# T2 24V

QUADRO ELETTRONICO PER IL COMANDO DI UNO O DUE MOTORI 24V CON SENSORI D'IMPATTO AUTOTARANTI

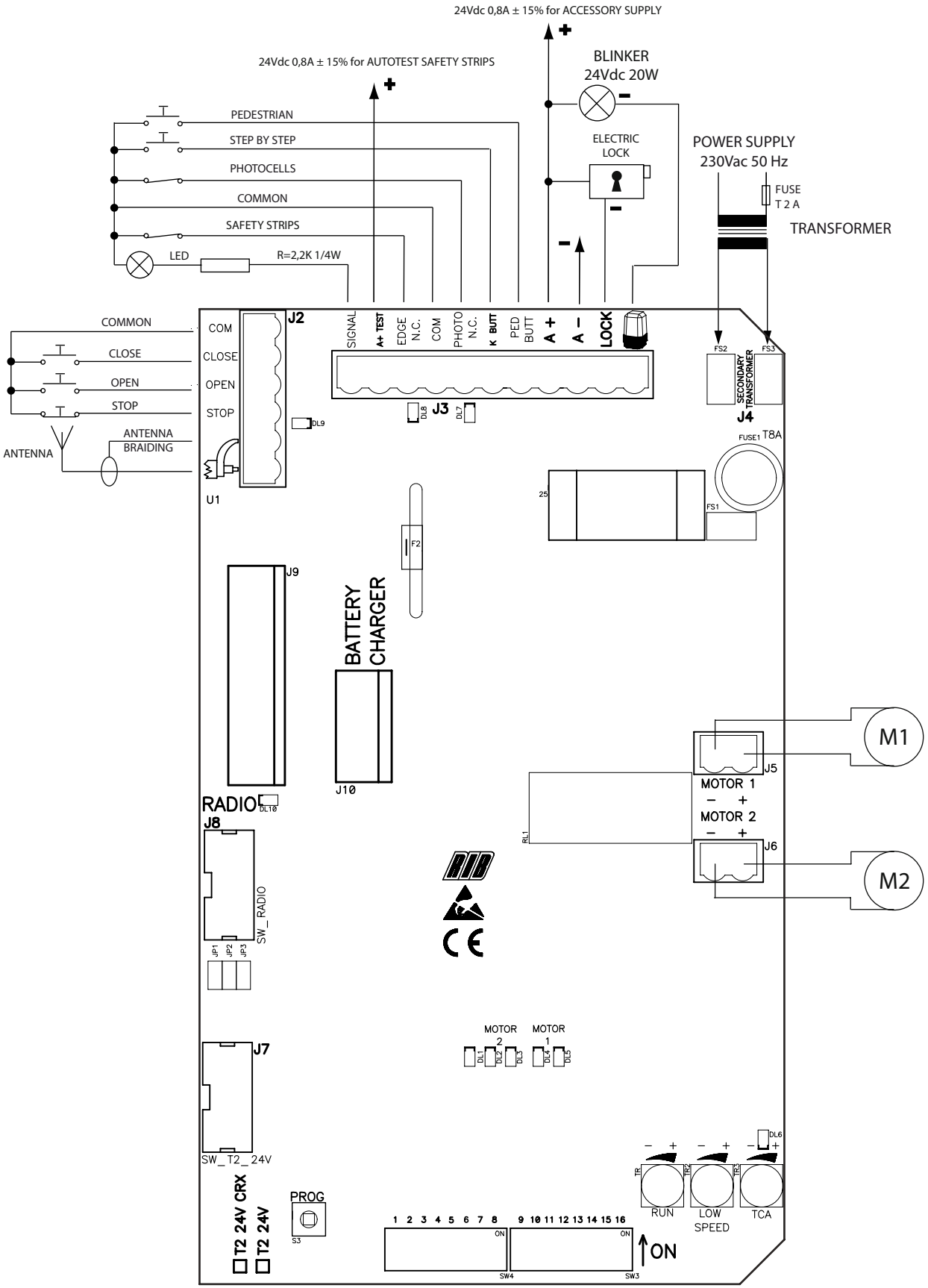
TABLEAU ELECTRONIQUE DE COMMANDE POUR UN OU DEUX MOTEURS 24V AVEC DETECTEURS D'I MPACT A REGLAGE AUTOMATIQUE

