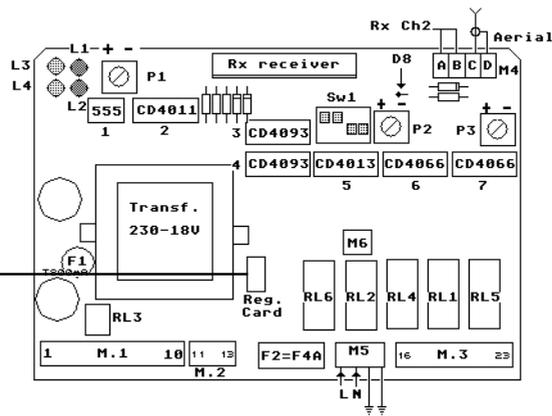
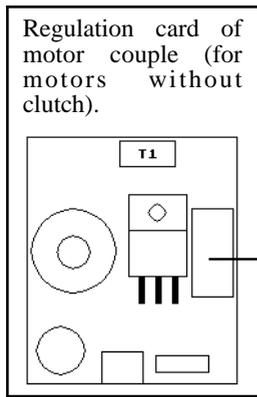
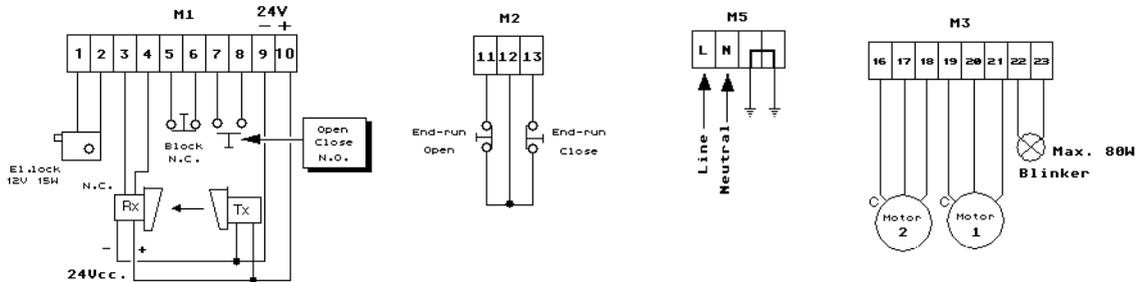
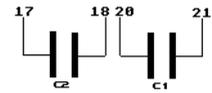


Gate Opener type CN94 Single-phase with or without end-run Staggered doors



Outside capacitors



ELECTRICAL CONNECTIONS

10-POLE LEFT TERMINAL BLOCK (M 1) :

- 1 - 2 = Output for electrical lock 12V- 15W
- 3 - 4 = N.C. contact input photocell/safety profile
- 5 - 6 = N.C. contact input for block (reset with opening)
- 7 - 8 = N.O. contact input of OPEN-CLOSE
- 9 -10 = Output at 24V dc. 300mA max. (10 = +24V)

3-POLE TERMINAL BLOCK (M 2) :

- 11 = N.C. end-run input OPEN
- 12 = End-run COMMON
- 13 = N.C. end-run input CLOSE

8-POLE RIGHT TERMINAL BLOCK (M 3) :

- 16 - 17 - 18 = Motor output 2 (terminal 16 = common)
- 19 - 20 - 21 = Motor output 1 (terminal 19 = common) Door with electrical lock
- 22 - 23 = Output for blinker 230V 80W max.

4-POLE TERMINAL BLOCK (M 5) :

- L = Input 230Vac. LINE
- N = Input for neutral
- Earth = Input and output for earth cable

2-POLE TERMINAL BLOCK (M 6) :

- 14 - 15 = Safety N.C. contact

WARNING: The motor CAPACITORS are placed OUTSIDE the control "Regolatore" card = Regulation card connection of motor couple (by request)

