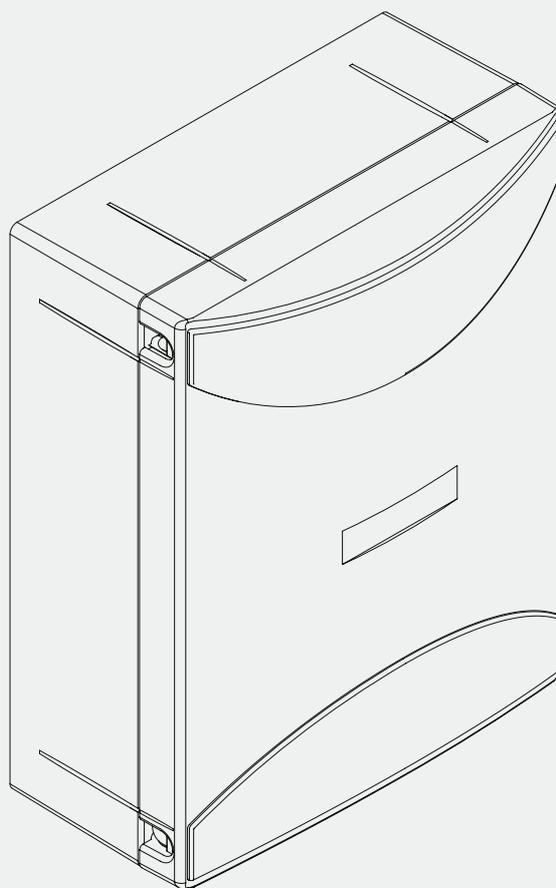


BRAINY 24 PLUS

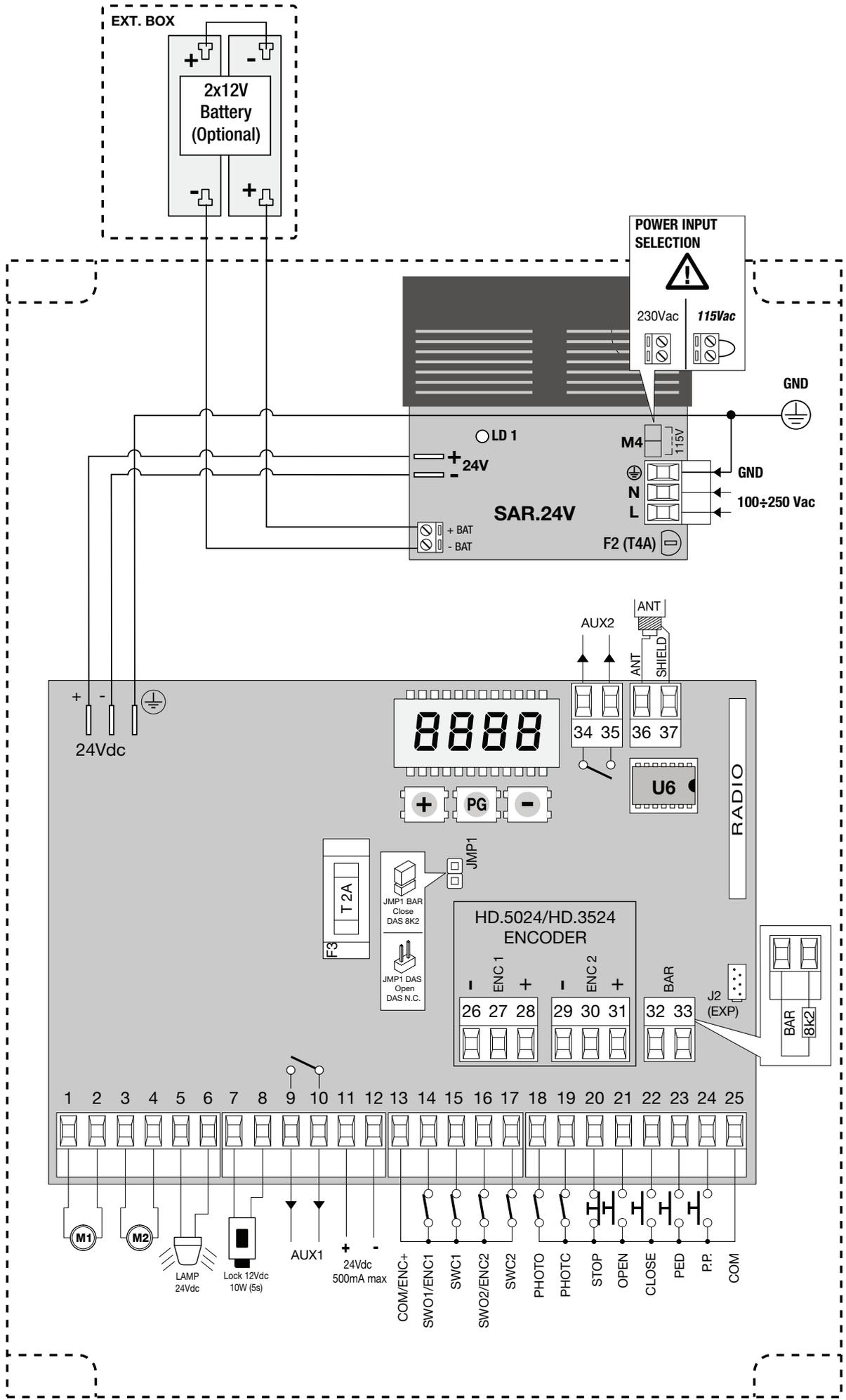


BENINCA[®]
TECHNOLOGY TO OPEN

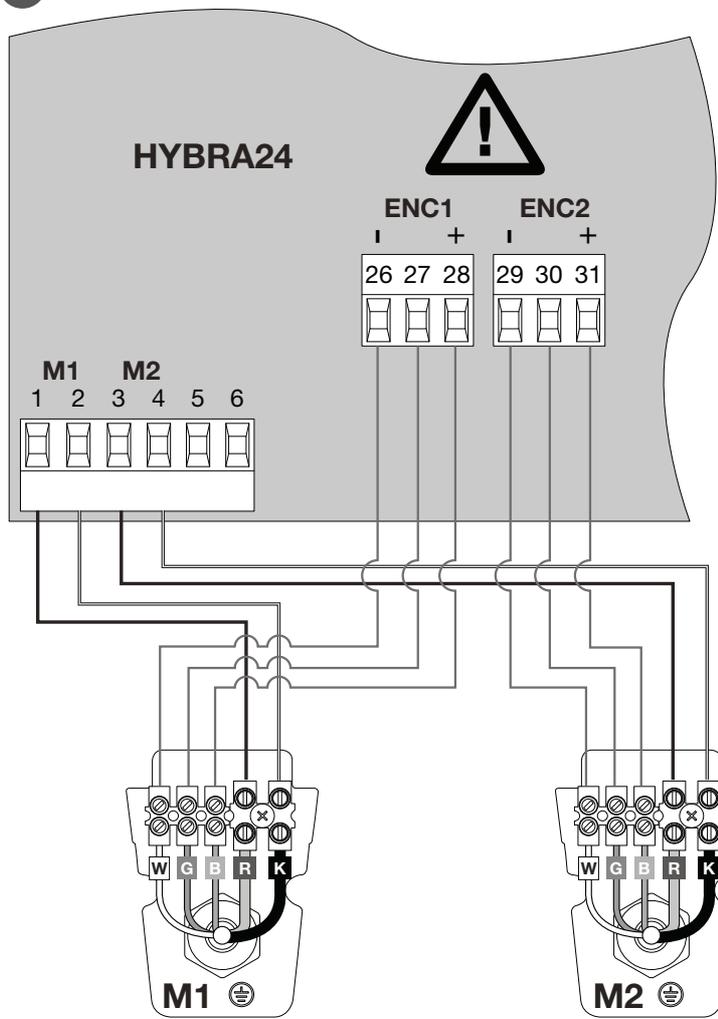


UNIONE NAZIONALE COSTRUTTORI
AUTOMATISMI PER CANCELLI, PORTE
SERRANDE ED AFFINI





2



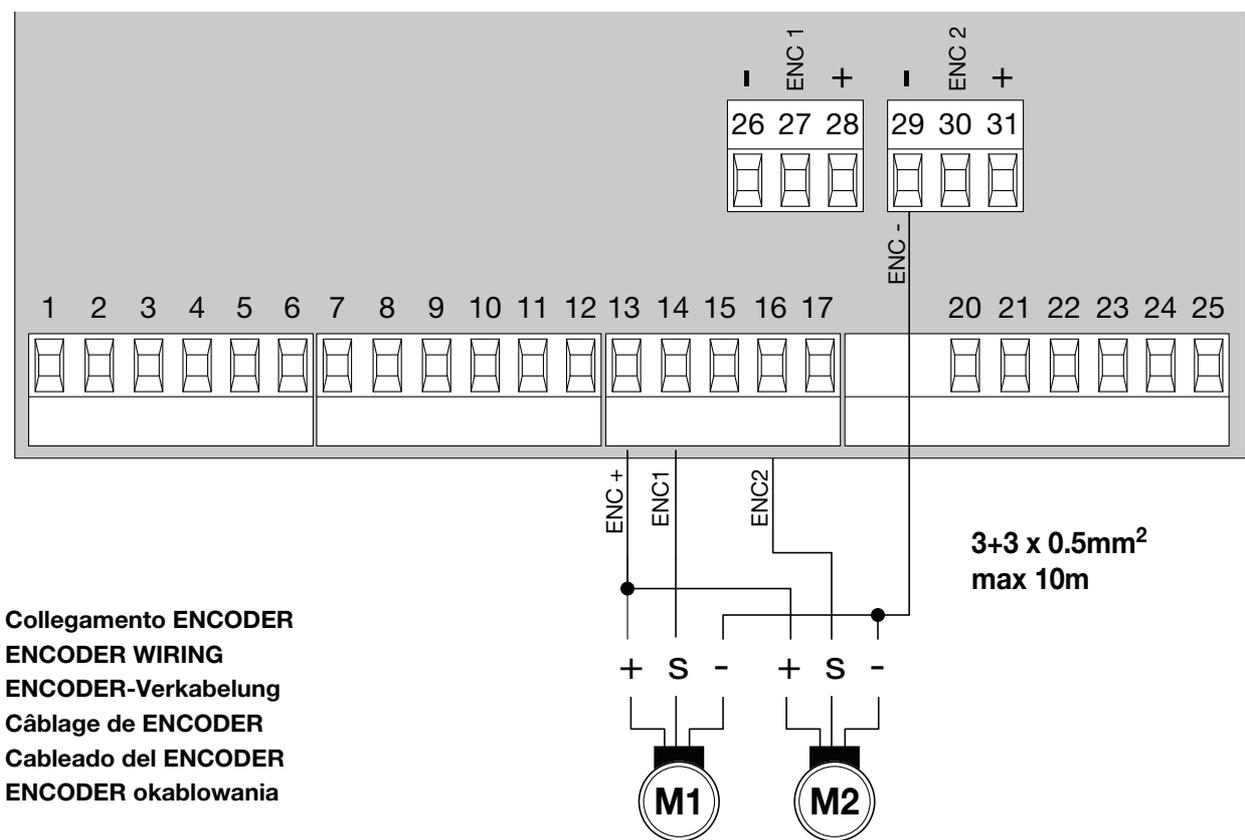
Collegamento ENCODER HD 3524/5024
ENCODER WIRING HD 3524/5024
ENCODER-Verkabelung HD 3524/5024
Câblage de ENCODER HD 3524/5024
Cableado del ENCODER HD 3524/5024
ENCODER okablowania HD 3524/5024

- ENC-** **W** Bianco **White** *Weiß* Blanc **Blanco** *Biały*
- ENC** **G** Verde **Green** *Grün* Vert **Verde** *Zielony*
- ENC+** **B** Marrone **Brown** *Braun* Brun **Marrón** *Brązowy*
