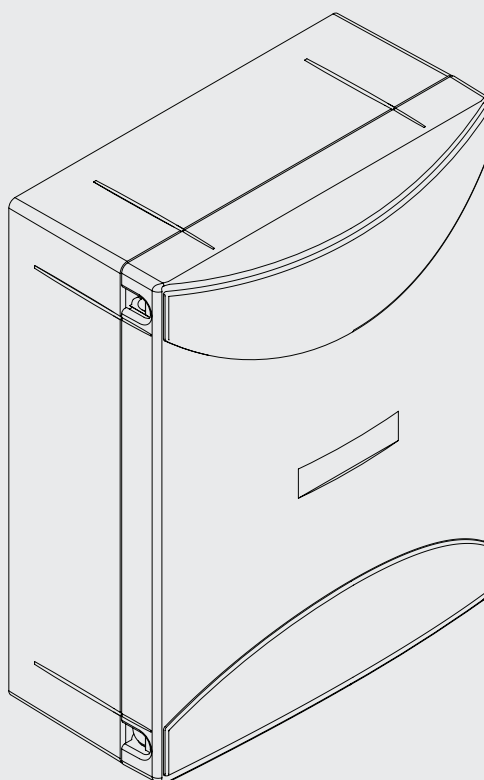


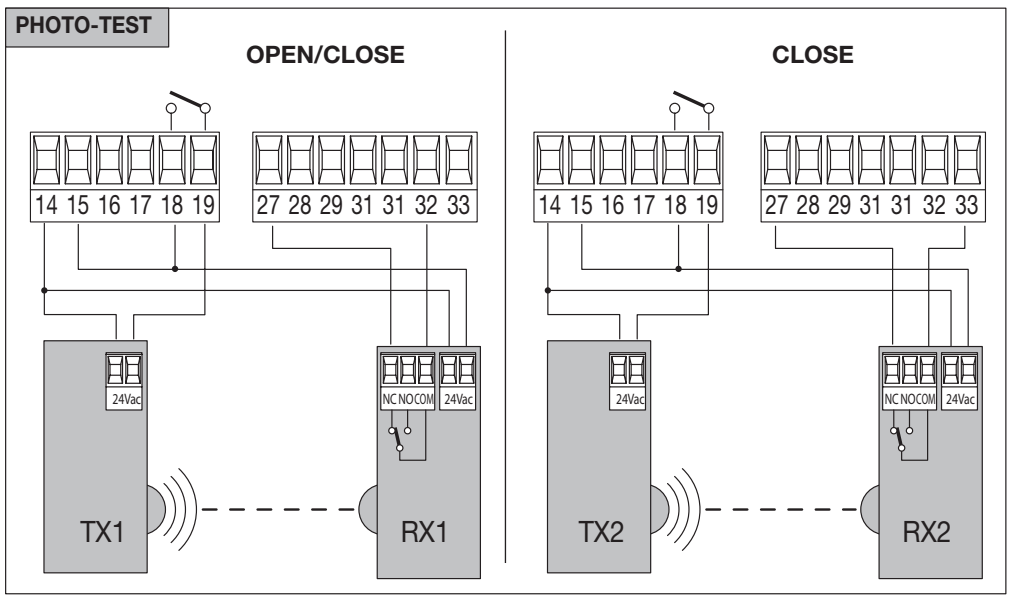
