



# **CTR50**

**MANUALE D'ISTRUZIONI**

**INSTRUCTIONS MANUAL**

**MANUEL D'EMPLOI**

**ANWEISUNGSHANDBUCH**

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### A) – Scope of the device

The electronic board controls one or two low voltage motors that operate at 12Vdc or 24Vdc for the electric gate automation.

### B) – Limits to use

**Caution** : Before operating the electronic unit make sure the following operations have been carried out.

**Note 1** – Read carefully the whole technical documentation supplied.

**Note 2** – The electronic unit must be installed by qualified personnel only. The installation engineer must have the necessary technical and professional qualification.

**Note 3** – The mains power supply connected to the unit must be 230Vac +/- 10%.

**Note 4** – The neutral (N) pole of the mains power supply must be unipotential to the ground.

**Note 5** – All security norms for the installation of electric and electronic devices must be respected.

**Note 6** – The mains power must be supplied with an efficient differential switch tested and calibrated in conformity with the applicable rules.

**Note 7** – Before installing the electronic unit check the motors to which it will be connected. When the motors are connected to a suitable battery the torque they apply to the gate must respect the applicable rules and, in any case, it must be such that in case of collision no damage will be caused to persons, animals or objects.

**Note 8** – The unit must be applied for the intended use only (see point A). All other use is to be considered improper and dangerous.

**Note 9** – Before accessing the electronic unit's box for any intervention check that the mains power has been cut off.

**Note 10** – Do not access the unit with wet/damp hand or feet.

**Note 11** – Do not expose the unit to weather (rain, snow, etc.)

**Note 12** – Do not allow any children or unqualified persons to touch the unit.

**Note 13** – The electronic unit must be placed in the box supplied.

**Note 14** – The electronic board must be installed in a well aired place far from any objects or elements that can cause fire.

**Note 15** – The ordinary maintenance of electronic unit must be executed by qualified personnel every 6 months.

**Caution**: Failure to respect the above listed norms can cause damage to persons, animals or objects. The manufacturer can in no way be held responsible for such damage.

## C) – Installation

- 1) Unscrew the screws of the cover and lift the cover. Check that the electronic unit is in good order. In case of doubt do not install the unit and ask for the intervention of qualified personnel. The container's accessories (screws, round seal, cable glands) must not be left within the reach of children since they are a potential danger.
- 2) Check that the electronic unit is properly fixed to its box. If not, tighten all screws or provide the missing screws.
- 3) Place the unit near the gate so that the system connection wires' length is reduced to the minimum.  
**Caution: For the unit's correct operation the wires connected to it must not be longer than 10 metres.**
- 4) For increased weather protection we recommend to place the unit under a roof or, even better, in an enclosure having two side walls. Wherever possible, it is advisable to install the unit at a minimum 1,5 mt level above the ground to keep it out of the reach of children.
- 5) Before proceeding to assembly place the container so that the side fitted with the cable glands is directed towards the ground.  
**Caution: Do not assemble the container on wood surfaces.**
- 6) Lift the mobile portion of the connector and proceed to connect the unit wires as described in the following chapters.  
**Caution : The motors, battery, electric lock and blinker connection wires must have a 2,5 mm<sup>2</sup> minimum size.**

## D) - Operation

### 1) Definitions of Controls

#### Start

Input connected to a push-button placed outside the unit. It is employed to request the gate's opening or closure (for both wings). This input is usually connected to a key push-button.

#### Pedestrian Start

Input connected to a push-button placed outside the unit. It is employed to request the opening or closure of one wing only (pedestrian wing) to allow the passage of persons or animals.

### 2) Definitions of Safety devices

#### Stop

Input connected to a push-button or switch placed outside the unit. It is employed to cause the gate's immediate stop. This control must be used in an emergency situation.

#### Photo-cell

Input connected to an optical barrier. It detects and signals the passage of persons or vehicles in the area crossed by the gate or in the nearby area.

#### Photostop

Input connected to an optical barrier. It detects and signals the passage of persons or vehicles in the area crossed by the gate or in the nearby area.

#### Opening Limit Switch

Input connected to a switch placed outside the unit. The switch operates when the shutter has completed its opening phase.

#### Closing Limit Switch

Input connected to a switch placed outside the unit. The switch operates when the shutter has completed its closing phase.

