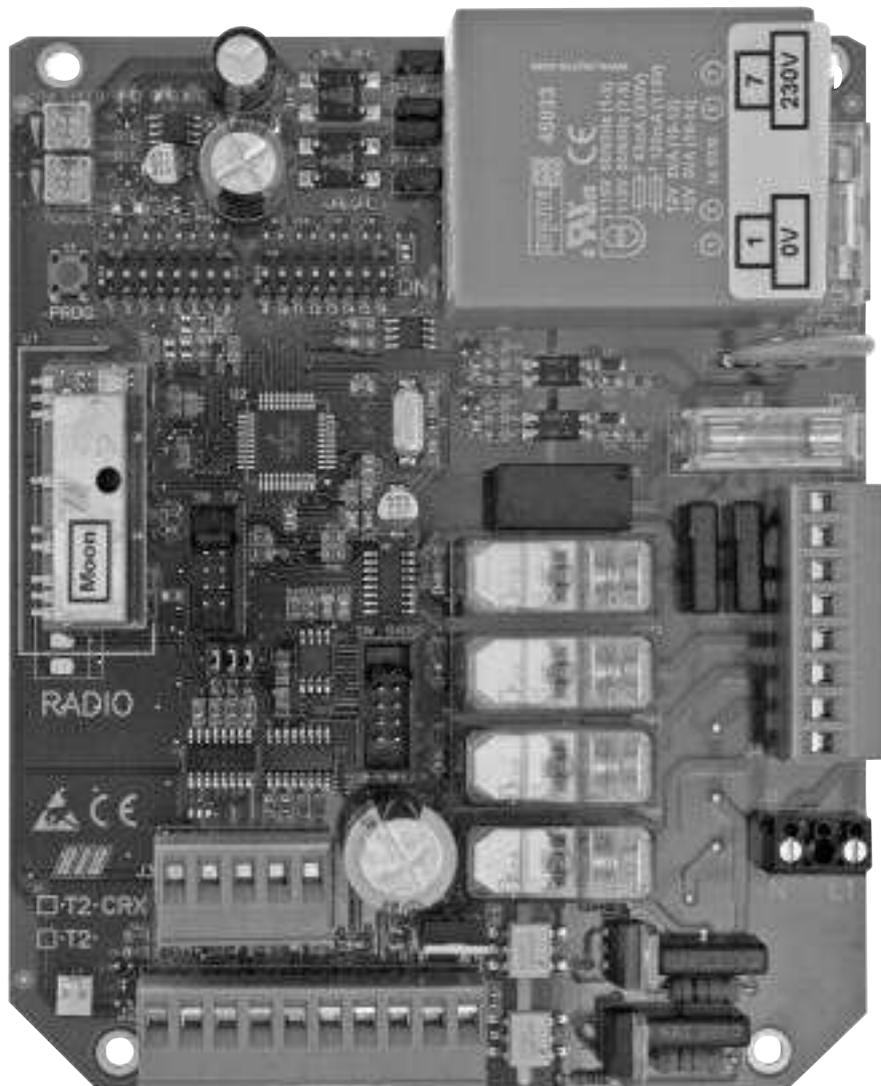
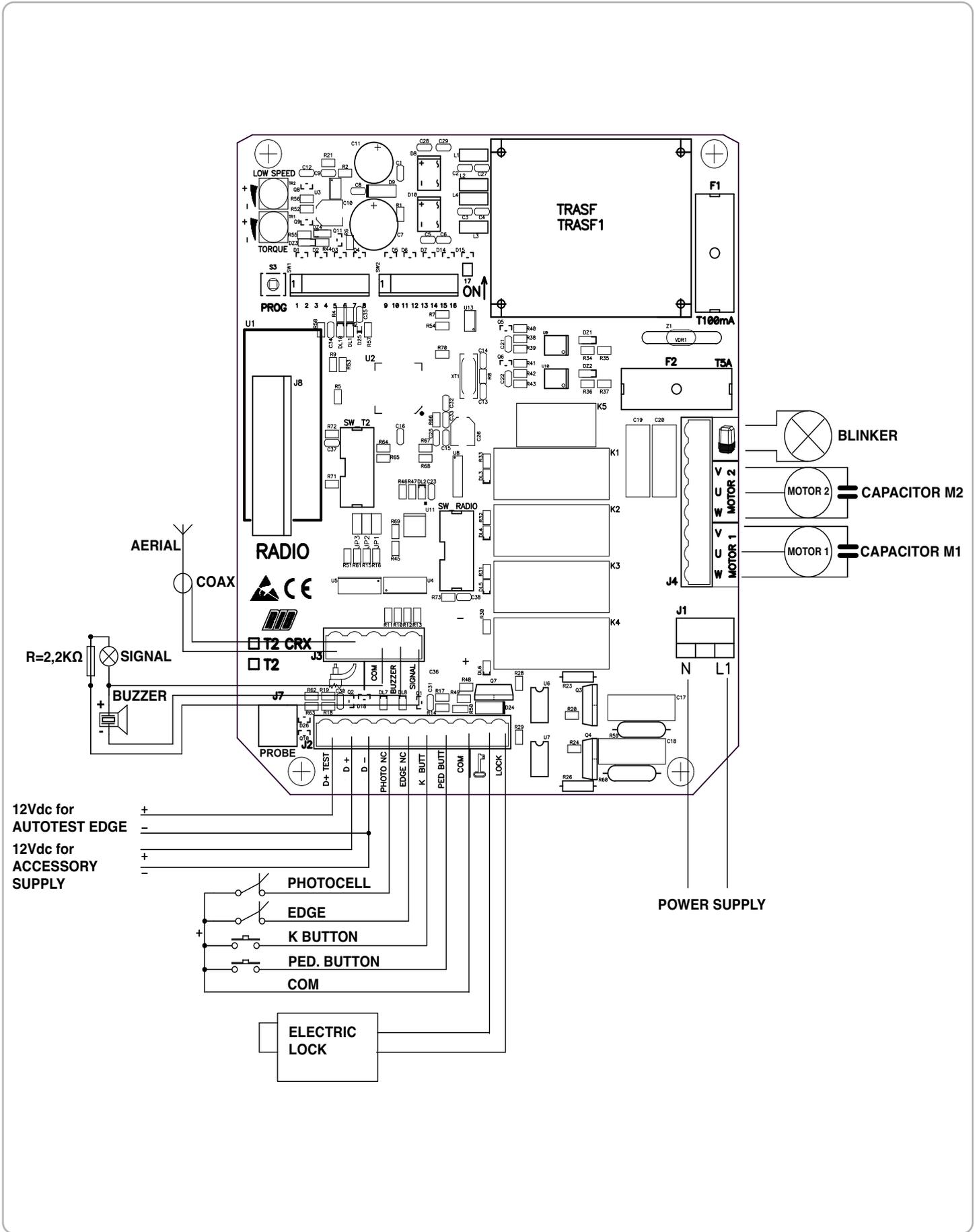