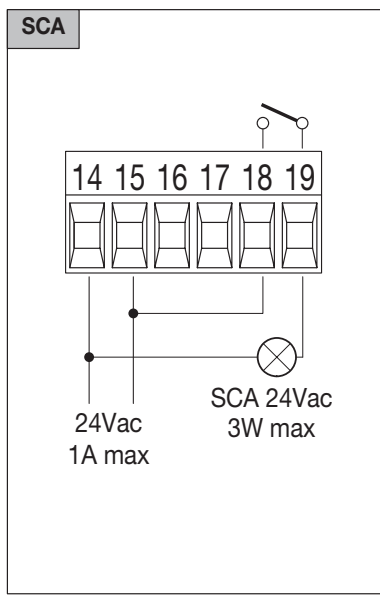
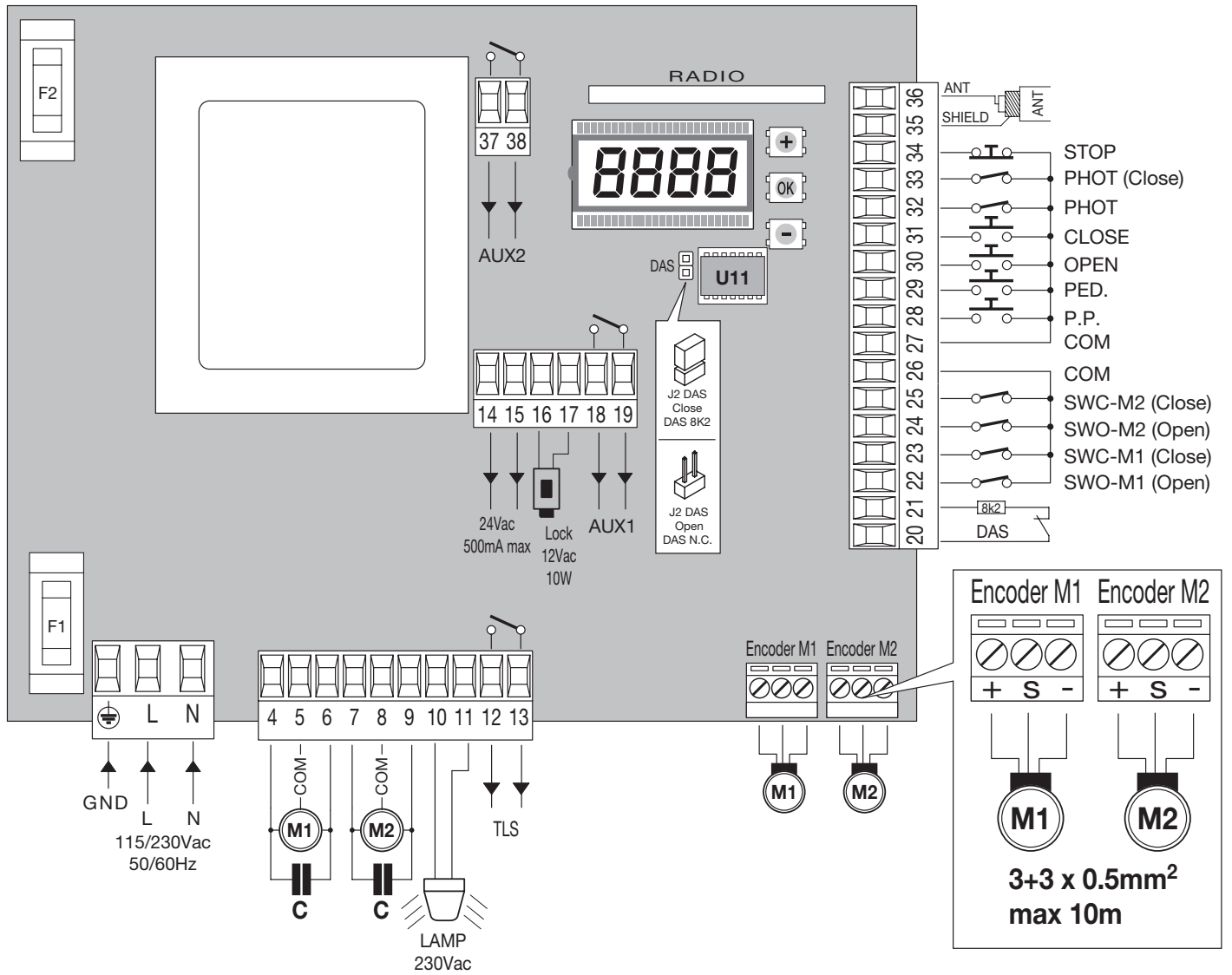
# BRAINY