- M+24** **R** Rosso **Red** *Rot* Rouge **Rojo** *Czerwony*
- M-24** **K** Nero **Black** *Schwarz* Noir **Negro** *Czarny*



Utilizzare questo collegamento solo con motori oleodinamici serie HD
 Use this connection only with HD series hydraulic motors
 Verwenden Sie diesen Anschluss nur bei Hydraulikmotoren der Serie HD
 Utiliser cette connexion uniquement avec les moteurs hydrauliques de la série HD
 Utilice esta conexión sólo con motores hidráulicos de la serie HD
 Tęgo połączenia należy używać tylko z silnikami hydraulicznymi serii HD

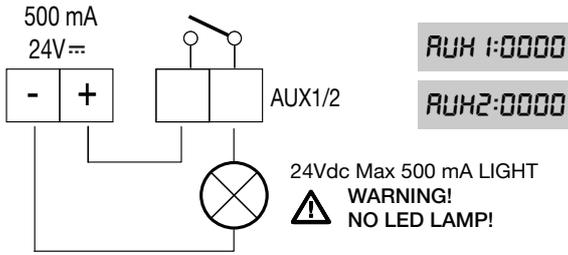
3



Collegamento ENCODER
ENCODER WIRING
ENCODER-Verkabelung
Câblage de ENCODER
Cableado del ENCODER
ENCODER okablowania

