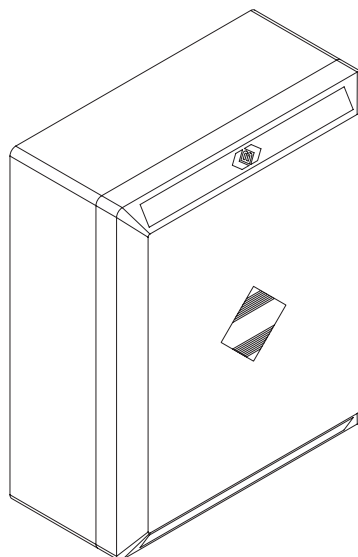


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Rev. 05/03/00

# BENINCA®

CENTRALINA A MICROPROCESSORE  
**CONTROL UNIT WITH MICROCONTROLLER**  
*MIKROCONTROLLER-STEUERUNG*  
**CENTRALE A MICROCONTRÔLEUR**  
CENTRALITA A MICROPROCESADOR

## SA02MA



Libro istruzioni  
**Operating instructions**  
*Betriebsanleitung*  
**Livret d'instructions**  
Libro de instrucciones

UNIONE NAZIONALE COSTRUTTORI  
AUTOMATISMI PER CANCELLI, PORTE,  
SERRANDE ED AFFINI

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**Dichiarazione CE di conformità**  
**EC declaration of conformity**  
**EG-Konformitätserklärung**

**Déclaration CE de conformité**  
**Declaracion CE de conformidad**

Con la presente dichiariamo che il nostro prodotto  
We hereby declare that our product  
Hiermit erklären wir, dass unser Produkt  
Nous déclarons par la présente que notre produit  
Por la presente declaramos que nuestro producto

**SA02MA**

è conforme alle seguenti disposizioni pertinenti:  
complies with the following relevant provisions:  
folgenden einschlagigen Bestimmungen entspricht:  
correspond aux dispositions pertinentes suivantes:  
satisface las disposiciones pertinentes siguientes:

Direttiva sulla compatibilità elettromagnetica (89/336/  
CCE, 93/68/CEE)  
EMC guidelines (89/336/EEC, 93/68/EEC)  
EMV-Richtlinie (89/336/EWG, 93/68/EWG)  
Directive EMV (89/336/CCE, 93/68/CEE) (Compatibilité  
électromagnétique)  
Reglamento de compatibilidad electromagnética (89/336/  
MCE, 93/68/MCE)

Direttiva sulla bassa tensione (73/23/CEE, 93/68/CEE)  
Low voltage guidelines (73/23/EEC, 93/68/EEC)  
Tiefe Spannung Richtlinie (73/23/EWG, 93/68/EWG)  
Directive bas voltage (73/23/CEE, 93/68/CEE)  
Reglamento de bajo Voltaje (73/23/MCE, 93/68/MCE)

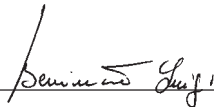
Norme armonizzate applicate in particolare:  
Applied harmonized standards, in particular:  
Angewendete harmonisierte Normen, insbesondere:  
Normes harmonisées utilisées, notamment:  
Normas armonizadas utilizadas particularmente:

EN 55022, EN 61000-3-2, EN 61000-3-3, EN 50082-1

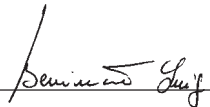
Norme armonizzate applicate in particolare:  
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Normes harmonisées utilisées, notamment:  
Normas armonizadas utilizadas particularmente:

EN 60204-1, EN 60335-1

Data/Firma



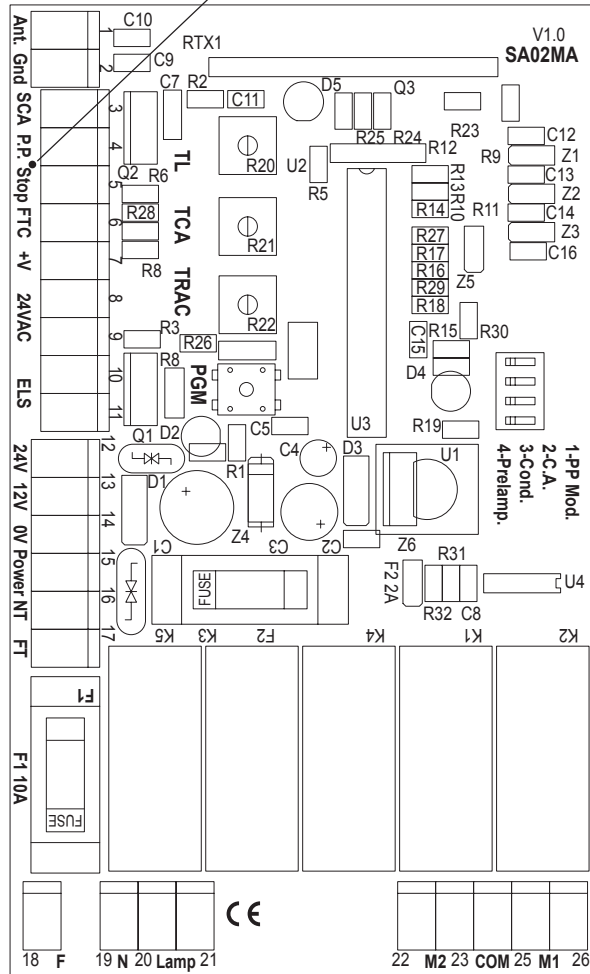
Data/Firma



**BENINCA®**

Automatismi Benincà Srl  
Via Capitello, 45  
36066 Sandrigo (VI)  
ITALIA

Ingresso pulsante pedonale  
**Input, pedestrian entrance push-button**  
 Eingang, Fußgängereingang Taste  
 Entrée bouton entrée piétonne  
 Entrada pulsador entrada de peatones



## SA02MA Control unit with microcontroller

The SA02MA control unit with microcontroller can be used with motors having a power not exceeding 750W.

### Installation instructions.

- a) The electrical installation and functioning logic must comply with current standards.
- b) Keep the power cables (for the motor and power supply) away from the control cables (buttons, photocells, radio). To avoid interference use two separate sheaths (see EN 60204-1 15.1.3).
- c) Check all the connections again before supplying voltage.
- d) Check that the Dip-Switch settings are as required.
- e) The Normally Closed contacts which are not in use should be short circuited.
- f) If the direction of the motor rotation is not correct, invert the "OPEN" - "CLOSE" wires of the motor.

### Input/Output functions

- (1) Antenna Signal
- (2) Antenna Shield
- (3,8) SCA= Indicator lamp, Open gate
- (4) P.P.= Input, Step-by-Step push-button (N.O. contact).
- (5) Stop= Input, Stop push-button (N.C. contact).
- (6) FTC= Input, photocell receiver (N.C. contact).
- (7) +V= Common, all control inputs.
- (8,9) OUT24VAC= Output, 24Vac auxiliary power supply (100mA max.).
- (10,11) ELS.= Connection to 12V Electric lock
- (12,13,14) To secondary of the Capacitor
- (15,16,17) To primary of the Capacitor
- (18,19) INPUT 115VAC= Control unit power supply, 115Vac, 60Hz (keep to phase/neutral).
- (20,21) Lamp= Flashing light
- (22,23,24) APRE/CHIUDE/COM= To relevant terminals of Motor 2, at 115Vac, 60Hz.  
It is mandatory to connect the Ground wire (yellow/green) on the motor frame.
- (24,25,26) COM/CHIUDE/APRE= To relevant terminals of Motor 1 at 115Vac, 60Hz.  
It is mandatory to connect the Ground wire (yellow/green) on the motor frame.

If the control for the pedestrian entrance is to be used, connect the normally open (N.O.) button between the +V input (common of controls) and the pin between P.P. and STOP.

The control unit is equipped with a built-in radio module for the reception of both fixed code and variable code remote controls at a frequency of 433.92MHz.

To use a remote control its data should be stored in the unit memory. This procedure is shown hereunder. The unit is able to memorize up to 14 different codes.

### Dip-switch functions

- DSW1= The operation of the "Step-by-Step button" and the remote control can be selected with this Dip-Switch.
  - Off= "OPEN" - "STOP" - "CLOSE" functioning
  - On= "OPEN" - "CLOSE" - "OPEN" functioning.
- DSW2= This enables or disables the automatic closure.
  - Off= Automatic closure disabled
  - On= Automatic closure enabled
- DSW3= It enables or disables the multi-flat function.
  - Off= Multi-flat function disabled
  - On= Multi-flat function enabled
- DSW4= It enables or disables the forewarning flashing light.
  - Off= Forewarning flashing disabled
  - On= Forewarning flashing enabled

### Trimmer functions

- TCA This allows the automatic closure time to be adjusted when this is enabled by positioning the DSW2 Dip-switch on ON.  
Adjustment can be from a minimum of 1 to a maximum of 250 seconds.  
The minimum time is obtained by rotating the trimmer completely anticlockwise.
- TL This allows the working time of the automation to be adjusted. If the limit switches fail, the software protection will intervene after this time has elapsed. (Add about 4 sec. to the actual stroke time of the automation).

