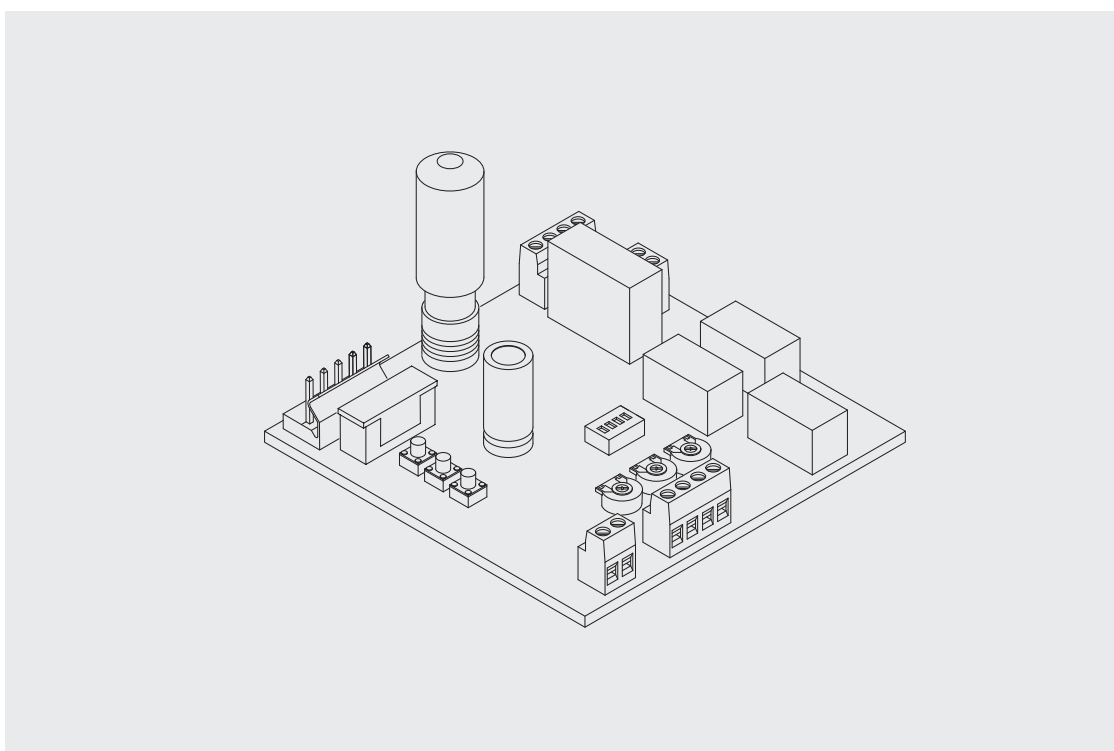


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# CP.J3M



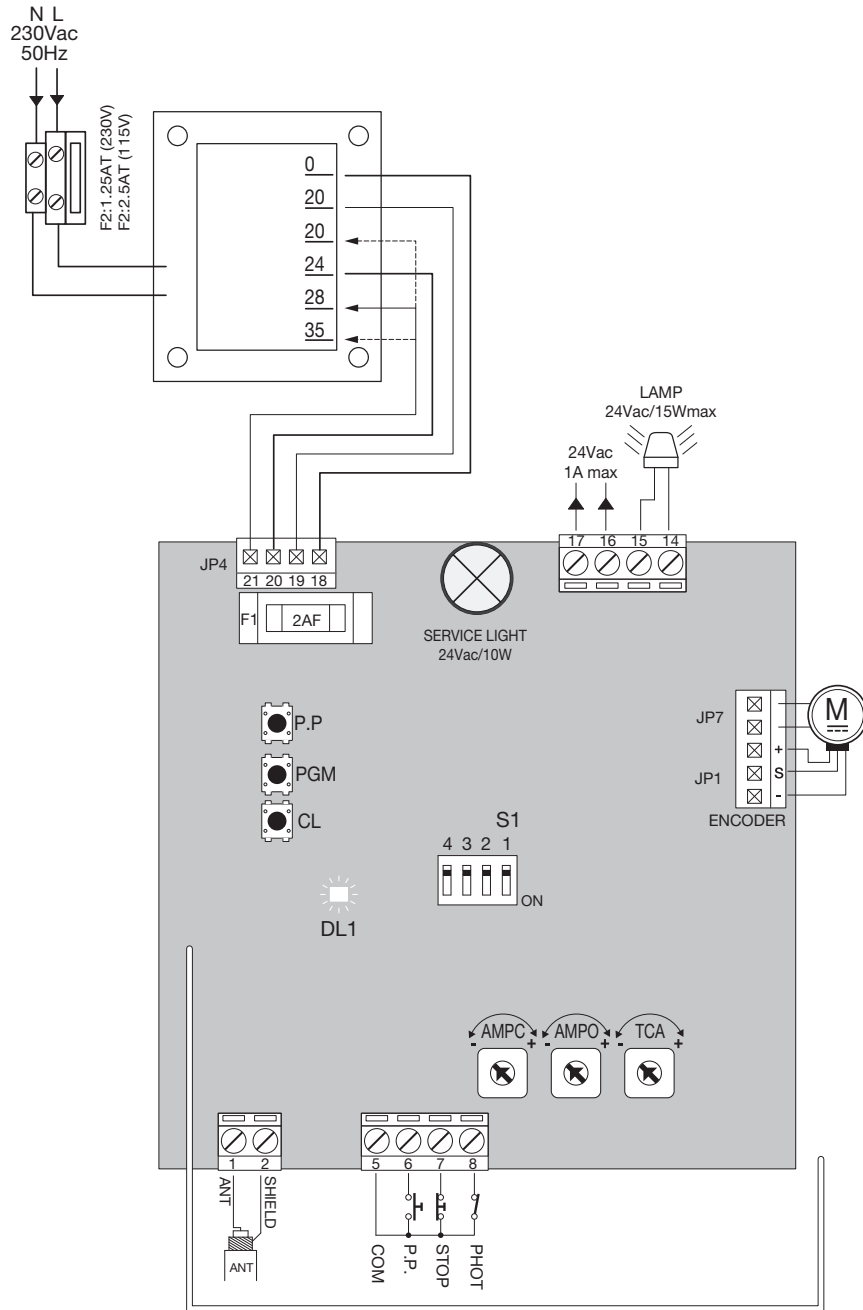