3+3 x 0.5mm²
max 10m

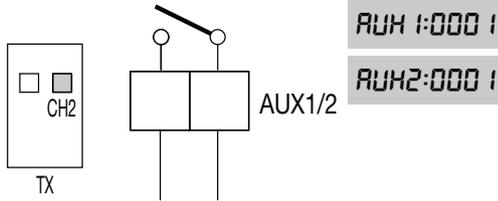
SCA



RUH 1:0000

RUH2:0000

II° CH RADIO

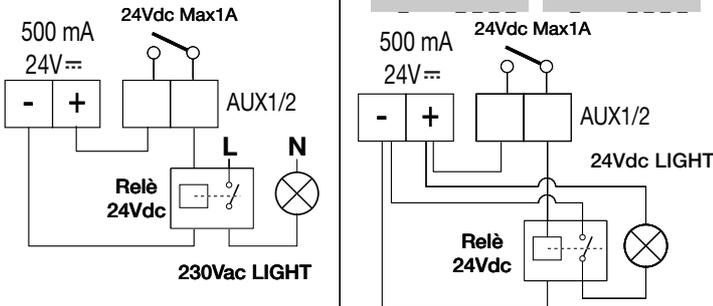


RUH 1:000 1

RUH2:000 1

SERVICE LIGHT

ZONE LIGHT



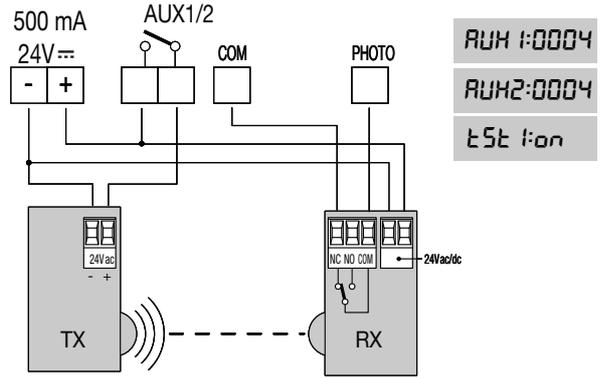
RUH 1:0002

RUH2:0002

RUH 1:0003

RUH2:0003

PHOTOTEST - PHOT OP

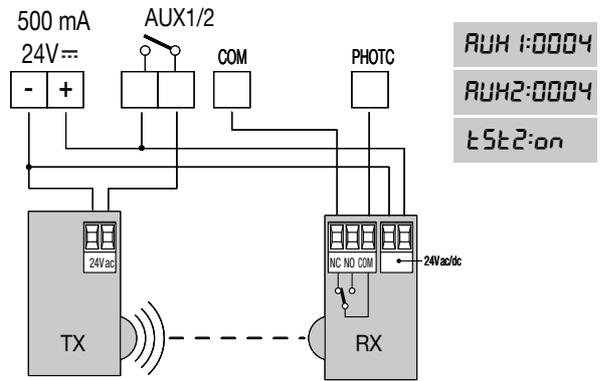


RUH 1:0004

RUH2:0004

tSt 1:0n

PHOTOTEST - PHOT CL



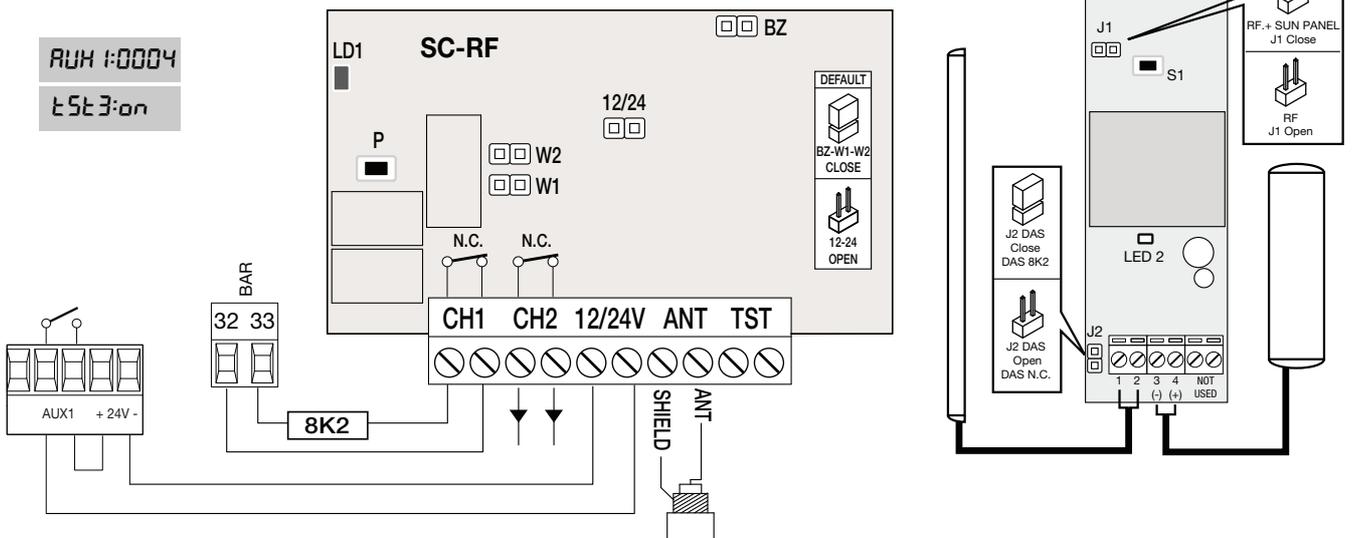
RUH 1:0004

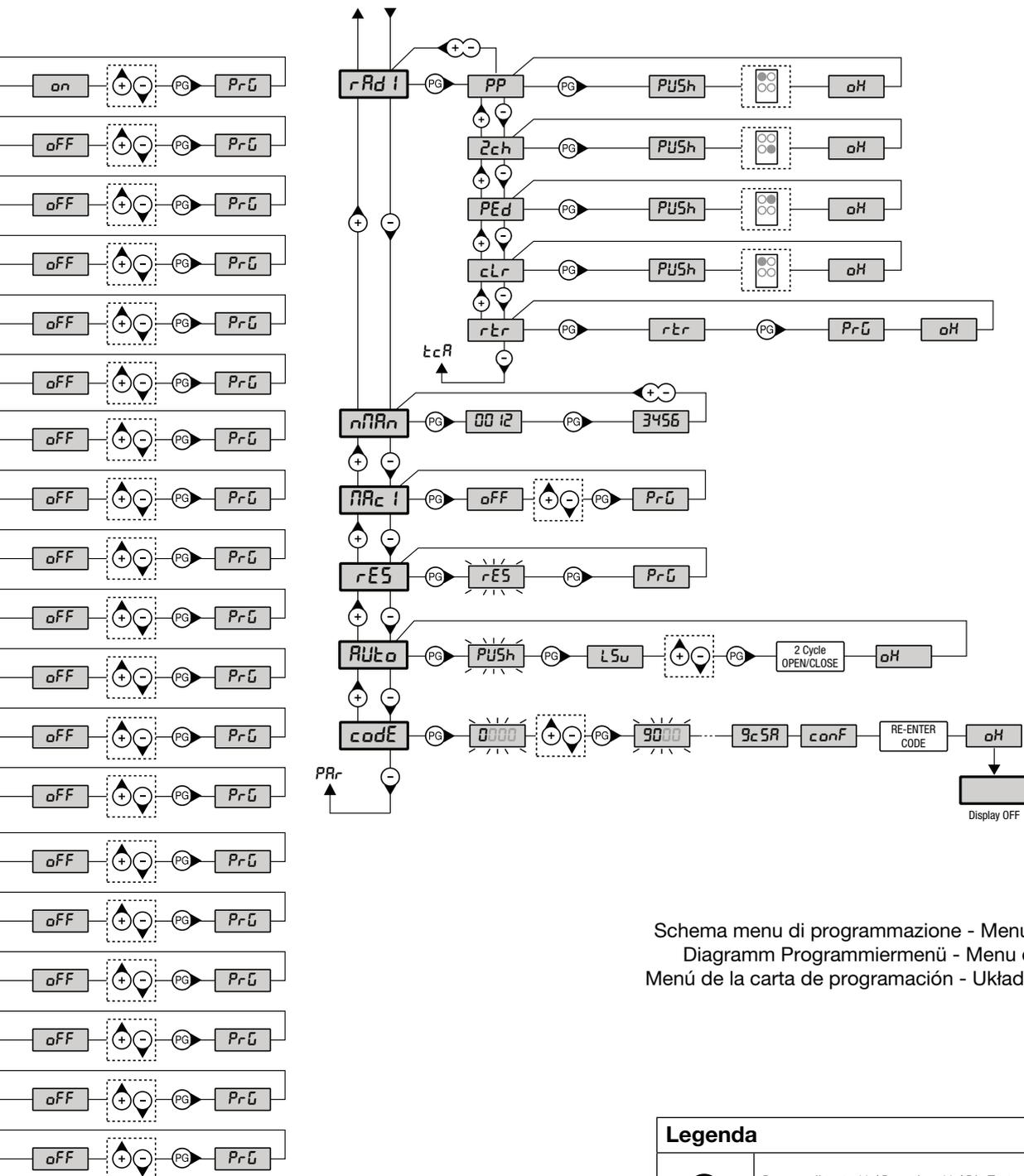
RUH2:0004

tSt 2:0n

RUH 1:0004

tSt 3:0n





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

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

BRAINY 24 PLUS CONTROL UNIT

ARC COMPATIBLE CONTROL UNIT

IMPORTANT, PLEASE READ CAREFULLY:

The radio receiver in this product is compatible with the new ARC (Advanced Rolling Code) transmitters which, thanks to 128-bit encryption ensure superior copy-security.

