Manuals+ — User Manuals Simplified.

ELSEMA MC240 Eclipse Operating System Instruction Manual

Contents

ELSEMA MC240 Eclipse Operating System

Specifications:

- **Model:** MC240
- **Power Supply:** 240 Volt AC
- **Operation:** Double and Single Gate Setup
- **Intelligent Technology:** Yes
- **Inputs:** Push button, open only, close, stop, pedestrian,Photoelectric Beam
- **Operating System:** Eclipse Operating System (EOS)
- **Features:** Day and night sensor (DNS), Adjustable Auto Close,Pedestrian Access, Motor soft start and soft stop, Adjustable lock and courtesy light outputs, Slow speed and force adjustment,Variable photoelectric safety beam functions, Large 4-line LCD display, 12 Volt DC Output, Auxiliary input for fire alarms

Product Usage Instructions

Installation and Wiring:

1. Read and understand all instructions carefully before installation.
2. Installation and wiring should be done by trained technical personnel only.
3. Ensure all connections are secure and follow the wiring diagram provided in the manual.

Setup and Configuration:

1. Power on the MC240 controller.
2. Use the large 4-line LCD display to navigate through the setup options.
3. Adjust settings such as Auto Close timing, force adjustment,and motor operation mode as per your requirements.
4. Set up any additional features like password protection or holiday mode if needed.

Operation:

1. Once the setup is complete, test the gate operation to ensure it functions correctly.

2. Use the provided remote controls or other accessories to operate the gate as desired.

3. Monitor the controller status on the LCD display for any alerts or notifications.

FAQ

Q: Can the MC240 controller be used for both swing and sliding gates?
A: Yes, the MC240 controller is suitable for both swing and sliding gates.

Q: Does the controller support limit switch inputs?
A: Yes, the MC240 supports limit switch inputs as well as mechanical stops for gate operation.

Q: Is the controller weatherproof for outdoor installations?
A: The control cards are available with an IP66 rated plastic enclosure for outdoor installations to protect against weather conditions.

Double & Single Gate Controller with Eclipse® Operating System (EOS)

Important warning and safety instructions

All installations and testing must be done only after reading and understanding all instructions carefully. All wiring should be done only by trained technical personnel. Failing to follow instructions and the safety warnings may result in serious injury and/or damage to property.

Elsema Pty Ltd shall not be liable for any injury, damage, cost, expense or any claim whatsoever to any person or property which may result from improper use or installation of this product.
Risk in the goods purchased shall unless otherwise agreed in written pass to the buyer upon delivery of the goods.
Any figures or estimates given for performance of goods are based upon the company's experience and is what the company obtains on tests. The company will not accept liability for failure to comply with the figures or estimates due to the nature of variable conditions affecting for example Radio Remote Controls.

Please keep this setup instruction for future reference.

Features

- Suitable for swing and sliding gates
- Double or single motor operation
- Eclipse Operating System (EOS)
- Day and night sensor (DNS)
- Motor soft start and soft stop
- Slow speed and force adjustment
- Large 4-line LCD to indicate controllers status and setup instructions
- 1-Touch control for easy setup
- Various inputs, push button, open only, close only, stop, pedestrian and Photoelectric Beam
- Supports limit switch inputs or mechanical stops
- Adjustable Auto Close and Pedestrian Access
- Adjustable lock and courtesy light outputs

- Variable photoelectric safety beam functions
- 12 Volt DC Output to power accessories
- Auxiliary input for fire alarms.
- Service counters, password protection, holiday mode and many more features

Description

The 240 Volt AC Motor Controller (MC240) is not just the next generation but the industry game changer. We wanted to create a controller that is simple to use and does just about any feature required in the gate and door industry. The MC240 is not just the next generation but the "Next Transformation" in the gate and door industry creating an Eclipse over previously developed motor controllers.
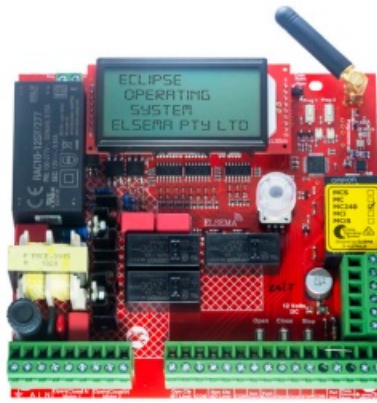This new intelligent motor controller is the best match for your automatic gate or door motors.

The MC240's Eclipse® Operating System (EOS) is a user friendly menu driven system that uses the 1-touch button to control, setup and run automatic gates, doors and barriers. It uses a large 4-line LCD screen showing live reading of the motor performance and status of all inputs and outputs.

The intelligent controller was built from the ground up, based on customer feedback and using todays technology. With its rich functions, consumer friendly price and with the focus during development being ease of use and setup makes this controller the ultimate board to control your motors.

Elsema's easy options to add remote controls or any type of Photoelectric Beams makes for a very user-friendly approach, while avoiding the lockdown approach to accessories.
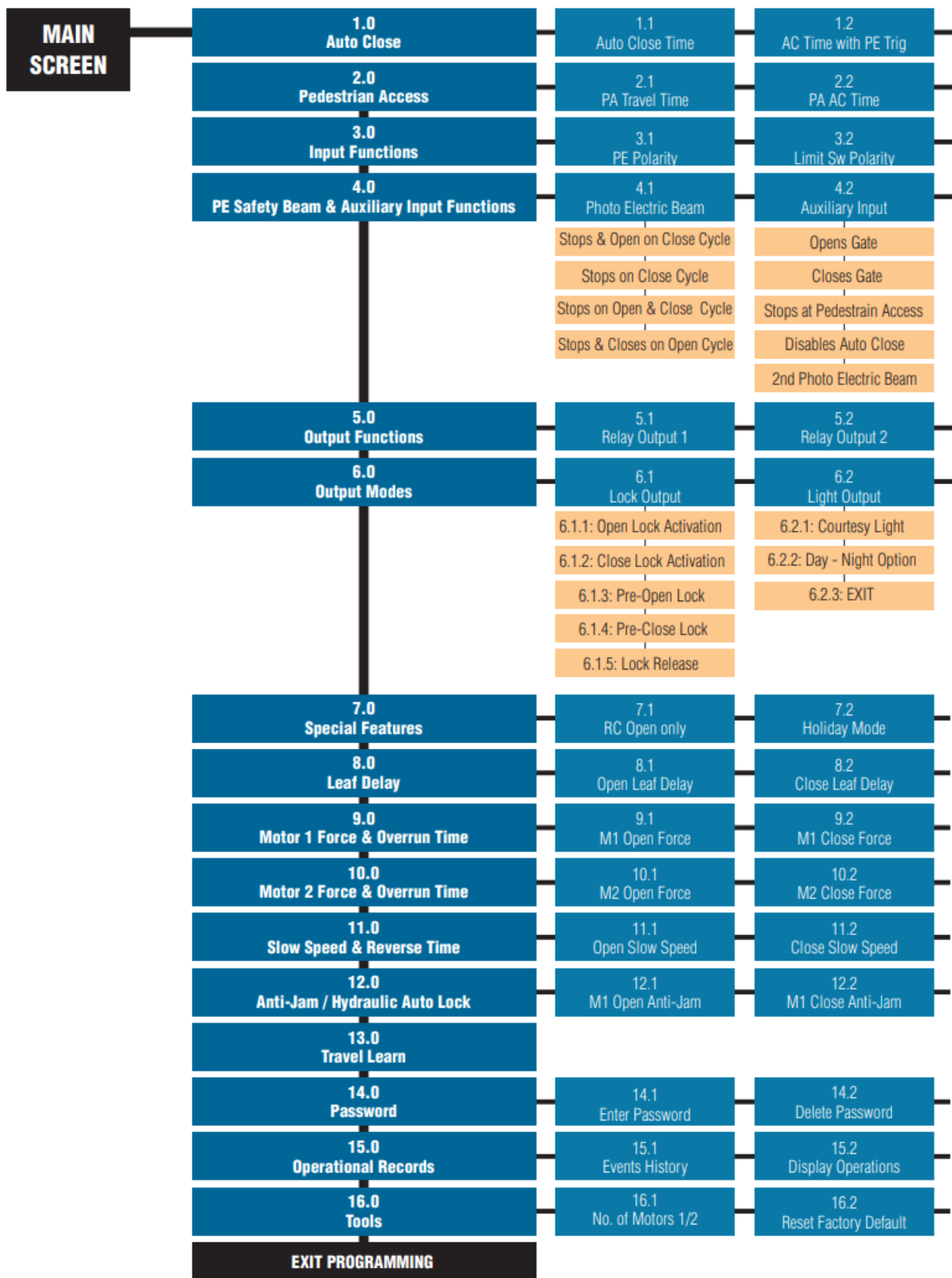The control cards are available with an IP66 rated plastic enclosure for outdoor installations or the card only.
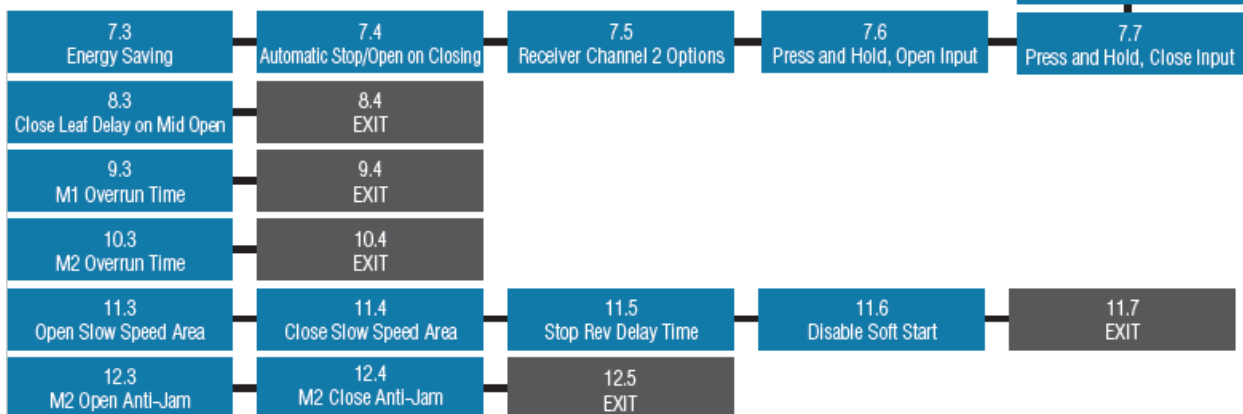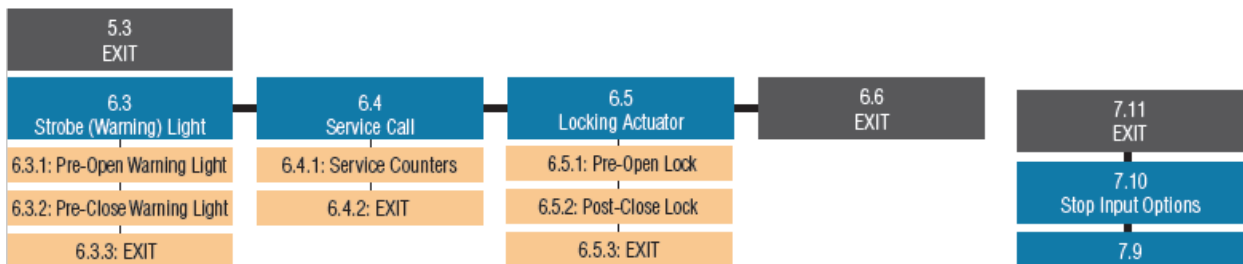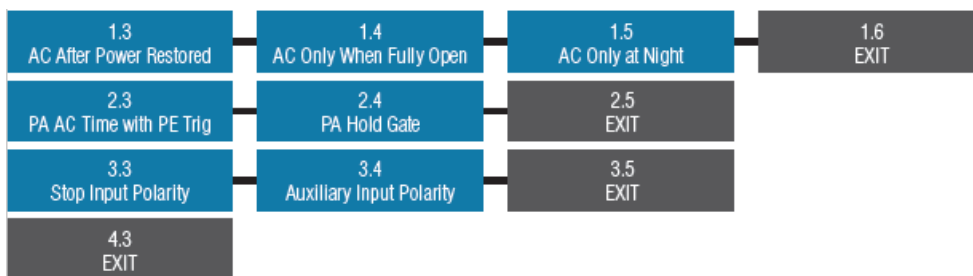
MC240