**3) Definitions of Outputs****Blinker**

Lamp's on/off control. The lamp functions as a warning and optical signaller of potential danger for the gate's motion.

**Motor 1**

Outputs for the opening/closure control of the motor which drives the first gate wing during the closing phase.

**Motor 2**

Outputs for the opening/closure control of the motor which drives the gate wing delayed during the closing phase. This wing is usually connected with an electric lock.

**Electric lock**

Impulse control for the electric lock release. The output can also control an open gate signalling lamp (see page 24).

**4) Definitions of Power Supply Inputs/Outputs****AC IN (FS3 - FS4)**

12Vac or 20Vac input for the electronic board power supply.

**12Vdc or 24Vdc OUT (It depends on the position of the Jumper JP1)**

Power supply output for the photo-cells and/or any other accessory devices.

**BATT IN (FS1 - FS2)**

Input for a 12Vdc or 24Vdc backup battery connection, it depends on the power supply selected.

**Attention:** Set up the jumper JP2 in the right position in order to avoid damages of the equipment and/or battery.

**5) Definitions of Accessory Inputs/Outputs****Aerial**

Input for the connection of an aerial. This input can only be used if a radio receiver card is connected to the unit.

**2nd radio channel**

Auxiliary control output. To be used only if a two-channel radio receiver card is connected to the unit (J6 connector).

**6) Definitions of Optical Signals****DL1 – Programming led (red)**

It is lit (together with the blinker) in the programming phase and during the gate's motion.

**DL2 – Mains power led (green)**

It is lit when the 12Vac or 20Vac voltage is present to the AC IN input.

**DL3 – Pedestrian start led (green)**

It is lit when the pedestrian start control is operated.

**DL4 – Start led (green)**

It is lit when the start control is operated.

**DL5 – Stop led (red)**

It signals the gate's block state. The led goes off when the stop control is operated (emergency).

**DL6 – Photo-cell led (yellow)**

It signals the optical barrier's state. The led goes off when the photo-cell is covered by persons or vehicles

**DL7 – Photostop led (yellow)**

It signals the optical barrier's state. The led goes off when the photo-cell is covered by persons or vehicles.

**DL8 - Opening limit switch led (yellow)**

It signals the opening limit switch state for Motor 1. The led goes off when the opening limit switch is operated.

**DL9 - Closing limit switch led (yellow)**

It signals the closing limit switch state for Motor 1. The led goes off when the closing limit switch is operated.

**DL10 - Opening limit switch led (yellow)**

It signals the opening limit switch state for Motor 2. The led goes off when the opening limit switch is operated.

**DL11 - Closing limit switch led (yellow)**

It signals the closing limit switch state for Motor 2. The led goes off when the closing limit switch is operated.

**7) Definitions of Trimmers****RV1 – Slow-down speed**

It defines the gate's speed during the slow-down phase.

**8) Definitions of Dip Switches and Jumpers (Selection of Programs)****Dip switch 1 (Attention: if you place the Dip switch 1 in ON, the state of the Dip switch 2 doesn't have any influence anymore)**

It chooses whether the unit will operate in the mode determined by dip-switch 2 or in condominium mode.

ON= Condominium      OFF= No effect

**Dip switch 2**

It chooses whether the unit will operate in step-by-step mode or in automatic mode.

ON = Automatic      OFF= Step by step

**Dip switch 3**

It enables the operation with a single-wing or sliding gate.

ON= Single wing      OFF= Double wing

**Dip switch 4**

It enables or excludes the **kickback** (during the opening phase with closed gate) and **extra-push** (during the closure phase) procedures.

ON= Kickback enabled      OFF= No effect

**Dip switch 5 (Important: if you place the Dip switch 5 in ON, the Dip switch 3 must be positioned obligatorily in OFF)**

It enables or excludes the delay between the wings' starts

ON= 0 sec Delay      OFF= Delay enabled

**Dip switch 6**

It determines the operation of the output 9-10 on the connector J1.

ON= Open gate lamp      OFF= Electric lock

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### Dip switch 7 (**Attention: Dip switch must be positioned obligatorily in ON if the photocells are not used**)

It excludes the photocells operation test before the gate departure.

ON= Test OFF      OFF= Test ON

### Dip switch 8

It chooses the sensibility of the Motor 1 Amperometric stop.