Storing new ARC transmitters is quite similar to that of normal rolling code transmitters with HCS coding, but be aware that:

- 1) ARC transmitters and Rolling Code HCS can not be stored in a single receiver.
- 2) The first transmitter memorized determines the type of transmitters to be used later. If the first transmitter memorized is ARC, you can not store Rolling code HCS transmitters, and vice versa.
- 3) Fixed code transmitters may only be used in conjunction with Rolling code HCS transmitters, bringing the logic CVAR OFF. They are, therefore, not usable in combination with the ARC transmitters. If the first rolling code transmitter stored is an ARC CVAR the logic is inoperative.
- 4) If you want to change the type of transmitters it is necessary to proceed with a receiver reset.

1) WIRE DIAGRAM

Wire connections shown in Fig. 1 are described hereunder:

SAR.24V		
Terminal	Function	Description
L-N-GND	Power supply	Power supply input (115V ± 10% or 230V ± 10%) selectable via terminal M4
M4	Power supply selection	WARNING: to use the central unit with 115V power supply, it is necessary to jumper this terminal.
+ 24V -	Output 24Vdc	Controller BRAINY 24 PLUS power supply output 24 Vdc
+BAT-	Batteries	Clamp input for connection of back-up batteries (accessory).
BRAINY 24 PLUS		
Terminal No.	Function	Description
1-2	Motor 1	Connection, motor 1: 24VDC 16A max
3-4	Motor 2	Connection, motor 2: 24VDC 16A max
5-6	Flashing light	Connection, flashing light 24VDC 15W max.
7-8	Lock	Output, 12Vdc/10W power supply for electric lock (7:0V, 8:+12V)
9-10	AUX1	N.O. contact free from voltage can be configured via the AUX1 parameter
11-12	24 Vdc	Output, accessory power supply, 24VAC/0.5A max. Make sure the devices are correctly connected (i.e. 11:+24Vdc / 12:-0Vdc).
13	COM/ENC+	Common for limit switch and all control inputs or encoder power supply
14	SWO1/ENC1	Limit switch input OPEN motor 1 (N.C. contact) or connection Encoder Motor 1.
15	SWC1	Limit switch input CLOSE motor 1 (N.C. contact).
16	SWO2/ENC2	Limit switch input OPEN motor 2 (N.C. contact) or connection Encoder Motor 2.
17	SWC2	Limit switch input CLOSE motor 2 (N.C. contact).
18	PHOT	Input, photocell activated in both opening and closing phases
19	PHOT C	Input, photocell activated in closing phase only (Normally closed contact)
20	STOP	Input, STOP push-button (Normally closed contact)
21	OPEN	Input, OPEN push-button (Normally open contact). It is possible to connect a timer for opening in time slots.
22	CLOSE	Input, CLOSE push-button (Normally open contact)
23	PED	Pedestrian button input (N.O. Contact), controls the motor 1 opening, see TPED parameter. It is possible to connect a timer for opening in time slots.
24	Step-by-Step	Input, step-by-step push button (Normally open contact)
25	COM	Common for Limit switch and all the command inputs.
26	-	Input - Encoder Motor 1
27	ENC1	Input Signal Encoder Motor 1
28	+	Input + Encoder Motor 1
29	-	Input - Encoder Motor 2
30	ENC2	Input Signal Encoder Motor 2
31	+	Input + Encoder Motor 2

32-33	SENSITIVE EDGE (BAR)	Input, sensitive edge contact Resistive edge: "BAR" Jumper closed Mechanical edge: "BAR" Jumper open When the edge is activated, the gate movement is stopped and reversed for about 3s.
34-35	AUX2	N.O. contact free from voltage can be configured via the AUX2 parameter a
36-37	Antenna	Connection to the built-in radio receiver card (30-signal/31-screen).
+ / -	24Vdc	Input, 24VDC power supply.
U11	CONFIGURATION MEMORY	Extractable Eprom Memory. Contains all the control unit configurations (logics, parameters, etc.), including the radiotransmitters. In case of faults it is possible to extract Eprom and insert it into a different control unit, avoiding reprogramming. In case of replacement, it is imperative to respect the Eprom insertion direction.
The control unit is equipped with an built-in radio module for the reception of variable code controls with ARC (Advanced Rolling-Code), 433.92 MHz frequency.		

2) ENCODER WIRING

WARNING:

Terminals 26/31 are to be used with HYDRO 24V motors (HD.3524 and HD.5024) referring to the diagram in Fig.2.

For other types of ENCODER use terminals 13/17 referring to the diagram in Fig.3

3) AUTOSET

This function is used to set the optimal automation operating values and, at the end of the procedure, the parameters of DISPLACEMENT, WORKING TIME and SLOWDOWN are adjusted.

Follow these steps to perform autosest:

1) Ensure that there are no obstacles in the door operating area, if necessary, cordon off the area to prevent access to people, animals, cars, etc.

During the autosest phase, the anti-crush function is not active.

2) Unlock the gear motors as indicated in the specific manual

3) Move both doors half way along the run and re-engage the gear motors.

3) Press the PG button, use the + button to select AUTO function and press OK.

4) Select the type of motor used:

LSW Motors with electromechanical limit switches connected to terminals 13/17.

NLSW Motors without limit switches (timed operation)

ENC Motors with standard encoder connected to terminals 13/17

HD24 HYDRO 24V series motors with encoders connected to terminals 26/31

5) Press OK to start the autosest phase.

6) The central unit performs a sequence of operations: single partial openings, full openings and closings at different speeds, and so on. During this phase, the display will show some acronyms that indicate the operation that is being performed at that time:

OPM1/2: motor 1 or 2 in opening phase

CLM1/2: motor 1 or 2 in closing phase.

If the motor movement is opposite to what is indicated on the display, stop the autosest by pressing any of the programming buttons, reverse the +/- wires of the motor and repeat the autosest operation.

7) At the end of the autosest phase, the OK message is displayed.

Notes:

If the autosest is not successful, an ERR error message is displayed, refer to the Error Message table and proceed accordingly, and then repeat the autosest operation.

4) 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 (PAR>LOG>RAD>NMAN>MACI>RES>AUTO>CODE).

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:

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

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

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

5) PARAMETERS, LOGIC AND SPECIAL FUNCTIONS

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

5.1 PARAMETERS (PRr)			
MENU	FUNCTION	MIN-MAX-(Default)	MEMO
t_{cA}	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)	
t_{PEd}	Adjusts the motor 1 opening percentage (pedestrian function). With Encoder equipped motors the value is expressed in a percentage (99% mean complete opening cycle). With the motors without Encoder or electrical Limit switch, the value is expressed in seconds. In the motors with encoder, the value is expressed in percentage. In motors without encoder the value is expressed in seconds.	1-99 (50)	
t_{SN1}	Adjusts the slowdown phase in the opening and closing of the M1 motor. Value expressed as a percentage on the entire run. With 0 value, slowdown is disabled.	1-99-(20%)	
t_{SN2}	Adjusts the slowdown phase in the opening and closing of the M2 motor. Value expressed as a percentage on the entire run. With 0 value, slowdown is disabled.	1-99-(20%)	
FS_{o1}	Adjusts the motor 1 OPENING speed during the normal phase. Value expressed as a percentage.	50-99 (99%)	
FS_{c1}	Adjusts the motor 2 CLOSING speed during the normal phase. Value expressed as a percentage.	50-99 (99%)	
FS_{o2}	Adjusts the motor 2 OPENING speed during the normal phase. Value expressed as a percentage.	50-99 (99%)	
FS_{c2}	Adjusts the motor 2 s CLOSING speed during the normal phase. Value expressed as a percentage.	50-99 (99%)	
SL_{o1}	Adjusts the motor 1 OPENING speed during the slowdown phases*. Value expressed as a percentage.	10-50 (25%)	
SL_{c1}	Adjusts the motor 1 CLOSING speed during the slowdown phases*. Value expressed as a percentage.	10-50 (25%)	
SL_{o2}	Adjusts the motor 2 OPENING speed during the slowdown phases*. Value expressed as a percentage.	10-50 (25%)	
SL_{c2}	Adjusts the motor 2 CLOSING speed during the slowdown phases*. Value expressed as a percentage.	10-50 (25%)	
PN_{o1}	The anti-crash device* (amperometric sensor) operation is adjusted in the opening phase, at normal speed - Motor 1.	1-99-(50%)**	
PN_{c1}	The anti-crash device* (amperometric sensor) operation is adjusted in the closing phase, at normal speed - Motor 1.	1-99-(50%)**	
PN_{o2}	The anti-crash device* (amperometric sensor) operation is adjusted in the opening phase, at normal speed - Motor 2.	1-99-(50%)**	
PN_{c2}	The anti-crash device* (amperometric sensor) operation is adjusted in the closing phase, at normal speed - Motor 2.	1-99-(50%)**	
PS_{o1}	The anti-crash device* (amperometric sensor) operation is adjusted in the opening phase, at reduced speed - Motor 1.	1-99-(20%)**	
PS_{c1}	The anti-crash device* (amperometric sensor) operation is adjusted in the closing phase, at reduced speed - Motor 1.	1-99-(20%)**	
PS_{o2}	The anti-crash device* (amperometric sensor) operation is adjusted in the opening phase, at reduced speed - Motor 2.	1-99-(20%)**	
PS_{c2}	The anti-crash device* (amperometric sensor) operation is adjusted in the closing phase, at reduced speed - Motor 2.	1-99-(20%)**	
t_{dNo}	Mot.2 opening delay time. Regulates the delay time of motor 2 on opening with respect to motor 1	0-15-(2s)	
t_{dNc}	Mot.1 closing delay time Regulates the delay time of motor 1 on closing with respect to motor 2	0-40-(3s)	
t_{LS}	SERL contact activation time (Service light) UX1/AUX2 terminals. At each manoeuvre the contact closes for the set time. See Figure 4 connection scheme.	1-240-(60s)	
t_{2ch}	Active only when parameter AUX1/AUX2 is set to value 1. Regulates the activation time of second radio channel. With the value set to 0, the contact switches to bistable mode.	0-250-(1s)	
$ALrN$	Activates the alarm output when at least one of the following inputs (STOP - PHOT - PHOTC - BAR - SWO+SWC) remains active for the set time. One of the AUX parameters must be set to 7 (Alarm output) Value expressed in seconds.	10-240 (60s)	
t_{Loc}	Electric lock activation time. The value is expressed in 1/10s (0=0s - 50=5s)	0-50 (5=0,5s)	

uLoc	Electric lock supply voltage. 0: 12V - 1:24V	0-1-(0)	
SEAU	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%)	
SEAR	The intervention threshold of the anti-crashing device (Encoder) during braking is adjusted *. 0:Off-1:minimum sensitivity - 99: maximum sensitivity	0-99-(0%)	
t Inc	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)	
AUX 1	Sets the operating mode of the AUX1 output (N.O. contact) 0: SCA output (gate open indicator light). The light is off when the door is closed, flashes when the door is moving, is on when the door is open. 1: 2CH radio output. The output is controlled by the second radio channel of the built-in receiver (see RADIO menu) 2: courtesy light output (activation time is set by parameter TLS) 3: Zone light output. The contact closes for the duration of the manoeuvre and for the duration of the TCA, it only reopens when the gate is closed. 4: accessory power supply output (for .photocell verification - coast, in combination with logics TST1-TST2-TST3) 5: flashing output 6: gate open alarm output (gate open for twice the set TCA time) 7: NC input alarm output or card error (NC=alarm not active, NO=alarm active)	0 - 7 - (0)	
AUX2	Same settings as parameter AUX1 but referring to output AUX2 (N.O contact)	0-7 - (1)	
<p>* WARNING: AN INCORRECT SETTING OF THESE PARAMETERS MAY RESULT IN AN HAZARD. COMPLY WITH REGULATIONS IN FORCE!</p> <p>With motors without limit switch and/or encoder it adjusts the sensitivity of the sensor which causes arrest during slowing phase. ** 1: minimum force/torque - 99: maximum force/torque.</p> <p><i>The control unit is equipped with two ant-crash devices, the amperometric sensor (regulated by parameters PMO1/2-PMC1/2-PSO1/2-PSC1/2) and the encoder (regulated by parameters SEAV and SEAR).</i> <i>The sensitivity of the amperometric sensor is regulated by default through the Autoset procedure, while the encoder (with the default set) is activated only when the gate stops completely when it hits an obstacle.</i> <i>The use of one system at a time is recommended, giving preference to the amperometric sensor, which has a lower response time.</i></p>			

5.2) LOGIC (L o G I C)

MENU	FUNCTION	ON-OFF-(Default)	MEMO
t c A	Enables or disables automatic closing On: automatic closing enabled Off: automatic closing disabled	(ON)	
i b L	Enables or disables condominium function. On: condominium function enabled. The step-by-step impulse or transmitter impulse has no effect during the opening phase. Off: condominium function disabled.	(OFF)	
i b c A	The multi-flat function is enabled or disabled during the TCA counting. On: the bloc of flat function is enabled. The Step-by-Step signal or the transmitter signal has no effect during the TCA counting. Off: the bloc of flat function is disabled.	(OFF)	
S c L	Enables or disables rapid closing On: rapid closure is enabled. With open gate, or in the opening phase, the activation of the photocell causes the automatic closure 3sec after the total opening of the gate. It is activated only with TCA:ON Off: rapid closing disabled.	(OFF)	
P P	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)	
P r E	Enables or disables pre-blinking. On: Pre-blinking enabled. Blinking is activated 3s before the motor starts. Off: Pre-blinking disabled.	(OFF)	
h A N	Enables or disables the inversion stroke function On: Function enabled. Before each opening 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 L c o	Enables or disables the block function in opening. On: Block function enabled. To use only with motors equipped with Limit switch. After the intervention of the opening Limit switch the control unit delays arrest by about 0.5s, so to allow a better strike of the shutter on the stop locks. Off: Block function disabled	(OFF)	

