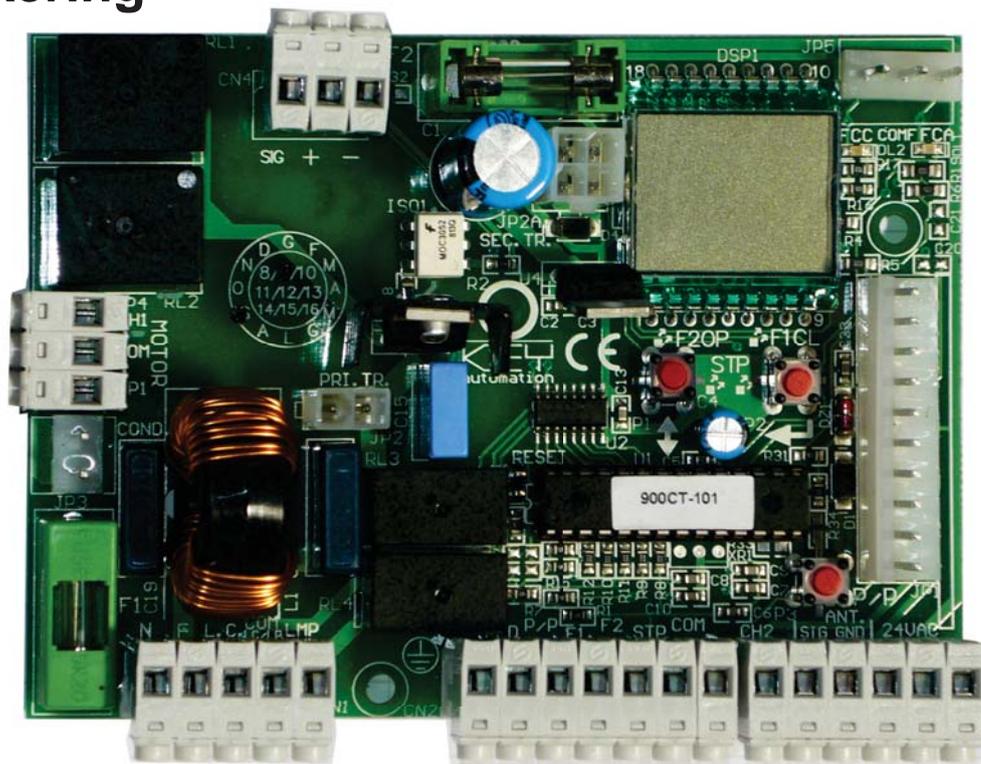


Centrale elettronica
Electronic control unit
Centrale électronique
Elektronische Steuereinheit
Central electrónica
Central electrónica
Elektroniczna jednostka sterująca
Electrische zekering

900CT-101



- Ⓜ IT MANUALE ISTRUZIONI
- Ⓜ GB INSTRUCTION MANUAL
- Ⓜ F MANUEL D'EMPLOI
- Ⓜ D BEDIENUNGSANLEITUNG
- Ⓜ E MANUAL DE INSTRUCCIONES
- Ⓜ P MANUAL DE INSTRUÇÕES
- Ⓜ PL INSTRUKCJA OBSŁUGI
- Ⓜ NL GEBRUIKSHANDLEIDING



Key Automation S.p.A



Organizzazione con Sistema di Gestione certificato
Company with Management System certified
ISO 9001:2008

SINCERT

⚠ WARNING: 

It is advisable to read the instructions carefully before you start installation.

Failure to comply with these instructions, improper use or incorrect connection may compromise the safety or correct operation of the device and hence of the entire system.

No liability shall be accepted for any malfunctions and/or damage due to failure to comply with the instructions.

The company reserves the right to make improvements to the products.

⚠ THIS BOOKLET IS TO BE USED ONLY BY THE INSTALLER

Installation must be carried out only by professionally qualified personnel in compliance with current legal requirements.

 ELECTRICAL CONNECTIONS

To ensure operator safety and to prevent damage to the components while connections are being made, or when the radio card is being inserted, the control unit absolutely must not be powered on. For power cords, motor lines, flasher/courtesy light line, and electric lock, use a cable with a cross-section that is suitable for the length (minimum 1.5 mm²).