ELECTRONIC CONTROL PANEL FOR ONE OR TWO 24V MOTORS WITH AUTO-CALIBRATING IMPACT SENSORS

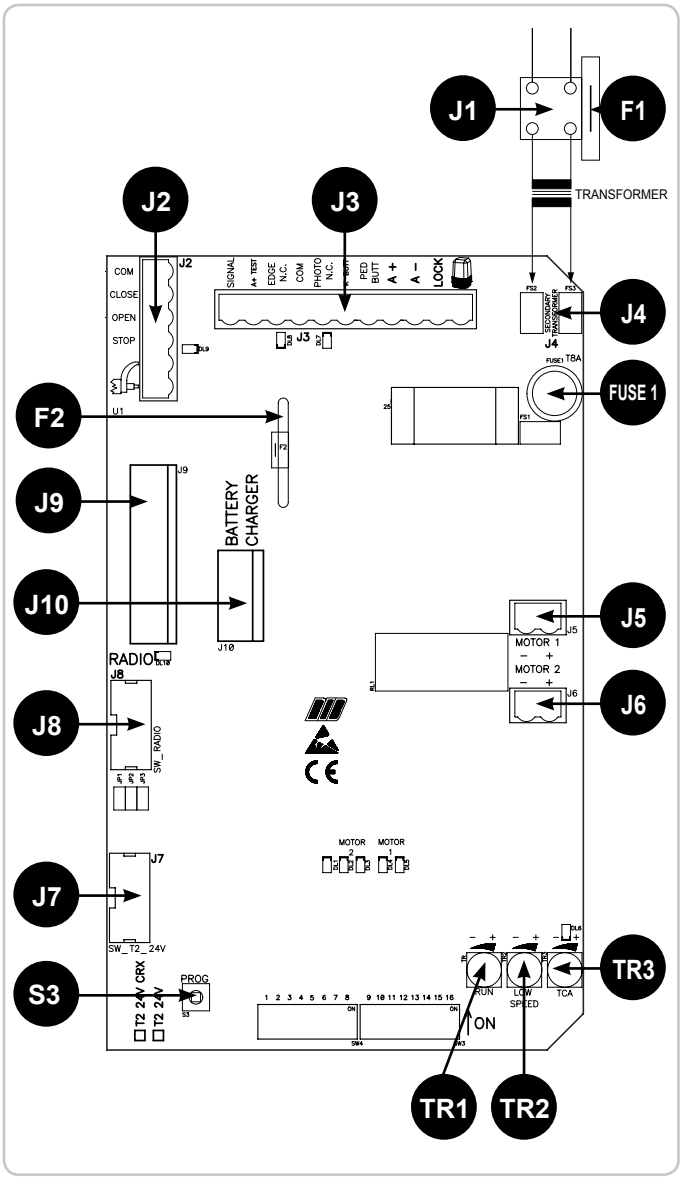
ELEKTRONISCHE STEUERUNG FÜR EIN ODER ZWEI 24V-MOTOREN MIT SELBSTREGULIERENDEN ANSCHLAGSENSOREN

CUADRO ELECTRÓNICO PARA LA GESTIÓN DE UNO O DOS MOTORES 24V CON SENSORES DE IMPACTO AUTOCALIBRANTES


CE


24Vdc 0,8A ± 15% for ACCESSORY SUPPLY
24Vdc 0,8A ± 15% for AUTOTEST SAFETY STRIPS
BLINKER
24Vdc 20W
ELECTRIC LOCK
POWER SUPPLY
230Vac 50 Hz
FUSE
T 2 A
TRANSFORMER
PEDESTRIAN
STEP BY STEP
PHOTOCELLS
COMMON
SAFETY STRIPS
LED
R=2,2K 1/4W
COMMON
CLOSE
OPEN
STOP
ANTENNA
ANTENNA BRAIDING
J2
COM
CLOSE
OPEN
STOP
U1
SIGNAL
A+ TEST
EDGE N.C.
COM
PHOTO N.C.
K BUTT
PED BUTT
A +
A –
LOCK
J3
J4
FS2
FS3
SECONDARY TRANSFORMER
FUSE1 T8A
FS1
F2
J9
BATTERY CHARGER
J10
RADIO
J8
SW_RADIO
JP1
JP2
JP3
J7
SW_T2_24V
T2 24V CRX
T2 24V
PROG
S3
MOTOR 2
MOTOR 1
J5
J6
M1
M2
MOTOR 1
– +
MOTOR 2
– +
RUN
LOW SPEED
TCA
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
ON
SW4
SW3

## A - CONNESSIONI




| | | |
|---|---|---|
| **J1** | N F | Power supply 230 Vac 50/60 Hz - external to the control panel - (120V/60Hz upon request) |
| **J2** | COM. | Common contact |
| | CLOSE | Closing impulse contact (NA) |
| | OPEN | Opening impulse contact (NA) |
| | STOP | STOP impulse contact (NC) |
| | AERIAL | Radio Antenna |
| **J3** | SIGNAL | Gate open state and battery state output indicator (12Vdc 3W max) |
| | A+TEST | + 24Vdc safety strip self-test power supply |
| | EDGE N.C. | Safety strip contact (NC) |
| | COM. | Common contact |
| | PHOTO N.C. | Photocells contact (NC) |
| | K BUTT. | Single pulse contact (NO) |
| | PED. BUTT. | Pedestrian opening contact (NA) |
| | A+ | + 24Vdc accessories power supply |
| | A - | - 24Vdc accessories power supply |
| | LOCK | Electric lock connection (MAX 15W 12V) - 24Vdc blinker (code ACG7061) power supply. **Pay attention to the polarity.** |
| **J4** | SECONDARY TRANSFORMER | Connection to secondary coil of transformer 18 Vac |
| **J5** | MOTOR 1 | MOTOR 1 CONNECTION (without polarity) |
| **J6** | MOTOR 2 | MOTOR 2 CONNECTION (without polarity) |
| **J7** | SW T2 24V | Connector dedicated to the factory programming. **DO NOT REMOVE ANY JUMPER! OTHERWISE THE OPERATOR WILL NOT WORK!** |
| **J8** | SW RADIO | Connector dedicated to the factory programming (only CRX control board) **DO NOT REMOVE ANY JUMPER! OTHERWISE THE OPERATOR WILL NOT WORK!** |
| **J9** | RADIO | Built-in radio module (model CRX), or connector for radio receiver RIB, 24 Vdc supply |
| **J10** | BATTERY CHARGER | Connector for charge card of 24Vdc battery (code ACG4648) |
| **TR1** | TRIMMER RUN | Trimmer for high speed adjustment operations |
| **TR2** | TRIMMER LOW SPEED | Trimmer for low speed adjustment operations |
| **TR3** | TRIMMER TCA | Trimmer for automatic closing time adjustment (DISABLED DEFAULT AND DL6 LED OFF) |
| **S3** | PROG | Programming button |
| **FUSE 1** | T 8 A | Motor protection fuse |
| **F1** | T 2 A | Transformer protection fuse |
| **F2** | 3 A | Automatically resetting operation process protection fuse |