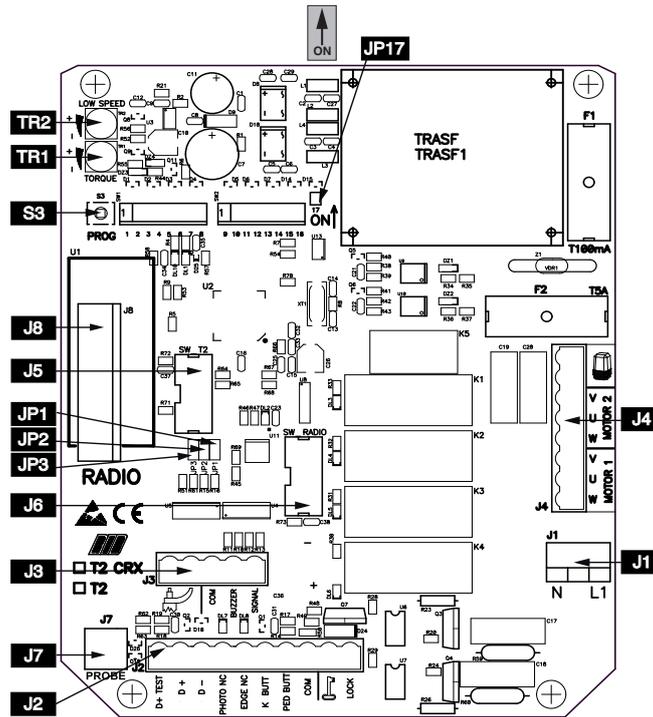
T2

QUADRO ELETTRICO PER IL COMANDO DI UNO O DUE MOTORI MONOFASI
COFFRET ELECTRONIQUE POUR LE CONTRÔLE DE UN OU DEUX MOTEURS MONOPHASE
ELECTRONIC PANEL FOR THE CONTROL OF ONE OR TWO SINGLE PHASE MOTORS
ELEKTRONISCHE STEUERUNG FÜR EIN ODER ZWEI EINPHASENMOTOREN
CUADRO ELECTRÓNICO DE MANDO PARA UNO O DOS MOTORES MONOFÁSICOS