ON= Low      OFF= High

### Dip switch 9

It chooses the sensibility of the Motor 2 Amperometric stop.

ON= Low      OFF= High

### Dip switch 10

Enable or disable the operation of the signalling LEDs.

ON= Enable LEDs lighting      OFF= Disable LEDs lighting

### Jumper JP2 - Battery charger

In position 1-2 it enables a 12Vdc battery charger. In position 2-3 it enables a 24Vdc battery charger.

### Jumper JP1 - Photocells power supply

In position 1-2 it selects 12Vdc as photocells power supply. In position 2-3 it selects 24Vdc as photocells power supply.

#### JP2 - Battery charger



#### JP1 - Photocells power supply



## 9) Definitions of Programming Keys

**P1** - Allows to insert/cancel the radio-command codes in the memory

**P2** - Allows to set the motors' work time and the M2 motor's closing delay time

**P3** - Allows to set the pause time

## 10) Definitions of Protection Fuses

**F2** - Battery fuse (10A - Fast)

**F1 – Services fuse (1A - Slow)**

It protects the electronic unit in case of short circuits or overcurrents on photo-cells or any other accessory devices connected to the card.

**11) Technical features****Power supply**

The electric power is supplied to the electronic card and the motors by means of an electric transformer fitted with a protection fuse. The appliance may be connected to an optional backup battery (12Vdc or 24Vdc / 7 Ah) for the automation system to work in case of absence of Mains power supply.

**Radioreceiver**

The electronic unit contains a two-channel radio receiver allowing remote control of the gate by means of the radio transmitter. The radio receiver channel 1 acts as **Start** control and channel 2 acts as **Pedestrian start**. The radio receiver operates with a self-learning logic and can store up to 50 different codes from the remote controls. Each code may be addressed on the desired channel (start or pedestrian start). The memory contents is preserved in absence of power supply. The memory contents may be erased (total cancellation). In alternative the electronic unit is pre-set for the optional connection of an accessory radio receiver card (J6 connector). The channel 1 of the radio receiver card ends with a non-polarized electric contact (relay) directly connected to the **start** input. The channel 2 of the radio receiver card ends with a non-polarized electric contact (relay) directly connected to the **2nd radio channel** output.

**Work time**

The motors' work time is controlled by two independent digital timers. If any command interrupts the wing's travel before its end, the Timer stops and the elapsed time is stored in memory. Therefore the unit can determine, with a fair approximation, the partial working time necessary to the wing to end its travel. For the automation system to work properly the work time value to be set (see page 33) must be slightly (approx. 5 sec.) above the wing's actual work time. In this way the motor will stop even if the **LIMIT SWITCH** control has not operated. We recommend to adjust the work time so that the wing starts to slow down at min. 50 cm. from the end of its travel. The stop of the wing depends by the current consumed by the motor (Torque). During the normal speed phase, when the motor's current reaches the self-learned value, the gate stops (both wings) in opening and then it reverses its motion for approx. 2 sec., while during the closure phase, the gate stops and reverses its motion after approx. 1,5 sec. After the electric power is supplied to the electronic card (at installation), or after one absence of power supply, when the Start push-button is pressed for the first time the gate performs an opening cycle.

**Warning** : In case of absence of power supply the position of the shutters will be lost (Timers reset).

**Kickback / extra-push**

This procedure can be enabled or excluded. It is usually employed to help the electric lock insertion and release during bad weather conditions (wind, ice, etc.). The "**kickback**" procedure consists of a logic sequence operating the electric lock during a short closure phase (approx 1 sec.) with the gate closed. The electric lock is released only after the wing has started its opening motion. The "**extra-push**" procedure is enabled only during the closing slow-down phase near at the end of the wings' travel. It consists of a short acceleration of both wings (approx. 1 sec.) to help the electric lock's insertion.

**M1 delay at opening**

The unit causes a fixed delay of approx. 2 seconds between the first wing's (M2) and the second wing's (M1) start during the gate's opening phase. This delay is imposed irrespective of the position from which the gate starts to open. This delay may be cancelled by setting the **dip switch 5 =ON**.

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### **Blinker**

The electronic card supplies an on/off control (flashing light) to the lamp. The logic of the blinking allows displaying the gate's operating.