**BENINCA**<sup>®</sup>  
TECHNOLOGY TO OPEN

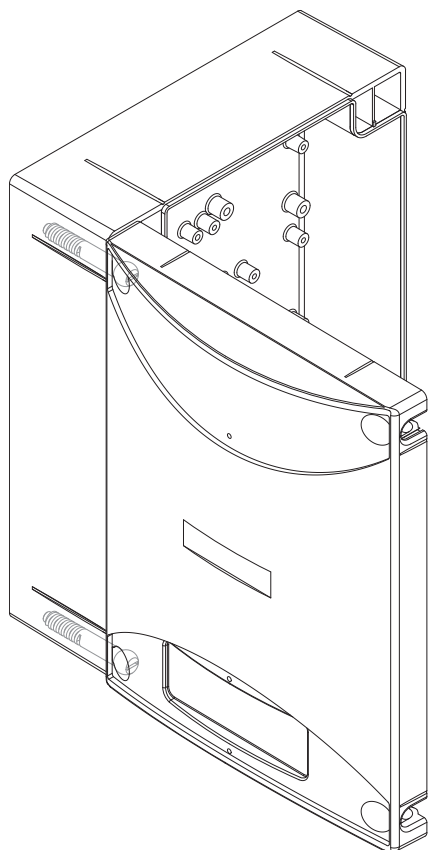
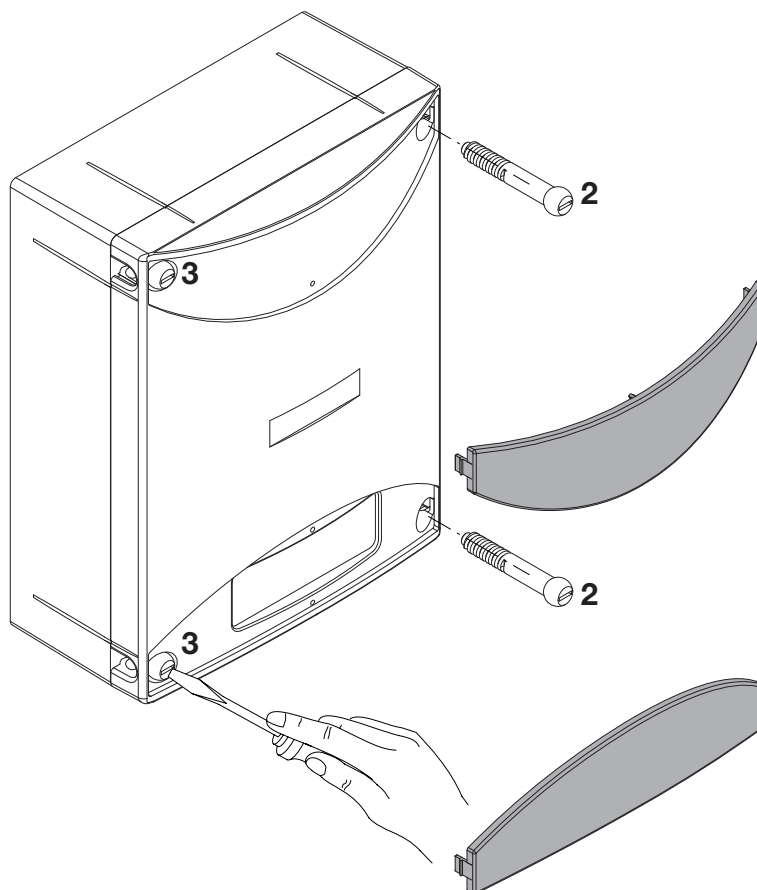
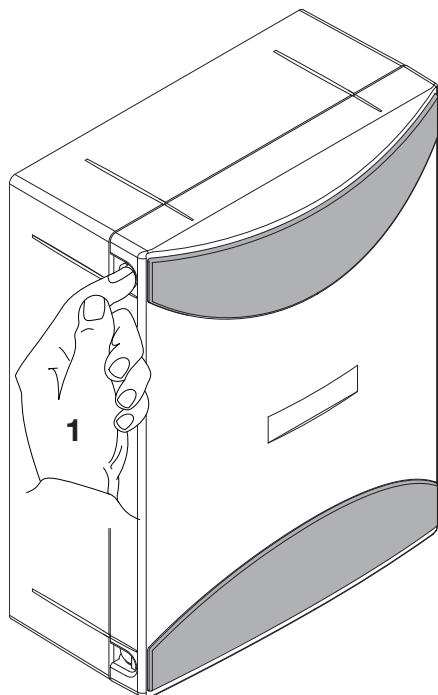


# Fig. 1 BRAINY



**Code**

\_\_\_\_\_



- 1 Premere le alette sui fianchi per sganciare le due maschere copriviti.
- 2 Rimuovere le due viti sul lato di apertura desiderato.
- 3 Allentare le due viti con funzione di cerniera senza rimuoverle, in modo da consentire l'apertura del coperchio.

- 1 Presser les deux ailettes latérales pour décrocher les deux cache-vis.
- 2 Enlever les deux vis sur le côté d'ouverture désiré.
- 3 Desserrer les deux vis faisant fonction de charnière sans les enlever, de manière à permettre l'ouverture du couvercle.

- 1 Press the tabs on the sides to release the two masks that cover the screws.
- 2 Remove the two screws on the desired opening side.
- 3 Slacken the two screws that act as a hinge without removing them, so as to allow opening of the cover.

- 1 Presionar las aletas en los lados para desenganchar las dos tapas cubretornillos.
- 2 Extraer los dos tornillos del lado de apertura deseado.
- 3 Aflojar los dos tornillos con función de bisagra sin extraerlos, a fin de poder abrir la tapa.

- 1 Auf die seitlichen Laschen drücken, so dass die beiden Schraubenblenden befreit werden.
- 2 Die beiden Schrauben an der gewünschten Öffnungsseite ausbauen.
- 3 Zuletzt die beiden als Scharnier dienenden Schrauben lockern, aber nicht ausbauen, damit der Deckel geöffnet werden kann.

- 1 Nacisnąć boczne klapki w celu odhaczenia dwóch masek nakrywających śruby.
- 2 Wyciągnąć dwie śruby po wybranej od otwierania stronie.
- 3 Poluzować dwie śruby blokujące bez wyciągania ich, w sposób umożliwiający otwarcie nakrywki.

## EC Declaration of conformity

Declaration pursuant to Directives 2004/108/EC(EMC); 2006/95/EC(LVD)

Manufacturer:

**Automatismi Benincà SpA**

Address:

**Via Capitello, 45 - 36066 Sandrigo (VI) - Italy**

Declares that the product:

**Command central for 1/2 230 Vac motor, for single or sliding doors: BRAINY**

is compliant with the conditions of the following EC Directives:

• **DIRECTIVE 2004/108/EC OF THE EUROPEAN PARLIAMENT AND COUNCIL** of December 15 2004 regarding the approximation of the legislations of the member States relative to electromagnetic compatibility and that repeals directive 89/336/CEE, according to the following concurred norms:

EN 61000-6-2:2005, EN 61000-6-3:2007.

