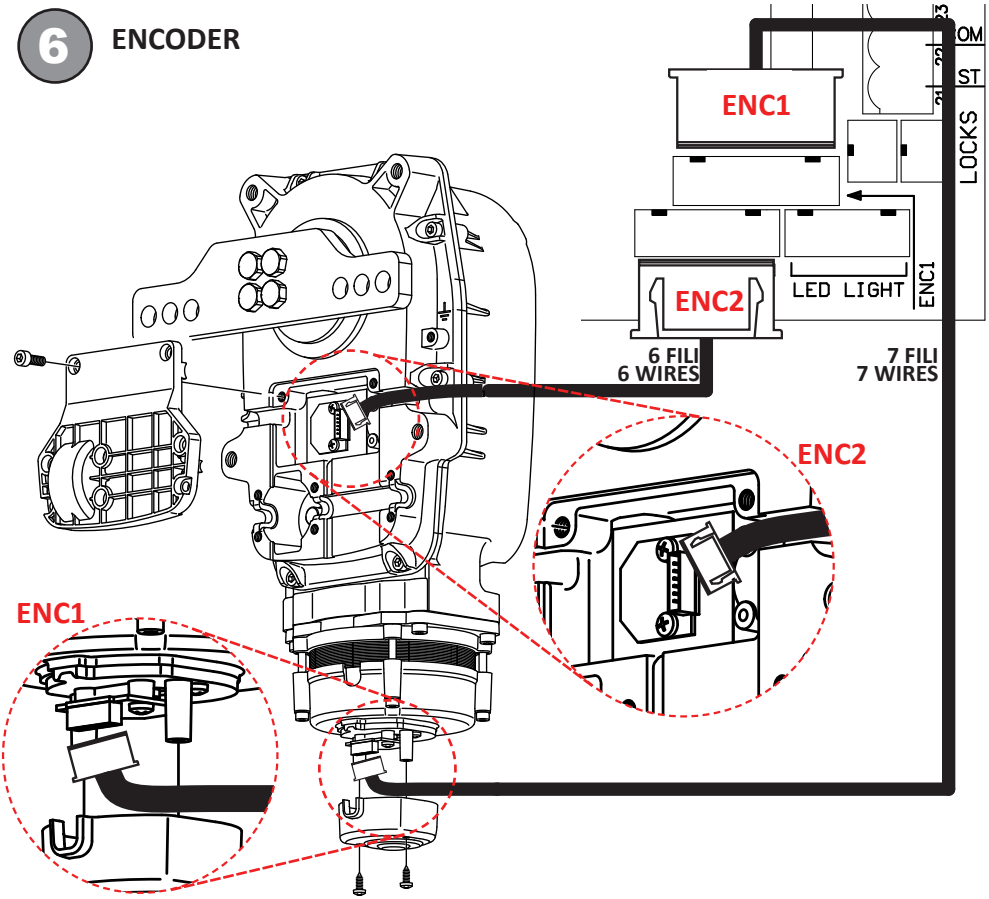

3
R92/LED24
ROGER
J1
24V ac/dc
FIXING LIGHT
COM
10
+SC
11
+LUCI
12
COM
13
+24V
14
+ES
15
+LAM
16
COM
17
LAMPEGGIANTE ESTERNO
FLASHING LIGHT
BLINKER
CLIGNOTANT
LUZ INTERMITENTE
FLASH
24Vdc 5W
SPIA CANCELLO APERTO
OPEN GATE LIGHT
KONTROLLLEUCHTE TÜR OFFEN
VOYANT PORTAIL OUVERT
LÁMP. PILOTO DE CANCELA ABIERTA
INDICADOR DE PORTÃO ABERTO
24Vdc 3W max.
BROWN/RED
BLUE/BLACK
ELETTROBLOCCO
ELECTRIC LOCK
ELEKTRO MAGNET
ELECTRO MAGNET
ELECTRO IMÁN
ELECTRO MAGNET
12Vdc 10W
AG/ALED...
LUCI ASTA
BOOM ARM LIGHTS
LED-LEUCHTEN
LUMIÈRES LED AUX ENCHÈRES
LUCES LED
LUZES LED
24Vdc 12W max.