POINT A - CONTROL PANEL FEATURES



J1	N -L1	Main power supply 230 Vac 50/60 Hz (120V/60Hz upon request)
J2	D+ TEST D + D - PHOT. NC EDGE NC K BUTT. PED. BUTT. COM LOCK	Safety strip self-test power supply +12Vdc Accessories power supply +12Vdc Accessories power supply -12Vdc Photocells contact (NC) Safety strip contact (NC) Single pulse contact (NO) Pedestrian opening contact (NO) Common contact (common line for all the command and safety inputs) Electric lock connection (MAX 15W 12V)
J3	AERIAL COM BUZZER SIGNAL	Radio Antenna Common contact (common line for all the command and safety inputs) Buzzer contact (12Vdc max 200 mA) Gate open state output indicator (12Vdc 3W max)
J4	 U - MOTOR 2 V-W - MOTOR 2 U - MOTOR 1 V-W - MOTOR 1	Flashing light (max 40W) MOTOR 2 COMMON CONNECTION MOTOR 2 PHASE AND CAPACITOR CONNECTIONS MOTOR 1 COMMON CONNECTION MOTOR 1 PHASE AND CAPACITOR CONNECTIONS
J5	SW T2	DO NOT REMOVE ANY JUMPER! OTHERWISE THE OPERATOR WILL NOT WORK!
J6	SW RADIO	(only CRX control board) DO NOT REMOVE ANY JUMPER! OTHERWISE THE OPERATOR WILL NOT WORK!
J7	PROBE	Terminal block to connect the heater sensor <u>only</u> for operator (code AA14019).
J8		Built-in radio module (model CRX), or connector for radio receiver RIB, 12 Vdc supply
JP17		To select 1 motor (M1) or 2 motors (M1 and M2)
S3	PROG	Programming button
TR1	TORQUE	Electronic torque regulator
TR2	LOW SPEED	Electronic regulator for low speed on approach motor (See chart 1)

POINT B - SETTINGS

DIP 1 (ON) MOTOR ROTATION DIRECTION CHECK 
(See Point C)

DIP 2 (ON) PROGRAMMING (See Point D)

DIP 1-2 STORING/ERASING RADIO CODES FOR MOTOR CONTROL (only CRX control board) (See Point G, H and I)

DIP 2-1 PROGRAMMING OF THE PEDESTRIAN OPENING (See Point F)

DIP 3 ON - Automatic Closing ENABLED
OFF - Automatic Closing DISABLED

DIP 4 ON - Photocells active only in closing
OFF - Photocells always active

DIP 5 ON - blinker pre-flashing
OFF - blinker normal-flashing

DIP 6 ON - STEP BY STEP
Single pulse contact (K BUTT)
Pedestrian button (PED BUTT)
Radio Receiver command
OFF - AUTOMATIC
Single pulse contact (K BUTT)
Pedestrian button (PED BUTT)
Radio Receiver command

DIP 7 ON - low speed in approaching ENABLED
OFF - low speed in approaching DISABLED

DIP 8 ON - electric lock command ENABLED
OFF - electric lock command DISABLED

DIP 9 ON - Hammering on complete close position to ease Manual Release
- Hammering before opening to ease electric lock unlocking
OFF - no impulse

DIP 10 ON - Extra thrust when reached closing position to make sure that the mechanical bolt is fixed into the ground
OFF - no impulse

DIP 11 ON - black out function ENABLED (See chart 2)
OFF - black out function DISABLED

DIP 12 Available for future applications

DIP 13 ON - safety strip self-test ENABLED
OFF - safety strip self-test DISABLED

DIP 14 to select type of motor (see chart 1)

DIP 15 to select type of motor (see chart 1)

DIP 16 to select type of motor (see chart 1)

JP 17 OPEN JUMPER 1 motor (M1) - 1 leaf
CLOSE JUMPER 2 motors (M1 and M2) - 2 leaves

JP1 => Pay attention that the jumper is inserted!

JP2 => Pay attention that the jumper is inserted!

JP3 => Pay attention that the jumper is inserted!

TORQUE TR1 Electronic regulator for motor torque

Adjustment of motor torque is carried out using the TORQUE Trimmer which varies the output voltage to the head/s of the motor/s (turn clockwise to increase torque).

This torque control is activated after 2 seconds from any manoeuvre begging, whereas the motor is turned on at full power to guarantee the starting at the manoeuvre begging.

PAY ATTENTION: IF THE TORQUE TRIMMER SETTING IS CHANGED, IT IS PREFERABLE TO REPEAT THE TIME PROGRAMMING.

LOW SPEED TR2 Electronic regulator for low speed on approach

WARNING: THE LOW SPEED FEATURES IS NOT AVAILABLE FOR THE HYDRAULIC MOTORS (SEE CHART 1 POINTS 4-5-8).

Adjustment of low speed is carried out using the LOW SPEED Trimmer which varies the output voltage to the head/s of the motor/s (turn clockwise to increase speed). Adjustment is carried out to establish the correct speed at the completion of opening and closing, depending on

TABLE 1

	TYPE OF MOTOR	CODE	DIP 14	DIP 15	DIP 16
1	KING 230/50	AA14001	OFF	OFF	OFF
	KING L 230/50	AA14010			
	KING 220/60	AA14002			
	KING L 220/60	AA14011			
	KING ICE 230/50	AA14019			
2	MAGIC IRR. 105°	AA10960	ON	OFF	OFF
	MAGIC IRR. 180°	AA10965			
	MAGIC REV. 105°	AA10920			
	MAGIC REV. 180°	AA10930			
	PRATIC	AA18001			
3	PRINCE REV	AA14045	OFF	ON	OFF
4	IDRO 27/1B	AA10863	ON	ON	OFF
	IDRO 27/R	AA10860			
	IDRO 27 SUPER/R	AA10867			
	IDRO 27 SUPER/1B	AA10879			
5	FLUID R DVI	AA10899	OFF	OFF	ON
	FLUID R SVI	AA10901			
	FLUID 2B DVI	AA10897			
	FLUID 2B SVI	AA10898			
	IDRO 39/R	AA10871			
	IDRO 39/1B	AA10876			
	IDRO 39/2B	AA10881			
6	KING FAST 230/50	AA14008	ON	OFF	ON
	KING 120/60	AA14003			
	KING L 120/60	AA14012			
7	PRINCE WITH BRAKE	AA14040	OFF	ON	ON
8	IDRO C 27/1B	AA10884	ON	ON	ON
	IDRO C 27/2B	AA10882			
	IDRO C 27/R	AA10883			