**BENINCA**<sup>®</sup>  
TECHNOLOGY TO OPEN



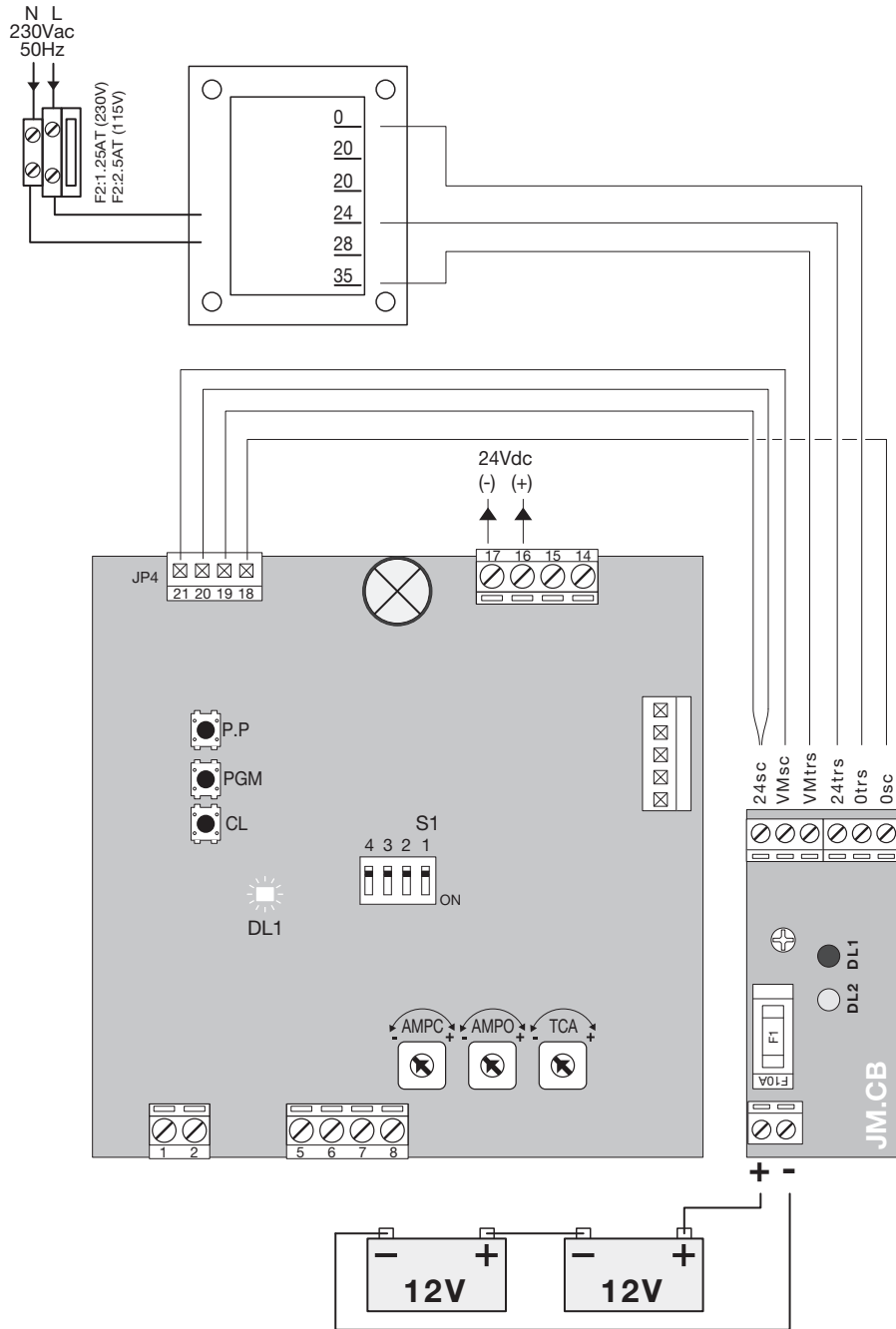
UNIONE NAZIONALE COSTRUTTORI  
AUTOMATISMI PER CANCELLI, PORTE  
SERRANDE ED AFFINI