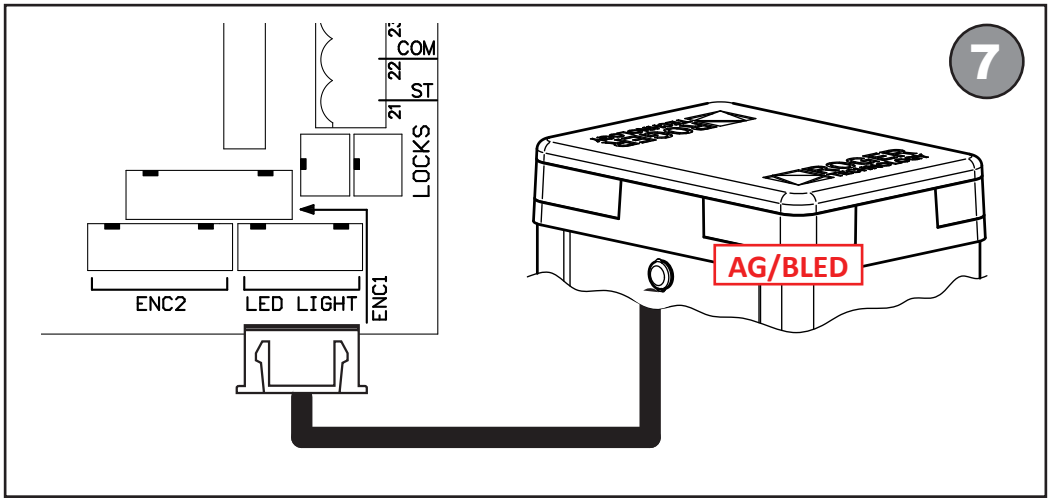

ANT
26
COM
25
FT
24
COS
23
COM
22
ST
21
LOCKS
PR2
ENC2
LED LIGHT
ENC1
12 COM
13 +24V
14 +ES
15 +LAM
16 COM
17
BORDO SENSIBILE
SAFETY EDGE
KONTAKTLEISTE
TRANCHE DE SÉCURITÉ
BORDE SENSIBLE
PERFIL DE SEGURANÇA
FOTOCELLULE
PHOTOCELLS
TX
RX
1 2
1 2 3 4 5
P1
24V
COM
24V
COM

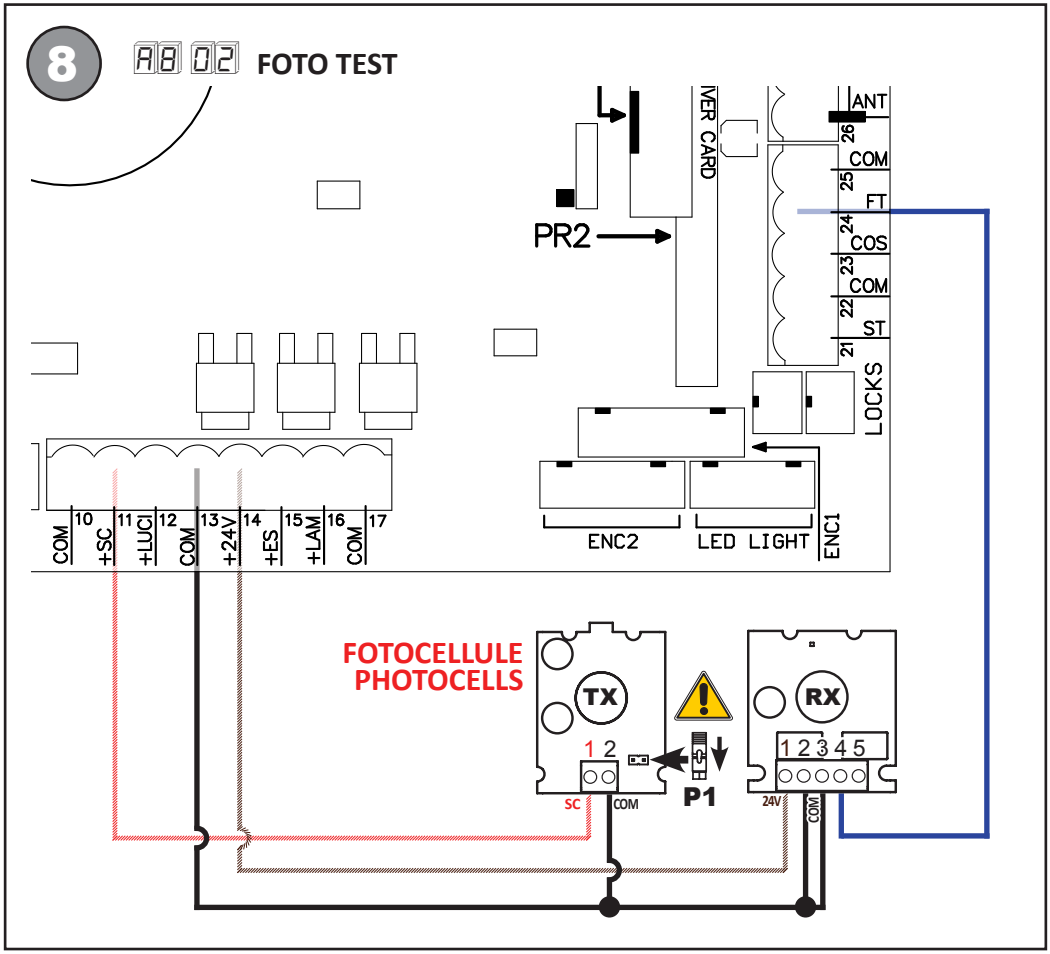
5 INTERRUTTORI DI SICUREZZA - SAFETY SWITCHES - SICHERHEITSSCHALTER
INTERRUPTEURS DE SÉCURITÉ
INTERRUPTORES DE SEGURIDAD
INTERRUPTORES DE SEGURANÇA