the structure of the gate, or if there is any light friction that could compromise the correct working of the system. The low speed is activated (DIP7 OFF) when the gate leaf is 0.50-0.60 meters away from the complete close or open position.

LED WARNING

DL1 - programming activated (red)
DL2 - radio code programming (green) (only for CRX)
DL3 - gate opening M2 (green)
DL4 - gate closing M2 (red)
DL5 - gate opening M1 (green)
DL6 - gate closing M1 (red)
DL7 - photocell contact (NC) (red)
DL8 - safety strip contact (NC) (red)

FUSES

F1 T100mA Accessories protection fuse
F2 5A Motor protection fuse

POINT C - MOTOR ROTATION DIRECTION CHECK

- 1 - Unlock the operators with the Manual Release, swing open the leaves about halfway, lock the operators.
- 2 - Turn **DIP1 to ON** position, LED DL1 starts blinking.
- 3 - **Press the PROG button and hold it** (movement is now performed in "man present" mode, open-stop-close-open-etc.).
When RED LEDS DL4 and DL6 are on, the gate leaves are closing (with a phase shift of 4 seconds).
When GREEN LEDS DL3 and DL5 are on, the gate leaves are opening (with a phase shift of 2 seconds).
Should any of the leaf open instead of closing, release PROG button, turn off the main power and reverse the two phase wires (V1/2 and W1/2) of the relevant motor.
- 4 - **Press the PROG button and hold it to CLOSE** completely the gate, check leaves swinging and the closing mechanical stopper position.
- 5 - **Press the PROG button and hold it to OPEN** completely the gate,

check the leaves swinging and the opening mechanical stopper position.

- 6 - After 3 seconds motor starting and for the next 10 seconds motor working, the **torque control** is automatically activated. Set the motor torque by the TORQUE Trimmer/s which varies the output voltage to the head of the motor/s (turn clockwise to increase torque).
- 7 - After other 10 seconds motor working, the **low speed control** is automatically activated (DIP7 ON). Set the motor low speed by the LOW SPEED Trimmer to select the gate leaf low speed in approaching.
- 8 - Close completely the gate.
- 9 - Turn **DIP1 to OFF** position, LED DL1 turns off.

During Point C procedure, safety devices (photocells and safety strip) are not active and the remote control cannot operate.

(#) In Point D, Point E and Point F procedures, all the safety devices (photocells and safety strip) will be active, so they must be properly installed and connected to the control board. Any changing of the safety devices input state, will stop the Point D, Point E or Point F procedure that must be repeated from the beginning.

POINT D - PROGRAMMING FOR 2 MOTORS (#)

- 1 - The gate must be fully closed.
 - 2 - Turn **DIP2 to ON** position, LED DL1 starts blinking
 - 3 - **Press PROG. Button**, motor M1 opens.
 - 4 - Once reached the open position, let 1 second pass and **press the PROG button** to cut out motor M1 (time travel of M1 has now been just stored with this operation).
 - 5 - Motor M2 opens, automatically.
 - 6 - Once reached the open position, let 1 second pass and **press the PROG button** to cut out motor M2 (time travel of M2 has now been just stored with this operation). The gap of time between now (stop of motor M2) and the next pressing of the PROG. button (see step 7 below) will be then stored as waiting time for Automatic Closing feature.
 - 7 - **Press PROG. button**, M2 closes and the Automatic Closing time is stored (see DIP3 function to enable or disable the Automatic Closing feature). The gap of time between now (close of motor M2) and the next pressing of the PROG. button (see step 8 below) will be stored as time delay between motor M2 and motor M1 closing, during normal operations.
 - 8 - **Press the PROG. button**, motor M1 closes thus setting the delay time between M2 and M1, as explained in step 7 above.
 - 9 - The LED DL1 will turn OFF, signalling exit from the Point D procedure.
Closing of the gate will be carried out at normal speed and only on approaching total closing at low speed (depending on the adjustment of LOW SPEED trimmer).
 - 10 - Turn **DIP2 to OFF** position.
- During Point D procedure, the safety devices (photocells and safety strip) are active.

POINT E - PROGRAMMING FOR 1 MOTOR (M1) (#)

ATTENTION: in order to manage one motor only, OPEN JUMPER JP17.