• **DIRECTIVE 2006/95/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL** of December 12 2006 concerning the approximation of the legislations of the member States relative to electrical material destined to be used within certain voltage limits, according to the following concurred regulations:

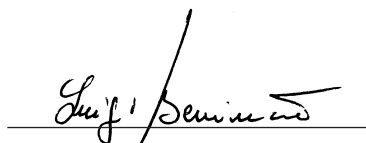
EN 60335-1:2002 + A1:2004 + A11:2004 + A12:2006 + A2:2006 + A13:2008; EN 60335-2-103:2003.

if applicable :

• **DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL** of March 9 1999 regarding radio devices and terminal and telecommunications devices and the reciprocal recognisances of their conformity, according to the following concurred regulations: ETSI EN 301 489-3 V1.4.1 (2002) + ETSI EN 301 489-1 V1.4.1 (2002) + ETSI EN 300 220-3 V1.1.1 (2000) + EN 60950-1 (2001)

Benincà Luigi, Legal manager.

Sandrigo, 02/11/2010.



## WARNINGS

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

None of the information provide in this manual can be considered as being of interest for the end users.

Preserve this manual for future needs.

The technician has to furnish all the information related to the step by step function, the manual and the emergency function of the operator, and to deliver the manual to the final user.



Foresee on the supply net an onnipolar switch or selector with distance of the contacts equal or superior to 3 mms.

Verify that of the electrical system there is an awry differential interrupter and overcurrent protection.

Some typologies of installation require the connection of the shutter to be link at a conductive mass of the ground according to the regulations in force.

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

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

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

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

Check all the connections again before switching on the power.

The unused N.C. inputs must be bridged.

The descriptions and the present illustrations in this manual are not binding. Leaving the essential characteristics of the product unchanged, the manufacturer reserves himself the right to bring any change of technical, constructive or commercial character without undertaking himself to update the present publication.

## TECHNICAL DATA

Mains power supply	230 VAC 50/60 Hz (115VAC 50/60 Hz for BRAINY 115)
Output, Motor	1/2 motor, 230Vac (1/2 motors 115 Vac for BRAINY 115)
Motor maximum power	600W + 600W
Output, power supply of accessories	24VAC 1A max.
Protection level	IP54
Operating temperature	-20°C / +60°C
Radio receiver	433,92 MHz, incorporated and configurable
No. of codes storable in memory	64

## BRAINY CONTROL UNIT

### INPUT/OUTPUT FUNCTIONS

N° Terminals	Function	Description
1-2-3	Power supply	Input 230Vac 50Hz (1-GND/2-Phase/3-Neutral)
4-5-6	Motor 1	Connection of motor 1: (4-start/5-Com/6-start)
7-8-9	Motor 2	Connection of motor 2: (7-start/8-Com/9-start)
10-11	Blinking light	Connection of blinking light 230Vac 40W max.
12-13	TLS	N.O. clean contact (230V/16A max) for courtesy light, timer, etc. The activation time is regulated by the parameter TLS
14-15	24 Vac	Accessories power supply output 24Vac/1A max.
16-17	Lock 12Vdc	Accessories power supply output 12Vac/10W for electric lock (16:0V, 17:+12V)
18-19	AUX1	Normally Open clean contact, configurable as SCA- open gate light (default) or photocell test.
20-21	EDGE	Input, sensitive edge contact Resistive edge: "DAS" Jumper closed Mechanical edge: "DAS" Jumper open When the edge is activated, the gate movement is stopped and reversed for about 3s.
22	SWO-M1	OPEN limit switch input motor 1 (N.C contact.)
23	SWC-M1	CLOSE limit switch input motor 1 (N.C. contact)
24	SWO-M2	OPEN limit switch input motor 2 (N.C. contact)
25	SWC-M2	CLOSE limit switch input motor 2 (N.C. contact)
26-27	COM	Common for limit switch and all the control inputs.
28	Step-by-Step	Step-by-Step button input (N.O. contact)
29	PED	Pedestrian button input (N.O. contact)
30	OPEN	OPEN button input (N.O. contact), configurable as Clock contact
31	CLOSE	CLOSE button input (N.O. contact)
32	PHOT	Active photocell input on opening and closing
33	PHOT CLOSE	Active photocell input only on closing
34	STOP	STOP button input (N.C. contact)
35-36	Antenna	Antenna connection for plug-in radio receiver board (35-screen/36-signal).
37-38	AUX2	Voltage-free Normally Open Contact. Configurable as second radio channel (default) or SCA-open gate LED.
J3	Radio	Plug-in connector for radio receiver.

### NOTES

The EDGE must be connected exclusively to the special inputs 20/21. Two types of EDGE may be used:

If an edge with resistance 8K2 is used, close the Jumper "DAS".

If a mechanical edge with N.C. contact is used, open the Jumper "DAS".

If the edge is not used, bridge the terminals 20-21 and open the Jumper "DAS".

