→ ON

3 [switch] **SINGLE LEAF LOGIC – Put dip switch 3 ON to select**

4 [switch] **REVERSING STROKE LOGIC – Put dip switch 4 ON to select**

5 [switch] **CANCELL LEAF DELAY – Put dip switch 5 ON to select**
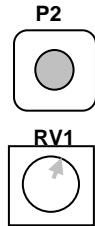When selected, both motors start at the same time

Important: Before starting the programming stage please check the following:
A)   All wiring connections.
B)   That the power is turned on.
C)   That the correct indicator leds are lit.
D)   The operator(s) are securely fitted.

Programming Work and Pause Times

P2

Put the gates into the closed position.

Press Programming Button P2 until led DL1 lights (approx 3 secs) and the gate(s) start to open at reduced speed – The board is now in Programming Mode

RV1

During this phase adjust trimmer RV1 to obtain the desired motor slowdown speed.

When the gate is fully open – Press P2 again and wait for led DL1 to stop flashing & light continuously.

Continue giving 1 second presses to button P2 to set the following logic parameters (a total of 6 more presses to set the logic).

Press 1 - Starts Motor 1 closing
Press 2 – Starts Motor 2 closing and sets the leaf delay in closing
Press 3 – Starts Motor 1 slowdown point
Press 4 – Starts Motor 2 slowdown point
Press 5 – When Motor 1 reaches the closed position
Press 6 – When Motor 2 reaches the closed position – Programming ends.

Setting the Open Pause Time

P3
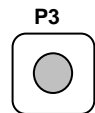
Press button P3 until led DL1 is lit – When the required Open Pause time is reached – Press P3 again and the time is set.

All cabling, wiring and connections must be carried out by fully trained personal and adhere to all the current electrical regulations in force.
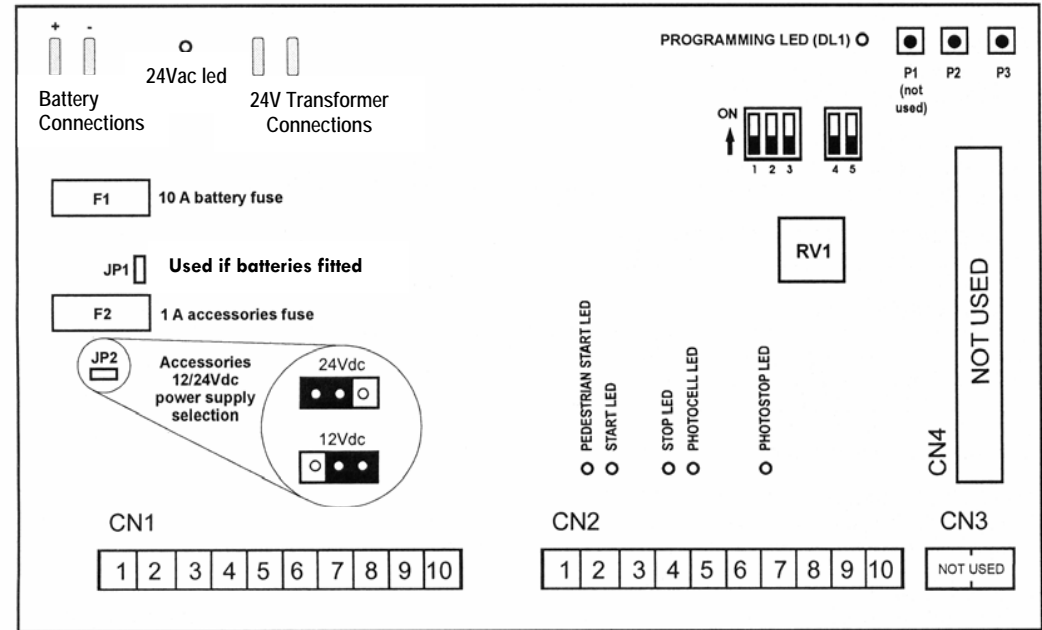
The manufacturer or supplier of this equipment cannot be held responsible for any damage or injury caused by improper or incorrect use of this product.
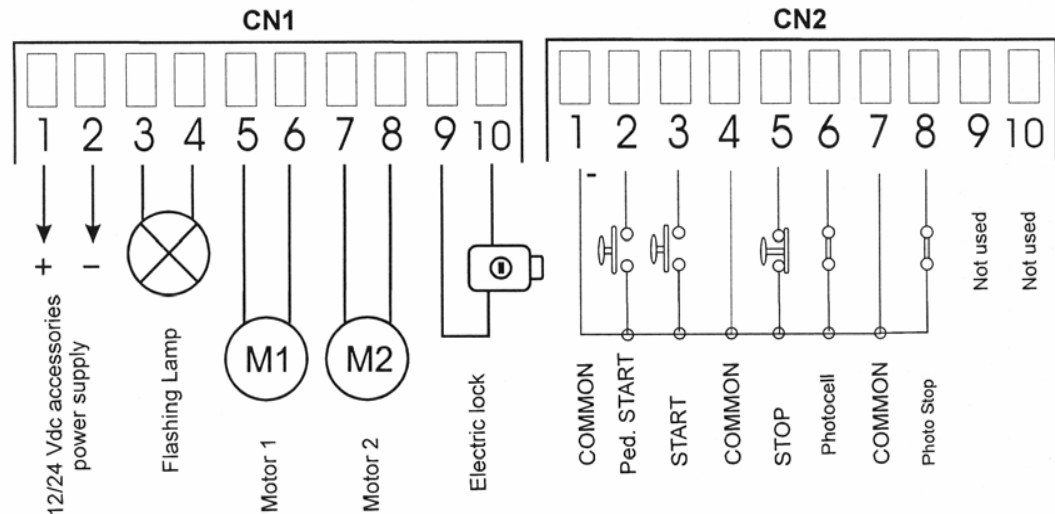