## B - SETTINGS

**DIP 1 (ON) - MOTOR ROTATION DIRECTION CONTROL (POINT C)**
**DIP 2 (ON) - TIMER (POINT D)**
**DIP 3 (ON) - ACTIVATES DOOR RELEASE DURING PHASES OF SLOWDOWN AND TOTAL OPENING AND CLOSING (AS PER THE IMPACT TESTS OF EN12453)**
**DIP 1-2 MEMORIZATION/CANCELLATION OF RADIO CONTROL CODES FOR TOTAL OPENING (ONLY MODEL CRX) (POINT E)**
**DIP 1-3 MEMORIZATION/CANCELLATION OF RADIO CONTROL CODES FOR PEDESTRIAN OPENING (ONLY MODEL CRX) (POINT F)**
**DIP 2-1 MICRO-SWITCH CONTROLLER FOR PEDESTRIAN OPENING TIMER**
**DIP 4** Photocells always active (OFF) - Photocells active only during closing (ON)
**DIP 5** Pre-blinking (ON) - Normal blinking (OFF)
**DIP 6** Single pulse command (K BUTT) and step-by-step radio receiver (OFF) - automatic (ON)
**DIP 7** Power sensor operation (ON-activated) time operation (OFF-activated).
**DIP 8** Electric lock activation (ON-activated)
**DIP 9** Electric lock pulse release (ON-activated)
**DIP 10** Electric lock pulse engagement (ON-activated)
**DIP 11** Easy release activation (ON-activated)
**DIP 12** Sensor TEST activation (ON-activated).
**DIP 13** Selection of 1 or 2 motor operation (default OFF 2 motors)
**DIP 14** Motor selection
**DIP 15** Motor selection

| DIP 14 | DIP 15 | TYPE OF MOTOR |
|---|---|---|
| OFF | OFF | PRINCE 24V |
| ON | OFF | KING 24V |
| OFF | ON | PREMIER 24V WITH ELECTRIC LOCK |
| ON | ON | PREMIER 24V WITHOUT ELECTRIC LOCK |

**DIP 16 IMMEDIATE CLOSING AFTER PASSING IN FRONT OF PHOTOCELLS**
**ON ACTIVATED**
**OFF DEACTIVATED**

**JP1 =>** Check that the jumper is inserted!
**JP2 =>** Check that the jumper is inserted!
**JP3 =>** Check that the jumper is inserted!

**PROG =>** S3 Programming button

### ADJUSTMENTS

**NOTE: WITH DIP 3 (ON) BRIEF GATE REVERSAL AFTER IMPACT IS ACTIVATED.**
**THIS BRIEF GATE REVERSAL PERMITS STATIC FORCE TO BE REDUCED TO ZERO WITHIN 5 SECONDS AS PER STANDARD EN12453 POINT A.2.2 (ACCEPTABLE STATIC FORCE), THEREBY COMPLYING WITH THE IMPACT TESTS ALSO OUTLINED BY EN12453).**
**IF COMPLIANCE WITH THE AFOREMENTIONED STANDARD IS UNNECESSARY, SIMPLY POSITION DIP 3 TO OFF. IN THIS CASE THE GATES STOP WITHOUT REVERSING.**

**RUN TRIMMER (TR1) high-speed electronic regulator**
This trimmer permits motor speed adjustment (the default setting is maximum speed). Adjustment of the automation is useful for compliance with European impact standards.

**LOW-SPEED TRIMMER (TR2) Electronic slow speed approach control**
The slow speed control is performed by adjusting the LOW- SPEED TRIMMER which changes the voltage output across the motor(s) (turning it clockwise increases the speed). Adjustment is performed to determine the correct speed at the end of opening and closing according to the gate or when there is friction that might cause the system to function poorly.

**AUTOMATIC CLOSING TRIMMER - TCA (TR3) TOTAL OR PEDESTRIAN default NOT ACTIVATED and LED DL6 OFF (TRIMMER FULLY ROTATED COUNTERCLOCKWISE)**
This trimmer makes it possible to adjust the time for total or pedestrian automatic closing. Only with gate completely (total) or partially (pedestrian) open and LED DL6 on (trimmer rotated clockwise).
The pause time can be adjusted from a minimum of two seconds up to a maximum of two minutes.