## TO CHECK CONNECTIONS:

- 1) Cut-off power supply.
- 2) Manually release the wings, move them to approx. half-stroke and lock them again.
- 3) Reset power supply.
- 4) Send a step-by-step control signal by pressing the button or the remote control key.
- 5) The wings should start an opening movement.  
If this is not the case, invert the movement wires of the motor. (4<->6 for motor M1, and 7<->9 for motor M2) and the relevant limit switch inputs (22<->23 for motor M1, and 24<->25 for motor M2).

## PROGRAMMING

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

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

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

Other special functions follow the parameters and logic menus and may vary depending on the type of control unit or the software release.

## TO ACCESS PROGRAMMING

- 1 - Press the button <PG>, the display goes to the first menu, Parameters "PAR".
- 2 - With the <+> or <-> button, select the menu you want.
- 3 - Press the button <PG>, the display shows the first function available on the menu.
- 4 - With the <+> or <-> button, select the function you want.
- 5 - Press the button <PG>, the display shows the value currently set for the function selected.
- 6 - With the <+> or <-> button, select the value you intend to assign to the function.
- 7 - Press the button <PG>, the display shows the signal "PRG" which indicates that programming has been completed.

## NOTES

Pressing <-> with the display turned off means an impulse of P.P.

Simultaneously pressing <+> and <-> from inside a function menu allows you to return to the previous menu without making any changes.

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

After waiting 30s the control unit quits programming mode and switches off the display.

## PARAMETERS, LOGIC AND SPECIAL FUNCTIONS

The tables below describe the individual functions available in the control unit.

<b>PARAMETERS (PAR)</b>			
MENU	FUNCTION	MIN-MAX- (Default)	MEMO
<b>t c A</b>	Automatic closing time. Active only with logic "TCA"=ON. At the end of the set time the control unit orders a closing manoeuvre.	1-240-(40s)	
<b>t n 1</b>	Motor 1 work time. Regulates the maximum duration of the opening and closing manoeuvre of the motor 1. It must be set about 4 sec. longer than the actual travel time of the automatism.	5-180-(24s)	
<b>t n 2</b>	Motor 2 work time. Regulates the maximum duration of the opening and closing manoeuvre of the motor 2. It must be set about 4 sec. longer than the actual travel time of the automatism.	5-180-(24s)	
<b>t P E d</b>	The operating time for partial opening (pedestrian) is adjusted on motor 1. With ENC.: ON, the value is the opening percentage over the total stroke memorised during self-setting. With ENC.: OFF, the value is the opening percentage over the time preset in TM1 parameter.	1-99-(50%)	
<b>P n o 1</b>	The torque applied to motor 1 in the OPENING* phase is adjusted.	1-99-(40%)	
<b>P n c 1</b>	The torque applied to motor 1 in the CLOSING* phase is adjusted.	1-99-(40%)	
<b>P n o 2</b>	The torque applied to motor 2 in the OPENING* phase is adjusted.	1-99-(40%)	
<b>P n c 2</b>	The torque applied to motor 2 in the CLOSING* phase is adjusted.	1-99-(40%)	
<b>t d n o</b>	Mot.2 opening delay time. Regulates the delay time of motor 2 on opening with respect to motor 1	0-15-(2s)	
<b>t d n c</b>	Mot.1 closing delay time Regulates the delay time of motor 1 on closing with respect to motor 2	0-40-(3s)	
<b>t L S</b>	TLS contact activation time. At each manoeuvre the contact closes for the set time.	1-240-(60s)	

<b>tLoc</b>	Electric lock activation time. If the electric lock is not used, set the parameter at 0.	0-5-(3s)	
<b>tSN1</b>	Motor 1 slowing time Regulates the duration of the slowing phase of motor 1 on opening and closing. Value is calculated as a percentage on the space covered during the complete operation. 0 = slowing time disabled.	0-99-(0%)	
<b>tSN2</b>	Motor 2 slowing time Regulates the duration of the slowing phase of motor 2 on opening and closing. Value is calculated as a percentage on the space covered during the complete operation. 0 = slowing time disabled.	0-99-(0%)	
<b>PSo1</b>	The torque applied to motor 1 during braking in the opening phase is adjusted *	1-99-(70%)	
<b>PSc1</b>	The torque applied to motor 1 during braking in the closing phase is adjusted *	1-99-(70%)	
<b>PSo2</b>	The torque applied to motor 2 during braking in the opening phase is adjusted *	1-99-(70%)	
<b>PSc2</b>	The torque applied to motor 2 during braking in the closing phase is adjusted *	1-99-(70%)	
<b>SEAU</b>	The intervention threshold of the anti-crashing device (Encoder) during the phase at normal speed is adjusted.* 0:Off-1:minimum sensitivity - 99: maximum sensitivity	0-99-(0%)	
<b>SEAr</b>	The intervention threshold of the anti-crashing device (Encoder) during braking is adjusted*. 0:Off-1:minimum sensitivity - 99: maximum sensitivity	0-99-(0%)	
<b>tInc</b>	This parameter is enabled only for motors equipped with Encoder. The encoder inhibition is regulated near the opening and closing mechanical stoppers. 1: minimum distance – 250: maximum distance	1-250-(250)	
<b>** WARNING: AN INCORRECT SETTING OF THESE PARAMETERS MAY RESULT IN A DANGER. COMPLY WITH REGULATIONS IN FORCE!</b>			