- 1 - The gate must be fully closed.
- 2 - Turn **DIP2 to ON** position, the LED DL1 starts blinking
- 3 - **Press PROG. button**, the motor M1 opens.
- 4 - Once reached the open position, let 1 second pass and **press the PROG button** to cut out motor M1 (time travel of M1 has now been just stored with this operation). The gap of time between now (stop of motor M1) and the next pressing of the PROG. button (see step 5 below) will be then stored as waiting time for Automatic Closing feature.
- 5 - **Press PROG. button**, M1 closes and the Automatic Closing time is stored (see DIP3 function to enable or disable the Automatic Closing

feature).

- 6 - The LED DL1 will turn OFF, indicating exit from the Point E procedure. Closing of the gate will be carried out at normal speed and only on approaching total closing at low speed (depending on the adjustment of LOW SPEED trimmer).

- 7 - Turn **DIP2 to OFF** position.

During Point E procedure, the safety devices (photocells and safety strip) are active.

POINT F - PROGRAMMING OF PEDESTRIAN OPENING (#)

- 1 - The gate must be fully closed.
- 2 - Turn **DIP2 to ON** position, the LED DL1 starts blinking quickly.
- 3 - Immediately, turn also **DIP1 to ON** position, the LED DL1 starts blinking slowly.
- 4 - **Press the pedestrian pushbutton PED. BUTT**, motor M1 opens
- 5 - When the motor M1 leaf is opened enough for the pedestrian crossing, press the pedestrian pushbutton to stop the travel (thus defining the opening stroke of motor M1). The gap of time between now (stop of motor M1) and the next pressing of the PROG. button (see point 6 below) will be stored as waiting time for Pedestrian Automatic Closing feature.
- 6 - **Press the pedestrian pushbutton PED. BUTT**, M1 closes and the Pedestrian Automatic Closing time is stored (see DIP3 function to enable or disable the Automatic Closing feature).
- 7 - Turn **DIP1 to OFF** position.
- 8 - Turn **DIP2 to OFF** position.

During Point F procedure, the safety devices (photocells and safety strip) are active.

POINT G - RADIO CODE STORING (ONLY FOR CRX) (MAX 60 CODES)

- 1 - The gate must be fully closed.
- 2 - Turn **DIP1 to ON** position, the LED DL1 starts blinking quickly.
- 3 - Immediately, turn also **DIP2 to ON** position, the LED DL1 starts blinking slowly. Each code must be programmed within 10 seconds.
- 4 - **Press one of the buttons on the remote control** (usually channel A). If the remote control is stored correctly green LED DL2 (on the T2 CRX control board) emits a flash. The 10 seconds' time within storing radio code is automatically renewed to allow the storing of the next remote control.
- 5 - To end radio code storing **either press PROG. button or let 10 seconds pass**. The LED DL1 shall stop blinking.
- 6 - Turn **DIP1 to OFF** position.
- 7 - Turn **DIP2 to OFF** position.

POINT H - RADIO CODE ERASING (ONLY FOR CRX)

- 1 - The gate must be fully closed.
- 2 - Turn **DIP1 to ON** position, the LED DL1 starts blinking quickly.
- 3 - Immediately, turn also **DIP2 to ON** position, the LED DL1 starts blinking slowly. Code erasing must be carried out within 10 seconds.
- 4 - **Press the PROG. button and hold it for 5 seconds**, the total memory erasing will be indicated by two flashes of green LED DL2. LED DL1 will blink for 10 seconds and it will be possible to store new radio codes following the Point G procedure described above.
- 5 - To end radio code storing either press PROG. button or let 10 seconds pass. The LED DL1 shall stop blinking.
- 6 - Turn **DIP1 to OFF** position.
- 7 - Turn **DIP2 to OFF** position.

POINT I - RADIO CODE FULL MEMORY TEST (only for CRX)

- 1 - The gate must be fully closed.
- 2 - Turn **DIP1 to ON** position, the LED DL1 starts blinking quickly.
- 3 - Immediately, turn also **DIP2 to ON** position, the LED DL1 starts blinking slowly.

If the Green LED DL2 flashes six times, it means that the radio code memory is FULL (maximum codes to be stored 60).

- 4 - Turn **DIP1 to OFF** position.
- 5 - Turn **DIP2 to OFF** position.
- 6 - LED L9 and LED L10 turn OFF.

FUNCTIONING OF CONTROL ACCESSORIES

STEP BY STEP or AUTOMATIC commands

(K BUTT button, PED BUTT button, RADIO REMOTE button)

DIP 6 - ON The K BUTT, the PED BUTT button, the RADIO REMOTE buttons perform the cyclic command open-stop-close-open-stop-etc.

DIP 6 - OFF The K BUTT, the PED BUTT button, the RADIO REMOTE buttons perform:

- the open command, if pressed with the gate completely closed
- the close command, if pressed with the gate completely opened
- no effect, if pressed during the gate opening
- the gate re-open, if pressed while the gate is closing

The K BUTT opens the gate completely, whereas the PED BUTT opens the gate partially as described in Point F.