MC240E

Menu Structure

Press Master Control for 2 seconds to enter the menu structure

MAIN SCREEN

1.0 Auto Close	1.1 Auto Close Time	1.2 AC Time with PE Trig

2.0 Pedestrian Access	2.1 PA Travel Time	2.2 PA AC Time

3.0 Input Functions	3.1 PE Polarity	3.2 Limit Sw Polarity

4.0 PE Safety Beam & Auxiliary Input Functions	4.1 Photo Electric Beam	4.2 Auxiliary Input
	Stops & Open on Close Cycle	Opens Gate
	Stops on Close Cycle	Closes Gate
	Stops on Open & Close Cycle	Stops at Pedestrain Access
	Stops & Closes on Open Cycle	Disables Auto Close
		2nd Photo Electric Beam

5.0 Output Functions	5.1 Relay Output 1	5.2 Relay Output 2

6.0 Output Modes	6.1 Lock Output	6.2 Light Output
	6.1.1: Open Lock Activation	6.2.1: Courtesy Light
	6.1.2: Close Lock Activation	6.2.2: Day - Night Option
	6.1.3: Pre-Open Lock	6.2.3: EXIT
	6.1.4: Pre-Close Lock	
	6.1.5: Lock Release	

7.0 Special Features	7.1 RC Open only	7.2 Holiday Mode

8.0 Leaf Delay	8.1 Open Leaf Delay	8.2 Close Leaf Delay

9.0 Motor 1 Force & Overrun Time	9.1 M1 Open Force	9.2 M1 Close Force

10.0 Motor 2 Force & Overrun Time	10.1 M2 Open Force	10.2 M2 Close Force

11.0 Slow Speed & Reverse Time	11.1 Open Slow Speed	11.2 Close Slow Speed

12.0 Anti-Jam / Hydraulic Auto Lock	12.1 M1 Open Anti-Jam	12.2 M1 Close Anti-Jam

13.0 Travel Learn		

14.0 Password	14.1 Enter Password	14.2 Delete Password

15.0 Operational Records	15.1 Events History	15.2 Display Operations

16.0 Tools	16.1 No. of Motors 1/2	16.2 Reset Factory Default

EXIT PROGRAMMING

1.3 AC After Power Restored	1.4 AC Only When Fully Open	1.5 AC Only at Night	1.6 EXIT
2.3 PA AC Time with PE Trig	2.4 PA Hold Gate	2.5 EXIT	
3.3 Stop Input Polarity	3.4 Auxiliary Input Polarity	3.5 EXIT	
4.3 EXIT			

5.3 EXIT

6.3 Strobe (Warning) Light	6.4 Service Call	6.5 Locking Actuator	6.6 EXIT	7.11 EXIT
6.3.1: Pre-Open Warning Light	6.4.1: Service Counters	6.5.1: Pre-Open Lock		7.10 Stop Input Options
6.3.2: Pre-Close Warning Light	6.4.2: EXIT	6.5.2: Post-Close Lock		7.9 Press and Hold, Remote Ch2
6.3.3: EXIT		6.5.3: EXIT		7.8 Press and Hold, Remote Ch1

7.3 Energy Saving	7.4 Automatic Stop/Open on Closing	7.5 Receiver Channel 2 Options	7.6 Press and Hold, Open Input	7.7 Press and Hold, Close Input
8.3 Close Leaf Delay on Mid Open	8.4 EXIT			
9.3 M1 Overrun Time	9.4 EXIT			
10.3 M2 Overrun Time	10.4 EXIT			
11.3 Open Slow Speed Area	11.4 Close Slow Speed Area	11.5 Stop Rev Delay Time	11.6 Disable Soft Start	11.7 EXIT
12.3 M2 Open Anti-Jam	12.4 M2 Close Anti-Jam	12.5 EXIT		

14.3 EXIT

15.3 EXIT

16.3 Test Inputs	16.4 Travel Timer	16.5 Day / Night Sensitivity	16.6 Open Hydraulic Locking	16.7 Close Hydraulic Locking
				16.8 EXIT

Connection Diagram

DNS Connection : On the top left corner of the control card is a connection for Day and Night Sensor (DNS). This sensor is available from Elsema and is used to detect day and night. This feature can be used to Auto Close the gate at night, turn on the courtesy light or lights on your gates during the night and many more features which require a day and night detection.

240VAC Supply	Supply connection to power the MC240 and the motor.
Motor 1 Open	Motor 1 OPEN direction terminal (Motor 1 Capacitor).
Motor 1 Close	Motor 1 CLOSE direction terminal (Motor 1 Capacitor).
Motor 1 Neutral	Motor 1 NEUTRAL terminal.
Motor 2 Open	Motor 2 OPEN direction terminal (Motor 2 Capacitor).
Motor 2 Close	Motor 2 CLOSE direction terminal (Motor 2 Capacitor).
Motor 2 Neutral	Motor 2 NEUTRAL terminal.

|	
Motor 1 Limit Switch	If limit switches are used connect them to this terminal. Factory Default Normally Closed.
Common	Common terminal for any of the inputs, including push button, open only, close only, stop and Pedestrian Access.
Motor 2 Limit Switch	If limit switches are used connect them to this terminal Factory Default Normally Closed.
Common	Common terminal for any of the inputs, including push button, open only, close only, stop and Pedestrian Access.
Auxiliary Input	User selectable to open, close, pedestrian open or disable auto-close. Factory Default Normally Open.
Push Button	Used to connect an external push button to operate the gate or door. Normally open input.
Open Only	Used to connect an external push button to open the gate or door. With this input gate or door cannot be closed. Holding this input will prevent closing. Normally Open input.
Close Only	Used to connect an external push button to close the gate or door. With this input gate or door can not be opened. Holding this input will prevent opening. Factory Default Normally Open.
Stop	Used to connect an external push button to stop the gate or door. Holding this input will prevent the gate or door from opening or closing. Normally Open input.
Common	Common terminal for any of the inputs, including push button, open only, close only, stop and Pedestrian Access.
Pedestrian Access	Used to connect an external push button to open gate or door partially for Pedestrian Access. Normally Open input.
Photo Electric Beam	Used to connect a photo electric beam. Factory Default is Normally Closed input. User can change to Normally Open.
DC Output	12VDC / 500mA. Use to supply accessories.

Output 1	Voltage free contacts for Lock, Light, Courtesy light, Service call or Gate not Closed
Output 2	Voltage free contacts for Lock, Light, Courtesy light, Service call or Gate not Closed
Day and Night Sensor	When used with Elsema's DNS sensor, features such as auto-close, light or lock can only be enabled at night.