SEA
Sistemi elettronici
di Aperture Porte e Cancelli

SGS

CE

GB   **English**

GATE 2 24V TR CONTROL UNIT
(cod. 23001137 - 23001138)

PROGRAMMING LED (DL1)   P1 (not used)   P2   P3

Battery Connections   24Vac led   24V Transformer Connections

ON   1 2 3   4 5

F1   10 A battery fuse

JP1   **Used if batteries fitted**

F2   **1 A accessories fuse**

JP2   Accessories 12/24Vdc power supply selection   24Vdc   12Vdc

RV1

NOT USED   CN4

PEDESTRIAN START LED   START LED   STOP LED   PHOTOCELL LED   PHOTOSTOP LED

CN1   CN2   CN3 NOT USED

1	2	3	4	5	6	7	8	9	10

1	2	3	4	5	6	7	8	9	10

CONNECTIONS

CN1

1	2	3	4	5	6	7	8	9	10

+   12/24 Vdc accessories power supply
–
Flashing Lamp
M1   Motor 1
M2   Motor 2
Electric lock

CN2

1	2	3	4	5	6	7	8	9	10

COMMON
Ped. START
START
COMMON
STOP
Photocell
COMMON
Photo Stop
Not used
Not used

General Description:
The GATE 2 - 24V has been specifically designed to control all SEA low voltage swing gate operators. Programming of the motor run and delay timings is carried out by push button (P2 & P3).
Features include: A normal paired motor start input - Pedestrian start input that controls one gate (motor 2) of pair - Photocell and Electric Lock control - Selectable 12 or 24v accessory voltage output – 'led' status indication – Adjustable motor run speed controller (RV1) - Dip switch selectable operating logics – Battery back-up control (optional).
An in-built non-adjustable AMPSTOP device automatically switches off the supply to the motor(s) at a preset level.

Operating Logics
The Gate 2 24v has three types of operating logics. They are as follows:-
Step by Step – Selected by setting 'dip switches' 1 OFF and 2 OFF.
Security – Selected by setting 'dip switches' 1 OFF and 2 ON.
Automatic – Selected by setting 'dip switch' 1 ON - dip 2 is then disabled

Automatic Logic takes priority, when switch 1 is ON switch 2 is disabled.

Please Note:
All Changes of the 'logic' settings or timings must only be carried out when the gate(s) is at rest in the closed position.

Operating cycles are initiated by giving either a 'start' or a 'pedestrian start' input.

On 'power-up' of the Gate 2 24v, the first start input given will initiate an opening cycle regardless of the gate(s) position.