# CP.J3M



**Collegamento scheda JM.CB (opzionale) / Connection to the JM.CB Card (optional)**  
*Anschluss Karte JM.CB (option) / Branchement fiche JM.CB (optionnel)*  
**Conexión tarjeta JM.CB (opcional) / Połączenie karty JM.CB (opcjonalna)**



## CE Declaration of Conformity

Declaration in accordance with Directives 2004/108/CE (EMC); 2006/95/CE (LVD)

The Manufacturer:

**AUTOMATISMI BENINCÀ SPA**

Address:

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

Declares that the product:

Control box for 1 motor

**CP.J3M**

conforms with the requirements of the following EU Directives:

**DIRECTIVE 2004/108/CE OF THE EUROPEAN PARLIAMENT AND COUNCIL**, 15 December 2004, in relation to the harmonisation of the legislation of member states regarding electromagnetic compatibility, in abrogation of Directive 89/336/CEE, per the following harmonised standards: EN 61000-6-2:2005, EN 61000-6-3:2007.

**DIRECTIVE 2006/95/CE OF THE EUROPEAN PARLIAMENT AND COUNCIL**, 12 December 2006, in relation to the harmonisation of the legislation of member states regarding electrical material intended to be used within certain voltage ranges, per the following harmonised standards:

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

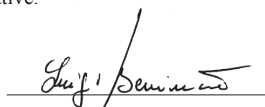
as applicable:

**DIRECTIVE 1999/5/CE OF THE EUROPEAN PARLIAMENT AND COUNCIL**, 9 March 1999 in relation to radio equipment and telecommunications terminals and the mutual recognition of their conformity, per the following harmonised standards:

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 representative.

Sandrigo, 08/07/2008.



## 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

Control unit supply	24 Vdc
Power supply	230 Vac 50/60 Hz
Output supply	1 motor 24Vdc
Power maximum motor	120 W
Output supply accessories	24Vdc 1 A max.
Protection level	IP54
Operating temp.	-20°C / +70°C
Radio receiver	The control unit is fitted with a built-in radio module for receiving remote controls both with fixed codes and variable codes with a frequency of 433.92MHz.

