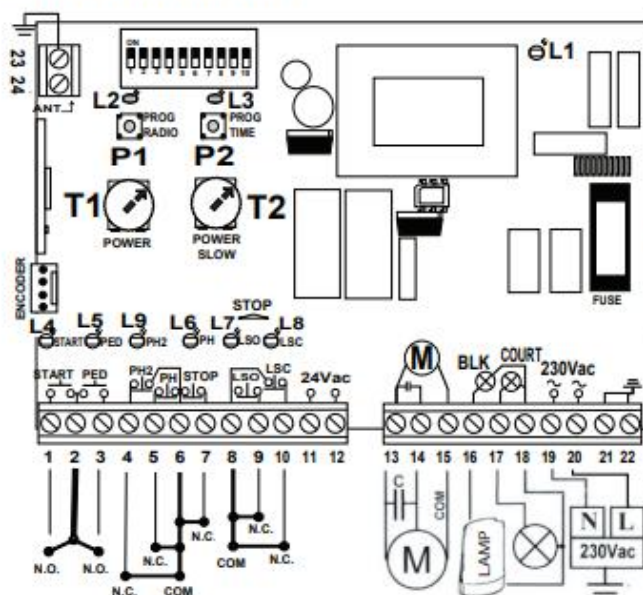




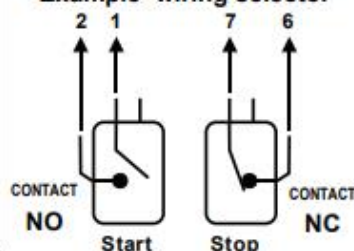
# QK-CE220CN

Control board for 230V gearmotors

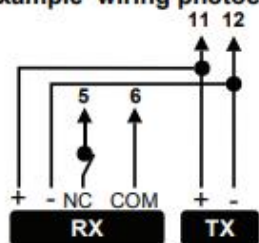
## USER MANUAL V01



### Example wiring selector



### Example wiring photocells



Terminal	Tip.	Description
1 - 2com	NO	START CONTACT (Each impulse OPEN/STOP/CLOSE/STOP)
3 - 2com	NO	PEDESTRIAN CONTACT
4 - 6com	NC	SAFETY BAND OR OPENING PHOTOCELLS (If no use make bridge)
5 - 6com	NC	CLOSING PHOTOCELLS (If no use make bridge)
7 - 6com	NC	STOP contact(If no use make bridge)
9 - 8com	NC	LIMIT SWITCH OPENING
10 - 8com	NC	LIMIT SWITCH CLOSING
11 - 12	24V ~	Power service or accessories (output 24Vac 250mA)
13-14-15	230V ~	Input ENGINE (13-14 input phases with capacitor in parallel) (15 common)
16 - 18	230V ~	FLASH
17 - 18	230V ~	COURTESY LIGHT
19 - 20	230V ~	Input POWER 110Vac
21 - 22	/	GROUND
23 - 24		Input ANTENNA ( 24 signal)

UNI Our products if installed by qualified personnel capable to evaluate  
EN risks, comply with norms UNI EN 12453, EN 12445

CE The CE mark complies with EEC European directive 89/336  
+ 93/68 D.L.04/12/1992 n.476

### TECHNICAL SPECIFICATIONS

Power	230V AC +/- 10%
Power engine	550 W
Output accessories	24V AC 250mA
Time for automatic close	5 a 120 sec
Time for maneuver	3 a 120 sec
Time for slow down	2 a 120 sec
Time for courtesy light	180 sec
Nr codes storable	254 code
Transmitters type	Fix/Roll-code
Frequency	433.92 / 868 Mhz
Temperature to work	-20 a 70°C
Sensibility	Better of -100dBm
Homologation	Conf ETS 300-220/ETS 300-683

### TRIMMER T1

The trimmer POWER regulates the torque and sensitivity during the maneuver

### TRIMMER T2

The trimmer POWER SLOW regulates the torque and sensitivity during SLOW DOWN phase



The TORQUE increases turning the trimmer in clockwise sense.

BUTTON  
BUTTON

P1 or RADIO PROG for storage the transmitter  
P2 or PROG TIME for storage the stroke

### ENCODER OPERATION

Activated by DIP8 ON

### CHANGE OF SENSITIVITY AND TORQUE

More torque = less sensitivity

Less torque = more sensitivity

The parameters are set by the trimmer T1 and T2.

### TABLED LEDS

L1	Led STATUS	Lit when the unit is powered
L2	Led RADIO	Lit when accessing in radio storage
L3	Led PROG. TIME	It is blinking when in programming
L4	Led START	Lit when taking a pulse
L5	Led PEDESTRIAN	Lit when taking a pedestrian pulse
L6	Led PHOTOCELLS	Lit when the fotocells are aligned
L7	Led L.S. OPENING	Lit when limitswitch opening is on NC
L8	Led L.S. CLOSING	Lit when limitswitch closing is on NC
L7+L8	Led STOP	Both on when the stop is on NC
L9	Led PHOTOCELLS AP/ safety edge	Lit when the photocells are aligned/ safety edge connected