**LED SIGNALS**
DL1 program activated (red)
DL2 gate opening M2 (green)
DL3 gate closing M2 (red)
DL4 gate opening M1 (green)
DL5 gate closing M1 (red)
DL6 automatic closing indicator (red)
DL7 photocell contact (NC) (red)
DL8 sensor contact (NC) (red)
DL9 STOP button (NC) (red)
DL10 radio code program (green)

**FUSES**
**Fuse 1 T 8A** MOTOR PROTECTION FUSE
**F1 T 2A** TRANSFORMER PROTECTION FUSE (on the outside of the T2 24V board)
**F2 3A** Automatically resetting operation process protection fuse

## C - MOTOR ROTATIONAL DIRECTION CONTROL

1 - Set DIP 1 to ON => LED DL1 starts flashing.
2 - Press and hold the PROG button. (movement is now manually controlled - open-stop-close-stop-open - etc.) => GREEN LEDS DL2 and DL4 are lit and the gate panels open with a fixed lag of 2 sec. If they close instead of open, release the button and reverse the two wires on the motor used.
3 - After opening release the PROG button and calibrate the mechanical opening stops (on the operator).
4 - Press and hold the PROG button => RED LEDs DL3 and DL5 turn on and the gate panels close with a time lag of 2 sec.
5 - Continue to hold the PROG button until the gate is completely closed.
6 - Leave the two doors completely closed to set the timer.
7 - Reset DIP1 to OFF => LED DL1 turns off, signaling exit from control.
**N.B.: During this check the stop, the photocells and the sensors are not active.**

## D - SETTING THE TIMER FOR 2 MOTORS (#) WITH POWER SENSOR ACTIVATED (DIP 7 ON)

**WHILE SETTING THE TIMER THE POWER SENSOR IS CONTINUOUSLY ACTIVATED.**
1 - The gate must be completely closed.
2 - Set DIP 2 to ON => LED DL1 will blink rapidly.
3 - Press the PROG button. => M1 opens.
4 - When the mechanical opening stop is reached, the AUTOMATIC POWER SENSOR stops M1 (memorizing the time and the power) => At the same time M2 is triggered to open.
5 - When the mechanical opening stop is reached, the AUTOMATIC POWER SENSOR stops M2 (memorizing the time and the power).
6 - Press the PROG button. => M2 closes.
7 - Press the PROG button. => M1 closes and sets the lag time between M2 and M1. At the same time LED DL1 stops flashing indicating exit from the programming procedure.
Safety and other gate commands now operate normally (inversions, stop, alarms, etc.).
8 - The gate panels will close in high-speed mode (depending on how you set the RUN trimmer) and near total closure in the slow mode (depending on how you set the LOW-SPEED trimmer).
9 - Upon closing the power sensors stop the gate.
**10 - AFTER PROGRAMMING RESET DIP 2 TO OFF.**

## D - SETTING THE TIME FOR ONE MOTOR (M1) (#) WITH POWER SENSOR ACTIVATED (DIP 7 ON)

**CAUTION: FOR ONE MOTOR CONTROL DIP 13 MUST BE POSITIONED TO ON; DURING PROGRAMMING THE POWER SENSOR IS CONTINUOUSLY ACTIVE.**

The gate must be completely closed.
1 - Set DIP 2 to ON => LED DL1 will blink rapidly.
2 - Press the PROG button. => M1 opens.
When the mechanical opening stop is reached, the AUTOMATIC POWER SENSOR stops M1 (memorizing the time and the power).
3 - Press the PROG button. => M1 closes.
At the same time LED DL1 stops flashing indicating exit from programming. Safety and other gate commands now operate normally (inversions, stop, alarms, etc.).
Upon closing the power sensor stops the gate.
4 - **AFTER PROGRAMMING RESET DIP 2 TO OFF.**

**(#) DURING PROGRAMMING THE SAFETY DEVICES ARE ACTIVE AND STOP THE PROGRAMMING PROCEDURE (LED DL1 FROM FLASHING BECOMES CONSTANT). TO REPEAT PROGRAMMING SET DIP 2 TO OFF, CLOSE THE GATE USING THE PROCEDURE "MOTOR ROTATIONAL DIRECTION CONTROL" AND REPEAT THE DESIRED PROGRAMMING PROCEDURE.**

## D - SETTING THE TIME FOR 2 MOTORS (#) WITH TIME OPERATION (DIP 7 OFF)

1 - The gate must be completely closed.
2 - Set DIP 2 to ON => LED DL1 will blink rapidly.
3 - Press the PROG button. => M1 opens.
4 - When the mechanical opening stop is reached, wait a second then press the PROG button => M1 stops and M2 opens.
5 - When the mechanical opening stop is reached => wait 1 second and press the PROG button => M2 stops.
6 - Press the PROG button => M2 closes.
7 - Press the PROG button => M1 closes setting the time lag between M2 and M1.
At the same time LED DL1 stops flashing indicating exit from the programming procedure.
Safety and other gate commands now operate normally (inversions, stop, alarms, etc.).
8 - After the set amount of time, the gate will stop.
9 - **AT THE END OF PROGRAMMING RESET DIP 2 TO OFF.**
**NOTE:** The slowdown is automatically determined by the control board during the time setting phase and is activated at about 50 to 60 cm before reaching the mechanical opening or closing limit.

