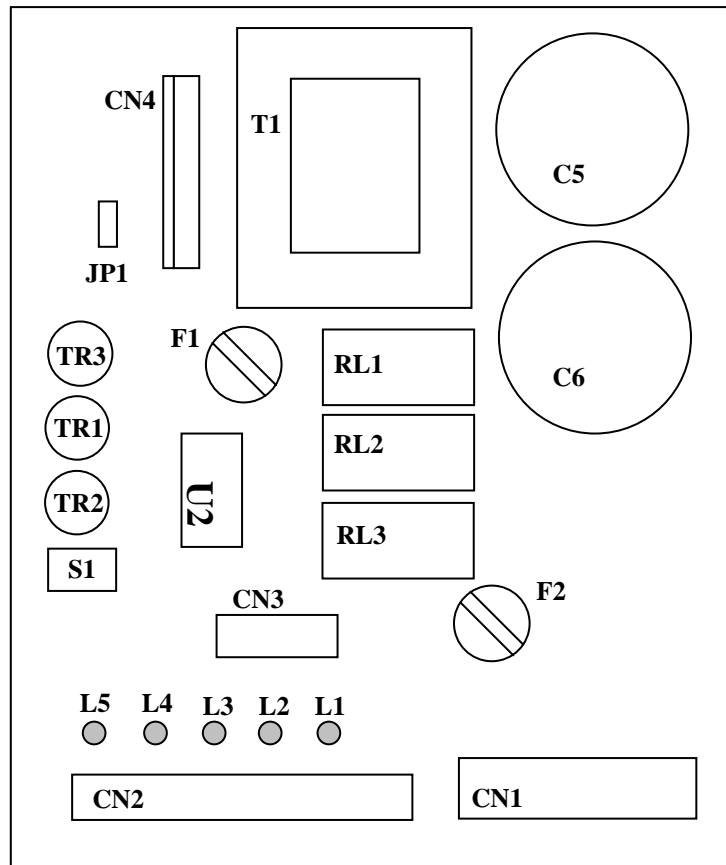


## **MPU/OE4 ELECTRONIC CONTROL UNIT**

(cod. 23023005)

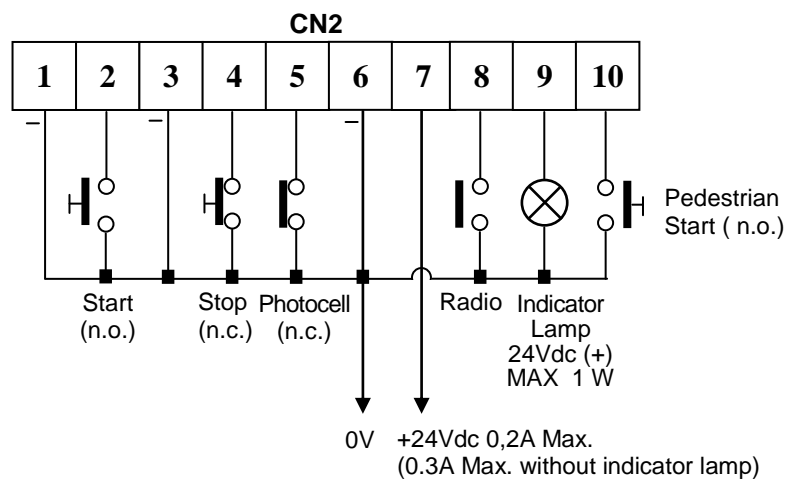


**LD1:** Status Indicator Lamp Led  
**LD2:** Photocell Led  
**LD3:** Stop Led  
**LD4:** Pedestrian Start Led  
**LD5:** Start Led  
**TR1:** Open Pause Time Trimmer  
**TR2:** Leaf Delay in Closing Trimmer  
**TR3:** Motor Run Time Trimmer  
**S1:** Logic Programming Dip Switches  
**F1:** 500 mA Logic Fuse  
**F2:** 3.15A Motor Fuse  
**T1:** 6 VA Transformer