Electrical Wiring – Supply, Motors and Inputs

Always switch off power before doing any wiring.

DANGER

- Make sure that all the wiring is completed and that the motor is connected to the control card.
- Recommended wire strip length should be 12mm for all connections to the plug in terminal blocks.
- The diagram below shows the supply, motors, and inputs available and the factory default setting for each input.
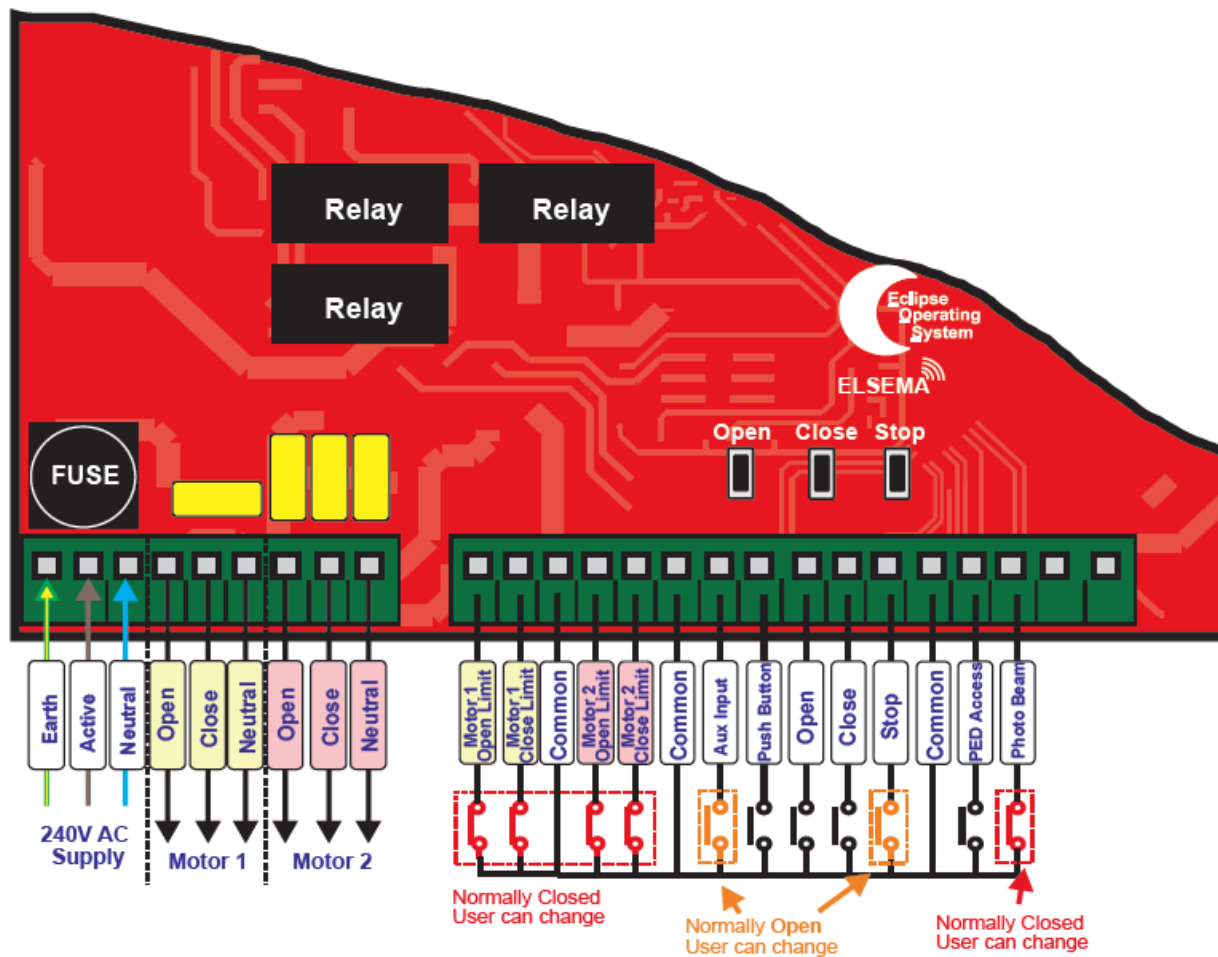
Switching Contactors

For switching Contactors or Varible Speed Drives, use the MCi control card.

Limit Switches

If you are using limit switches make sure they are connected properly. The control card can operate with either the limit switches connected directly to the cards terminal blocks, in series with the motor or travel time for Hydraulic or Clutch slip motors.

Controller with limits connected
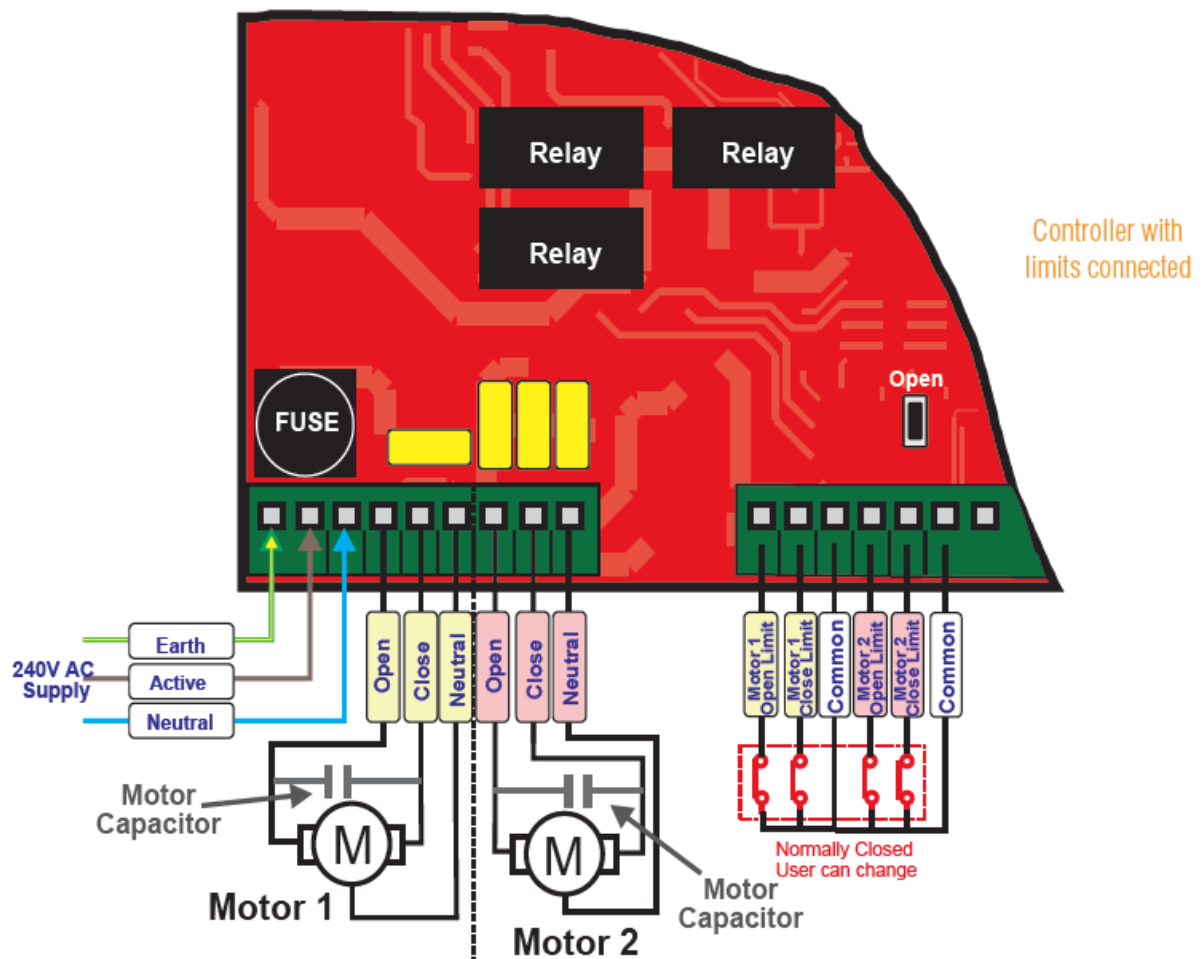
By default the limit switch inputs on the control card are normally closed (NC). This can be changed to normally open (NO) during the setup steps.