## D - SETTING THE TIME FOR 1 MOTOR (#) WITH TIME OPERATION (DIP 7 OFF)

**CAUTION: FOR ONE MOTOR CONTROL DIP 13 MUST SET TO ON**
1 - The gate must be completely closed.
2 - Set micro-switch DIP 2 to ON => LED DL1 will blink rapidly.
3 - Press the PROG button => M1 opens.
4 - When the mechanical opening stop is reached, wait a second then press the PROG button => M1 stops.
5 - Press the PROG button => M1 closes.
At the same time LED DL1 stops flashing indicating exit from the programming procedure.
Safety and other gate commands now operate normally (inversions, stop, alarms, etc.).
6 - After the set amount of time, the gate will stop.
7 - **AT THE END OF PROGRAMMING RESET DIP 2 TO OFF.**

## D - SETTING PEDESTRIAN OPENING TIMES (#) BOTH FOR TIME AND POWER SENSOR OPERATION

With gate closed:
1 - First set DIP2 to ON (LED DL1 flashes quickly) and then DIP1 to ON ( LED DL1 flashes slowly).
2 - Push the pedestrian button (COM-PED.BUTT) => M1 opens.
3 - Push the pedestrian button to stop movement (thereby setting M1 opening).
4 - Push the pedestrian button to start closing.
5 - Upon closing reset DIP 1 and 2 to OFF.
**(#) DURING PROGRAMMING THE SAFETY DEVICES ARE ACTIVE AND STOP THE PROGRAMMING PROCEDURE (LED DL1 FROM FLASHING BECOMES CONSTANT).**
**TO REPEAT PROGRAMMING SET DIP 2 TO OFF, CLOSE THE GATE USING THE PROCEDURE "MOTOR ROTATIONAL DIRECTION CONTROL" AND REPEAT THE DESIRED PROGRAMMING PROCEDURE.**

## E - RADIO CODE PROGRAMMING FOR TOTAL OPENING (UP TO 62 CODES - CRX MODELS ONLY)

Programming can be done only when the gate is stationary.
1 - First set DIP 1 to ON and then DIP 2 to ON.
2 - The red LED DL1 flashes ON every 1 sec. and OFF for 10 seconds.
3 - Press the remote control button (usually channel A) within the allotted 10 seconds. If the remote is memorized properly LED DL10 (green) blinks.
4 - The programming time for codes is automatically renewed in order to memorize the next remote control.
5 - To finish programming, wait 10 seconds, or press the PROG button briefly. The red LED DL1 stops flashing.
6 - Reset DIP 1 to OFF and DIP 2 to OFF.
7 - End of procedure.

**CANCELLATION OF ALL RADIO CODES FOR TOTAL OPENING**
Cancellations can only be performed when gate is stationary.
1 - Set DIP 1 to ON and then DIP 2 to ON.
2 - The red LED DL1 flashes ON every 1 second and OFF for 10 seconds.
3 - Press and hold the PROG button for 5 seconds. Memory cancellation is indicated by two flashes of green LED DL10.
4 - The red LED DL1 remains active and you can add new codes as shown above.
5 - Reset DIP 1 to OFF and DIP 2 to OFF.
6 - End of procedure.

**INDICATOR MEMORY FULL OF RADIO CODES FOR TOTAL OPENING**
Indication only when gate is stationary.
1 - Set DIP 1 to ON and then DIP 2 to ON.
2 - The green LED DL10 flashes 6 times when the memory is full (62 codes).
3 - LED DL1 will then remain active for 10 seconds enabling possible cancellation of codes.
4 - Reset DIP 1 to OFF and DIP 2 to OFF.
5 - End of procedure.

## F - PROGRAMMING PEDESTRIAN OPENING RADIO CODES (UP TO 62 CODES - CRX MODELS ONLY)

Programming can be done only when the gate is stationary.
1 - Set DIP 1 to ON and then DIP 3 to ON.
2 - The red led DL1 flashes ON for 1 second and OFF for 1 second for 10 seconds.
3 - Press the remote control button (usually channel B) within the allotted 10 seconds. If the remote is properly memorized LED DL10 (green) blinks.
4 - The programming time for codes is automatically renewed in order to memorize the next remote control.
5 - To finish programming wait 10 seconds, or press the PROG button briefly. The red LED DL1 stops flashing.
6 - Reset DIP 1 to OFF and DIP 3 to OFF.
**NOTE: If LED DL1 CONTINUES BLINKING QUICKLY IT MEANS THAT DIP 1 IS STILL SET TO ON AND THAT ANY OPERATION IS REFUSED.**
7 - End of procedure.

**CANCELLATION PROCEDURE FOR ALL PEDESTRIAN OPENING RADIO CODES**
Cancellation can only be performed when the gate is stationary.
1 - Set DIP 1 to ON and then DIP 3 to ON.
2 - The red LED DL1 flashes ON for 1 second and OFF for 1 second for 10 seconds.
3 - Press and hold the PROG button for 5 seconds. Memory cancellation is indicated by two flashes of green LED DL10.
4 - The red LED DL1 remains active and you can add new codes as shown above.
5 - Reset DIP 1 to OFF and DIP 3 to OFF.
6 - End of procedure.