6 ENCODER



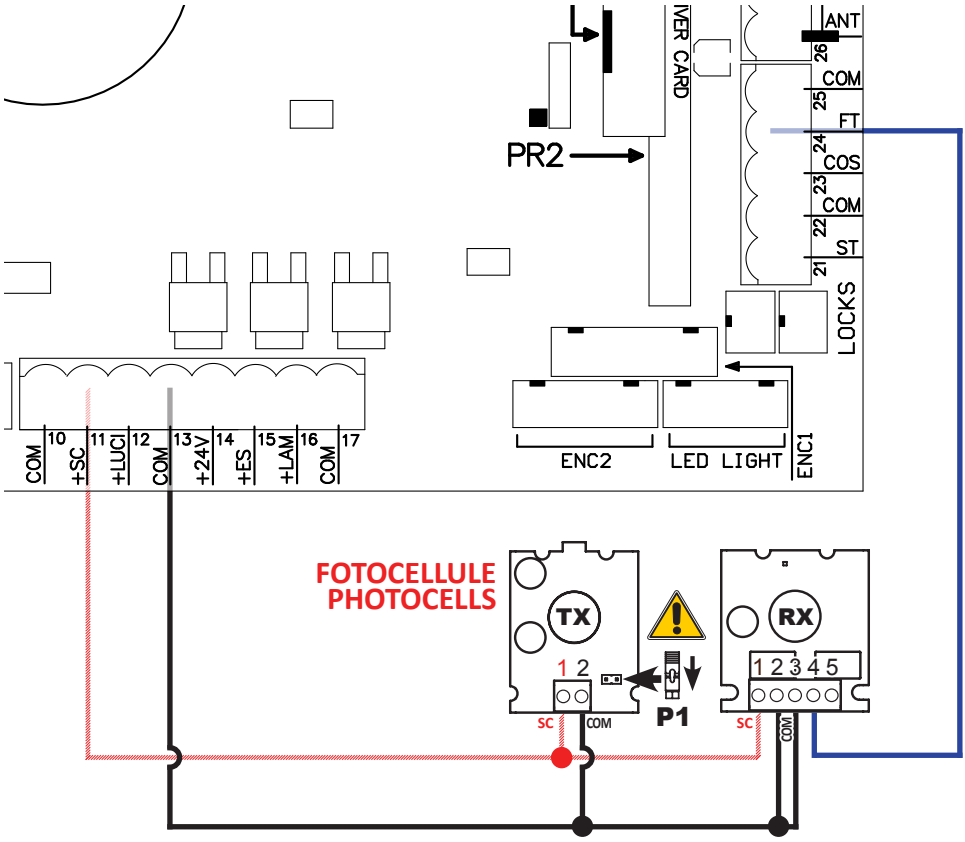

7
COM
ST
LOCKS
ENC2
LED LIGHT
ENC1
AG/BLED


8
FOTO TEST
PR2
ANT
COM
FT
COS
COM
ST
LOCKS
ENC2
LED LIGHT
ENC1
COM
+SC
+LUCI
COM
+24V
+ES
+LAM
COM
FOTOCELLULE
PHOTOCELLS
TX
RX
P1
SC
COM
24V