## ALL DIP-SWITCH:

<b>DIP 1</b>	<b>COUNTERWEIGHT DOORS/SLIDING GATE</b> ON- Counterweight doors function OFF- Sliding gate function
<b>DIP 2</b>	<b>AUTOMATIC CLOSING</b> ON- Automatic closing activated OFF- Automatic closing not activated
<b>DIP 3</b>	<b>CONDOMINIUM / STEP BY STEP</b> ON- The automation will end the operation always on end switches, in opening does not accept pulses, in closing a pulse will cause the reverse. OFF- For each pulse automation will stop (OPEN-STOP-CLOSE-STOP)
<b>DIP 4</b>	<b>INVERSION OF THE DIRECTION</b> ON- Invert direction and the limit switch OFF- Invert direction and the limit switch
<b>DIP 5</b>	<b>SETTING SEFETY CONTACT IN OPENING</b> ON- In opening the control board stop and invert for 2sec the gate direction OFF- In opening the control board stop the gate direction
<b>DIP 6</b>	<b>FLASHING FUNCTION</b> ON- Intermittent light OFF- Steady light
<b>DIP 7</b>	<b>SLOW DOWN</b> ON- Activate OFF- Not activate
<b>DIP 8</b>	<b>ENCODER</b> ON- Encoder activated OFF- Encoder not activated
<b>DIP 9</b>	<b>OPEN RADIO MEMORY WITH TRANSMITTER</b> With you can storable other transmitter without open the control board. ON- Activated OFF- Not activated
<b>DIP 10</b>	<b>MANAGE SLOWDOWN</b> ON- Heavy leaf OFF- Light leaf

### FLASHING OPERATION WITH DIP6 ON

IN OPENING: Flash slow  
IN CLOSING: Flash fast  
IN PAUSE: Steady light  
PHOTOCELL ENGAGED: Turn off

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## FEATURES

The control unit QK-CE220CN control equipment for sliding systems and road barriers to 230Vac power supply. This panel can manage motors with or without limit switches, encoders and encoder+limitswitches.

**The peculiarity of QK-CE220CN is that it has separate torque control, through trimmer T1 and T2 (T1 regulates the torque while running in normal speed the T2 adjusts the torque during deceleration).** Interacting on these devices can optimize the operation of the automation so as to be within the actual rules. The programming of the switches and remote controls is self-learning, so everything is easier.

**In case management through ENCODER (DIP 8 ON) security will be guaranteed by the photocells/bands safety or to torque control: if the gate find an obstacle will be reversed or blocked.**

**With ENCODER not active (OFF DIP 8) not have the reverse function but only torque control through trimmer T1 and T2.**

### PROGRAMMING REMOTE CONTROL

The QK-CE220CN can handle 254 transmitters ROLLING CODE.

The programming of the transmitters is done by pressing the **P1 for 2sec**, the LED L2 turns on, then pressing the button of the remote will flash twice to indicate the LED L2 is stored in memory. After 6 seconds automatically central will exit the programming function.

### PROGRAMMING PEDESTRIAN MODE (by remote control)

To program this function push **P1 button for 2sec**, release it and press it again for **1 sec**, the LED L2 starts flashing and each press of the button on a remote control will be a rapid double flash of the LED L2, after 6sec the control board automatically exit to programming. **The operating time of the pedestrian mode is 8 sec.**

### REMOVE ALL CODES

Press and hold the **P1 for 6 seconds** when it is released there will be a quick flash of the LED L2, with consequent turning off after 6 seconds.

### PROGRAMMING THE STROKE

The programming begins automation is closed, the first operation will be the opening, otherwise reverse the direction by **DIP switch 4**.

### PROGRAMMING with slow down (DIP 7ON)

To enter in programming, press the **P2 button for 2 seconds**, the LED3 will flash

Give a **FIRST PULSE** by **START** contact (terminals 1 and 2) or by transmitter already been programmed.

The operator will start the opening phase, give a **SECOND PULSE** where you want to start the slow down in opening.

The engine will complete the stroke and will stop at close limit switch (if you chose an automatism without limit switches must give a further impulse to fix the stopping point of the stroke).

**If you choose to have the AUTOMATIC CLOSING (OPTION 2 IN ON), the closing time will be calculated from the moment when the operator arrives to open limit switch until you give the THIRD PULSE, the automatism will start closure.**

Where do you want start slowing down in closing you must give the **FOURTH PULSE**. The arrest will be through the closing limit switch and now the LED will turn off 3. If the automatism is not expected to limit switch, you will need to give a last pulse where you want to stop.

### PROGRAMMING without slow down (DIP 7OFF)

Set the option 7 to OFF for the exclusion of the slowdown phase. Follow the procedure listed above (learning with slowdown) without transmitting the second pulse in opening and the fourth during closing. So once impulses transmitted to the beginning of the maneuvers, in opening and in closing, they will finish at the limit switch position.

### OPERATION LOGIC OF THE SAFETY

#### SAFETY BAND TERMINAL (4-6)

This contact protects opening and closing.

DIP 5 ON: in opening when there is an obstacle, the engine stop and reverse for 2 sec.

DIP 5 OFF: in opening when there is an obstacle engine STOP

In both cases in closing when there there is an obstacle the gate stop.

#### PHOTOCELLS TERMINAL (5-6)

This contact protects only in closing

In closing when there is an obstacle engine STOP

#### STOP TERMINAL (18-19)

The contact if open will cause the immediate arrest of the automation in any situation.