**INDICATION MEMORY FULL OF PEDESTRIAN OPENING RADIO CODES**

Indication only when the gate is stationary.
1 - Set DIP 1 to ON and then DIP 3 to ON.
2 - The green LED DL10 flashes 6 times when the memory is full (62 codes).
3 - The LED DL1 will then remain active for 10 seconds enabling possible cancellation of codes.
4 - Set DIP 1 to OFF and DIP 3 to OFF.
5 - End of procedure.

## CONTROL ACCESSORIES OPERATION

**STEP-BY-STEP BUTTON (COM-K BUTTON)**
**If DIP6 ON =>** It cyclically performs the commands open-stop-close-stop-open etc.
**If DIP6 OFF =>** Opens the gate when closed. There is no effect if activated while opening. If activated when gate is open, the gate closes. If activated while closing, the gate reopens.

**OPEN BUTTON (COM-OPEN) with clock**
The button controls the opening movement when the gate is stationary. If activated while closing, it reopens the gate.

**CLOCK FUNCTION OF OPEN BUTTON**
This function is useful during peak hours, when vehicle traffic is slow (e.g. entry/exit of workers, emergencies in parking or residential areas and, temporarily, for moving operations).
**APPLICATIONS**
By connecting a switch and/or a daily/weekly clock (instead of or in parallel to the open button N.O. “COM-OPEN”), you can open and keep the automation open for as long as the switch is pressed or the clock remains active.
Command functions are inoperative with open automation.
Releasing the switch or at the preset time, the automation closes immediately.

**CLOSE BUTTON (COM-CLOSE)**
Controls the closing movement when the gate is stationary.

**REMOTE CONTROL**
**If DIP6 ON =>** It cyclically performs the commands open-stop-close-stop-open etc.
**If DIP6 OFF =>** Opens the gate when closed. There is no effect if activated while opening. If activated when gate is open, the gate closes. If activated while closing, the gate reopens.

**PEDESTRIAN OPEN BUTTON (COM-PED.BUTT.)**
Partial opening and closing control.
During pedestrian opening, pausing or closing, you can control the opening of any command linked to the T2 24V board.
With DIP 6 you can choose the operation mode of the pedestrian push button.
**If DIP6 ON =>** It cyclically performs the commands open-stop-close-stop-open etc.
**If DIP6 OFF =>** Opens the gate when closed. There is no effect if activated while opening. If activated when gate is open, the gate closes. If activated while closing, the gate reopens.

**ELECTRIC LOCK (LOCK)**
Set DIP 8 to ON to enable control of the electric lock when opening.

**ELECTRIC LOCK PULSE RELEASE IN OPENING**
Set DIP 9 to ON to enable the electric lock pulse release when opening (provided DIP 8 is ON).
If a command to open the gate is given when the gate is closed, the closing movement is performed for 0.5 seconds and the electric lock is simultaneously activated (followed by a 0.5 second pause and then the opening of the gate).

**ELECTRIC LOCK PULSE ENGAGEMENT**
Set DIP 10 to ON to enable the pulse engagement of the electric lock when closing. Upon closing, motors are activated for 0.5 seconds at full voltage to ensure lock engagement.

**EASY MOTOR RELEASE**
Set DIP 11 to ON to enable easy manual release (provided that DIP 10 is ON), upon closing a reverse motion with a fixed time of 0.2 seconds occurs to facilitate manual release.

## OPERATION OF SAFETY ACCESSORIES

**PHOTOCELL (COM-PHOT)**
**If DIP 4 OFF =>** if an obstacle is placed in range of the photocells when the gate is closed, the gate does not open. During operation, photocells work when opening (motion is restored when opening after half a second) and closing (reverse motion is restored after a second).
**If DIP 4 ON =>** if an obstacle is placed in range of the photocells when the gate is closed and the command to open is given, the gate opens (the photocells do not work while opening). Photocells work only during closing (with reverse motion restored after a second, even if they are still engaged).

**CONTROL OF IMMEDIATE CLOSING AFTER MOVEMENT IN FRONT OF PHOTOCELLS**
**If DIP 16 is ON and DIP 4 OFF =>** if photocells are engaged during opening, the gate stops and the gate only closes one second after the photocells are disengaged.
**If DIP 16 is ON and DIP 4 ON =>** if photocells are engaged during opening, the gate continues to open. Upon disengagement of the photocells, the gate stops and reverses closing motion after a one second pause.
**If total opening is reached (end of opening time), immediate closing is deactivated and automatic time closing is activated (if TCA trimmer is activated and LED DL6 is on).**
**If during closing there is a rapid movement (e.g. pedestrian) the gate will open again for two seconds and then close once again.**
**If DIP 12 is OFF =>** immediate closing after movement in front of the photocells is deactivated.
**N.B.:** Please check photocell operation at least every six months.

**EDGE (SAFETY STRIP) (COM-EDGE)**
If engaged during opening, reverses the motion when closing.
If engaged when closing, reverses the motion when opening.
If it remains engaged again, it performs a further reversal after 2 seconds, then performs an additional short reversal and then gives the sensor failure or engaged alarm (N.O. contact).
If the sensor remains engaged (N.O. contact) no movement is allowed.
If not used, jump the terminals COM-EDGE.