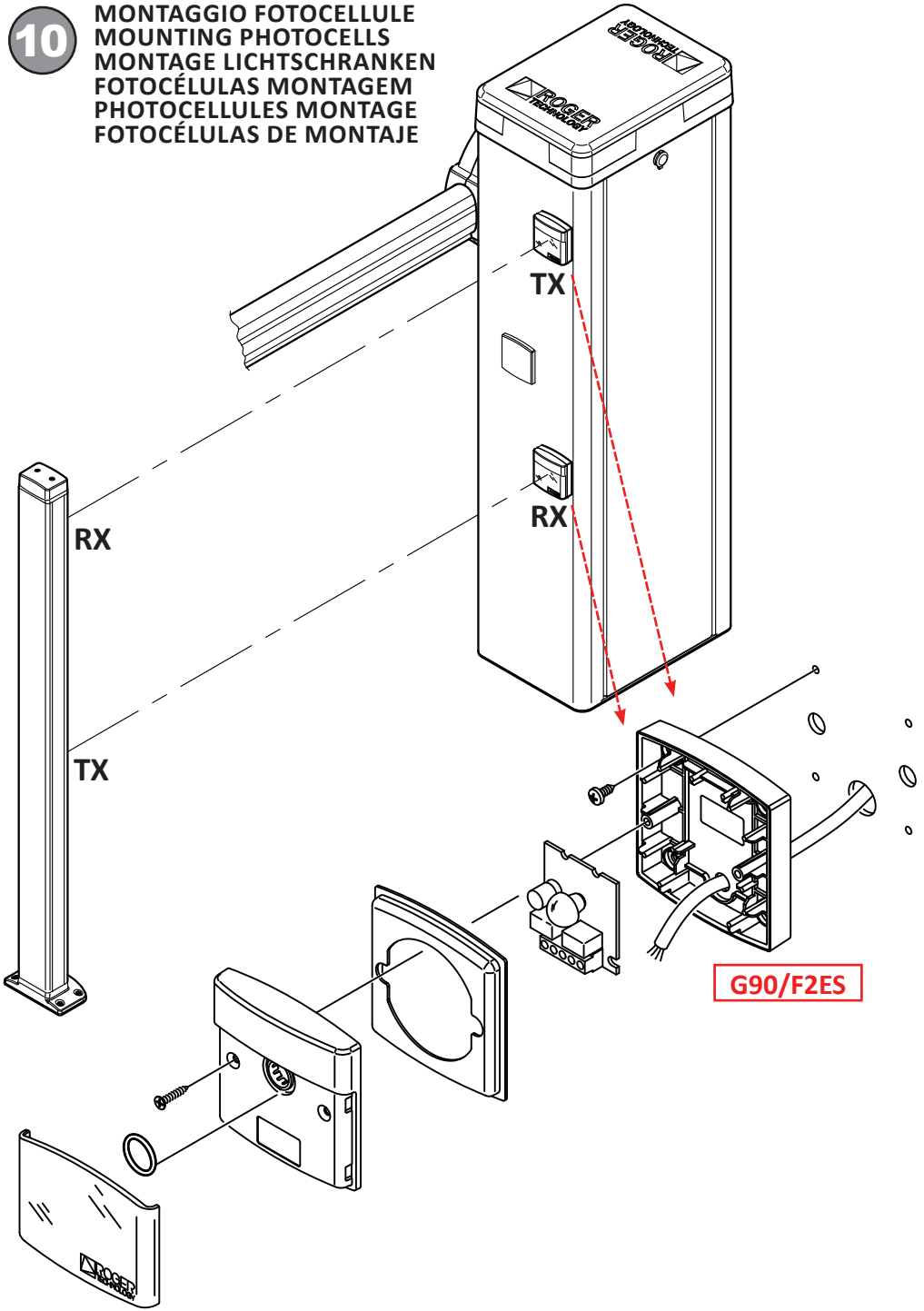
9

AB 03 BATTERY SAVING

AB 04 BATTERY SAVING + FOTO TEST

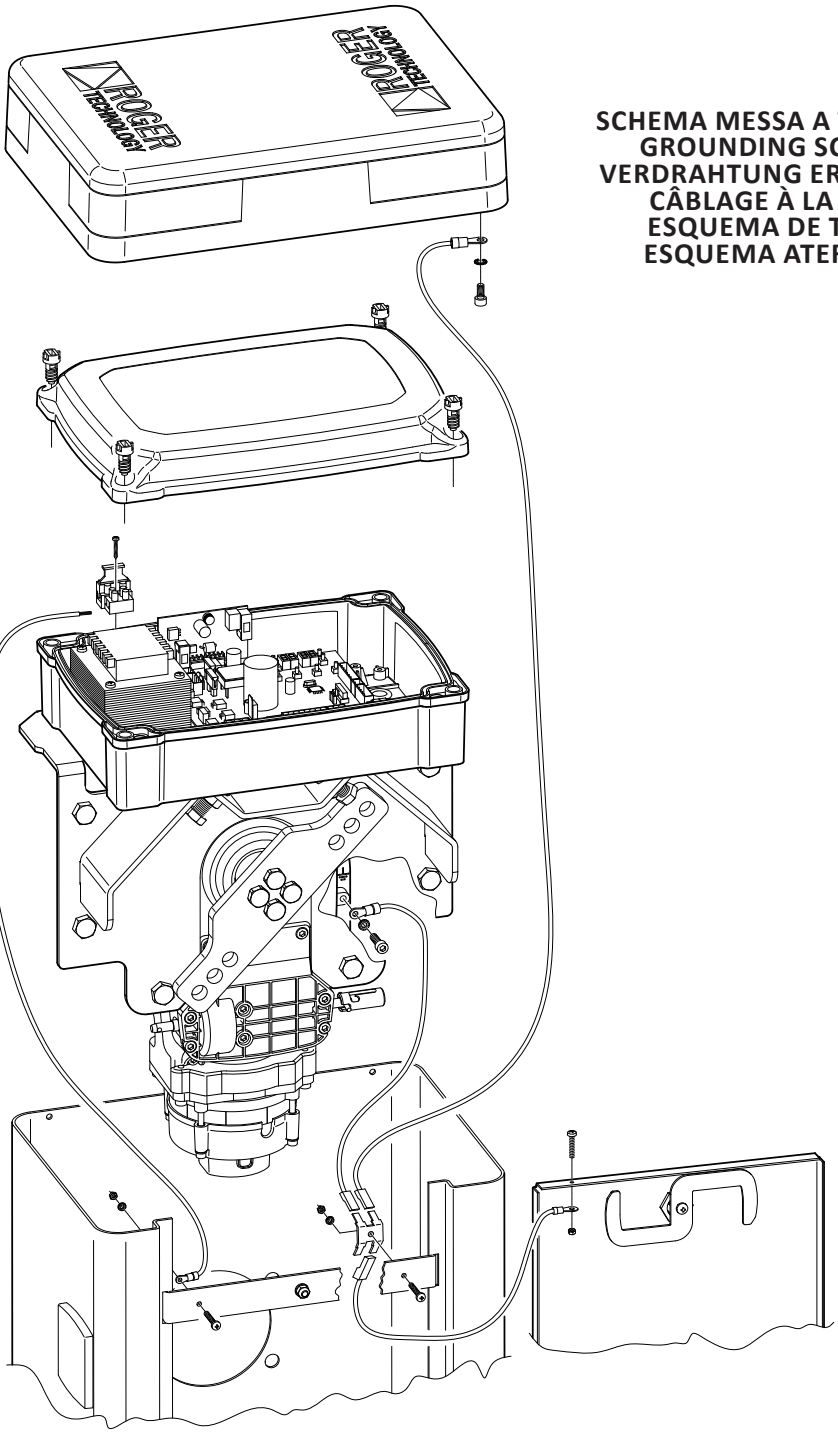


10 MONTAGGIO FOTOCELLULE
MOUNTING PHOTOCELLS
MONTAGE LICHTSCHRANKEN
FOTOCÉLULAS MONTAGEM
PHOTOCELLULES MONTAGE
FOTOCÉLULAS DE MONTAJE