Quick flashing light : it signals the opening phase

Slow flashing light : it signals the closing phase

Fixed light : it signals that the gate is blocked in wait that the obstacle that covers the photocell or photostop to be removed.

The device supplies an on/off control (flashing light) to the lamp for approx. 1 sec. before the motors start (**pre-alarm**).

**Important** : In case of absence of power supply, with the backup Battery connected to the card, the blinker flashes every 4 sec. (in opening and closing cycle).

## **12) Operation modes**

### **Introduction**

The electronic unit contains a micro-processor to control the gate's operation modes. These are the four main operation phases:

Phase preceding the gate's motion

Gate's fast motion phase

Gate's slow motion phase

Gate's pause phase (open gate)

The unit can function in three modes:

**Step by step** – This mode is enabled by setting the dip switches 1=OFF 2=OFF

**Automatic** – This mode is enabled by setting the dip switches 1=OFF 2=ON

**Condominium**– This mode is enabled by setting the dip switches 1=ON 2= No effect

The **Condominium** mode is the priority operation mode. If more than one modes are selected the priority mode will be enabled.

**Notice**: The operation logic setting (dip switch), the work time programming and the pause time programming must be carried out only if the cycle is concluded or before it starts (with closed gate).

The opening and closure cycles are enabled by a **Start** or **Pedestrian start** control.

**Important** : Whatever logic has been selected, the first Start command after the power is supplied to the electronic card will always cause the start of an opening cycle.

### **“Step-by-step” mode**

After the power is supplied to the electronic card the first start command determines an opening cycle. During the slow-down phase, at the end of the two work times or after the Limit switches have operated for both motors, the gate stops. The operating cycle is completed (blinker off) and the system waits for a new start command to determine the closing cycle. If a start command is supplied when the end of travel has not been reached yet the gate stops. A new start command will cause the reversal of the motion.

**“Automatic” mode**

After the power is supplied to the electronic card the first start command determines an opening cycle. During the slow-down phase, at the end of the two work times or after the Limit switches have operated for both motors, the gate stops. The pause period starts (blinker off). At the end of the pause period the gate closes automatically. The operating cycle is complete only when the closing motion has ended. If a start command is supplied before the end of travel is reached the gate stops. A new start command will cause the gate to reverse its motion. If a start command is supplied during the pause period the operating cycle is interrupted and the gate does not close automatically. A further start command will determine a closing cycle.

**“Condominium” mode**

After the power is supplied to the electronic card the first start command determines an opening cycle. During the slow-down phase, at the end of the two work times or after the Limit switches have operated for both motors, the gate stops. The pause period starts (blinker off). At the end of the pause period the gate closes automatically. The operating cycle is complete only when the closing motion has ended. If a start command is supplied while the gate opens, the command will have no effect. If a start command is supplied while the gate closes, the gate will stop and reverse its motion after approx. 1.5 sec. If a start command is supplied during the pause period, the period will be reset and the automatic closure will start later.

**Important : If the gate opening is controlled by a clock the “condominium” mode must be enabled.**

**“Single wing” mode**

This mode is employed with single-wing gates. When enabled, it drives the motor M2 only. The operating modes described above remain unchanged. When the “single-wing” mode is selected the **dip switch 3=ON** must be set.

**Note :** At the beginning of each opening cycle, with the gate closed, the electric lock can operate in 2 modes :

- 1) If dip switch 4=OFF the electric lock operates a split of second (0,8 sec) before the first wing (M2) starts , and stops operating 2 Sec. after the wing's start.
- 2) if dip switch 4=ON the electric lock operates for a short time (approx. 1 sec.) during the wings' closure, and stops operating 2 Sec. after that the M2 wing starts the opening. The “**kickback**” procedure is usually employed to help the electric lock's release during bad weather.

In any operation mode, the safety devices causes the following effects :

**Stop :** If the stop command is enabled no cycles can start and the start command will have no effect. If a stop command is supplied during motion, the gate will immediately stop e interrupt its operating cycle. This condition will continue until the stop command is on. A start command following a stop command always determines an opening cycle. A stop command supplied during the pause period interrupts the operating cycle. A start command subsequently supplied will start a closure cycle.