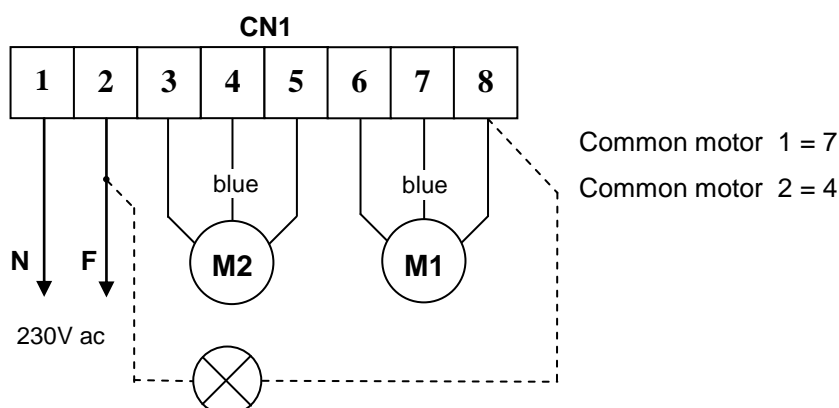
**CN1:** 230 V ac Terminal Connector  
**CN2:** Low Voltage Terminal Connector  
**CN3:** Modular Radio Connector  
**CN4:** Photocell Card Connector  
**C5:** Motor 1 Capacitor  
**C6:** Motor 2 Capacitor  
**JP1:** Photocell Card Jumper Link  
**RL1:** Motor Direction Relay  
**RL2:** Motor 1 Relay  
**RL3:** Motor 2 Relay  
**U2:** Microprocessor

## CONNECTIONS OF THE CONTROL UNIT MPU/OE4

### LOW VOLTAGE CONNECTOR (CN2)

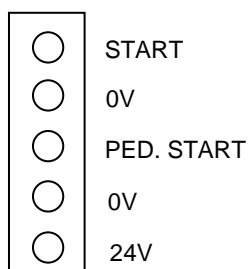


### CONNECTOR 230 V (CN1)



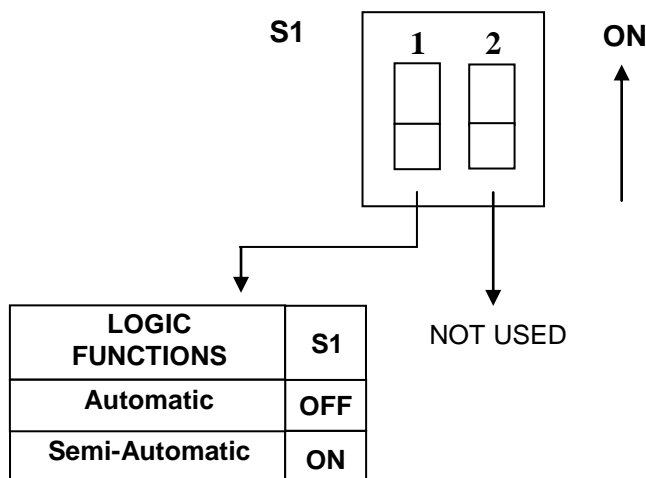
TRAFFIC LAMP 230 Vac WITH FLASHING CARD (code 23104065 and 23104005)

### RADIO CONNECTOR (CN3)

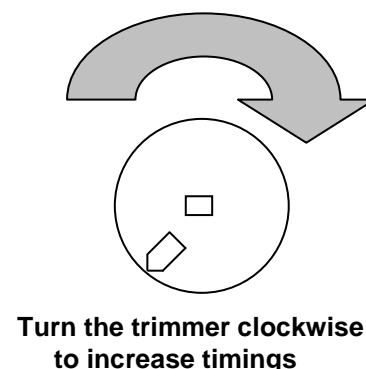


**Please note:** Terminals 3/4 and 5/6 of CN2 are Normally Closed inputs. These terminals must be wire linked closed if devices are not being installed. Terminals 5/6 of CN2 must also be linked if a Photocell Card is being used.

### LOGIC PROGRAMMING TABLE



Tab. 1



### MPU/OE4 FUNCTION DESCRIPTION

The MPU/OE4 Control Unit is equipped with Dip Switches (S1) that allow the selection of the desired operating logic. Trimmers (TR1, TR2, TR3) allow time regulation of the: Open Pause- Leaf Delay in Closing - Motor Run.

### OPERATING LOGIC

Select the required Operating Logic on Dip Switch 1 (S1) by following Table 1 shown on page 3.