Optional Accessory

G4000 – GSM Dialler – 4G Gate Opener
The addition of a G4000 module to Eclipse control cards transforms their functionality by enabling mobile phone operation for gates. This integration allows users to remotely open or close the gate with a free phone call. The G4000 enhances convenience, security and efficiency, making it an ideal upgrade for modern access control systems.
See the wiring diagram below:

12PP-1000   G4000   Elsema Control Card

* Connect to Open input on the control card if **Open Only** function is required
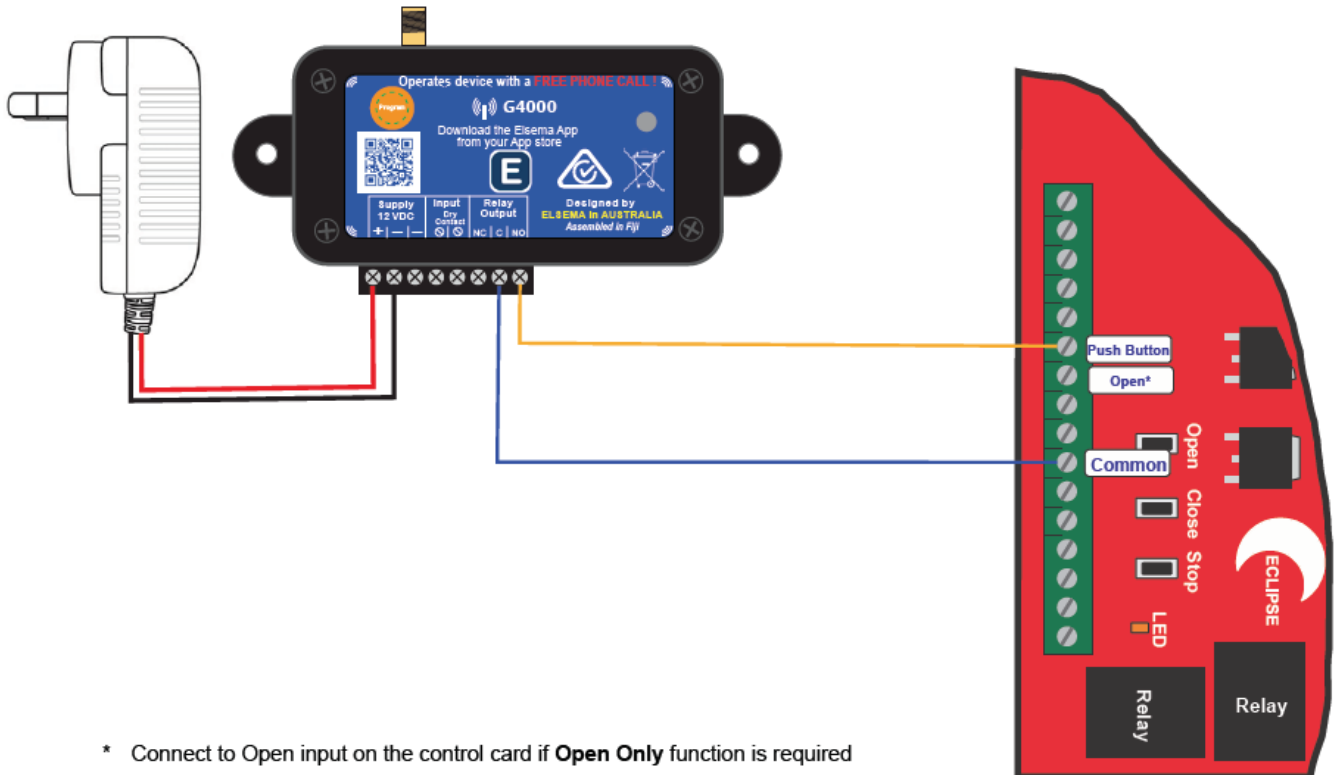
Wiring external device

Elsema Control Card

External Puch Button,
Keypad or Intercom.
Contact should be voltage free
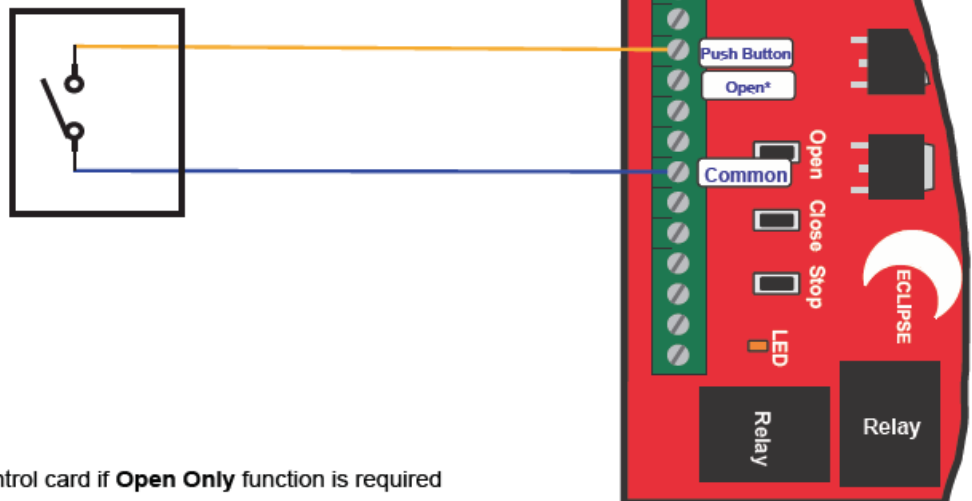
Connect to Open input on the control card if **Open Only** function is required

Setup i-Learning Steps:

1. Remotes are used to learn the travel of the gates. Program the remotes before starting the i-Learn.
2. The i-Learning setup can always be interrupted with the stop button or by pressing the Master Control knob.
3. Enter Menu 13 to start i-Learning or new control cards will automatically prompt you to do the i- Learning.
4. Look at the LCD and follow the instructions displayed.
5. Buzzer will indicate learning was successful. If there was no buzzer check all electrical wiring including the power supply then go back to step 1.
6. If you hear the buzzer after the i-Learn, the gate or door is ready for use.

Menu 1 – Auto Close
Auto Close is a feature that automatically closes the gate after a preset time has counted down to zero. The control card has a normal Auto Close and several special Auto Close features each one having its own countdown timers.
Elsema Pty Ltd recommends a Photoelectric Beam to be connected to the control card when any of the Auto Close options are used.
If the Stop input is activated Auto Close is disabled for that cycle only.

Auto Close timer will not count down if the Push Button, Open or Photoelectric Beam input is held active.

Menu No.	Auto Close Features	Factory Default	Adjustable
1.1	Normal Auto Close	Off	1 – 600 seconds
1.2	Auto Close with Photoelectric Trigger	Off	1 – 60 seconds
1.3	Auto Close after Power Restored	Off	1 – 60 seconds
1.4	Auto Close Only when Fully Opened	Off	Off/On
1.5	Auto Close Only at Night with DNS* connected	Off	Off/On
1.6	Exit		

*DNS – Day & Night Sensor sold separately

1. ,VCXJHNormal Auto Close
   The gate will close after this timer has counted down to zero.
2. Auto Close with Photoelectric Trigger
   This Auto Close starts counting down as soon as the Photoelectric Beam has been cleared after a trigger even if the gate is not fully open. If there is no Photoelectric Beam trigger the gate will not Auto Close.
3. Auto Close after Power Restored
   If the gate is open in any position and then there is a power failure, when power is reconnected the gate will close with this timer. 1.4 Auto Close Only when Fully Opened
   The Auto Close timer will not time out unless the gate is fully open.
4. Auto Close Only at Night
   When the DNS is connected and the sensitivity (Menu 16.5) is set correctly, the Auto Close will only work at night.

Menu 2 – Pedestrian Access

There are several types of Pedestrian Access modes. Pedestrian Access opens the gate for a short time to allow someone to walk through the gate but does not allow a vehicle access.

Menu No.	Pedestrian Access Features	Factory Default	Adjustable
2.1	Pedestrian Access Travel Time	5 seconds	3 – 20 seconds
2.2	Pedestrian Access Auto Close Time	Off	1 – 60 seconds
2.3	Pedestrian Access Auto Close Time with PE trigger	Off	1- 60 seconds
2.4	Pedestrian Access with Hold Gate	Off	Off/On
2.5	Exit		

Elsema Pty Ltd recommends a Photoelectric Beam to be connected to the control card when any of the Auto Close options are used.

1. Pedestrian Access Travel Time

   This sets the time the gate opens when a Pedestrian Access input is activated.
2. Pedestrian Access Auto Close Time

   This sets the countdown timer for automatically closing the gate when a Pedestrian Access input is activated.
3. Pedestrian Access Auto Close Time with PE Trigger

   This Auto Close starts counting down as soon as the Photoelectric Beam has been cleared after a trigger, when the gate is in the Pedestrian Access position. If there is no Photoelectric Beam trigger the gate will remain in Pedestrian Access position.
4. Pedestrian Access with Hold Gate

   If the Pedestrian Access hold gate is ON and the Pedestrian Access input is permanently activated the gate will remain open in the Pedestrian Access position. Open input, Close input, Push Button input and remote controls are disable. Used in Fire Exit applications.

Menu 3 – Input Functions
This allows you to change the polarity of Photoelectric Beam, Limit Switch inputs, Stop Input and Auxiliary Input.

Menu No.	Input Functions	Factory Default	Adjustable
3.1	Photoelectric Beam Polarity	Normally Closed	Normally Closed / Normally Open
3.2	Limit Switch Polarity	Normally Closed	Normally Closed / Normally Open
3.3	Stop Input Polarity	Normally Open	Normally Closed / Normally Open
3.4	Auxiliary Input	Normally Open	Normally Closed / Normally Open /
3.5	Exit		

Auxiliary Input can be configured to Open, Close, disable Auto Close or Pedestrian Open the gate (Ideal for fire alarms). When this input is activated and held active it will disable Auto Close.

Menu 4 – Photoelectric Beam & Auxiliary Input
The Photoelectric Beam or sensor is a safety device which is placed across the gate and when the beam is obstructed it stops a moving gate. The operation after the gate stops can be selected in this menu.