**MONITORING OF SAFETY SENSORS (A+ TEST A-)**
Sensors can be monitored through the A+ TEST input and DIP 12 ON.
The monitoring consists of a functional test of the sensor run after every full gate opening.
Closing the gate is therefore permitted only if the sensors have passed the functional test after each opening.
**CAUTION:** MONITORING OF THE SENSOR INPUT CAN BE ACTIVATED WITH DIP 12 ON OR DEACTIVATED WITH DIP 12 OFF. IN FACT, THE FUNCTIONAL TESTING OF SENSORS IS ‘POSSIBLE ONLY IF THESE DEVICES HAVE THEIR OWN POWER SUPPLY.
A MECHANICAL SENSOR CAN NOT BE MONITORED, SO DIP 12 SHOULD BE SET TO OFF.

**SENSOR AUTOTEST ALARM (DIP 12 ON)**
If the sensor fails the monitoring test after opening, an alarm is displayed by the blinker lighting up. Gate closure is not allowed in this condition. Normal operation can be restored only by repairing the sensor and pressing one of the activated controls.

**STOP BUTTON (COM-STOP)**
**The STOP button stops the gate during any operation.**
If held when the gate is fully open (or partially when using the pedestrian control) automatic closing is temporarily deactivated (if activated by the TCA trimmer and LED DL6 on). It is therefore necessary to use a new command to make it close.

The automatic closing function is reactivated on the next cycle (if activated by the TCA trimmer and LED DL6 on).

**POWER SENSOR ALARM**
The T2 24V control panel has automatic sensors that make the movement of the gate reverse in case of impact against objects or persons in accordance with the current EN standards (always use the right tool to ensure compliance with the values imposed by the standard), without special adjustments on the control panel, as it operates using special internal software.
If the power sensor is used in opening or closing (only in high-speed) and then again, in the opposite direction, the gate stops and then reverses for 1 second.
The alarm status will be displayed by the blinker which will remain active for one minute, during which time you can restore gate operation by pressing any command
button.

**BLINKER**
**N.B.:** This control panel can power ONLY BLINKERS ON A (ACG7061) CIRCUIT with lamps up to 24V and 20W.

**PRE-BLINKING**
DIP 5 - OFF => the motor and blinker begin simultaneously.
DIP 5 - ON => the blinker begins 3 seconds before the motor.

**GATE OPEN WARNING LIGHT (COM-SIGNAL)**
Signals when the gate is open, partially open or not closed completely. Turns off only when the gate is completely closed.
This signal is active during programming.
**N.B.:** Max 3 W. If push buttons or lamps are in excess, the control panel processes will be endangered and possibly halt operation.

**OPERATION AFTER A BLACK-OUT (WITHOUT BATTERIES)**
It is recommended to fully open the gate after power is restored to the network. Let the gate close by itself or with automatic closing, or wait until the blinker stops flashing before commanding it to close.
This will allow the gate to realign. If, motors were released and moved from the normal position when closed during the blackout, the first movement after power returns must be complete.

## TECHNICAL SPECIFICATIONS

| | |
|---|---|
| - Temperature range | 0 ÷ 55°C |
| - Humidity | <95% without condensation |
| - Voltage | 230V~ ± 10% (120V/60Hz upon request) |
| - Frequency | 50/60 Hz |
| - Battery power | 20-24Vdc |
| - Transformer Power | 130VA - primary 230Vac secondary 18Vac |
| - Maximum absorption | 50 mA |
| - Network Micro-switches | 100ms |
| - Maximum power gate open indicator | 12Vdc 3W (equivalent to one 3W or 5 LED light bulb with resistor in series at 2.2 K ohm) |
| - Maximum blinker power | 24Vdc 20W |
| - Power available for photocells and accessories | 1A ± 15% |
| - Power available for radio connector | 200Ma |

**RADIO SPECIFICATIONS (model T2 24V CRX)**

| | |
|---|---|
| - Receiving Frequency | 433,92 MHz |
| - Impedance | 52 OHM |
| - Sensitivity | >2,24µV |
| - Pick-up time | 300ms |
| - Drop time | 300ms |

- All inputs must be used as clean contacts because the power is generated internally (secure power) to the board and is set up to ensure compliance with double or reinforced insulation with regard to dangerous voltage.
- Any external circuits connected to the outputs of the control panel must be made in such a manner as to ensure compliance with double or reinforced insulation with regard to dangerous voltage.
- All inputs are controlled by a programmed integrated circuit that performs a self check every time it starts operating.