CLOCK FUNCTION (available ONLY with DIP 6 OFF)

The Clock Function permits to keep the gate opened even if, for example, the Automatic Closing is enabled (DIP3 ON) or somebody commands the gate closing. It is useful during rush hours, when traffic is heavy and the flow is slow (e.g. entrance/exit of employees, emergencies in residential areas or car parks and, temporarily, for removal vans) and it's necessary to keep the gate opened.

It can be done by connecting a switch and/or a daily/weekly clock either in parallel to the K BUTT button or instead of the K BUTT button. When the control board receives this command, the gate will open and by keeping this contact closed for all the time of the gate opening, the Clock Function is automatically activated. In fact, once reached the open position, the gate will remain opened and all of the control board functions are blocked. Only when K BUTT contact is released, the control board functions are re-activated and the Automatic Closing restarts (if enabled) doing the countdown to the gate closing.

PEDESTRIAN command (PED BUTT - COM)

This command is useful to open the gate partially, just enough, for example, to permit a pedestrian crossing. In fact, the Pedestrian command (see Point F) is carried out only by opening the motor M1 just enough for a pedestrian to pass, as described into the Point F procedure.

From the Pedestrian opening position the Automatic Closing can be enabled or disabled with DIP3.

From the Pedestrian opening position, the gate can be completely opened by the OPEN or by the K BUTT button or by the RADIO button.

AUTOMATIC CLOSING (from the COMPLETE open position)

The Automatic Closing from the complete open position can be enabled turning ON the DIP3.

The maximum gap of time that can be programmed is 5 minutes (see Point D and E).

AUTOMATIC CLOSING (from the PEDESTRIAN open position)

The Automatic Closing from the pedestrian open position can be enabled turning ON the DIP3. The maximum gap of time that can be programmed is 5 minutes (see Point F).

ELECTRIC LOCK (LOCK A+) command

The DIP 8 in the ON position enables the Electric Lock (MAX 15W 12V) command. The Electric Lock (LOCK A+) will be automatically turned ON each time the gate opens.

If the DIP8 is OFF, the Electric Lock command is DISABLED.

MANUAL RELEASE FACILITY

The **DIP 9** in the ON position enables the Manual Release Facility. Once the gate has completely closed, a short reversal manoeuvre (0.2 seconds) will be done to ease manual release.

ELECTRIC LOCK unlocking FACILITY

The **DIP 9** in the ON position enables the Electric Lock unlocking Facility. From close position, just before opening, the gate will perform a short closing manoeuvre (0.5 seconds) to ease unlocking from electric lock.

ELECTRIC LOCK coupling FACILITY

The **DIP 10** in the ON position enables the Electric Lock coupling Facility. Once the gate has closed, a short hammering close pulse (0.5 seconds) will be done at full power to guarantee the electric lock or mechanical bolt coupling.

FUNCTIONING OF SAFETY ACCESSORIES

PHOTOCELL (PHOT - COM)

In case the switch DIP4 is in the OFF position, the photocells are active both in gate opening and in gate closing. In this configuration, if an obstacle cuts the photocell beam:

- while the gate is closing, the gate will open
 - while the gate is opening, the gate will stop and will restart opening when the obstacle is removed
 - while the gate is still, it will not move neither in opening nor in closing.
- In case of the switch DIP4 is in the ON position, the photocells are active only in gate closing.

In this configuration, if an obstacle cuts the photocell beam:

- while the gate is closing, the gate will open
- while the gate is opening, the gate will continue open
- while the gate is still, it will open if a open command is request, it will remain still if a close command is request.

The photocell input (PHOT - COM) is a NORMALLY CLOSED contact. In case there are more couple of photocells, the contacts from all the photocell receivers must be connected in series.

In case the photocells are not installed, this contact must be short circuited with a wire jump (from PHOT to COM) to permit the gate to operate.

SAFETY STRIP (EDGE - COM)

If an obstacle presses the safety strip:

- while the gate is still, it will not move neither in opening nor in closing
- while the gate is closing, the gate will open
- while the gate is opening, the gate will close.

In case the safety strip is held pressed a further quick reversion, after 2 seconds, is performed. The gate interrupts any movement and this alarm state is indicated by 1 minute Blinker flashing. The normal gate operations can be restored by pressing any push button or radio commands.

The safety strip input (EDGE - COM) is a NORMALLY CLOSED contact.

In case there are more than one safety strip, all their contacts must be connected in series.

In case the safety strip is not installed, this contact must be short circuited with a wire jump (from EDGE to COM) to permit the gate to operate and the Safety Strip test must be disabled (DIP 13 OFF).

TESTING THE SAFETY STRIP equipment

The switch DIP13 ON enables to test the safety strip equipment. The test is performed every time the gate completes a full opening. The test is available **only if the safety strip device is equipped with a dedicated power supply input.**

In fact, the safety strip equipment power supply input can be connected

to the D+TEST and D- outputs (DIP13 ON). Automatically, every time the gate completes a full opening, just before closing, the control board switches OFF the D+TEST and D- power supply output for a very short time. While the safety strip power supply is switched OFF, if everything is working fine the safety strip contact (EDGE - COM) must open. In case the test fails, no other gate manoeuvre will be allowed.