blcc	Enables or disables the block function in closing. On: Block function enabled. To use only with motors equipped with Limit switch. After the intervention of the opening Limit switch the control unit delays arrest by about 0.5s, so to allow a better strike of the shutter on the stop locks. Off: Block function disabled.	(OFF)	
Soft	Enables or disables start at decreased speed*. On: Executes start ups at decreased speed for 2 seconds to then shift to normal speed. Off: Start at decreased speed not active.	(OFF)	
LtCA	Selects the operating mode of the blinking light during the time TCA On: Blinking light on during TCA Off: Blinking light off during TCA	(OFF)	
nbl 1	Sets the operating mode of the AUX 1/2 outputs set as flashing output (5). On: Flashing (1s On and 1s Off) Off: Flashing on steady (to be used with flashing already equipped with intermittent circuit).	(OFF)	
htr	Enabled or disables HOLD-TO-RUN function On: HOLD-TO-RUN function. The pressure of the OPENS/CLOSES button must be maintained throughout the entire manoeuvre. The opening of the STOP input stops the motor. All the safety inputs are deactivated, except for the Limit switch inputs /SW01/SW02/SWC1/SWC2). Off: Automatic/semiautomatic function	(OFF)	
mot	The operating mode with 1 or 2 motors is selected: On: The motor operation is synchronised. This function must be used in the following cases: - for each single motor, connect it to M1: Terminals 1/2. - for two synchronised motors (e.g. balancing doors), connect one motor to M1: terminals 1/2 and the other to M2: terminals 3/4. Adjust the parameters related to motor 1, the M2 limit switch inputs are deactivated. TDMO and TDMC must be 0. Off: For two non-synchronised motors, e.g. overlapping gate leaves, adjust TDMO and TDMC on the desired values.	(OFF)	
cuAr	Enables or disables cloned ARC transmitters. On: AK series transmitters cloned from an already stored ARC transmitter are enabled. Off: Cloned transmitters are not enabled.	(ON)	
nLoc	Selects the type of electric lock used. On: Magnetic electric lock, normally fed at 12Vdc. Power is cut off to the electric lock output before each opening and closing operation. 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)	
bb	Activates or deactivates the push in closing function. Only with logic SLD:ON On: After intervention of the closing limit switches the control unit delays the stop by approx. 1s (disabling slowing) to favour a better hook of the electric lock. Off: Function disabled.	(OFF)	
RoPF	Activates or deactivates the "Forced opening in the event of mains failure" function (can only be activated when emergency batteries are connected and functioning). On: Function active. In the event of a mains power failure, before the emergency battery is completely discharged, the control unit forces an opening manoeuvre. The automation remains open until the mains power supply is restored. Off: Function not active.	(OFF)	
tSt 1	Enables or disables checking of photocells on PHOT input, active both in closing and in opening. On: Check enabled. If the check has a negative result, no manoeuvre is commanded. See Fig.3 - "PHOTO TEST". Off: Checking of photocells disabled at each manoeuvre.	(OFF)	
tSt 2	Enables or disables checking of photocells on PHOT inputs, active only in closing. On: Check enabled. If the check has a negative result, no manoeuvre is commanded. See Fig.3 - "PHOTO TEST". Off: Checking of photocells disabled at each manoeuvre.	(OFF)	
tSt 3	Enables or disables the TEST of the COSTA (BAR) input. Activation of the TEST function is only possible with the use of the articles SC.RF and RF/RF.SUN, see specific instructions. On: Test enabled. If the test is negative, no manoeuvre is commanded. See Fig.6 - "BAR TEST". Off: Checking disabled.	(OFF)	
tSt n	Enables or disables motors check. On: Check enabled. If the check has a negative result, no manoeuvre is commanded. Off: Check disabled.	(OFF)	
rEn	(Enables or disables remote radiotransmitters learning, as indicated in the paragraph "Remote transmitters learning". On: Remote learning enabled. Off: Remote learning not enabled.	(OFF)	

CAUTION:

Any change to one of these parameters/logic:
SPD1 - SPD2 - SLD1 - SLD2 - TSM1 - TSM2 - SOFT
involves a complete operation at reduced speed.
The PRG message is displayed.

5.3) RADIO (rRd)

MENU	FUNZIONE
PP	By selecting this function, the receiver goes in waiting (PU5h) for a transmitter code to assign to the step-step function. Press the key of the transmitter to assign to this function. If the code is valid, it is memorised and the message oH is displayed If the code is not valid, the message Err is displayed
2ch	By selecting this function, the receiver goes into waiting (PU5h) for a transmitter code to assign to the second radio channel. Press the key of the transmitter to assign to this function. If the code is valid, it is memorised ad the oH message is displayed If the code is not valid, the message Err is displayed.
PEd	By selecting this function, the receiver goes into waiting (PU5h) for a transmitter code to assign to the pedestrian opening function (see parameter TPED). Press the key of the transmitter to assign to this function. If the code is valid, it is memorised ad the oH message is displayed If the code is not valid, the message Err is displayed.
clr	By selecting this function, the receiver goes into waiting (PU5h) for a transmitter code to erase from the memory. If the code is valid, it is erased and the message oH is displayed If the code is not valid or not present in memory, the message Err is displayed
rtr	Completely erases memory of the receiver. Confirmation of the operation is requested. By selecting this function the receiver goes into waiting (PU5h) for a new PGM pressure to confirm the operation. At end of erasing the oH message is displayed

5.4) CYCLES NUMBER (rRn)

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.

5.5) MAINTENANCE CYCLES (rRc 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.

5.6) RESET (rE5)

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

5.7) AUTOSET (RUto)

See AUTOSET paragraph

5.8) 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.

6) TRANSMITTERS REMOTE LEARNING

If an already memorised transmitter is available in the receiver it is possible to carry out remote radio learning (without needing to access the control unit).
IMPORTANT: The procedure must be carried out with leaves in opening during TCA pause or with an open gate if the TCA logic is OFF. The REM logic must be ON.

Proceed as follows:

- 1 Press the hidden key of the transmitter which is already memorised.
- 2 Press, within 5s, the key of the corresponding transmitter which is already memorised to associate to the new transmitter. The flashing light will turn on.
- 3 Press within 10s the hidden key of the new transmitter.
- 4 Press, within 5s, the key of the new transmitter to associate to the channel chosen at point 2. The flashing light will turn off.
- 5 The receiver memorised the new transmitter and immediately exits from programming.

7) FUSES

F3 BRAINY 24 PLUS: T2A - Fuse for the protection of the accessories power supply

F1 SAR.24V: T4A - Fuse for general protection

8) BACK UP BATTERIES

The control unit BRAINY 24 PLUS includes the power pack SAR.24V predisposed for the connection in series of two batteries by 12Vdc 2,1Ah DA.BT2 (optional) which guarantee the regular functioning of the automation in case of temporary power failure.

When the barrier is working with mains voltage the power pack SAR.24V charges the batteries (Fig. 1).

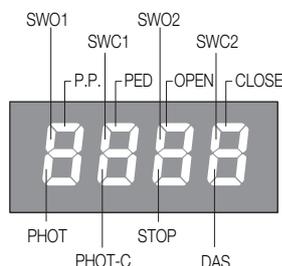
The maximum charging current is 1A, the average charging current is 300 mA (Observe the polarity).

Approximate battery recharge time:

1.2 Ah: 2h

6.5 Ah: 8h

9) DIAGNOSTICS



One segment of the display is linked to each input. In the event of failure it switches on according to the following scheme.

N.C. inputs are represented by the vertical segments. N.O. inputs are represented by the horizontal segments.

The control unit sees the message AMP1 or AMP2 in case of anti-crushing ammeter sensor intervention.

10) ERROR MESSAGES

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

AMP1	Obstacle error motor 1/anti-crushing	Check presence of obstacles on motor 1 leaf run
AMP2	Obstacle error motor 2/anti-crushing	Check presence of obstacles on motor 2 leaf run
ENC1	Error, encoder 1/detection of the obstacle	Check the correct connection of motor 1 encoder to the control unit, that no obstacles are present along the gate stroke and the encoder operates correctly.
ENC2	Error, encoder 2/detection of the obstacle	Check the correct connection of motor 2 encoder to the control unit, that no obstacles are present along the gate stroke and the encoder operates correctly.
ERR1	Motor 1 circuit checking error	Check motor 1 connections
ERR2	Motor 2 circuit checking error	Check motor 2 connections
ERR3	error/fault power circuit	Request technical assistance and eventually replace control unit.
ERR4	PHOTA photocell checking error	Check connections, PHOT A photocell alignment or presence of obstacles.
ERR5	PHOTC photocell checking error	Check connections, PHOTC photocell alignment or presence of obstacles.
ERR6	Error edge active (during autoset)	In autoset phase, the safety edge has intervened.
ERR7	Error active stop (during autoset)	In autoset phase, the STOP input has intervened.
ERR8	Error active input (during autoset)	In autoset phase a PP/Open/Close input has intervened.
THN1	Motor 1 thermal protection intervention	Wait for motor M1 cooling, in case reset does not take place, motor replacement may be necessary
THN2	Motor 2 thermal protection intervention	Wait for motor M2 cooling, in case reset does not take place, motor replacement may be necessary
CON1	Motor 1 communication error	Only for HD.3524 and HD.5024 motors: Communication error between motor Encoder and central unit, check Motor 1 Encoder connections
CON2	Motor 2 communication error	Only for HD.3524 and HD.5024 motors: Communication error between motor Encoder and central unit, check Motor 2 Encoder connections
BAR	Activating BAR input	BAR input has detected an obstacle.