## Control units CP.J3M

### INPUT/OUTPUT FUNCTIONS

Terminals	Function	Description
(1-2)	Antenna	Optional antenna connection to built-in radio receiver board (1-signal/2-screen). If external antenna connected cut wire welded to "ANT".
5	COM	Common for all control inputs.
6	Step by Step	Step by step button input (N.O. contact)
7	STOP	STOP button input (N.C. contact)
8	PHOT	Input for safety devices, N.C. contact (e.g. photocells) In close cycle: if the contact opens, the motor will stop and will instantly reverse direction (opening). In open cycle: disabled.
JP1/JP7	24VDC Motor Encoder	Extractable connector with connection to 24VDC + Encoder A: + Encoder B: S Encoder signal C: - Encoder
14-15	Blinker	Blinker connection, 24Vac/15W max.
16-17	24 Vac	Accessory power supply 24Vac/1A max. <b>IMPORTANT:</b> If the battery charger board JM.CB is installed, the output (without mains power connected) has a 24Vdc polarised voltage. Make sure the devices are correctly connected. (i.e. 16:+24Vdc - 17:-24Vdc).
JP4	Secondary	Secondary circuit of the transformer. 18 Grey: 0V output 19 Red: Slowdown speed. Connect the Faston to the 20V output 20 Brown: 24V output 21 White: Motor speed. See section "Motor speed adjustment "
J3	Radio Receiver	Built-in radio receiver

N.B.: To control the automation during installation, the Step by Step button on the control unit can be used.

#### Trimmer functions

<b>TCA</b>	Adjustment of the automatic close time if enabled by Dip-Switch 1. Adjustment ranges from <b>1 sec</b> to max <b>90 sec</b>
<b>AMP-O</b>	Adjustment of the amperometric sensor obstacle detection sensitivity during the open cycle.
<b>AMP-C</b>	Adjustment of the amperometric sensor obstacle detection sensitivity during the close cycle. Turn the trimmers clockwise (+) to increase the torque, turn them anticlockwise (-) to reduce the torque. <b>Adjustment of trimmers AMP-O and AMP-C must comply with statutory regulations.</b> If an obstacle is detected: When opening, the gate is stopped. When closing, the gate stops and opens for about 3 sec.

#### Dip-Switch functions

<b>DIP 1 "TCA"</b>	Enables or disables automatic closing. Off: automatic closing disabled On: automatic closing enabled
<b>DIP 2 "COND."</b>	Enables or disables the high traffic function. Off: High traffic function disabled. On: High traffic function enabled. The P.P. (Step-by-step) or transmitter signal is ignored during the open cycle and the TCA cycle (if enabled).
<b>DIP 3</b>	Not used.
<b>DIP 4 "Radio"</b>	Enables or disables transmitters with programmable codes On: Radio receiver enabled exclusively for rolling-code transmitters. Off: Receiver enabled for both rolling-code and programmable transmitters (self-learn and dip-switch) .

#### Motor speed adjustment

**CAUTION! This adjustment strongly affects the safety of the gate automation.**

**Make sure that the gate thrust complies with statutory regulations.**

**If the gate speed is changed the amperometric sensor must be calibrated accordingly.**

Two faston terminals are provided on the transformer:

Faston F1 (white) regulates the door opening and closing speed and can be preset on three voltage values:

- 20V: (low speed)
- 28V: (medium speed)
- 35V: (high speed)

Faston F2 (red) must not be moved from 20V position.

#### Configuration with built-in receiver

The control unit is fitted with a built-in radio module for receiving remote controls both with fixed codes and variable codes (see dip-switch 4 functions), with a frequency of 433.92MHz.

For a transmitter to be used, the module first has to self-learn its code. The memorise procedure is illustrated below, the module can memorise up to 64 different codes.

#### How to memorize a new transmitter code with activation through a P.P. (Step-by-Step) function

- Press the PGM key once for 1 sec, the DL1 LED starts flashing with 1sec intervals.
- Within 10 seconds, press the transmitter key to be stored in memory through the P.P. function. After storage, the receiver automatically exits the programming mode.

To exit the programming mode without storing the transmitter code into memory, wait for 10 seconds.

#### Remote learning of a transmitter code (rolling-code only)

If a transmitter code is already memorised, other codes can be stored without accessing the control unit. The remote storage must be carried out with totally open door, regardless of the TCA setting.