11

SCHEMA MESSA A TERRA
GROUNDING SCHEME
VERDRAHTUNG ERDUNG
CÂBLAGE À LA TERRE
ESQUEMA DE TIERRA
ESQUEMA ATERRADA



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 barriere automatiche
Modello: AG/CTRL
È conforme alle disposizioni legislative che traspongono le seguenti direttive:
– 2006/42/CE
– 2004/108/CE
– 2011/65/CE
E 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 14.
Luogo: Mogliano V.to
Data: 14-01-2014 Firma

KONFORMITÄTSERKLÄRUNG

Der Unterzeichnende, Vertreter des folgenden Herstellers
Roger Technology
Via Botticelli 8, 31020 Bonisiolo di Mogliano V.to (TV)
ERKLÄRT, dass das beschriebene Gerät:
Beschreibung: Steuerzentrale für automatische Schranken
Modell: AG/CTRL
den gesetzlichen Bestimmungen der folgenden Richtlinien:
– 2006/42/CE
– 2004/108/CE
– 2011/65/CE
Es wurden alle Normen bzw. technische Spezifikationen angewendet, die im Folgenden aufgeführt werden:
EN 61000-6-3
EN 61000-6-2
Die letzten beiden Zahlen stehen für das Jahr, in dem die Kennzeichnung ausgeführt wurde CE 14.
Ort: Mogliano V.to
Datum: 14-01-2014 Unterschrift

DECLARACIÓN DE CONFORMIDAD

El abajo firmante representante del siguiente fabricante
Roger Technology
Via Botticelli 8, 31020 Bonisiolo di Mogliano V.to (TV)
DECLARA que el aparato descrito a continuación:
Descripción: Central de control para barreras automáticas
Modelo: AG/CTRL
Está conforme con las disposiciones legales que transponen las siguientes directivas:
– 2006/42/CE
– 2004/108/CE
– 2011/65/CE
Y que se han aplicado todas las normas y/o especificaciones técnicas indicadas a continuación:
EN 61000-6-3
EN 61000-6-2
Últimas dos cifras del año en las que se ha colocado el marcado CE 14.
Lugar: Mogliano V.to
Fecha: 14-01-2014 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 barrier control board
Model: AG/CTRL
Is in conformity with the legislative provisions that transpose the following directives:
– 2006/42/CE
– 2004/108/CE
– 2011/65/CE
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 14.
Place: Mogliano V.to
Date: 14-01-2014 Signature

DECLARATION DE CONFORMITE

Je soussigné, représentant du fabricant suivant
Roger Technology
Via Botticelli 8, 31020 Bonisiolo di Mogliano V.to (TV)
DECLARE que l'équipement décrit par la suite:
Description: Centrale de contrôle pour barrières automatiques
Modèle: AG/CTRL
Est conforme aux dispositions législatives qui transposent les directives suivantes:
– 2006/42/CE
– 2004/108/CE
– 2011/65/CE
Et que toutes les normes et/ou spécifications techniques indiquées ci-dessous ont été appliquées:
EN 61000-6-3
EN 61000-6-2
Deux derniers chiffres où a été fixé le marquage CE 14.
Lieu: Mogliano V.to
Date: 14-01-2014 Signature

DECLARAÇÃO DE CONFORMIDADE

O subscrito, representante do seguinte fabricante
Roger Technology
Via Botticelli 8, 31020 Bonisiolo di Mogliano V.to (TV)
DECLARA que o equipamento descrito em apenso:
Descrição: Central de controlo para barreiras automáticas
Modelo: AG/CTRL
É conforme as disposições legislativas que transpõem as seguintes directrizes:
– 2006/42/CE
– 2004/108/CE
– 2011/65/CE
E que foram aplicadas todas as normas e/ou especificações técnicas a seguir indicadas:
EN 61000-6-3
EN 61000-6-2
Últimos dois algarismos do ano em que foi apensa a marcação CE 14.
Local: Mogliano V.to
Data: 14-01-2014 Assinatura