Step by Step Logic
This is a sequential logic. From the gate(s) closed position a 'start' input' will open the gate(s). The gates will remain in the open position until the next 'start' input is given to close the gate(s).
The 'slowdown' stage occurs toward the end of an operating cycle and the motor(s) stopping position is controlled by either the in-built AMPSTOP device or expiry of the run time??
A 'start input' given during an opening or closing cycle stops the gate(s) movement – The gate(s) stay in this position awaiting the next 'start' input. When this second (next) input is given the gate(s) travel on the opposite direction i.e.
If the gate(s) were stopped during opening – **They will start to close.**

Security Logic
This logic works in a similar way to 'Step by Step' logic apart from the following important differences:-
When the gate(s) reach the open position they will pause for the preset time and automatically close.
A 'start' input given during the open pause time cancels the automatic cycle. The next 'start' input given closes the gate(s).
i.e. A 'start' inputs given during the open and close cycle **will still halt** the gate(s) movement and the next 'start' input given inverts the gate(s) original direction.
A 'start' input given during the open pause cancels the pause time, the next 'start' input will close the gate(s).

Automatic Logic
This logic works in a similar way to 'Automatic Logic' apart from the following important differences:-
A 'start' input given during the gate(s) opening cycle is ignored.
A 'start' input given during the gate(s) closing cycle, stops and re-opens the gate(s) after a 1.5 second delay.
A 'start' input given during the open pause time recharges and lengthens the pause time.
A maintained 'start' input will delay closing until it is removed.

N.B. For 'hold open' switches and time clocks, use **Automatic Logic**.

Single Gate Logic:
For single gate (motor) control (dip switch 3 ON) – When selecting this logic, previously described logics remain unaltered.
When using 'single gate logic', dip- switch 4 - Reversing Stroke Logic need consideration.
The explanation of 'reversing stroke' is:
Starting with the gate(s) at rest in the closed position - When a 'start' input is given, the first action of the motor(s) is to run towards the closed direction for approximately 1 second before reversing and starting to run toward the open direction. The electric lock is energised before the motor starts to run towards open and stays energised for approximately .4 of a second after is starts opening.
This logic is normally used to overcome 'wind induced face pressure' problems that are often associated with electric locks that are fitted to solid sheeted gates.
1) Dip-switch 4 OFF – No Reversing Stroke
2) Dip-switch 4 ON – Reversing Stroke selected.

Safety Control Inputs:
STOP INPUT: Terminal 5 & Negative -. This is a 'normally closed (nc)' input and will require a wire-link to a negative– terminal if a 'Stop Button' is **not** fitted.
When a 'Stop' command is given, it immediately stops operator movement or cancels the automatic cycle if the gates were on open pause.
On reconnection of the Stop Link, the first 'Start' input given will either run the gates toward open if the motors running at the time of the command or close the gates if the 'Stop' command was given during a 'open pause' period.

PHOTOCELL: Terminal 6 & Negative -. This is a 'normally closed (n.c.)' input.
When the photocells infra-red beam is broken it either:-
Immediately halts and re-opens a closing gate(s) or if the beam is broken during the 'open pause time', the pause time is re-charged and lengthens the time before the gate(s) start closing.

PHOTOSTOP: Terminal 8 & Negative -. This is a 'normally closed (n.c.)' input.
When the photocells infra-red beam is broken:-
If the motors are running, it immediately stops **all** gate movement, no matter which the direction the gate(s) are travelling. When the infra-red beam is restored (obstruction cleared), the gates will always run towards open. If the photocell beam is broken during the 'open pause time', the pause time is re-charged and lengthens the time before the gate(s) start closing.

Both the above Photocell Inputs are inactive when the gate(s) are at rest in the closed position.

PEDESTRIAN START input: Terminal 2 & negative -. This is a 'normally open (n.o.)' input.
When a Pedestrian Start input is given, the first opening motor (motor 2) will open the one gate of a pair and allow pedestrian access./egress.
The normal paired 'Start' input (terminal 3) has priority over a 'Pedestrian Start' input.

Operating Logic Selection

1	▬ ON	**Step – by Step Logic**
2		**Dip Switch 1 & 2 OFF**
1		**Security Logic**
2		**Dip Switch 1 OFF & 2 ON**
1		**Automatic Logic**
2		**Dip Switch 1 ON – Switch 2 is now inactive**