NOT ALL THE SAFETY STRIPS CAN BE TESTED, THUS THE SWITCH DIP13 MUST BE LEFT OPEN.

BLINKER

Connect the flashing light to the blinker output, use flashing lights ACG7059 and bulbs of 40W maximum.

PRE-FLASHING function

The DIP 5 in the ON position enables the pre-flashing, the BLINKER starts flashing 3 seconds before every movement of the gate.

The DIP 5 in the OFF position disables any pre-flashing, the BLINKER starts flashing and the motors will start at the same time.

BUZZER

The current supplied to the Buzzer will be 200 mA at 12Vdc. During the normal operation of the gate, opening and closing, the buzzer will buzz intermittently. Only during the alarm situations (safety strip) the buzzing will almost be constant.

GATE OPEN INDICATOR (SIGNAL - COM)

Should you need to have an indication about the leaf position, the output SIGNAL - COM can be connected to a 12Vdc bulb of 3W maximum. It is turned ON when the gate is open or partially open, it is turned OFF only when the gate is completely closed.

WE RECOMMEND NOT TO OVERLOAD THE INDICATOR OUTPUT (SIGNAL - COM) OTHERWISE THE GATE FUNCTIONING COULD BE COMPROMISED OR THE CONTROL BOARD COULD BE DAMAGED

RESTORATION OF OPERATIONS AFTER A BLACKOUT

If DIP 11 is turned OFF the blackout function is DISABLED.

If DIP 11 is turned ON the blackout function is ENABLED.

In case of a blackout occurs and the blackout function is enabled (DIP11 ON), when the main power returns, automatically the operator will function according to the chart 2.

TABLE 2

During blackout	At the return of the network power supply.
If the gate is totally closed	It will remain closed
If the gate is at the opening stage	It will continue opening
If the gate is totally open (with dip 3 OFF)	It remains open. Consequently closing operations of the gate can be controlled.
If the gate is totally open (with dip 3 ON)	It remains open, but at the expiry of the automatic closure time closure operation starts off.
If the gate is in the closure stage	It continues closing.
If the gate is in the safety edge alarm	The safety edge alarm starts off again.

TECHNICAL SPECIFICATIONS

- Temperature range -10 ÷ + 55°C
- Humidity < 95% without condensation
- Power supply voltage 230 o 120V~ ±10%
- Frequency 50/60 Hz
- Maximum absorption 32 mA
- Interruptions in electricity supply 100ms
- Maximum power of gate open indicator 12Vdc 3W (equivalent to 1 bulb of 3W or 5 LED with serial resistance of 2,2 kΩ)
- Maximum load of blinker output 40W with resistive charge
- Current available for photocells and accessories 500mA 12Vdc
- Current available on radio connector 200mA 12Vdc

TECHNICAL RADIO SPECIFICATIONS (Only CRX models)

- Reception frequency 433,92MHz
- Impedance 52 Ω
- Sensitivity >2.24µV
- Excitation time 300ms
- De-excitation time 300ms
- Codes in store N° 60

- All the inputs must be used as clean contacts because the power supply is generated internally (safe voltage) in the card and it is set in a way to guarantee the use of the double insulation and reinforced in relation to parts with hazardous voltage.
- Any external circuits connected to the outputs of the control board, must be carried out to make sure the double or reinforced insulation is used in relation to parts with hazardous voltage.
- All the inputs are run by a programmed integrated circuit which carries out a self-check at the beginning of each operation.

OPTIONALS - For the connections and the technical data of the fixtures follow the relevant handbooks.

RADIO TRANSMITTER MOON



ACG6082 - MOON 433
ACG7026 - MOON 91

ACG6081 - MOON 433
ACG7025 - MOON 91

CODE LEARNIG SYSTEM RADIORECEIVERS



- | | | |
|-------------|---|--------------|
| RX91/A | quarzata and coupling | code ACG5005 |
| RX91/A | quarzata and terminal board | code ACG5004 |
| RX433/A | super eterodyne and coupling | code ACG5055 |
| RX433/A | super eterodyne and terminal board | code ACG5056 |
| RX433/A 2CH | super eterodyne, 2 channel and coupling | code ACG5051 |
| RX433/A 2CH | super eterodyne, 2 channel and terminal board | code ACG5052 |

SPARK



In order to make the systems mentioned above give the best performances, you need to install an aerial, tuned on the frequency of the radio receiver installed.

PAY ATTENTION: to not let the central wire of the aerial cable to get in short circuit with the external copper shield, since this would prevent the aerial from working.

Install the aerial vertically and in such a way the remote control can reach it.

- | | |
|--|--------------|
| SPARK ANTENNA 91 | code ACG5454 |
| SPARK ANTENNA 433 | code ACG5452 |
| SPARK BLINKER WITH IN-BUILT INTERMITTENT CARD | code ACG7059 |

FIT SLIM



PHOTOCELLS for the wall-installation code ACG8032
FIT SLIM photocells have synchronism function in AC current and ranges of 20 m.