<b>LOGIC (L00)</b>			
<b>MENU</b>	<b>FUNCTION</b>	<b>ON-OFF-(Default)</b>	<b>MEMO</b>
<b>tCA</b>	Enables or disables automatic closing On: automatic closing enabled Off: automatic closing disabled	(ON)	
<b>IBL</b>	Enables or disables condominium function. Off: condominium function disabled. On: condominium function enabled. The step-by-step impulse or transmitter impulse has no effect during the opening phase.	(OFF)	
<b>IBCRA</b>	The bloc of flat function is enabled or disabled. On: the bloc of flat function is enabled. The Step-by-Step signal or the transmitter signal has no effect during the TCA counting. Off: the bloc of flat function is disabled.	(OFF)	
<b>ScL</b>	Enables or disables rapid closing On: rapid closing enabled. With the gate open or in the opening phase the intervention of the photocell causes automatic closing after 3 s. Active only with TCA:ON. Off: rapid closing disabled.	(OFF)	
<b>PP</b>	Selects the operating mode of the "Step by step button" and of the transmitter. On: Operation: OPEN > CLOSE > OPEN > Off: Operation: OPEN > STOP > CLOSE > STOP >	(OFF)	
<b>PrE</b>	Enables or disables pre-blinking. On: Pre-blinking enabled. Blinking is activated 3s before the motor starts. Off: Pre-blinking disabled.	(OFF)	
<b>hAN</b>	Enables or disables the inversion stroke function On: Function enabled. Before each opening or closing manoeuvre the control unit orders a manoeuvre of 2s in the opposite direction to facilitate the release of the electric lock. Off: Function disabled.	(OFF)	

<b>bLc</b>	Enables or disables the block maintaining function. Recommended for hydraulic motors to keep the leaf resting against the mechanical stop block. On: Block maintaining function enabled. Every 2 hours the control unit makes a closing manoeuvre with a duration of about 3s to keep the leaf in contact. Off: Block maintaining function disabled.	(OFF)	
<b>SPn</b>	Enables or disables starting torque function. On: Starting torque enabled. At the start of each manoeuvre for 2s the motor operates at maximum torque. Off: Starting torque disabled.	(ON)	
<b>LtCA</b>	Selects the operating mode of the blinking light during the time TCA On: Blinking light on during TCA Off: Blinking light off during TCA	(OFF)	
<b>cLoc</b>	Selects the mode of the OPEN input On: OPEN input with CLOCK function. To be used for connection to a timer for timed opening/closing. (Contact CLOSED- gate open, Contact open, normal operation).	(OFF)	
<b>htr</b>	Enables or disables Man present function. On: Man Present operation. The OPEN/CLOSE buttons must be held down during the whole manoeuvre. Off: Automatic operation.	(OFF)	
<b>mot</b>	Select the 1/2 motors operating mode: On: only one motor (motor 1) active. Function to be used in the following cases: - for single motor, to connect M1:4-5-6. - for two synchronized motors (for instance overhead door), to connect M1:4-5-6 and M2:7-8-9. You need to regulate the parameters related to the motor 1, the limit switch entries M2 are disarmed (not activate). Off: Both motors operating.	(OFF)	
<b>not</b>	The calculation of residual operating time is activated or deactivated in the event of partial operations: On: Calculation of deactivated time. In case of partial operations, the operating time is reset. The following operation restarts for the entire time preset by parameter TM1/TM2. Off: Calculation of activated time. In case of partial operations, the operating time is stored in memory and then subtracted from the TM1/TM2 parameter value in the following operation.	(ON)	
<b>Enc</b>	The Encoder is enabled or disabled. See section " TYPES OF INSTALLATIONS" On: Encoder enabled – The anti-crash sensor is activated. Off: Encoder disabled – The anti-crash sensor is deactivated.	(OFF)	
<b>cuAr</b>	The code programmable transmitters is enabled or disabled. On: Radio receiver enabled only for rolling-code transmitters. Off: Receiver enabled for rolling-code and programmable code transmitters (self-learning and Dip Switch).	(OFF)	
<b>nLoc</b>	Selects the type of electric lock used. On: Magnetic electric lock, normally fed at 12Vdc. Before each opening manoeuvre the power supply is interrupted for the time set by the parameter TLOC. Off: Electric lock with latch, normally not fed. Before each opening manoeuvre power is fed at 12Vdc for the time set by the parameter TLOC.	(OFF)	
<b>trH</b>	The check for integrity of TRIAC is enabled or disabled. On: Activated check: if TRAC is faulty, the motor does not start. Off: the TRIAC is not checked.	(OFF)	
<b>tSt1</b>	The test of photocells to PHOT O input is enabled or disabled. On: Test is enabled. If the test is negative, no operation is performed. See Fig.1 "PHOTO TEST". Off: Test is disabled.	(OFF)	
<b>tSt2</b>	The test of photocells to PHOT C input is enabled or disabled. On: Test is enabled. If the test is negative, no operation is performed. See Fig.1 "PHOTO TEST". Off: Test is disabled.	(OFF)	