**Photo-cell :** This device has effect only during the closure phase or in the pause period. If an obstacle covers the photo-cell during the closure phase , the gate stops and reverses its motion after approx. 1,5 sec. If an obstacle covers the photo-cell during the pause period this last one is reset and the automatic closure is therefore delayed.

**Photostop :** If an obstacle covers the photo-cell during the gate's motion (opening or closure), or during the period preceding the operating cycle's start, then the gate is temporarily stopped, until the obstacle is not removed. The blinker will light with a fixed light to signal the irregular condition. When the obstacle is removed and the photocell is freed, an opening cycle will start. This does not apply when a start command determines the closing phase in step-by-step mode at the end of an opening cycle. If an obstacle

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**Pedestrian start:** The pedestrian start command operates in the same way as the other start command, but in this case only the (M2) wing fitted with the electric lock will be opened or closed. The pedestrian start command has no effect during a start cycle and up to the end of the closing phase (closed gate). During a pedestrian start cycle the start command is always active and causes the start of an opening cycle for both wings.

### 13) Electrical and mechanical specifications

**Dimensions and weight (with plastic box) :** 186 x 283 x 112 mm - 2,3 Kg

**Power supply transformer :** 230/12-15-20 Vac - 100VA

**Battery-charger capacity :** 0,5 A max

**Optional battery capacity :** 12/24 Vdc – 7 Ah

**Blinker power supply :** 12/24 Vdc - 15 W max

**Relays contacts capacity :** 20 A max

**Electric lock power supply :** 12/24 Vdc - 15 W max

**Motor power supply :** 12/24 Vdc - 100 W max (total)

**Radio receiver power supply (J6) :** 12 Vdc - 2 W max

**Accessories power supply :** 13,5Vdc or 24Vdc - 3 W max

**Operating temperature range :** 0 to + 60 °C (internal)

**2<sup>nd</sup> radio channel relay contact characteristic :** 24 Vac - 0,5 A max

**Motors' work time :** programmable, 1 to 120 sec.

**Pause time :** programmable, 1 to 120 sec.

**2<sup>nd</sup> wing closing delay :** programmable, 0 to 120 sec.

**Amperometric Stop :** Automatic

**Caution :** The unit must be not switched on if the connected loads or the power supply exceed the a.m. limits. Failure to observe this precaution can result in damage to persons, animals or objects for which the manufacturer cannot be held responsible.

### 14) Electric connections

7 electric connectors are fitted to the card :

- 1) **J2** 10-pole removable terminal board for the connection of the commands and safety devices
- 2) **J6** 10-pole connector for the optional connection of a radio receiver card
- 3) **J5** 2-pole Terminal board for the connection of the aerial cable
- 4) **J1** 10-pole removable terminal board for the connection of the power devices
- 5) **J3** 8-pole removable terminal board for the connection of the limit switches and/or Encoder
- 6) **FS1,FS2** nr. 2 Faston terminal for the connection of a Backup battery
- 7) **FS3,FS4** nr. 2 Faston terminal for connection of the power supply transformer

**Terminal board J2**

- Terminal1** - Common terminal for all electric contacts of commands
- Terminal2** - Pedestrian start push-button's normally open electric contact
- Terminal3** - Start push-button's normally open electric contact
- Terminal4** - Common terminal for all electric contacts of stop push-button and photo-cell
- Terminal5** - Emergency push-button's normally closed electric contact (stop)
- Terminal6** - Photo-cell's normally closed electric contact
- Terminal7** - Common terminal for the electric contact of photostop
- Terminal8** - Photoelectric cell's normally closed electric contact (photostop)
- Terminal9** - 2nd radio-channel's normally open electric contact (output)
- Terminal10** - 2nd radio-channel's normally open electric contact (output)

**Important:** The normally closed inputs not in use must be fitted with jumpers

**Connector J6**

- Terminal1** – Normally open electric contact connected to the start
- Terminal2** – Common of the normally open electric contact connected to the start
- Terminal3** – Normally open electric contact connected to the 2nd radio-channel output
- Terminal4** – Normally open electric contact connected to the 2nd radio-channel output
- Terminal5** - Power supply negative (common)
- Terminal6** - Power supply positive
- Terminal7** - Power supply positive
- Terminal8** - Power supply negative (common)
- Terminal9** – Aerial input (shield)
- Terminal10** – Aerial input (signal)