Menu No.	Photoelectric Beam Feature	Factory Default	Adjustable
4.1	Photoelectric Beam	PE Beam stops and opens gate on close cycle	PE Beam stops and opens gate on close cycle PE Beam stops gate on close cycle ———————————— PE Beam stops gate on open & close cycle PE Beam stops and closes gate on open cycle
4.2	Auxiliary Input	Disabled	Opens gate Closes gate Stops at Pedestrian Access Disables Auto Close 2nd Photoelectric Beam*
4.3	Exit		

* 2nd Photoelectric Beam can be configured to perform in the same way as Menu 4.1

The factory default for the PE beam input is "normally closed" but this can be changed to normally open in Menu 3.1.
Elsema Pty Ltd recommends a Photoelectric Beam to be connected to the control card when any of the Auto Close options are used.

Elsema sells different types of Photoelectric Beams. We stock Retro-Reflective and Through Beam type Photoelectric Beams.
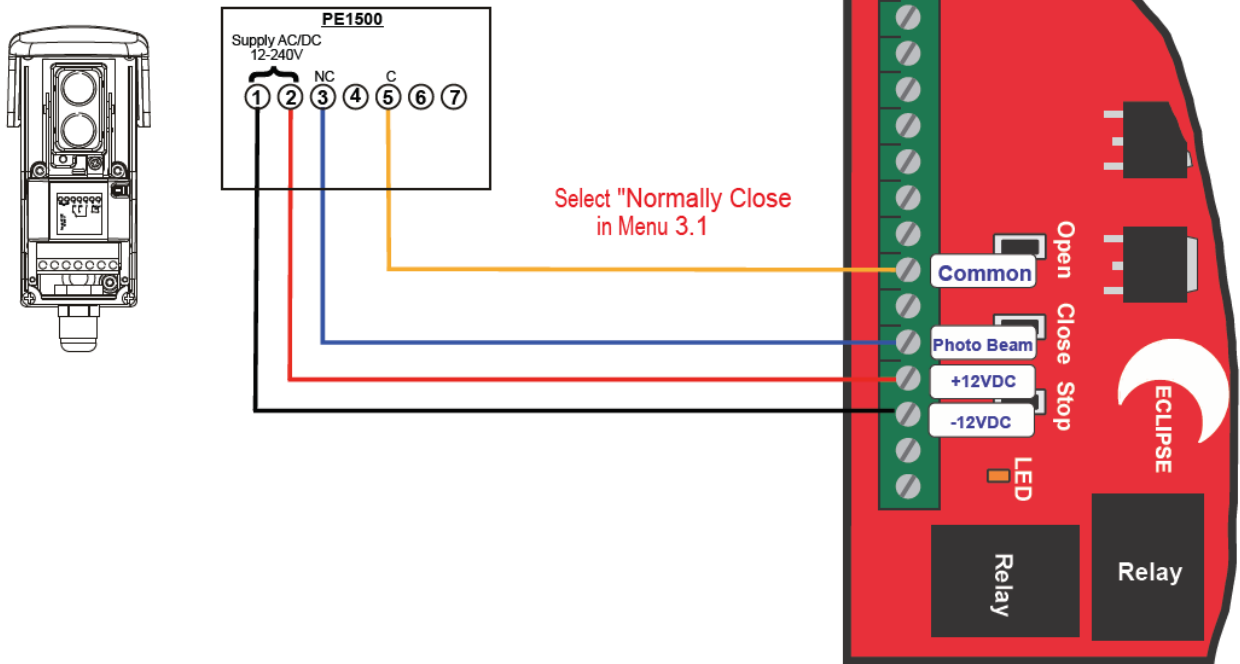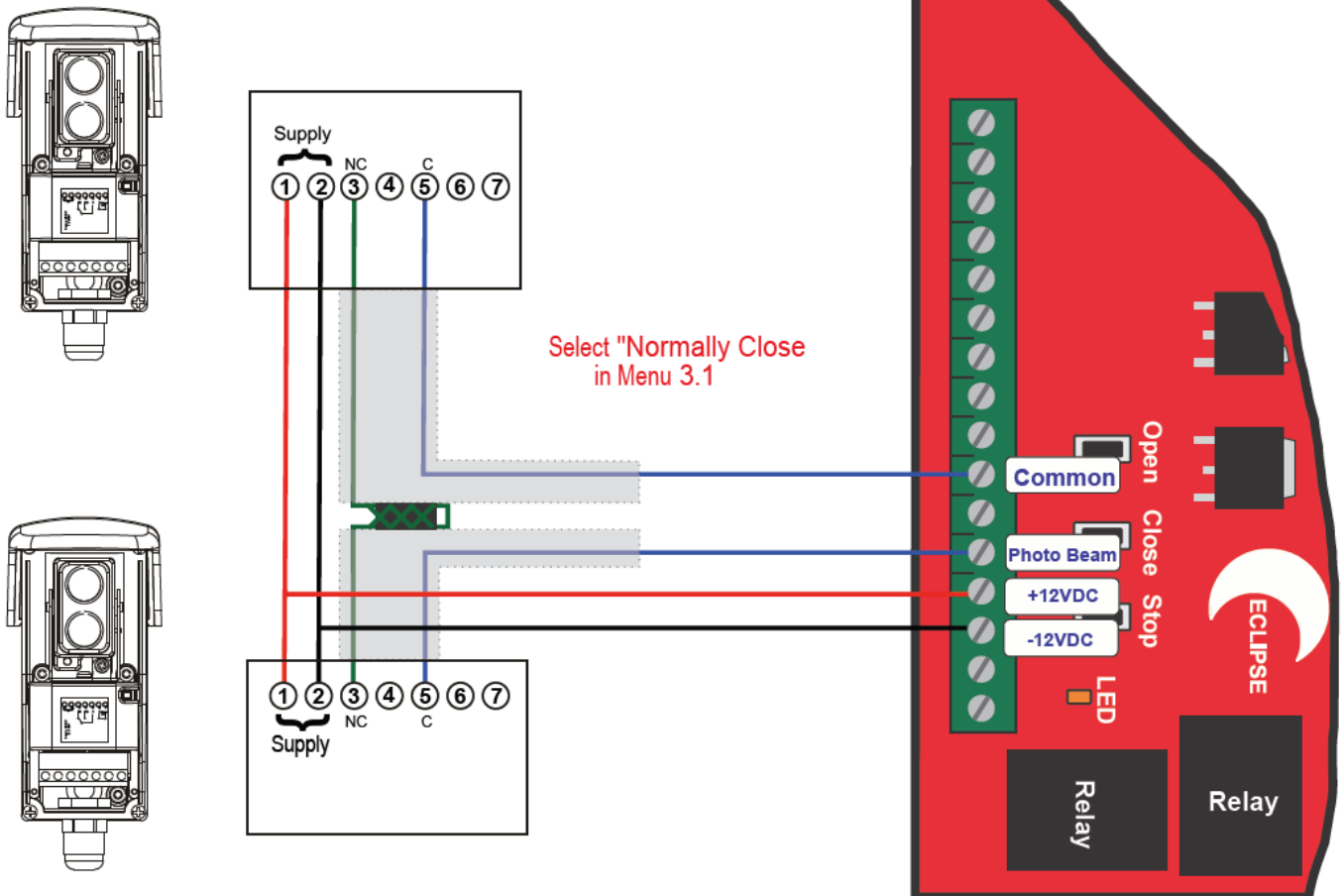

PE1500
(Polarised Retro-Reflective Type)