For auxiliary power supplies, controls and safety contacts a minimum section of 0,5 mm². When the control cables are very long (more than 30 m), de-coupling is suggested using relays at the control unit.

If a fuse trips, after removing the cause, replace it with another one of the same type. Install the various safety devices, limit switches, photocells, sensitive rib, stop button.

If one or more of the safety devices are not installed, the corresponding terminals must be short circuited with the controls common.

All contacts N.C. Assigned to the same input must be connected in series.

All contacts N.O. Assigned to the same input must be connected in parallel.

Provide disconnecting devices in the power supply network in accessible places.

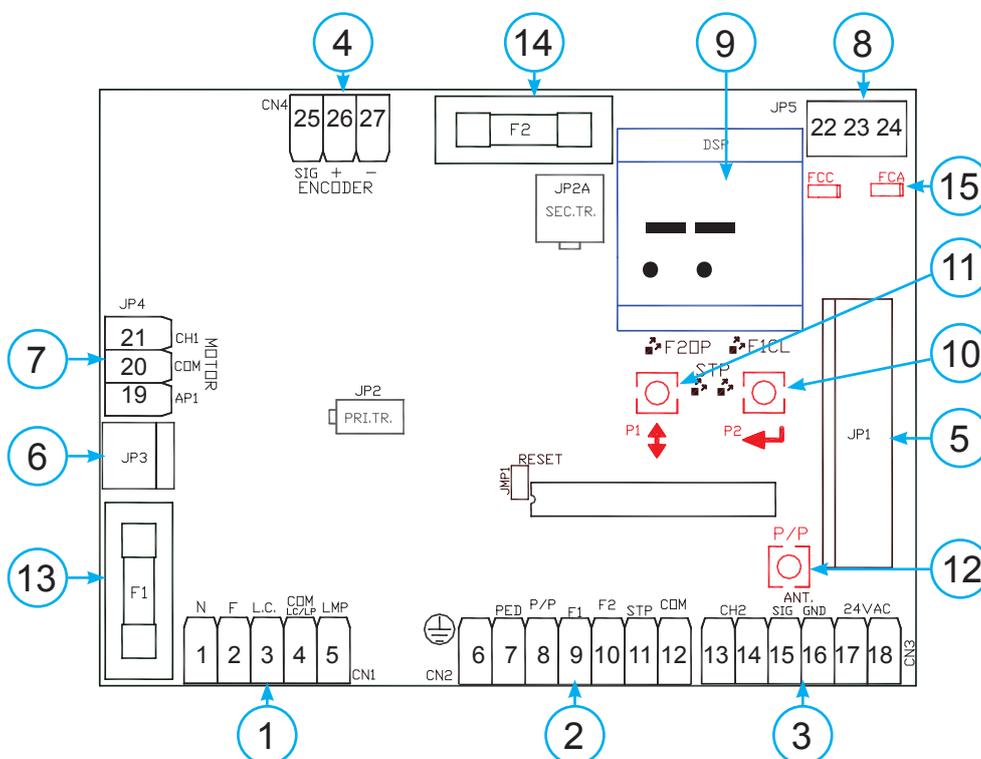
For the power supply of the control unit, there must be an external disconnecting switch (not included), independent and properly sized.

MODELS AND CHARACTERISTICS

900CT-101 Control unit for 1 230 Vac motor sliding or overhead motor, set up for radio card.

TECHNICAL DATA	CT-101
POWER SUPPLY	230Vac/50Hz
MAX. MOTOR LOAD	1200 W
ACCESSORIES POWER SUPPLY OUTPUT	24Vac 400mA
WORKING TIME	0-120sec
PAUSE TIME	0-120sec
OPERATING TEMPERATURE	-20°C/+70°C