#### \* Automatic logic

With the gates in the closed position, when a START impulse is given the gate motors will run towards open for the time selected (TR3) - Pause in the open position for the time selected (TR1) - Time out and run towards close for the time selected (TR3). Motor 2 will be delayed in closing by any time selected on TR2 – Leaf Delay.

If a START impulse is given:

- During the gate opening phase is ignored.
- During the open pause time – The pause time is cancelled and the gates start to immediately close.
- During the gate closing phase – The gates stop and immediately re-open.

#### \* Semi-automatic logic

With the gates in the closed position. The first START input starts the opening cycle - The gates will remain open until a second START input is given to start a closing cycle.

A second START impulse given:

- During the opening cycle – the gates immediately stop.
- When the gates are at rest in the open position – The gates close.
- During the closing cycle – The gates stop and immediately re-open.

### CONTROL COMMANDS

#### 1. Start commands

START (1 – 2 CN2) : Commands the opening and closing cycles of both gates motors in Automatic and Semi-Automatic Logic.

PEDESTRIAN START (6 – 10 CN2): Commands the opening and closing cycles of one gate leaf (Motor 1) in Automatic and Semi-Automatic Logic.

#### 2. Time Regulation

TR1 : Regulates the Open Pause Time from 0 to 120 seconds.

TR2 : Regulates the Leaf Delay in closing (Motor 2) from 0 to 15 seconds.

TR3 : Regulates the Motor Run Time from 0 to 120 seconds.

**All time regulation must be carried out when the gates motors are at rest in the closed position.**

### 3. Stop input

A STOP input given (3 – 4 CN2) immediately stops the gates and cancels any operational cycle. It is necessary to give another START or PEDESTRIAN START input to re-establish gate movement.

### 4. Photocell input

When this Normally Closed input (5 – 6 CN2) is broken by the photocell contacts, if the gates are closing they stop and immediately re-open. If the gates are opening the input is ignored.

### SAFETY PRECAUTIONS

All electrical installation work should conform to the current edition of the LEE Regulations and all electrical work should only be carried out by a competent electrician. A 16A - 0,03A differential switch must be incorporated into the mains electrical supply of the gates. Earth bonding of the entire gate system must be correctly carried out. To prevent mains interference all low voltage cabling (Push button, Photocell, Radio etc.) should be run in separate cable ducts from main carrying cables.

**Note:** Use “cable clips” and/or “duct/box pipes” fitting close to the control panel box so to protect the interconnection cables against pulling efforts.

### SPARE PARTS

To obtain spare parts contact: **SEA s.r.l. – ZONA Ind.le, 64020 S.ATTO – Teramo – Italia**

### INTENDED USE

The MPU/OE4 electronic control unit has been designed to be solely used as control unit for the automation of doors, gates and leaves being moved by one or two operators Mini-Tank SC (without electric lock).

### SAFETY AND ENVIRONMENTAL COMPATIBILITY

We recommend not to spoil the environment with product and circuit packing material.

### CONFORMITY REQUIREMENTS

The electronic control unit MPU/OE4 conforms to the following:

89/336/CEE (Rule on the Electromagnetic Compatibility)

73/23/EC (Electric Safety)

### STORAGE

STORAGE TEMPERATURES			
T <sub>min</sub>	T <sub>max</sub>	Humidity <sub>min</sub>	Humidity <sub>max</sub>
-40 °C	+85 °C	5% no condensation	90% no condensation

When being transported this product must be properly packaged and handled with care.

### MAINTENANCE AND OUT OF SERVICE

The decommission and maintenance of this unit must only be carried out by specialised and authorised personnel.

### LIMIT OF GUARANTEE

The MPU/OE4 electronic control unit is guaranteed for a period of 24 months. The guarantee period starts from the date stamp printed on the unit. The MPU/OE4 guarantee will be void if the unit has been incorrectly installed, not used for the intended purpose, tampered with or modified in any way.

The validity of this guarantee only extends to the original purchaser of the unit.

**NOTE: THE MANUFACTURER CAN NOT BE DEEMED RESPONSIBLE FOR ANY DAMAGE OR INJURY CAUSED BY IMPROPER USE OF THIS PRODUCT.**

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*SEA reserves the right to do changes or variations that may be necessary to its products with no obligation to notice.*

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