**Terminal board J5**

- Terminal1** – Aerial cable connection (shield) for radio receiver card
- Terminal2** – Aerial cable connection (signal) for radio receiver card

**Terminal board J1**

- Terminal1** - Power supply positive for photo-cells or other devices
- Terminal2** - Power supply negative for photo-cells or other devices (common)
- Terminal3** - Power supply positive for blinker
- Terminal4** - Power supply negative for blinker (common)
- Terminal5** - Motor M1 power supply
- Terminal6** - Motor M1 power supply
- Terminal7** - Motor M2 power supply
- Terminal8** - Motor M2 power supply
- Terminal9** – Power supply positive for electric lock
- Terminal10** – Power supply negative for electric lock (common)

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### Terminal board J3

**Terminal1** - Motor 1 opening Limit switch normally closed electric contact

**Terminal2** - Motor 1 closing Limit switch normally closed electric contact

**Terminal3** - Motor 1 Encoder signal input

**Terminal4** - Common terminal for Motor 1 Limit switches and Encoder

**Terminal5** - Motor 2 opening Limit switch normally closed electric contact

**Terminal6** - Motor 2 closing Limit switch normally closed electric contact

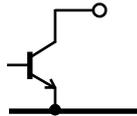
**Terminal7** - Motor 2 Encoder signal input

**Terminal8** - Common terminal for Motor 2 Limit switches and Encoder

**Important:** The equipment only accept a "TTL" or "OPEN COLLECTOR" input as Encoder signal.



OPEN COLLECTOR



**FS1 Faston** – Backup battery's positive pole connection

**FS2 Faston** – Backup battery's negative pole connection

**FS3 Faston** – 12/15/20 Vac power supply from the electric transformer

**FS4 Faston** – 12/15/20 Vac power supply from the electric transformer

**CTR50 - Connection of the devices**

**Motor 1** – Terminals 5 and 6 on J1

**Motor 2** – Terminals 7 and 8 on J1

**Blinker** – Terminals 3 and 4 on J1

**Electric lock** – Terminals 9 e 10 on J1

**Photo-cells power supply** – Terminals 1 and 2 on J1

**NC photo-cell contact** – Terminals 4 and 6 on J2

**NC stop push-button** – Terminals 4 and 5 on J2

**NC photostop contact** – Terminals 7 and 8 on J2

**NO start push-button** – Terminals 1 and 3 on J2

**NO pedestrian start push-button** – Terminals 1 and 2 on J2

**Aerial** – Terminals 1 and 2 on J5

**Open gate lamp** - Terminals 9 e 10 on J1

**NC Motor 1 opening limit switch contact** – Terminals 1 and 4 on J3

**NC Motor 1 closing limit switch contact** – Terminals 2 and 4 on J3

**NC Motor 2 opening limit switch contact** – Terminals 5 and 8 on J3

**NC Motor 2 closing limit switch contact** – Terminals 6 and 8 on J3

**Motor 1 Encoder connection** - Terminals 3 and 4 on J3

**Motor 2 Encoder connection** - Terminals 7 and 8 on J3

**IMPORTANT :**

- If no cable is connected to the **FC1A** and **FC1C** inputs, the control of Motor 1 limit switches will be automatically disabled.
- If no cable is connected to the **FC2A** and **FC2C** inputs, the control of Motor 2 limit switches will be automatically disabled.

**Important : Before starting the gate check the following conditions :**

- a) connections to the electronic card
- b) electric contacts' switching
- c) state of the protection fuses
- d) leds' correct operation

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### E) MAINTENANCE

**Warning** : The maintenance of the device must be effected only and exclusively by a specialized technician authorized from the Manufacturer. Any operation of maintenance or control of the device must be effected in absence of power supply.

**Ordinary maintenance:** Every time that it is necessary and however every 6 months is recommended to verify the device operation.

**Extraordinary maintenance:** In case of failure, remove the device and send it for repair to the manufacturer laboratory or to authorized laboratory.