Dichiarazione di Conformità UE

Declaration of Conformity UE

Nome del produttore: Automatismi Benincà SpA
Indirizzo: Via Capitelio, 45
Codice postale e Città: 36066 - Sandrigo (VI) - Italia
Telefono: +39 0444 751030
E-mail: sales@beninca.it

Manufacturer's name: Automatismi Benincà SpA
Postal Address: Via Capitelio, 45
Post code and City: 36066 - Sandrigo (VI) - Italia
Telephone number: +39 0444 751030
E-mail address: sales@beninca.it

Dichiara che il documento è rilasciato sotto la propria responsabilità e appartiene al seguente prodotto:

Declare that the DOC is issued under our sole responsibility and belongs to the following product:

Modello/Tipo: BRAINY 24 PLUS
Tipo di prodotto: Centrale di comando 24Vdc

Model/Product: BRAINY 24 PLUS
Type: Control box 24Vdc

Il produttore dichiara sotto la propria responsabilità che il prodotto sopraindicato risulta conforme alle disposizioni imposte dalle seguenti direttive:

The manufacturer declares under his own responsibility that the above mentioned product complies with the provisions of the following directives:

Direttiva 2014/53/EU
Direttiva 2011/65/EU

Directive 2014/53/EU
Directive 2011/65/EU

Sono state applicate le norme armonizzate e le specifiche tecniche descritte di seguito:

ETSI EN 300 220-1 V3.1.1
ETSI EN 300 220-2 V3.1.1
ETSI EN 301 489-1 V2.1.1
ETSI EN 301 489-3 V2.1.1
EN 61000-6-2:2005, EN 61000-6-3:2007 + A1:2011
EN 60335-1:2012 + A11:2014, EN 60335-2-103:2015

The following harmonized standards and technical specifications have been applied:

ETSI EN 300 220-1 V3.1.1
ETSI EN 300 220-2 V3.1.1
ETSI EN 301 489-1 V2.1.1
ETSI EN 301 489-3 V2.1.1
EN 61000-6-2:2005, EN 61000-6-3:2007 + A1:2011
EN 60335-1:2012 + A11:2014, EN 60335-2-103:2015

Luogo e data:

Sandrigo, 06/10/2023

Place and date:

Sandrigo, 06/10/2023

Firmato per conto di:

Luigi Benincà, Responsabile legale

La documentazione tecnica è gestita da:

Giuliano Faccin, Responsabile tecnico

* Persona autorizzata a redigere la documentazione tecnica a nome del fabbricante.

Signed on behalf of:

Luigi Benincà, Responsabile legale

Technical documentation is handled by:

Giuliano Faccin, Responsabile tecnico

* Person authorised to draw up the technical documentation on behalf of the manufacturer.

EG-Konformitätserklärung (DOC)

Déclaration CE de conformité (DOC)

Name des Herstellers: Automatismi Benincà SpA
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Telefon: +39 0444 751030
E-mail: sales@beninca.it

Nom du producteur : Automatismi Benincà SpA
Adresse: Via Capitelio, 45
Ville et code postal: 36066 - Sandrigo (VI) - Italia
Téléphone: +39 0444 751030
E-mail: sales@beninca.it

Erklären Sie, dass der DOC unter unserer alleinigen Verantwortung ausgestellt wird und zu dem folgenden Produkt gehört:

Je déclare que le document est émis sous ma propre responsabilité et qu'il appartient au produit suivant :

Modell/Produkt: BRAINY 24 PLUS
Type: Steuerung 24Vdc

Modèle/Type: BRAINY 24 PLUS
Type de produit: Centrale de commande 24Vdc

Der Hersteller erklärt auf eigene Verantwortung, dass das oben genannte Produkt mit den Bestimmungen der folgenden Richtlinien übereinstimmt:

Richtlinie 2014/53/EU
Richtlinie 2011/65/EU

Le fabricant déclare sous sa propre responsabilité que le produit mentionné ci-dessus est conforme aux dispositions des directives suivantes :

Directive 2014/53/EU
Directive 2011/65/EU

Die harmonisierten Normen und technischen Spezifikationen, die unten beschrieben werden, wurden angewandt:

ETSI EN 300 220-1 V3.1.1
ETSI EN 300 220-2 V3.1.1
ETSI EN 301 489-1 V2.1.1
ETSI EN 301 489-3 V2.1.1
EN 61000-6-2:2005, EN 61000-6-3:2007 + A1:2011
EN 60335-1:2012 + A11:2014, EN 60335-2-103:2015

Les normes harmonisées et les spécifications techniques décrites ci-dessous ont été appliquées:

ETSI EN 300 220-1 V3.1.1
ETSI EN 300 220-2 V3.1.1
ETSI EN 301 489-1 V2.1.1
ETSI EN 301 489-3 V2.1.1
EN 61000-6-2:2005, EN 61000-6-3:2007 + A1:2011
EN 60335-1:2012 + A11:2014, EN 60335-2-103:2015

Ort und Datum:

Sandrigo, 06/10/2023

Lieu et date :

Sandrigo, 06/10/2023

Unterzeichnet im Namen von:

Luigi Benincà, Responsabile legale

Für die technische Dokumentation ist zuständig:

Giuliano Faccin, Responsabile tecnico

* Person, die befugt ist, die technischen Unterlagen im Namen des Herstellers zu erstellen.

Signé au nom de :

Luigi Benincà, Responsabile legale

La documentation technique est gérée par :

Giuliano Faccin, Responsabile tecnico

* Personne autorisée à établir la documentation technique au nom du fabricant.

Declaración CE de conformidad (DOC)

Deklaracja zgodności CE (DOC)

Nombre del productor: Automatismi Benincà SpA
Dirección: Via Capitello, 45
Ciudad y código postal: 36066 - Sandrigo (VI) - Italia
Teléfono: +39 0444 751030
E-mail: sales@beninca.it

Nazwa producenta: Automatismi Benincà SpA
Adres: Via Capitello, 45
Kod pocztowy i miasto: 36066 - Sandrigo (VI) - Italia
Telefon: +39 0444 751030
Adres e-mail: sales@beninca.it

Declaro que el documento se expide bajo mi propia responsabilidad y pertenece al siguiente producto:

Oświadczam, że dokument został wydany na własną odpowiedzialność i dotyczy produktu:

Modelo/Tipo: BRAINY 24 PLUS

Model/Typ: BRAINY 24 PLUS

Tipo de producto: Central de mando 24Vdc

Rodzaj produktu: Centralka sterowania 24Vdc

El fabricante declara bajo su responsabilidad que dicho producto cumple las disposiciones de las siguientes directivas:

Producent oświadcza na własną odpowiedzialność, że niniejszy produkt jest zgodny z postanowieniami następujących dyrektyw:

Directiva 2014/53/EU
Directiva 2011/65/EU

Dyrektywy 2014/53/EU
Dyrektywy 2011/65/EU

Han sido aplicadas las normas armonizadas y las especificaciones técnicas que se describen a continuación:

Zastosowano zharmonizowane normy i specyfikacje techniczne opisane poniżej:

ETSI EN 300 220-1 V3.1.1
ETSI EN 300 220-2 V3.1.1
ETSI EN 301 489-1 V2.1.1
ETSI EN 301 489-3 V2.1.1
EN 61000-6-2:2005, EN 61000-6-3:2007 + A1:2011
EN 60335-1:2012 + A11:2014, EN 60335-2-103:2015

ETSI EN 300 220-1 V3.1.1
ETSI EN 300 220-2 V3.1.1
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EN 61000-6-2:2005, EN 61000-6-3:2007 + A1:2011
EN 60335-1:2012 + A11:2014, EN 60335-2-103:2015

Lugar y fecha:

Sandrigo, 06/10/2023

Podpisano w imieniu:

Sandrigo, 06/10/2023

Firmado en nombre de:

Luigi Benincà, Responsabile legale

La gestión de la documentación técnica corre a cargo de:

Giuliano Faccin, Responsabile tecnico

* Persona autorizada para redactar la documentación técnica en nombre del fabricante.