DESCRIPTION



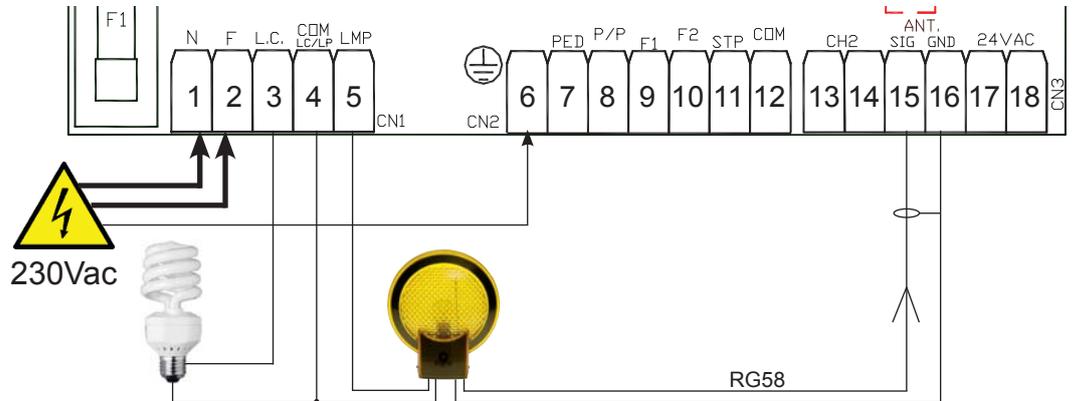
DESCRIPTION

- ① CN1 230Vac power supply terminal board, flasher and courtesy light
- ② CN2 Controls and safeties connection terminal board
- ③ CN3 Terminal board for connection of 24Vac accessories second radio channel and antenna
- ④ CN4 encoder
- ⑤ JP1 Connector for snap-in radio receiving card
- ⑥ JP3 Connector for capacitor
- ⑦ JP4 Motor connection terminal board
- ⑧ JP5 Limit switch connection terminal board
- ⑨ LCD Display for signalling functions and safety inputs
- ⑩ ENTER button for scrolling programming functions
- ⑪ UP/DOWN button for function settings (see table)
- ⑫ P/P Step/step button
- ⑬ F1 line protection 230Vac 10A delayed
- ⑭ F2 accessory line protection 230Vac 315mA delayed
- ⑮ FCC FCA Led limit switch

CN1

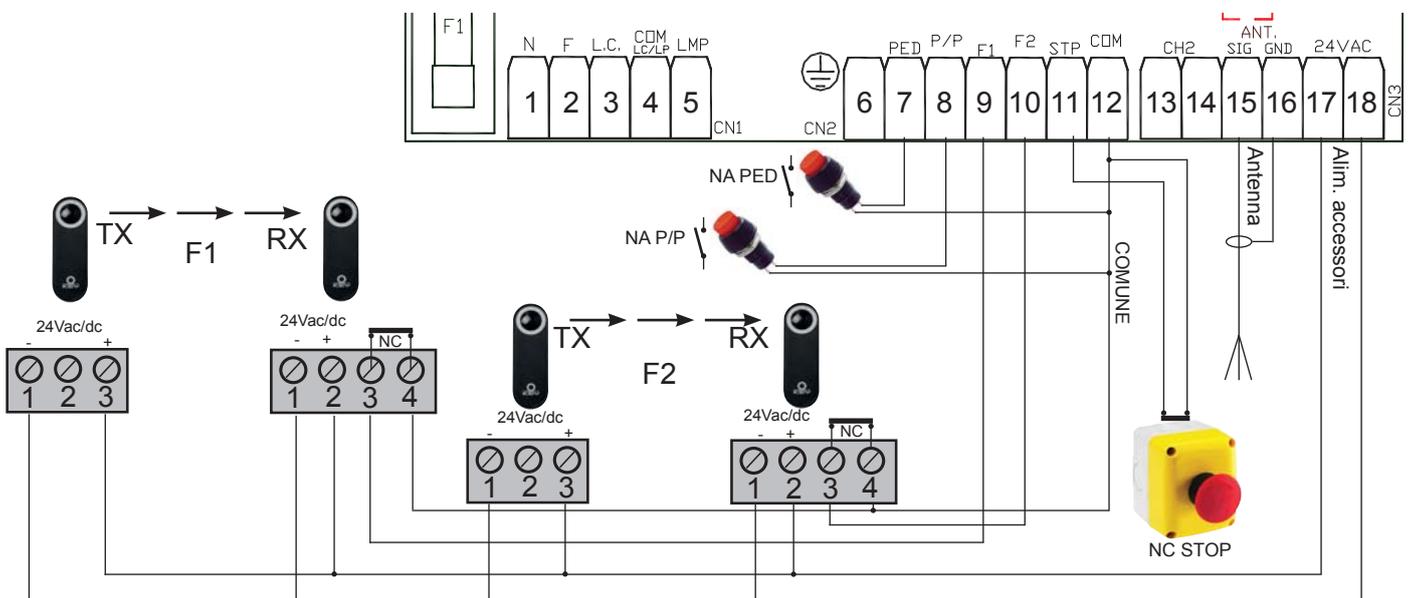
dedicated to the connection of the power supply of the board:

- 1) N 230Vac
- 2) F 230Vac
- 3) L.C. Courtesy light max.25W 230Vac
- 4) COM LC/LP Shared courtesy light or flasher
- 5) LMP Connected to the flasher max.25W 230Vac



CN2

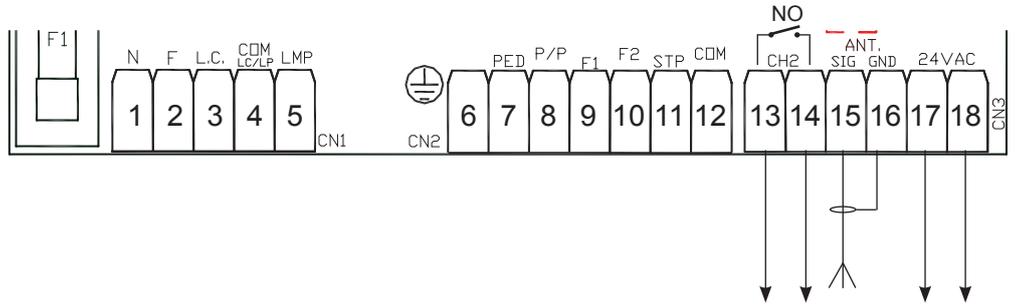
- 6) \$ Connected to the earth of the system
- 7) PED Pedestrian function Contact N.O. Normally open
It is an opening command which when activated will partially open the door.
- 8) P/P Step/step operation
Connected between Term. N.8 and Term. N.12 Contact N.O
Control input open/close or open/stop/close based on selection of parameter D
- 9) F1 Photocell Close Function
Connected between Term. N.9 and Term. N.12 Contact N.C. Normally Closed
This input is considered a safety, the contact can be interrupted at any time during closing of the automation causing an immediate stop in movement and reversing the direction of movement
- 10) F2 Photocell Open Function
Connected between Term. N.10 and Term. N.12 Contact N.C. Normally closed
This input is considered a safety, the contact can be interrupted at any time during opening by the automation causing an immediate stop in movement, the automation will continue until the contact is restored.
- 11) STP Stop function
Connected to Term. N.11 and Term. N.12 Contact Normally Closed N.C. This input is considered a safety the contact can be interrupted at any time immediately stopping the automation disabling any function including automatic closing.
- 12) COM



CN3

Accessory power supply connection 24Vac 15 watts max

- 13) 2nd radio channel connection (only if using 2-channel radio connector)
- 14) 2nd radio channel connection (only if using 2-channel radio connector)
- 15) Antenna connection (signal)
- 16) Antenna connection (mesh)
- 17) 24Vac Max 10 Watt
- 18) 24Vac Max 10 Watt