- P1 = "Working time" trimmer
- P2 = "Pause time" trimmer
- P3 = Trimmer for motor 2 staggering
- F1 = Fuse on 24V (max. 800mA)
- F2 = Fuse on 230V (max. 4A)
- L1 = Led signalling supplied unit (green)
- L2 = Led signalling pressed opening button (red)
- L3 = Led signalling obstructed photocell (yellow)
- L4 = Led signalling open blocking button (yellow)
- A-B= 2nd Rx Channel contact output (if connected) - **M4**
- C-D= Aerial Input (D = screen) - **M4**

WARNING!
THIS UNIT IS PREDISPOSED SO THAT THE SHORT CLOSING IMPULSE OF ONE DOOR TO RELEASE THE ELECTRICAL LOCK LASTS UNTIL YOU PRESS THE BUTTON TO OPEN. IF YOU WOULD LIKE AN IMPELLING IMPULSE, CUT THE D11 DIODE RAISED-MOUNTED AND PLACED UNDER THE M4 TERMINAL.

WORKING

- AUTOMATIC SYSTEM :

By pressing the N.O. button to open/close for 1 second, the motor 1 will begin to move (after 2 sec. also the motor 2, in order to easy the release of the electrical lock), for the time determined by the combination "End-run / Working time".

The controls works only with N.C. End-run.

With the gate open the pause timer (which can also be bypassed by pressing the open-close button once again) will reclose as determined by the special trimmer.

The photocell contact (N.C.) is activated only during the reclosing phase, but if during the pause time an object or a person cross its range of action, it automatically resets the timing which will start again from the beginning.

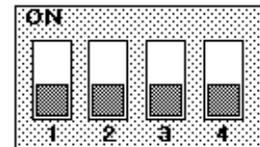
A contingent temporary block of the control can be obtained by acting on the special contact (N.C.); in this case the motor will stop until the open/close button is pressed giving movement to the gate in the opposite direction of that memorized when blocking.

- Remember that if some tension is taken off from the control, the first movement after reset will be an opening.

- By selecting on special Dip-switches, you could obtain the following kinds of working:

Dp 1 :
ON = with obstructed photocell the gate does not open

Dp 2 :
ON = automatic system
OFF = step-by-step (semiautomatic) system



Dp 3 :
ON = ON : gate block giving an impulse when opening (open, block, close, open etc.)
OFF = normal working (open, pause, close)

Dp 4 :
ON = short closing impulse of one door to release the electrical lock

- STEP-BY-STEP SYSTEM :

The functions are the same except the pause time which is off, therefore to reclose you should press the special button (N.O. open-close) once again.

WARNING !

- Check that the RED led is out during the normal working of the unit; it will light up when pressing the OPEN-CLOSE button and come out when released. In case the RED LED REMAINS ALWAYS ON, the control cannot operate because of a short-circuit of the Open-Close button.

- When connecting the photocell contact (N.C.) with Dp 1 to ON, check the correct working, otherwise the control does not give any movement of opening or closing.

- For best connection, align the photocells, then make the other connections.

- When using the control with "Condominiale" working (by cutting off the diode D8 - vertically mounted), remember to put the Dip-switch on AUTOMATIC, otherwise the control doesn't close!

NOTE: Before opening the control for maintenance service, you should connect an omnipower switch, with a minimum contact opening distance of 3 mm, on the control to switch it off (CEI 64-8).

"Logica" card functions

P1 = "Working time" trimmer (from 6 to 75 sec.)

P2 = "Pause time" trimmer (from 3 to 45 sec.)

P3 = 2nd door "Staggering" trimmer (from 0 to 12 sec.)

L1 = Led signalling supplied unit (green)

L2 = Led signalling pressed opening button (red)

L3 = Led signalling obstructed photocell (yellow)

L4 = Led signalling pressed blocking button (yellow)

Sw1= Preselection dip-switch (see previous page)

D8 = By cutting this diode you can have the "Condominiale" working (by giving impulses it always opens; the closing is automatic)

Rx = Support for Rx receiver

A-B= 2nd channel output (if Rx is provided) - **max. applicable tension: 24V-0.2A.**

C-D= Aerial Input terminal block (C = heart / D = screen)