<b>2ch</b>	Configuration, AUX2 output. On: AUX2 Output, preset as open gate light. See "SCA" figure. Light switched on with open gate, fast flashing during closure, slow flashing during opening, light off with closed gate. Off: AUX2 output, preset as second radio channel of the built-in receiver.	(OFF)	
<b>bb</b>	The thrust function in the closing phase is activated or deactivated by this logic. On: the operation in the closing phase is carried out at normal speed during the last second (braking is disabled). In this way, a better hooking of the electric lock is performed. Off: disabled function.	(OFF)	
<b>horn</b>	The automatic switching is activated/deactivated in Service Man mode. On: If the sensitive edge remains activated for at least 10 seconds with open or closed gate, the control unit automatically switches to Service man mode. Off: Disabled function.	(OFF)	
<b>rEN</b>	The remote storage of the radio transmitter codes is enabled or disabled (see par. REMOTE LEARNING). On: Enabled remote storage Off: Disabled remote storage.	(ON)	

### RADIO (rAd)

MENU	FUNZIONE
<b>pp</b>	By selecting this function, the receiver is waiting for (Push) a transmitter code to be assigned to the step-by-step function. Press the transmitter key, which is to be assigned to this function. If the code is valid, it will be stored in memory and OK will be displayed. If the code is not valid, the Err message will be displayed.
<b>2ch</b>	By selecting this function, the receiver is waiting for (Push) a transmitter code to be assigned to the second radio channel. Press the transmitter key, which is to be assigned to this function. If the code is valid, it will be stored in memory and OK will be displayed. If the code is not valid, the Err message will be displayed.
<b>PEd</b>	When this function is selected, the receiver awaits (Push) a transmitter code to be assigned to the pedestrian opening function (see TPED parameter). Press the transmitter key, which is to be assigned to this function. If the code is valid, it will be stored in memory and OK will be displayed. If the code is not valid, the Err message will be displayed.
<b>cLr</b>	By selecting this function, the receiver is waiting for (Push) a transmitter code to be erased from memory. If the code is valid, it will be stored in memory and OK will be displayed. If the code is not valid, the Err message will be displayed.
<b>rEr</b>	The memory of the receiver is entirely erased. Confirmation for the operation is asked. By selecting this function, the receiver waits for (Push) the GPM key to be pressed again to confirm the operation. At end of erasing, the OK message is displayed

Note: The transmitters are stored in an EPROM memory (Fig.1 -U11), which can be removed and repositioned in a new control unit, it required.

### AUTOSET (AUtO)

The control unit performs a series of operations for the learning of the door leaf stroke. Initially, both leaves are moved to closed position, then, after one, or both leaves, has carried out some opening and closing operations with different speeds, the working OK is displayed on the control unit. If this operation is not successful, the message ERR is displayed. After checking both cables and the presence of obstacles again, repeat the operation.

### CYCLES NUMBER (nRRn)

Displays the number of complete cycles (open+close) carried out by the automation.  
When the <PG> button is pressed for the first time, it displays the first 4 figures, the second time it shows the last 4. Example <PG> 00 12 >>> <PG> 3456: made 123.456 cycles.

### MAINTENANCE CYCLES (MRc i)

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

## RESET (rE5)

RESET of the control unit. ATTENTION!: Returns the control unit to the default values.

Pressing the <PG> button for the first time causes blinking of the letters rE5, pressing the <PG> button again resets the control unit.

Note: The transmitters are not erased from the receiver nor is the access password.

All the logics and all the parameters are brought back to default values, it is therefore necessary to repeat the autosest procedure.

## PROTECTION CODE (codE)

It allows to type in an access protection code to the programming of the control unit.

A four-character alphanumeric code can be typed in by using the numbers from 0 to 9 and the letters A-B-C-D-E-F.

The default value is 0000 (four zeros) and shows the absence of a protection code.

While typing in the code, this operation can be cancelled at any moment by pressing keys + and – simultaneously. Once the password is typed in, it is possible to act on the control unit by entering and exiting the programming mode for around 10 minutes in order to allow adjustments and tests on functions.

By replacing the 0000 code with any other code, the protection of the control unit is enabled, thus preventing the access to any other menu. If a protection code is to be typed in, proceed as follows:

- select the Code menu and press OK.
- the code 0000 is shown, also in the case a protection code has been previously typed in.
- the value of the flashing character can be changed with keys + and -.
- press OK to confirm the flashing character, then confirm the following one.
- after typing in the 4 characters, a confirmation message “CONF” appears.
- after a few seconds, the code 0000 appears again
- the previously stored protection code must be reconfirmed in order to avoid any accidental typing in.

If the code corresponds to the previous one, a confirmation message “oH” appears.

The control unit automatically exits the programming phase. To gain access to the Menus again, the stored protection code must be typed in.