ENGLISH

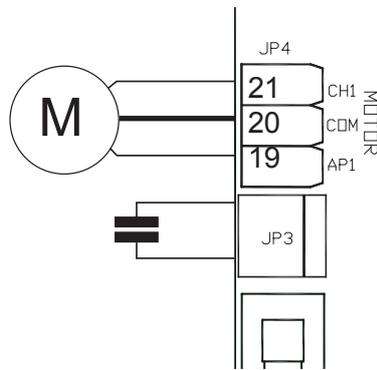
JP3

- JP3 1) Capacitor
- JP3 2) Capacitor

JP4

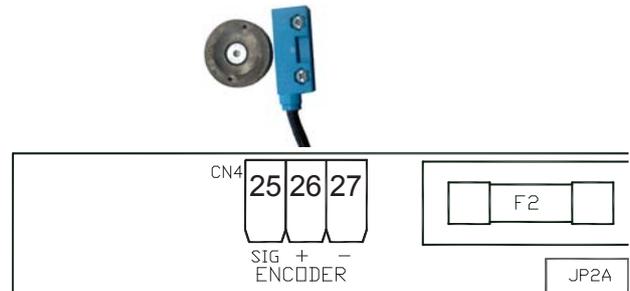
Connection of Motor

- 19) opening
- 20) shared
- 21) closing



CN4

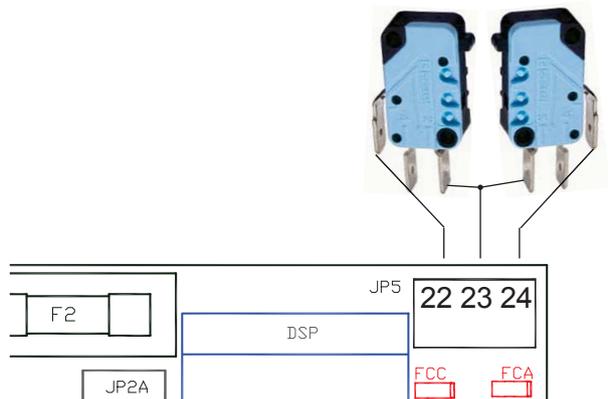
- 25) Signal encoder
- 26) Supply encoder
- 27) Negative encoder



JP5

Motor limit switch connection

- 22) limit switch closing NC
- 23) common connection
- 24) limit switch opening NC



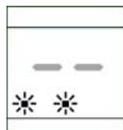
N.B. The LEDs that correspond to the limit switches are ON when the relative limit switch is not involved.

VISUAL DIAGNOSIS

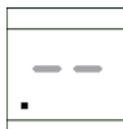
The control unit is designed to automate residential and industrial openings with 1 motor having a maximum power of 1200W with active and passive safety controls for installation that is compliant with current safety standards.

The great reliability of the system and the high concentration of the functions are managed by a micro-controller so that the system can autonomously calculate all deceleration parameters and the working time with no special programming by the installer.

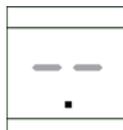
ENGLISH



• STOP input no. 11 in which the use of a contact N.C. is compulsory must be closed and the two points of the LCD must not flash. If they flash, it means that the contact is open

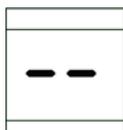


• The input PHOTO OPEN F2 no. 10, which requires the use of an NC contact, must be closed and the F2OP point of the LCD on the left must be OFF. If it is on STEADY it means that the contact is open



• The input PHOTO OPEN F1 no. 9, which requires the use of an NC contact, must be closed and the F1CL point of the LCD on the right must be OFF. If it is on STEADY it means that the contact is open

N.B. In normal use, the points of the LCD must not flash or be on steady. They flash or stay on if the corresponding safety is activated.



• With the automation closed, will be shown



• During OPENING the display will show OP



• If you have selected Automatic operation, TC will be shown in the pause time

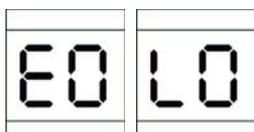


• During CLOSING the display will show CL



• If ST (stop) is shown, it means that the DEAD MAN function is enabled and the complete opening or closing cycle has not ended

• By using a new P/P command check that the complete opening of the door is carried out up to the stop. At this point press the P/P button again and check the complete closing of the door up to the stop.



• • After having verified the correct complete opening and closing enable the deceleration based on the desired percentage (Par. E) and the maximum motor force (Par.L)

N.B. with each variation of any parameter the control unit will, at the first start impulse, verify the working time of the closed and open gate between the two stops. Only once this is carried out the enabling of the deceleration can be verified

PROGRAMMING FUNCTIONS

Access the parameter menu by holding the ENTER button until the first parameter, appears. Press the ENTER button (P2) repeatedly to advance through the parameters menu. To change the parameter press ↑ UP/DOWN (P1)