Podpisano w imieniu:

Luigi Benincà, Responsabile legale

Dokumentacja techniczna jest zarządzana przez:

Giuliano Faccin, Responsabile tecnico

* Osoba upoważniona do sporządzania dokumentacji technicznej w imieniu producenta.

UKCA Declaration of Incorporation

Manufacturer's name: Automatismi Benincà SpA
Postal Address: Via Capitello, 45
Post code and City: 36066 - Sandrigo (VI) - Italia
Telephone number: +39 0444 751030
E-mail address: sales@beninca.it

Declare that the document is issued under our sole responsibility and belongs to the following product:

Model/Product: BRAINY 24 PLUS

Type: Control box 24Vdc

The object of the declaration described above is in conformity with the relevant Union harmonization legislation:

Radio Equipment Regulations 2017
Equipment regulation 2012

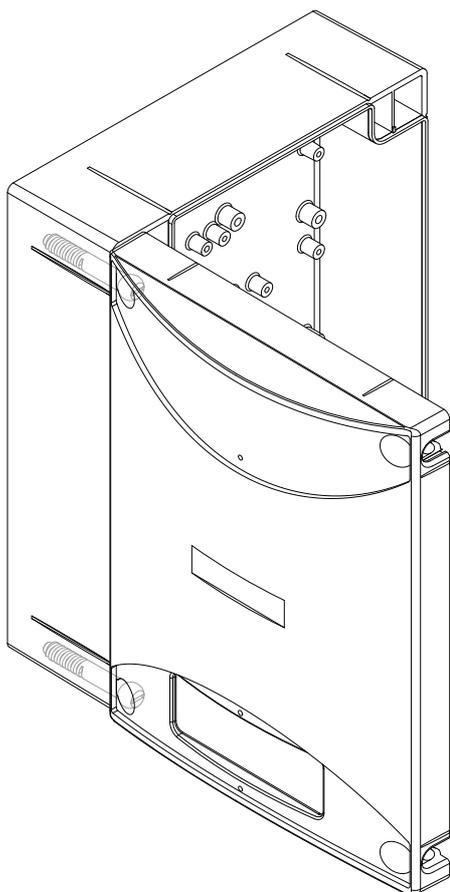
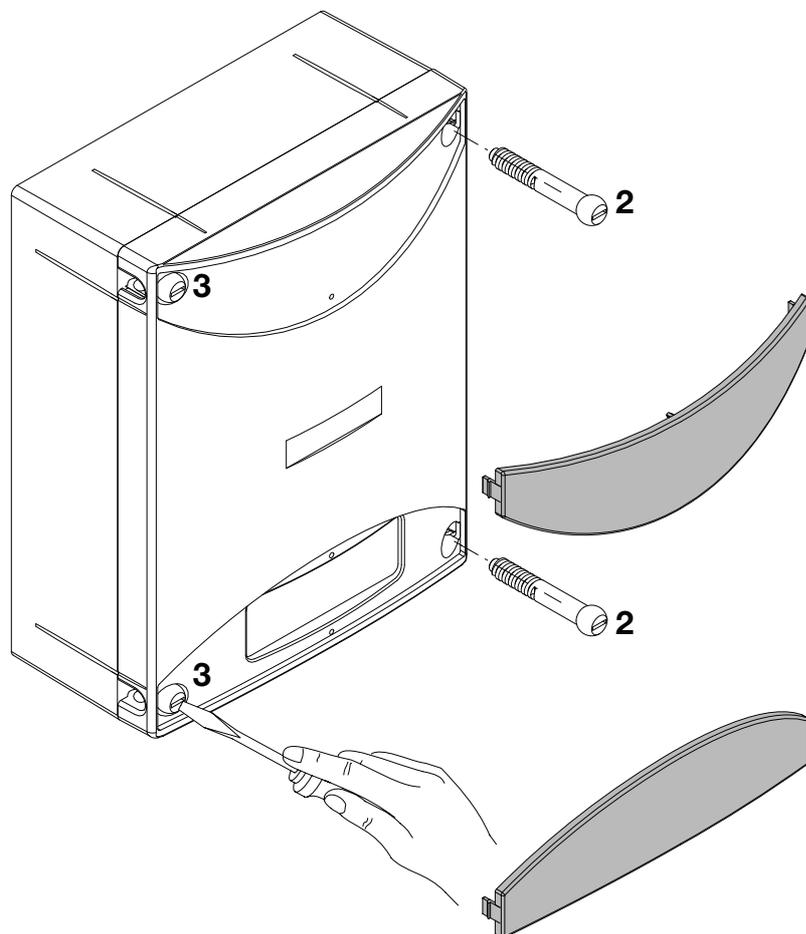
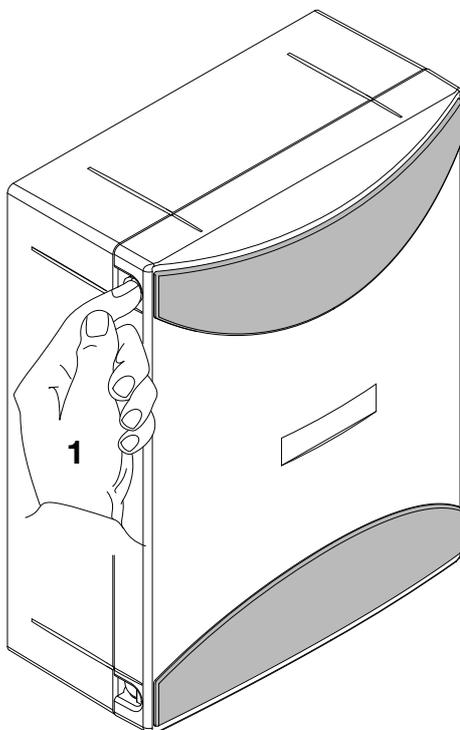
The following designated standards and technical specifications have been applied:

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ETSI EN 300 220-2 V3.1.1
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ETSI EN 301 489-3 V2.1.1
EN 61000-6-2:2005, EN 61000-6-3:2007 + A1:2011
EN 60335-1:2012 + A11:2014, EN 60335-2-103:2015
50581:2012

Signed for and on behalf of:

Sandrigo, 06/10/2023

Luigi Benincà, Responsabile legale



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 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 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. Afojar 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 do otwierania stronie.
 3. Poluzować dwie śruby blokujące bez wyciągania ich, w sposób umożliwiający otwarcie nakrywki.

BENINCA

AUTOMATISMI BENINCÀ SpA - Via Capitello, 45 - 36066 Sandrigo (VI) - Tel. 0444 751030 r.a. - Fax 0444 759728