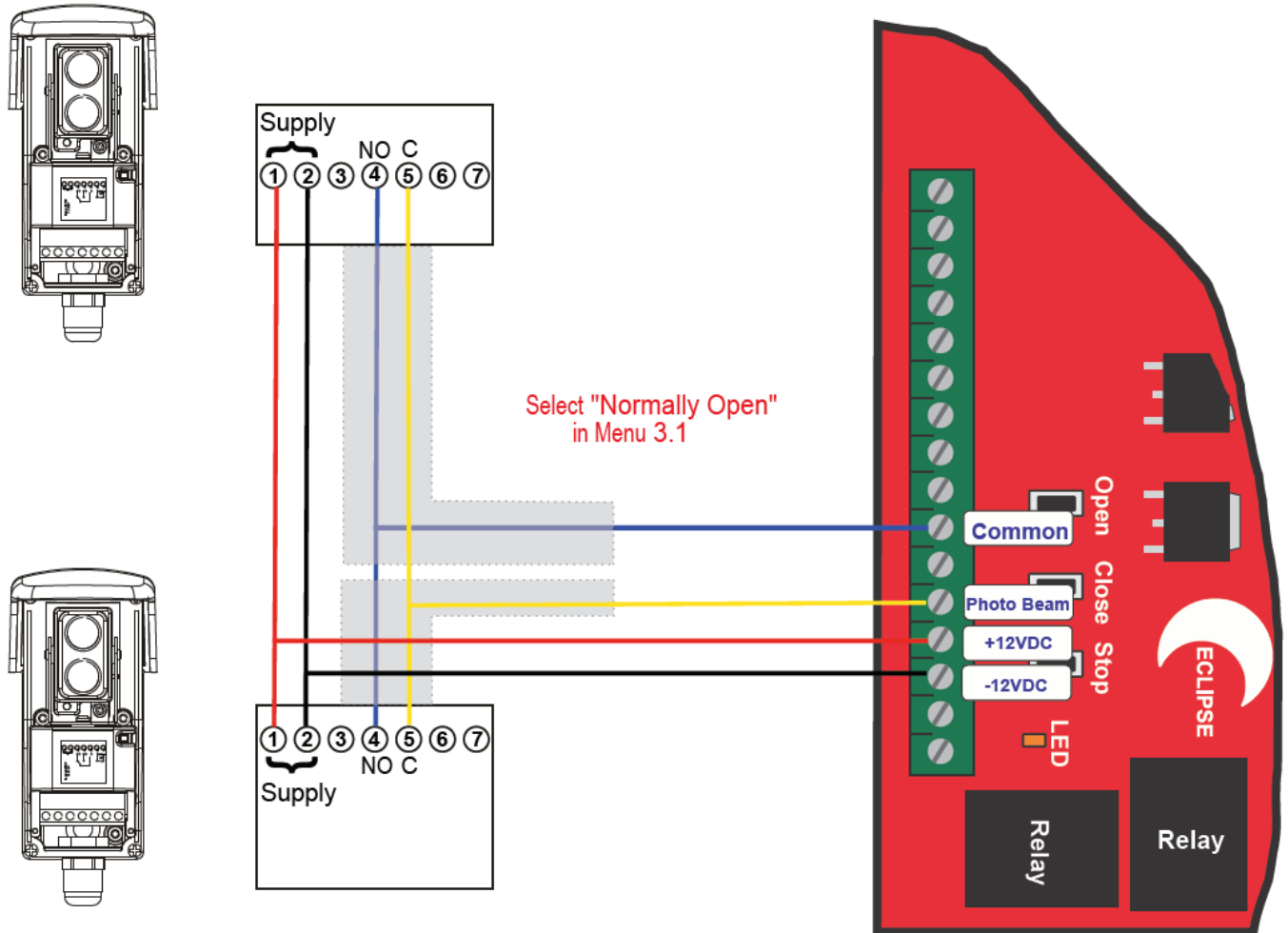

PE24
(Through-Beam type)

Photo Beam Wiring

Single PE1500

PE1500

Supply AC/DC
12-240V

NC   C

① ② ③ ④ ⑤ ⑥ ⑦

Select "Normally Close
in Menu 3.1

Common

Photo Beam

+12VDC

-12VDC

Open   Close   Stop

ECLIPSE

LED

Relay   Relay

2 x PE1500 in Series

Supply

NC   C

① ② ③ ④ ⑤ ⑥ ⑦

Select "Normally Close
in Menu 3.1

① ② ③ ④ ⑤ ⑥ ⑦

NC   C

Supply

Common

Photo Beam

+12VDC

-12VDC

Open   Close   Stop

ECLIPSE

LED

Relay   Relay

2 x PE1500 in Parallel

Menu 5 – Relay Output Functions

The control card has two relay outputs, Output 1 and Output 2. The user can change the function of these outputs to lock/brake, courtesy light, service call, strobe (Warning) light indicator or locking actuator.

- Output 1 is a voltage free relay output with common, normally open and normally closed contacts. Factory default is lock/brake release function.
- Output 2 is a voltage free relay output with common, normally open and normally closed contacts. Factory default is courtesy light function.

| Menu No.	Relay Output Function	Factory Default	Adjustable
5.1	Relay Output 1	Lock / Brake	Lock / Brake Courtesy Light Service Call ———————————— Strobe (Warning) Light Locking Actuator Gate Open
5.2	Relay Output 2	Courtesy Light	Lock / Brake Courtesy Light Service Call ———————————— Strobe (Warning) Light Locking Actuator Gate Open
5.3	Exit		

Lock / Brake Output

This output is used to power an electrical lock or a motor brake release. The factory default for the lock/ brake release is on output 1. Output 1 is a voltage-free relay contact with common, normally open and normally closed contacts. Having it voltage-free allows you to connect either 12VDC/AC, 24VDC/AC or 240VAC to the common. The normally open contact powers the device.

Lock or Brake connection
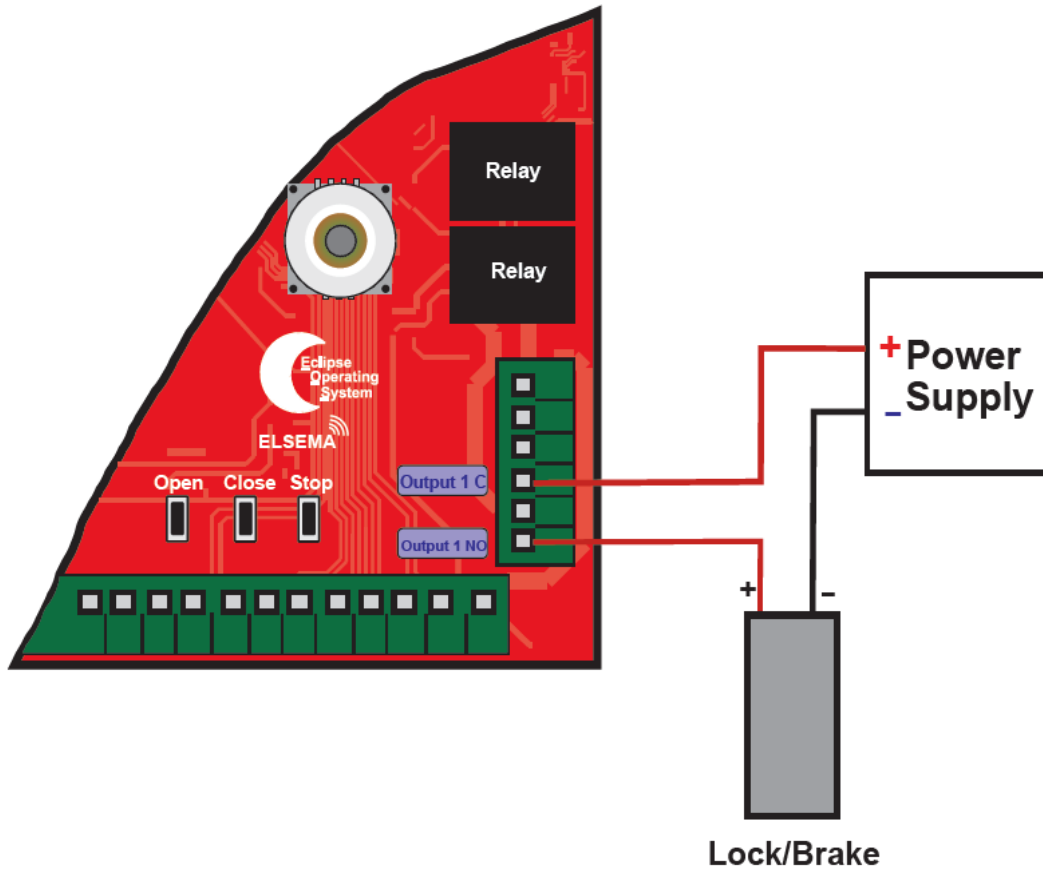
Mag Lock connection
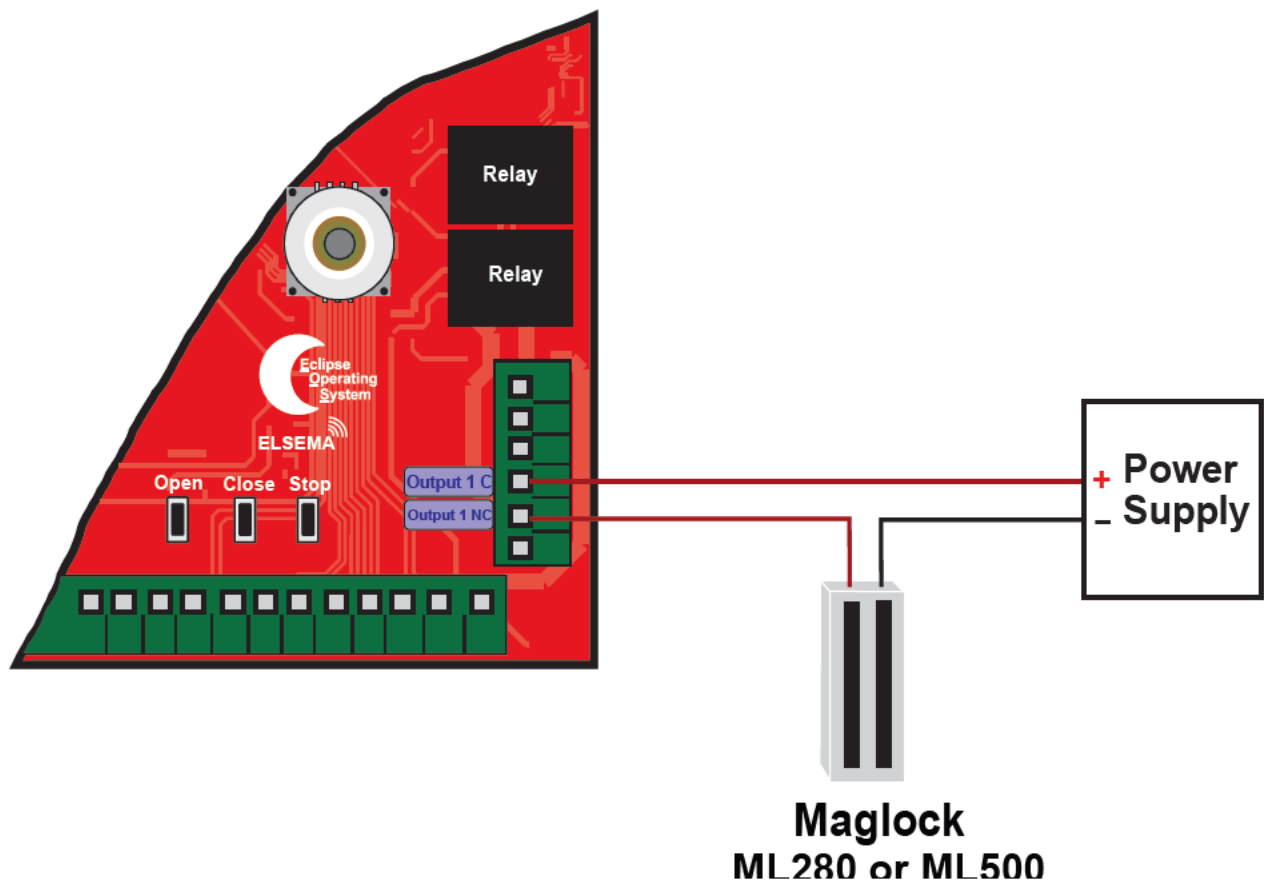
Courtesy Light