N.B. any variation in function must be made with the automation closed

FUNCTIONS/VALUES		0	1	2	3	4	5	6	7	8	9
b	SENSITIVITY	--	High	Medium High	Medium Low	Low	Obstacle detection activated with L=0 and motor with ENCODER sensor				
c	AUTOMATIC CLOSURE (seconds)	NO	5	10	15	20	25	30	40	80	120
d	STEP BY STEP COMMAND P/P	Open Stop close	Open Close	By activating the step/step function, you avoid passage of the automation in the stop state. The enabled function may be critical for automations with high inertia.							
e	% DECELERATION	NO	10%	20%	30%	When the deceleration function is activated in the last seconds of operation of the automation, the control unit slows the motors based on the selected %.					
f	ELECTROBRAKE	NO	YES	By activating the electrobrake function through the F parameter, a heavy gate is prevented from continuing its movement, due to its inertia, for a few seconds instead of stopping it instantaneously following a command or a safety action							
g	MAXIMUM WORKING TIME EXTENSION (expressed in seconds)	90	180	Maximum working time extension 90/180 seconds							
h	CONDOMINIUM (OPEN ONLY)	NO	YES	Activate the condominium function so that the first step/step impulse opens and accepts only re-opening during closing							
l	MOTOR FORCE	100% Max	10% Min	20%	30%	40%	50%	60%	70%	80%	90%
o	CLOSE AFTER TRANSIT	NO	YES	When you activate the Close After Transit function with automatic closure activated, the automation is closed in the shortest time possible without waiting for automatic re-closing.							
p	TIMER/MAGNETIC COIL ON STEP/STEP	NO	YES	When you activate the function Timer / Magnetic Coil via parameter P after terminating total opening if step/step contact N.8 is kept closed the automatic closing time is locked so that the gate never closes until the step/step contact is opened again, if there are several step/step impulses during the standby time for automatic closing the time will be continuously reset							
r	SOFT START DELAYED START TIME	NO	YES	When you activate the Soft Start function, during the first seconds of movement of the automation the control unit keeps the motor at reduced speed for a softer start.							
t	MOTOR TYPE	--	Type 1	Type 2	Select the desired type of slowdown						
u	DEAD MAN	NO	YES	When you activate the Man Present function via parameter U, you can open the automation until step/step contact N.8 is closed and close the automation until contact PED n.7 is closed; when the two contacts are released the automation goes to STOP position.							
y	PRE-FLASHING	NO	1sec	2sec	4sec	When the pre-flashing function is activated, before any movement the flasher is activated for the selected time					

N.B.: Once the parameters have been displayed, the total manoeuvres counter are shown in two different screens, where the thousand units are indicated by the lighting up of the point. To reset this counter, simultaneously press and hold buttons P1 and P2 (ENTER/UP-DOWN) until 0000 is displayed

N.B. If the point of the LCD on the left lights up, it means that 10,000 manoeuvres have been exceeded, which must be added to the value shown.

To exit parameter display, press ENTER several times until automatic closure condition is shown (- - two dashes).

ADJUSTMENT OF MOTOR FORCE

After a breakaway of 1,5 seconds, the electronic force control activates which distributes the power supply, adjusting the value by means of parameter L.

N.B. for maximum thrust loads refer to current standards.

RADIO CONNECTOR

The CT-101 control unit is compatible with the following Key Automation receivers of the MEMO snap-in series: 900RXI-22 / 900RXI-42 / 900RXI-42R

FINAL WARNINGS

- The installation of the automation must be performed properly by qualified personnel in possession of legal requirements and in compliance with machine directive.
- Check the solidity of existing structures (columns, hinges, doors) in relation to the force generated by the motor.
- Check that there are suitably sturdy mechanical stops at the end of opening and closing travel of the doors.
- Analyze the risks of the automation and adopt necessary safety measures and warnings.
- install controls (such as the key selector) so that the user is not in a hazardous position.
- Upon completion of installation, check the safety devices several times, as well as those for signalling and automation release.
- Provide the automation with the EC label or tag that contains the danger information and identification data.
- Give the final user the instructions for use, safety warnings and the EC declaration of conformity.
- Make sure the user understands proper automatic, manual and emergency operation of the automation.
- Inform the user in writing (for example in the instructions for use) of any unprotected residual risks and foreseeable improper use.
- Provide a maintenance schedule for the system (at least every 6 months for the safeties) with an appropriate register of work performed.
- Keep this instruction manual for future reference.
- Key Automation S.r.l. reserves the right to make, at any time, any modifications which may be required to improve appearance and/or operation.

DISPOSAL

This product is composed of various components which may in turn contain pollutants. Do not dispose of it in the environment! Find out about the method for recycling or disposing of the product in compliance with current local laws