Adjustment can be from a minimum of 1 to a maximum of 125 seconds.

The minimum time is obtained by rotating the trimmer completely anticlockwise.

Note: TL is read by the control unit only at end of operation. Hence, if the Trimmer position is changed to modify the following operation it is necessary to wait for the TL of the previous movement to elapse, otherwise cut power off the unit to reset.

**TRAC** This allows to regulate the delay time after which the second gate leaf starts its closing movement. The adjustment ranges from 1 sec. min. to 40 sec. max

The minimum time is obtained by turning the trimmer completely anticlockwise.

**Programming of the control unit**

**To erase the remote control codes from memory**

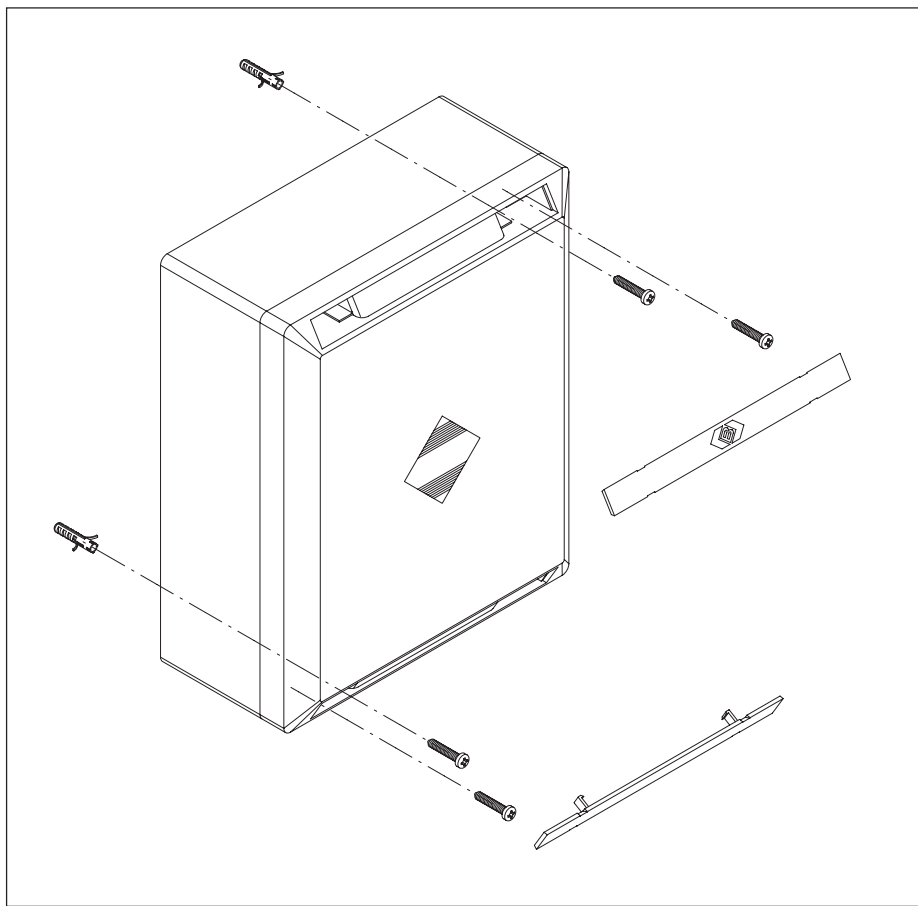
To erase the codes from the memory, power the control unit by keeping the PGM programming push-button pressed. The flashing light switches on. When the flashing light switches off, the memory is erased.

**To store a new remote control code in memory**

Press the PGM programming button, SCA will start to flash fast until a new remote control is received and stored in memory. If, after pressing the button, SCA is not flashing but the flashing light for 5S switches on, this means that memory is full and no more codes can be stored in.

**Adjustment of the motor power**

A faston connector is provided on the power transformer which allows to adjust the power of motors on 4 different levels. The minimum power is obtained by moving the Faston to 75, by moving the Faston to 115 the power will be maximum.



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