**The Manufacturer is not responsible for missing observance of rules above described.**

### F) CONFORMITY DECLARATION (To EMC directive EN45014 and ISO guide 22)

Company name and registered office :

Description of the appliance : **Electronic board for the control of 1 or 2 low voltage motors for gate automation.**

Model : **CTR50**

Reference rules applied : **EN 50081-1, EN 50082-1, EN 55014**

Basic rules applied : **EN 61000-6-3 + A11 (2004), EN 61000-6-1, EN 301 489-1, EN 301 489-3, EN 300 220-2, EN 300 220-1**

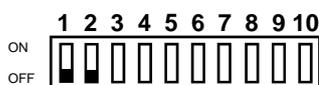
Test laboratory : **NEMKO SPA**

Outcome : **Positive**

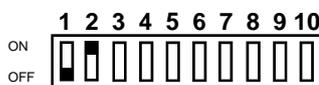
The manufacturer declares that the above listed products comply to the norms on electromagnetic compatibility provided for by directives 89/336/EEC, 92/31/EEC, 93/68/EEC.

**Date , 24-08-2007**

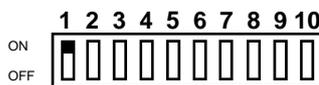
**G) Programming the board**



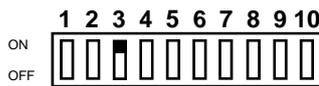
**Step-by-step logic**  
Set the dip switches 1 and 2 to OFF  
The state of the other dip switches has no effect



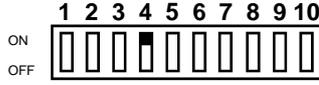
**Automatic logic**  
Set the dip switch 1 to OFF  
Set the dip switch 2 to ON  
The state of the other dip switches has no effect



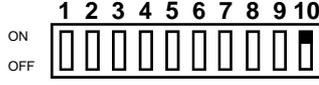
**Condominium logic**  
Set the dip switch 1 to ON  
The state of the other dip switches has no effect



**Single wing logic**  
Set the dip switch 3 to ON  
The state of the other dip switches has no effect



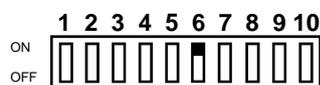
**Kickback / extra-push logic**  
Set the dip switch 4 to ON  
The state of the other dip switches has no effect



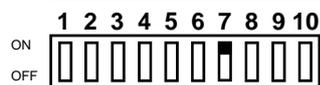
**Enable LED lighting**  
Set the dip switch 10 to ON  
The state of the other dip switches has no effect



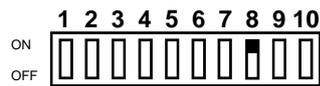
**2nd wing delay reset (zero delay)**  
Set the dip switch 5 to ON  
The dip switch 3 must be positioned in OFF  
The state of the other dip switches has no effect



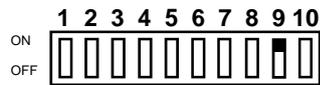
**Open gate signalling**  
Set the dip switch 6 to ON  
The state of the other dip switches has no effect



**Photocell test exclusion**  
Set the dip switch 7 to ON  
The state of the other dip switches has no effect



**Motor 1 Amperostop sensibility reduction**  
Set the dip switch 8 to ON  
The state of the other dip switches has no effect



**Motor 2 Amperostop sensibility reduction**  
Set the dip switch 9 to ON  
The state of the other dip switches has no effect

**Attention** : before proceeding with the programming of the card, it is necessary that all the inputs are connected correctly (see chapters D1 and D2).

**Radio-command codes self-learning**

Press the **P1** key once to insert a "Start" code; press the **P1** push-button twice to insert a "Pedestrian Start" code. Each time the push-button is pressed, the led **DL1** flashes in acknowledgement. Subsequent pressures of the **P1** key must be spaced by 1 sec. minimum periods. When the led is lit with a fixed light transmit the code to be learn by means of the remote control.

**Erasing all stored codes**

Press push-button **P1** until the led **DL1** goes off (about 10 seconds).

## ENGLISH

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### **Automatic Setting of the work times**

Make sure the gate is completely opened. If not, position it manually. Position the trimmer **RV1** to half race and then press once the key **P2**. After a few seconds the gate will perform a series of operations which will allow the equipment to automatically learn the work times.