**IMPORTANT: TAKE NOTE of the protection code and KEEP IT IN A SAFE PLACE for future maintenance operations.**

**To remove a code from a protected control unit it is necessary to enter into programming with the password and bring the code back to the 0000 default value.**

**IF YOU LOOSE THE CODE, PLEASE CONTACT THE AUTHORISED SERVICE CENTER FOR THE TOTAL RESET OF THE CONTROL UNIT.**

## BRAKING

With the ENC=OFF logics, braking is given by the TSM1/TSM2 parameter value referred to the TM1/TM2 operating time. For example, if the operation of motor 1 lasts 20 seconds and TM1=24s and TSM1=8 are preset, 4 s braking will result (20-(24-8)).

With ENC=ON logics, braking is calculated as a percentage on the space covered during the complete operation. If, for example, TSM1=20, 20% of the operation will be slow down.

## FUSES

F1: F6.3A (230VAC) / F10A (115VAC) – Motor protection

F2: T315mA (230VAC) – T500mA (115VAC) – Protection for primary transformer

## TRANSMITTER REMOTE LEARNING

If the transmitter code is already stored in the receiver, the remote radio learning can be carried out (without accessing the control unit).

**IMPORTANT:** The procedure should be carried out with gate in the opening phase, during the TCA dwell time.

Proceed as follows:

- 1 Press the hidden key of the transmitter, the code of which has already been stored in memory.
- 2 Within 5 seconds, press the already memorised transmitter key corresponding to the channel to be matched to the new transmitter. The flashing light switches on.
- 3 Within 10 seconds, press the hidden key of the new transmitter.
- 4 Within 5 seconds, press the key of the new transmitter to be matched to the channel selected at item 2. The flashing light switches off.
- 5 The receiver stores the new transmitter code and exits from the programming mode immediately.

## TYPES OF INSTALLATION

### AUTOMATIC SYSTEM WITH ENCODER

Start a self-test operation, as indicated in the AUTO Menu.

At completion of the self-learning, the value of all torques and the TDMO/TDMC value are preset by the control unit.

If an obstacle is present, the Encoder acts as anti-crash sensor. Its sensitivity is adjusted by SEAV and SEAR parameters.

### AUTOMATIC SYSTEM WITH ELECTROMECHANIC LIMIT SWITCHES

In this operating mode, the NOT=ON logics and the ENC=OFF logics must be preset.

All parameters must be preset manually. In particular, values of TM1/TM2 must be some seconds higher than the actual operating time.

### AUTOMATIC SYSTEM WITH ELECTROMECHANIC LIMIT SWITCHES AND WITHOUT ENCODER

In this operating mode, the NOT=OFF logics and the ENC=OFF logics must be preset.

All parameters must be preset manually. In particular, values of TM1/TM2 must be some seconds higher than the actual operating time.

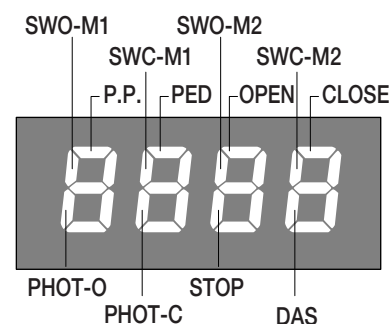
## ERROR MESSAGES

Some messages that are displayed in the event of malfunctions are shown hereunder:

<i>Enc 1</i>	Error, motor 1 encoder	Check the connection to motor 1 encoder
<i>Enc 2</i>	Error, motor 2 encoder	Check the connection to motor 2 encoder
<i>Opp 1</i>	Error, motor 1 obstacle	Check the presence of obstacles on the motor 1 leaf stroke
<i>Opp 2</i>	Error, motor 2 obstacle	Check the presence of obstacles on the motor 2 leaf stroke
<i>Err 1</i>	Error, check motor 1 circuit	Check connections to motor 1
<i>Err 2</i>	Error, check motor 2 circuit	Check connections to motor 2
<i>Err 3</i>	Error, check actiation relay	Ask for technical assistance
<i>Err 4</i>	Error, check PHOTA photocell	Check connections, alignment of PHOT A photocell or obstacle present.
<i>Err 5</i>	Error, check PHOTC photocell	Check connections, alignment of PHOT C photocell or obstacle present.
<i>Err 6</i>	Error, activated sensitive edge (during self-set)	During self-setting, the safety edge was activated.
<i>Err 7</i>	Error, activated stop (during self-test)	During self-setting, the STOP input was activated.
<i>Err 8</i>	Error, activated input (during self-test)	During self-setting, a Start/Pedestrian/Open/Close input was activated.

## DIAGNOSTICS

In the event of malfunctions, by pressing key + or - the status of all inputs (limit switches, control and safety) can be displayed. One segment of the display is linked to each input. In the event of failure it switches on according to the following scheme.



## WASTE DISPOSAL

If the product must be dismantled, it must be disposed according to regulations in force regarding the differentiated waste disposal and the recycling of components (metals, plastics, electric cables, etc.). For this operation it is advisable to call your installer or a specialised company.

**BENINCA<sup>®</sup>**

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