First intervention to solve problems of the gate openers

PROBLEM:	LIKELY CAUSE:	SOLUTION:
- The control doesn't move, leds out.	- Wrong connection of 230Vac. line, check F2 (4A).	- Connect the line as shown on the diagram.
- The control doesn't move, leds out.	- Short-circuit on the output at 24Vdc., check F1 (800mA).	- Disconnect units supplied in the control.
- The control doesn't move, leds on.	- Open block contact.	- Check that the BLOCK is N.C.
- The control opens at once, then closes without pause and doesn't move any more.	- Input of open/close in short-circuit (lit L2 red led).	- Check the inputs (Rx buttons, key selector).
- The control opens a little and then stops.	- Safety profiles, block buttons.	- Check that there aren't any wrong contact.
- The control opens but doesn't close.	- Disconnected Dip-switch Dp 2 for automatic.	- Correctly select the autom./step-by-step dip-switch.
- The control gives movement: one motor opens, the other one closes.	- Wrong connection of one motor (reverse the wires).	- Connect in a proper way.
- The control doesn't feel end-run when open and close.	- Wrong connection of the end-runs.	- Connect in a proper way.
- The control gives movement only to one sense.	- Wrong connection of end-run (common wire).	- Connect in a proper way.
- The control reverses when the motor opens.	- Wrong connection of the motor (reverse the wires).	- Connect in a proper way.
- The motor opens the gate, but not completely.	- "Working Time" too short.	- Increase "Working Time" trimmer (P1).
- The control closes at once.	- "Pause Time" too short.	- Increase "Pause Time" trimmer (P2).

The ALLTRONIC s.n.c. will not be responsible for wrong connections and/or mishandlings of the controls which will not be considered under guarantee.

INSTALLATION ADVICE :

- 1) The control should be installed as near the gate as possible.
- 2) If this is not possible, you should:
 - Use cables with proper sizes.
 - NEVER use a multiwire cable to connect either the motor or all the services (open, photocell, block, end-run), but always SEPARATE THE POWER FROM THE LOW TENSION (controls and securities) by using more cables.
 - In case of 400V three-phase controls it is necessary to place the control near the gate in order to have the shortest way of the power wires connected with the end-run ones, always by using separated cables. If this is not possible, it is necessary to use screened cables for the low tension, by remembering to earth the cable screen at the two ends.
- 3) After all installations, check with tester Vac. that there isn't any induction tension on the inputs, by measuring between the earth and one end of the "Opening Button" terminal. If there is an ALTERNATING tension below 20 - 30V (induced tension for cable passage at 230V), the system is ready to be tested, otherwise it is necessary to overhaul the cable arrangement as described above.

NOTE: To completely remove the induced tension, earth on the spot the 0 V of the supply (output 9 of the left terminal).

MAX. LOADS OF RELAY CONTACTS AND THEIR MAINTENANCE:

The relays mounted on our controls (CN90P1 - CN91 - CN94 - CN95 - CN96 - CN98 - CN99 - CN80) have a load of 16 Amp (resistive load) and should be periodically checked according to their load.

It is advisable to overhaul the relay contacts every 4 years, but always according to the following conditions:

- CN90P1 - CN91 - CN94 - CN96 - CN80 control
maximum permissible load : 1 HP
single-phase motor $\cos\phi = 0.7$
no. of possible manoeuvres: 200.000

- CN95 - CN98 - CN99 control
max. permissible load : 1.5 HP at 400V
three-phase motor $\cos\phi = 0.7$
no. of possible manoeuvres: 100.000

NOTE: By reducing the motor $\cos\phi$, the no. of possible openings (manoeuvres) decreases (e.g. with $\cos\phi = 0.3$ they are halved)

- Check the values of the installed motors -

WARNING:

The above specifications are addressed to technicians and/or qualified staff; all checks and works should be made OUTSIDE the electric and electronic details of the controls.

Never forget that installations should be made according to law requirements and to rules of good installation.

NOTE: It is advisable to protect the control, at least on the upper side, if it could be subject to inclement weather.

The ALLTRONIC s.n.c. states that the CN94 model has been registered. Therefore the control will be protected in all its parts by the law.

It is forbidden to reproduce any part of this manual without written authorisation of the ALLTRONIC s.n.c.



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