Proceed as follows:

- 1 Press the hidden key of the already memorized transmitter, the courtesy light switches off.
- 2 Within 10 sec., press the key of the already memorized transmitter, the function of which is to be copied. The courtesy light and the DL1 LED switch up.
- 3 Within 10 seconds, press the hidden key of the new transmitter, the function of which is to be matched. The courtesy light and the DL 1 LED start flashing (1 flashing/sec).
- 4 Within 10 seconds, press the key of the transmitter to which the function, selected at point 2, is to be matched. The courtesy light and the DL1 LED switch up for 1 sec.
- 5 The new transmitter is stored in memory, the receiver exits the programming mode.

Example: the P.P. function, which is to be matched to key 2 of the new "B" TX, is stored on key 1 of "A" TX. Press in sequence:

hidden key of A TX >> key 1 of A TX >> hidden key of B TX >>key 2 of B TX

#### **Cancelling all transmitters from the memory**

- Keep the PGM key pressed for 15 sec, the DL1 LED and the courtesy light start flashing rapidly and switch off at completion of cancellation.
- Release the PGM key and the memory is now erased.

#### **N.B.:**

For safety reasons, transmitters cannot be memorised during the open/close cycles of the motor.

When entering the memorise transmitter procedure, if the Power LED gives a prolonged blink and then goes out, this signals that the receiver memory is full and no other transmitters can be memorised or that the transmitter is not compatible.

#### **Storage in memory of the opening and closing positions**

After carrying out the electric connections of the control unit and the safety, control and indication devices, the door opening and closing positions must be memorized.

First of all place the opening and closing mechanical stoppers in the correct position:

- manually release the door and completely close it. Place the closing mechanical stopper in the closed position on the driving carrier and fix it.
- completely open the door. Place the opening mechanical stopper in the open position on the driving carrier and fix it.

For further information, please refer to the Manual for use supplied with the operator.

Now the opening and closing positions can be stored in memory:

- with door stopped, press keys PGM+CL for about 5 seconds until the LED DL1 switches on
- the control unit is now ready to store the closing position in memory
- press and keep the CL key pressed until the carrier reaches the CLOSING mechanical stopper. Release the CL key and press the PGM key for 1 second. The LED switches on and off and the position is therefore stored in the control unit memory.
- press and keep the PP key pressed until the carrier reaches the OPENING mechanical stopper. Release the PP key and press the PGM key for 1 second. The LED switches off and the position is therefore stored in the control unit memory.

#### **Tensioning of the belt**

Once the closing mechanical stopper is reached, a brief opening reversion command is given to avert that the belt remains tensioned.

This reversion movement can be adjusted (or excluded), if required, as follows:

- Press the PGM key once for 1 sec, the courtesy light and the DL1 LED starts flashing with 1sec intervals.
- Press the PGM key again and keep it pressed until the courtesy light and the DL1 LED switch on.
- Release the PGM key and the DL1 LED starts flashing (from 1 to 4 flashes), followed by an interval.
- The number of flashes can be modified by pressing the P.P. key, select the value amongst the following:

1 FLASH with interval:	disabled reversion
2 FLASHES with interval:	minimum reversion
3 FLASHES with interval:	medium reversion (default presetting)
4 FLASHES with interval:	maximum reversion

- Confirm the selection by pressing the PGM key, or wait for 10 seconds.

Carry out some trial operations to check the correct operation of the system.

### **Self-diagnosis of the control unit**

In normal operating mode, the status of the control unit is displayed as follows:

- LED DL1 off: motor moving or motor stopped without alarm
- 3 flashes of LED DL1 with 1 sec interflash interval: photocell input engaged for more than 5 sec
- 4 flashes of LED DL1 and the courtesy light\*, with 1 sec. interval: the amperometric sensor triggers.
- 5 flashes of DL1 LED, and the courtesy light\*, with 1 sec. interval: the encoder does not work correctly.
- 7 flashes of LED DL1 and the courtesy light\*, with 1 sec. interval: P.P. input is engaged for more than 5 sec.

\* The courtesy light indicates its malfunction for around 30 sec. Then, it will switch off.

The LED DL1 continues to indicate the alarm condition until the fault is solved.

### **Power failure**

When a power failure occurs, either in the completely open or in the completely closed positions, at reset of power the control unit returns to normal operating mode. If a power failure occurs when the door is moving open or closed, the door relay starts from the intermediate position. During opening, the door will stop thanks to the activation of the amperometric sensor as soon as the driving carrier reaches the mechanical stopper.

The normal operating mode of the system will be reset in the following operation.



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