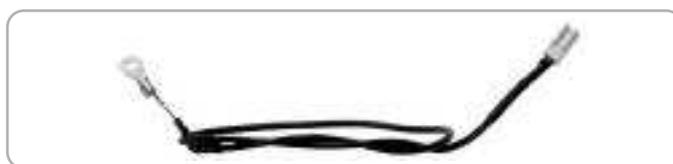
You can fit many photocell couples close together thanks to the optional synchronizing circuit **SYNCRO TRANSMITTER TX SLIM SYNCRO** code ACG8029 for more than 2 photocells couples (up to 4).

BLOCK



- | | |
|---|--------------|
| KEY SELECTOR FOR WALL-INSTALLATION | code ACG1053 |
| KEY SELECTOR TO BUILD-IN | code ACG1048 |

HEATER ONLY FOR KING ICE



The in-built thermal sensor of the KING ICE motor can be connected to the terminal block J7 on the T2 control board. For the connection details please refer to the KING ICE Instruction Manual.

The probe for motor heating is a device intended to be used in extremely cold environment (up to -30°C) to avoid motor freezing.

Such device activates automatically when the gate is steady (the position being irrelevant, provided it is not moving).

The work of the heater is indicated by both the DL6 and DL7 leds for the motor number 1, and by the DL4 and DL5 leds for the motor number 2.

When the motor is running the heating system is inoperative.

On elapsing of 10 seconds delay from gate stop, the heating system gets activated (in case the environment temperature in the motor area is below 20°C).

Upon achieving a 30°C temperature the heating system deactivates, maintaining a constant environment temperature.

TECHNICAL DATA

- | | |
|---------------------|-------------------|
| Operation voltage | 5Vdc |
| Resistance | 10K ±2% (at 25°C) |
| Working temperature | -30 ÷ +55°C |

SELF INSTALL - NEED TECHNICAL ASSISTANCE?

OPTION 1: DIRECT WITH THE SERVICE DESK – QUICKEST AND MOST EFFECTIVE METHOD

Submit your enquiry direct with the service desk at – service@automaticsolutions.com.au

The service desk has the most experienced staff in Australia to help with your problem but they need your help.

- Describe your problem in detail and as clearly as possible. Don't forget to include a telephone number.
- Be certain to detail which model or models of you are working with.
- Send photos of the installation – they love photos. The people at the service desk are good but they are even better when they can see the installation. Send photos of the overall scene so they can see the entire installation. Also send photos of the wiring to the control board and any other part of the installation you think is relevant.
- Send video if appropriate. Smartphone's these days take remarkably good video in small file sizes which can be emailed in a moment. If your problem needs a video to show the issue please feel free to send it.

**NOTE: THIS IS BY FAR THE FASTEST AND MOST SUCCESSFUL WAY TO SOLVE YOUR PROBLEM
PHOTOS AND VIDEOS ARE THE NEXT BEST THING TO BEING THERE**

OPTION 2: LODGE YOUR ENQUIRY LOCALLY - SLOWER BUT CAN STILL BE EFFECTIVE

Make contact with the store of purchase. Branch staffs are typically not technicians and dependent on their length of service will have varying degrees of technical knowledge. If they cannot help however they will certainly either source help locally from their technicians or make contact with the service technicians on your behalf.

OPTION 3: SERVICE CALL WITH AUTOMATIC SOLUTIONS TECHNICIAN – SLOWEST METHOD

If you fall within the local branch service area it may be possible to book a local technician to look at your installation. Wait times will vary dependent on local workloads. The cost is a service fee which includes the first half hour and the hourly rate thereafter. If any Automatic Solutions provided parts are found to be defective and within warranty these will be provided free of charge.

(NOTE: If you suspect that any parts are defective and within warranty you may wish to consider option 4)

A note on this option: If you decide on this option you will be asked to sign an "authorisation to proceed" which will provide legal authority and payment security. This form has three options available of which only the first two are available to you. The third option is for warranty repairs only for full install customers. Self install customers requiring warranty only service need to refer to option four below.

IMPORTANT: IN SHORT THIS OPTION WILL INCUR CHARGES

OPTION 4: RETURN THE PRODUCT IF BELIEVED TO BE FAULTY

As a self install customer who has purchased product if you believe the product to be faulty rather than an installation or site problem you have the option of returning the product for evaluation and to exercise your right to a replacement, repair or refund as applicable. All returned product is forwarded immediately to the service technicians for evaluation and response. There are two main methods available to return product –

- Direct to the service centre – this is the quickest method as it cuts out the branch delay
- Via the branch of purchase – slower because of the delay at the branch

When choosing this option you need to complete a product return form. This form gives you all the information on procedure involved and where to send to. These are available at the branch of purchase, can be emailed to you (contact your branch), or available here - <http://automaticsolutions.com.au/page/warranty.php>