## TROUBLE SHOOTING

After having carried out all connections, by carefully following the layout and having positioned the gate in intermediate position, check the correct ignition of red LEDS DL7, DL8 and DL9
In case of no ignition of the LEDS, always with gate in intermediate position, check the following and replace any faulty components.
DL7 switched off Faulty photocells
DL8 switched off Faulty safety edge (In case the edge is not connected, carry out jumper between COM and EDGE)
DL9 switched off Stop button malfunction (if Stop is not connected, perform the jump between COM and STOP).
During functioning with personnel present, with DIP 1 at ON, check that during opening of M1 and M2 the green DL2 and DL4 LEDS switch on and that during closing of M1 and M2 the red DL3 and DL5 LEDS switch on.
Or else, reverse the wires of the motor.

| FAULT | SOLUTION |
|---|---|
| After having carried out the various connections and having supplied voltage, all the LEDS are switched off.<br><br>The motor opens and closes, but it has no strength and moves slowly. | Check fuses F1, FUSE 1.<br>If the fuse is blown, use only a suitable replacement.<br>F1 T 2A TRANSFORMER PROTECTION FUSE (on the outside of the T2 24V board)<br>FUSE 1 8A MOTOR PROTECTION FUSE |
| The gate opens but does not close after the time set. | Check trimmers RUN and LOW-SPEED adjustment. |
| | Make sure that the TCA trimmer is activated with LED DL6 on.<br>OPEN button always on, replace the OPEN control button or switch.<br>Sensor Auto test failed, check the connections between the control panel and the sensor power supply.<br>**Warning:** If you are not using a power supply for the sensors, DIP 12 should be OFF. |
| The gate does not open or close by activating the various K, Radio, Open and Close buttons. | Faulty safety edge contact. Faulty photocells contact with DIP 4 OFF.<br>Fix or replace the relative contact. |
| The electric lock does not work. | Ensure to have enabled DIP 8 at ON. |
| LED DL1 blinks rapidly and no movement is activated. | Place dip switches 1, 2 or 3 in the OFF position. |

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

## RADIO TRANSMITTER MOON

**MOON 433 - MOON 91** **MOON CLONE**

433 code ACG6081 433 code ACG6082 code ACG6093
91 code ACG7025 91 code ACG7026

## 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

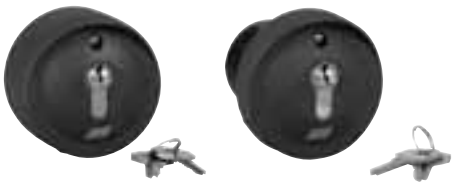
## SPARK

In order to make the systems mentioned above give the best performances, you need to install an antenna tuned on the frequency of the radio receiver installed.
**N.B. Pay attention to not let the central wire of the cable to came Into contact with the external copper sheath, since this would prevent the antenna from working.**
Install the antenna vertically and in such a way the remote control can reach it.
**SPARK BLINKER WITH IN-BUILT INTERMITTENT CARD** code ACG7061
**LATERAL SUPPORT** code ACG7042
**SPARK ANTENNA 433** code ACG5452

## FIT SLIM

**PHOTOCELLS** for the wall-installation code ACG8032
**PAIR OF COLUMNS FOR FIT SLIM** code ACG8065
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

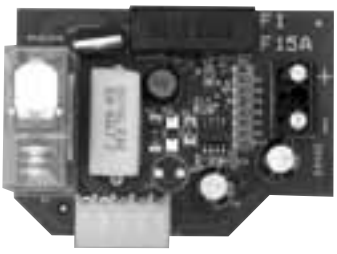


KEY SELECTOR FOR WALL-INSTALLATION code ACG1053
KEY SELECTOR TO BUILD-IN code ACG1048

## BATTERY

Battery 2,2Ah 12V code ACG9515

## BATTERY CHARGE CARD




code ACG4648

# Wi-Fi DEVICES

## MASTER Wi-Fi

RECEIVER CARD TO MANAGE WIRELESS SYSTEM
with connector - 12÷30V ac/dc code ACG6094
with terminal block - 12÷30V ac/dc code ACG6099

## NOVA Wi-Fi

PHOTOCELLS WITHOUT WIRES code ACG8037
PAIR OF COLUMS NOVA code ACG8039

## TOUCH Wi-Fi

STRIP WITHOUT WIRES code ACG3016

## SPARK Wi-Fi

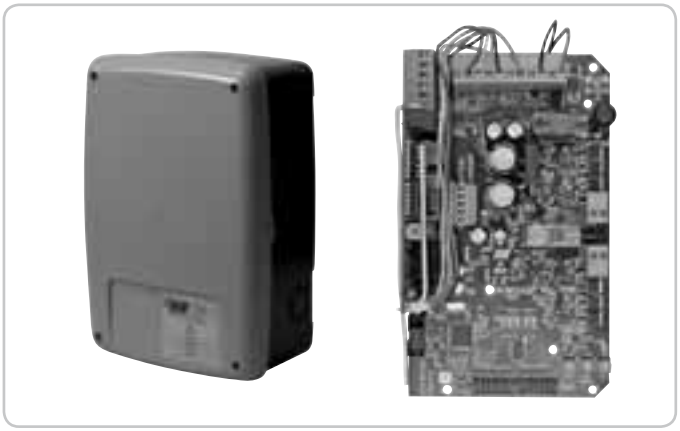
BLINKER WITHOUT WIRES code ACG7064
LATERAL SUPPORT code ACG7042

## BLOCK Wi-Fi

KEY SELECTOR WITHOUT WIRES code ACG6098

**Discover the only wireless automation devices at www.ribind.it.**

## T2 24V Wi-Fi



Control panel with impact sensors and MASTER Wi-Fi card.
With container. code ABT2025W

# 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 SUCCESFUL 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**