**Attention** : during the operations of the work times auto-learning all the safety devices are ignored.

### **Manual Setting of the work times**

Make sure the gate is completely closed. If not, position it manually. Press push-button **P2** until the led **DL1** goes off (about 10 seconds). After a few seconds the gate starts opening at a reduced speed. During this phase adjust the speed by means of the trimmer **RV1** to obtain the desired slow-down. After 3 seconds from the complete opening, push the **P2** key again and wait for the led **DL1** and the blinker to go on with a fixed light. Then push the **P2** key repeatedly (6 times) to program the following operations :

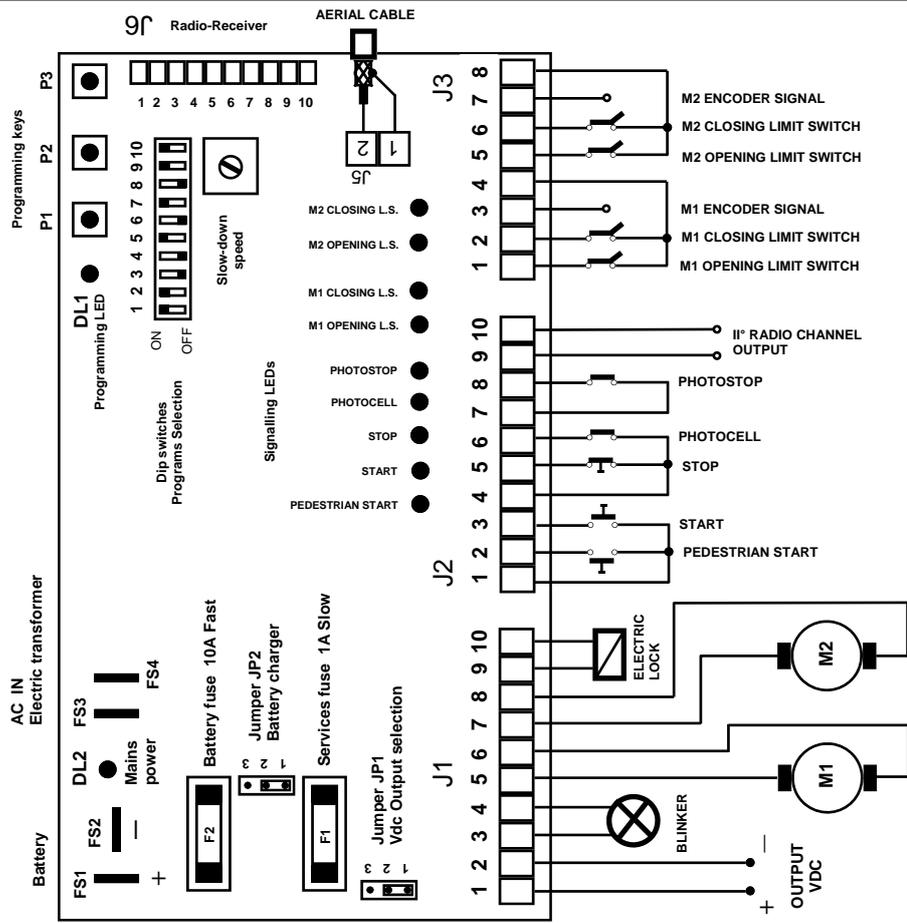
- 1) motor M1 start
- 2) motor M2 start (delayed)
- 3) motor M1 slow-down start
- 4) motor M2 slow-down start
- 5) motor M1 stop (after 5 seconds from the end of the run)
- 6) motor M2 stop (after 5 seconds from the end of the run) - end of programming

**Attention** : during the work times programming all the safety devices are ignored.

### **Setting the pause time**

Press push-button **P3** until the led **DL1** lights. Let the desired pause time pass, then press push-button **P3** again.

# CTR50 General diagram



## **TABLE GENERALE**

<b>A</b>	<b>Emploi de le tableau électronique.....</b>	<b>38</b>	<b>E</b>	<b>Entretien.....</b>	<b>50</b>
<b>B</b>	<b>Les limitations d'emploi.....</b>	<b>38</b>	<b>F</b>	<b>Déclaration de conformité.....</b>	<b>50</b>
<b>C</b>	<b>Installation.....</b>	<b>39</b>	<b>G</b>	<b>Programmation de la carte électronique</b>	<b>51</b>
<b>D</b>	<b>Fonctionnement.....</b>	<b>39</b>	<b>H</b>	<b>Schéma général.....</b>	<b>53</b>
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D.6	Signaux optiques.....	41			
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# 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](mailto: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>