The factory default for the courtesy light is on output 2. Output 2 is a voltage-free relay contact with common,

normally open and normally closed contacts. Having it voltage-free allows you to connect either 12VDC/AC, 24VDC/AC or 240VAC supply to the common. The normally open contact drives the light. See diagram on the next.
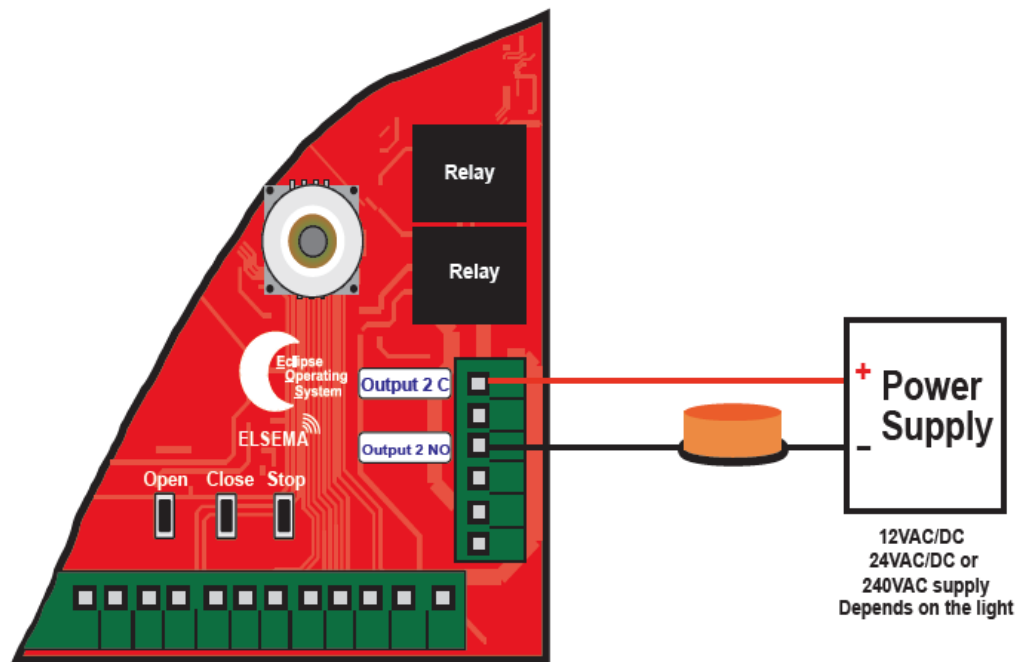
Service Call Output
Either output 1 or output 2 can be changed to service call indicator. This will trigger the output when the software service counter is reached. Used to alert installers or owners when the gate is to be serviced. Using Elsema's GSM receiver allows installers or owners to get a SMS message and a call when the service is due.

Strobe (Warning) Light when Opening or Closing
The relay output is activated whenever the gates are operating. The factory default is Off. Either output 1 or output 2 can be changed to strobe (Warning) light. Both relay outputs are voltage-free contacts. Having it voltage-free allows you to connect either 12VDC/AC, 24VDC/AC or 240VAC supply to the common to power the strobe light. Then the normally open contact drives the light.

Locking Actuator
Locking actuator mode uses both relay output 1 and relay output 2. The 2 outputs are used to change the polarity of the locking actuator to lock and unlock during opening and closing cycle. During pre-open relay output 1 is "ON" and during post-close relay output 2 is "ON". Pre-open and post-close times are adjustable.

Gate Open
The relay output is activated whenever the gate is not fully closed.

Menu 6 – Relay Output Modes

Menu 6.1 – Lock / Brake Output Modes
The relay output in the lock/brake mode can be configured in different ways.

Menu No.	Lock / Brake Modes	Factory Default	Adjustable
6.1.1	Open Lock / Brake Activation	2 seconds	1 – 30 seconds or hold
6.1.2	Close Lock / Brake Activation	Off	1 – 30 seconds or hold
6.1.3	Open Pre-Lock / Brake Activation	Off	1 – 30 seconds
6.1.4	Close Pre-Lock / Brake Activation	Off	1 – 30 seconds
6.1.5	Lock Release	Off	Off/On
6.1.6	Exit		

- 6.1.1 Open Lock / Brake Activation

  This sets the time the output is activated in the open direction. Factory default is 2 seconds. Setting it to Hold means the output is activated for the total travel time in the open direction.

- 6.1.2 Close Lock / Brake Activation

  This sets the time the output is activated in the close direction. Factory default is off. Setting it to Hold means the output is activated for the total travel time in the close direction.

- 6.1.3 Open Pre-Lock / Brake Activation

  This sets the time the output is activated before the motor starts in the open direction. Factory default is Off.

- 6.1.4 Close Pre-Lock / Brake Activation

  This sets the time the output is activated before the motor starts in the close direction. Factory default is Off.

- 6.1.5 Lock Release

  When this feature is enabled, from a fully closed position, the gate will move in the close direction slightly before releasing the lock. This feature is useful in high wind areas or in situations where simply unlocking the gate excerts pressure on the locking mechanism or gate.

Menu 6.2 – Courtesy Light Output Mode
The relay output in the courtesy mode can be adjusted from 2 seconds to 5 minutes. This sets the time the courtesy light is activated after the gate has stopped. Factory default is 1 minute.

Menu No.	Courtesy Light Mode	Factory Default	Adjustable
6.2.1	Courtesy Light Activation	1 minute	2 seconds to 5 minutes
6.2.2	Courtesy Light at Night Only with DN S* Connected	Off	Off/On
6.2.3	Exit		

*DNS – Day & Night Sensor sold seperatly

Menu 6.3 – Strobe (Warning) Light Output Mode
The relay output in the strobe (Warning) mode can be configured in different ways:

Menu No.	Strobe (Warning) Light Mode	Factory Default	Adjustable
6.3.1	Pre-Open Strobe (Warning) Light Activation	Off	1 – 30 seconds
6.3.2	Pre-Close Strobe (Warning) Light Activation	Off	1 – 30 seconds
6.3.3	Exit		

- 6.3.1 Pre-Open Strobe Light Activation

  This sets the time the strobe light is activated before the gate operates in the open direction. Factory default is Off.

- 6.3.2 Pre-Close Strobe Light Activation

  This sets the time the strobe light is activated before the gate operates in the close direction. Factory default is Off.

Menu 6.4 – Service Call Output Mode
This sets the number of complete cycles (Open and Close) required before the built-in buzzer is activated. Also the control card outputs can be configured to be activated if the number of cycles is completed. Connecting Elsema's GSM receiver to the output allows owners to get a phone call & SMS message when the service is due.

When "Service Call Due" message shows up on the LCD a service call is required. After service has been done, follow the messages on the LCD.

Menu No.	Service Call Mode	Factory Default	Adjustable
6.4.1	Service Counter	Off	Min: 2000 to Max: 50,000
6.4.2	Exit		

Menu 6.5 – Locking Actuator Output Mode
The time for which relay output 1 turns "On" before the gate starts to open and the time for which relay 2 turns "On" after the gate is fully closed can be adjusted as below:

Menu No.	Locking Actuator	Factory Default	Adjustable
6.5.1	Pre-Open Lock Activation	Off	1 – 30 seconds
6.5.2	Post-Close Lock Activation	Off	1 – 30 seconds
6.5.3	Exit		

- 6.5.1 Pre-Open Locking Actuator Activation

  This sets the time relay 1 is activated before the gate operates in the open direction. Factory default is Off.
- 6.5.2 Post-Close Locking Actuator Activation

  This sets the time relay 2 is activated after the gate is fully closed. Factory default is Off.

Menu 7 – Special Features
The control card has many special features that can all be customised to your specific application.

Menu No.	Special Features	Factory Default	Adjustable
7.1	Remote Control Open Only	Off	Off/On
7.2	Holiday Mode	Off	Off/On
7.3	Energy Saving Mode	Off	Off/On
7.4	Automatic Stop/Open on Closing	On	Off/On
7.5	Receiver Channel 2 Options	Off	Off / Light / Close / Pedestrian Access
7.6	Press and Hold for Open Input	Off	Off/On
7.7	Press and Hold for Close Input	Off	Off/On
7.8	Press & Hold Remote Channel 1 (Open)	Off	Off / On
7.9	Press & Hold Remote Channel 2 (Close)	Off	Off / On
7.10	Stop Input	Stop the Gate	Stop and reverse for 1sec
7.11	Exit		

- 7.1 Remote Control Open Only

  By default the remote control allows the user to open and close the gate. In public access areas user should only be able to open the gate and not worry about closing it. Usually the Auto Close is used to close the gate. This mode disables closing for the remote controls.
- 7.2 Holiday Mode

  This feature disables all the remote controls.
- 7.3 Energy Saving Mode

  This puts the control card to very low standby current that reduces your electricity bill while still maintaining normal functions and operations.
- 7.4 Automatic "Stop & Open" on Closing

By default if the gate is closing and a push button or remote control is activated it will automatically stop and open the gate. When this feature is disabled then the gate will just stop in that position.

- 7.5 Receiver Channel 2 Options

  The built-in receivers 2nd channel can be programmed to control a courtesy light, close the gate or can be used as Pedestrian Access.

- 7.6 & 7.7 Press and Hold for Open and Close Inputs

  If this feature is ON the user must continuously press the open or close input for it to be activated.

- 7.8 & 7.9 Press and Hold for Remote Channel 1 (Open) and Channel 2 (Close)

  If this feature is ON the user must continuously press the remote channel 1 & 2 for the gate to open and close. The gates will stop as soon as the buttons are released. The remote channel 1 & 2 will need to be programmed to receiver channel 1 & 2.

- 7.10 Stop Input Options

  The stop input can be set to stop the gate or to stop and reverse for 1sec. Default is to stop the gate.

Menu 8 – Leaf Delay

Leaf delay is used when one gate leaf will close in an overlapping position to the first closed leaf. This leaf delay may also be necessary for special add-on locking pins. The control card has seperate leaf delay for the open and close directions.

When the control card is used with a single motor the leaf delay mode is disabled.

No.	Leaf Delay	Factory Default	Adjustable
8.1	Open Leaf Delay	3 seconds	Off – 25 seconds
8.2	Close Leaf Delay	3 seconds	Off – 25 seconds
8.3	Close Leaf Delay on Mid Stop	Enabled	Enabled / Disable
8.4	Exit		

- 8.1 Open Leaf Delay

  Motor 1 will start opening first. After leaf delay time has expired motor 2 will start opening.

- 8.2 Close Leaf Delay

  Motor 2 will start closing first. After leaf delay time has expired motor 1 will start closing.

- 8.3 Close Leaf Delay on Mid Stop

  By default motor 1 will always have delay when closing even if the gates are not fully open. When disabled both motor 1 and motor 2 will start closing at the same time except when fully open.

Menu 9 – Motor 1 Force and Overrun Time

This sets the force and the overrun time for motor 1.

Menu No.	Motor 1 Obstruction Detect Margins and Response Time	Factory Default	Adjustable
9.1	Motor 1 Open Force	100%	40 – 100%
9.2	Motor 1 Close Force	100%	40 – 100%
9.3	Motor 1 Overrun Time	10 seconds	Off – 30 seconds
9.4	Exit		

Menu 10 – Motor 2 Force and Overrun Time
This sets the force and the overrun time for motor 2.

Menu No.	Motor 2 Obstruction Detect Margins and Response Time	Factory Default	Adjustable
10.1	Motor 2 Open Force	100%	40 – 100%
10.2	Motor 2 Close Force	100%	40 – 100%
10.3	Motor 2 Overrun Time	10 seconds	Off – 30 seconds
10.4	Exit		

Menu 11 – Slow Speed Area and Reverse Time

Menu No.	Motor Speed, Slow Speed Area and Reverse Time	Factory Default	Adjustable
11.1	Open Slow Speed	Medium	Very Slow Slow Medium ———————————— Fast Very Fast Slow Speed Disabled
11.2	Close Slow Speed	Medium	Very Slow Slow Medium ———————————— Fast Very Fast Slow Speed Disabled
11.3	Open Slow Speed Area	4	1 to 12
11.4	Close Slow Speed Area	5	1 to 12
11.5	Stop Reverse Delay	1 second	0.2 to 2.5 seconds
11.6	Soft Start	Enabled	Enable / Disable
11.7	Exit		

- 11.1 & 11.2 Open and Close Slow Speed

  This sets the speed at which the gate will travel in the slow speed region.
- 11.3 & 11.4 Open and Close Slow Speed Area

  This sets the slow speed travel area. If you want more travel time for the slow speed area increase this.
- 11.5 Stop Reverse Delay Time

  This sets the time after which the gate will reverse after it's interrupted during its cycle.
- 11.6 Enable or Disable Soft Start

  Disable soft start when used with motors with built in lock or brake.

Menu 12 – Anti-Jam

Menu No.	Anti-Jam or Electronic Braking	Factory Default	Adjustable
12.1	Motor 1 Open Anti-Jam	OFF	0 to 2.0 seconds
12.2	Motor 1 Close Anti-Jam	OFF	0 to 2.0 seconds
12.3	Motor 2 Open Anti-Jam	OFF	0 to 2.0 seconds
12.4	Motor 2 Close Anti-Jam	OFF	0 to 2.0 seconds
12.5	Exit		

1. 12.1 and 12.2 Motor 1 Open and Close Anti-Jam

   When the gate are in the fully open or fully closed position this feature applies a reverse voltage for a very short time. It will prevent the motor from jamming up the gate so it is easy to disengage the motors for manual operation.

2. 12.3 and 12.4 Motor 2 Open and Close Anti-Jam

Menu 13 – i-Learning
This feature allows you to do the intelligent travel learning of the gate. Follow the messages on the LCD to complete the learning.

Menu 14 – Password
This will allow the user to enter a password to prevent unauthorised users from entering the control card settings. User must remember the password. The only way to reset a lost password is to send the control card back to Elsema.
To delete a password select Menu 14.2 and press Master Control.

Menu 15 – Operational Records
This is for information only.

Menu No.	Operational Records
15.1	Event History, up to 100 events are recorded in the memory
15.2	Displays Gate Operations
15.3	Exit

- 15.1 Event History

  The event history will store last 100 events. The following events are recorded into the memory: Power On, All input activations, Successful opening, Successful closing, Auto Close, i-Learning and Factory Reset.
- 15.2 Displays Gate Operations

This displays the number of open cycles, close cycles and pedestrian cycles.

Menu 16 – Tools

Menu No.	Tools
16.1	Number of Motors, Single or Double Gate System
16.2	Resets Controller to Factory Settings
16.3	Test Inputs
16.4	Travel Time
16.5	Day and Night Sensitivity Adjustment for the DNS
16.6	Open Hydraulic Locking
16.7	Close Hydraulic Locking
16.8	Exit

- 16.1 Number of Motors

  This allows you to manually set the control card to a single motor or a double motor.
- 16.2 Resets Controller

  Reset all settings to factory default. Also removes password.
- 16.3 Test Inputs

  This allows you to test all the external devices connected to the controllers inputs. UPPERCASE means input is activated and lowercase means input is deactivated.
- 16.4 Travel Timer

  This allows you to use the controller with travel timers. Motor 1 and 2 can have separate open and close travel timers up to 120 seconds. Used for Hydraulic Motors.
- 16.5 Day and Night Sensor

  This option is only available when Day and Night Sensor (DNS) is connected. It allows you to adjust the senstivity of the sensor. This sensor can than be used to switch "On" courtesy light only at night or enable Auto Close only at night.

Keyring Remotes
The latest PentaFOB® keyring remotes ensure your gates or doors are secure.

Visit **www.elsema.com** for more details.

PentaFOB® Remotes

PentaFOB® Programmer

Add, edit and delete PentaFOB® remotes from the receiver's memory. The receiver can also be password protected from unauthorised access.

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Repeater/ booster for PentaFOB® remotes

Pre-made Inductive Loops & Loop Detectors
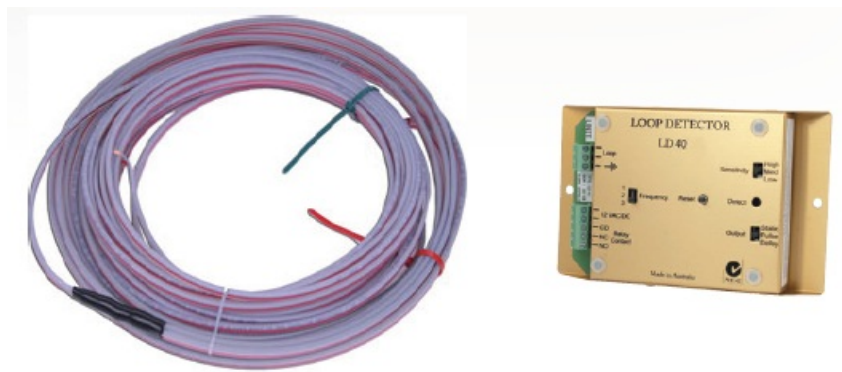
Inductive Loop

Loop Detectors

Wireless Bump Strip

Transmitter

Bump Strip

Receiver

Safety Bump Strip

Flashing Lights
Elsema has several flashing lights to act as a warning when the gate or doors is in operation.

Flashing Lights

PentaFOB® Programming Instructions

1. Press and hold the program button on the built-in receiver (Refer to the MCS connection diagram)
2. Press the remote button for 2 seconds while holding the program button on the receiver
3. Receiver LED will flash and then turn Green
4. Release the button on the receiver
5. Press remote control button to test the receiver output

Deleting Receivers Memory

Short the Code Reset pins on the receiver for 10 seconds. This will delete all the remotes from the receiver's memory.

PentaFOB® Programmer

This programmer allows you to add and delete certain remotes from the receiver memory. This is used when a remote control is lost or a tenant moves from the premises and the owner wants to prevent un-authorised access.

PentaFOB® Backup Chips

This chip is used to backup or restore the contents of a receiver. When there are 100's of remotes programmed to a receiver the installer normally backups the receiver memory in case the receiver is damaged.

ELSEMA PTY LTD
31 Tarlington Place Smithfield NSW 2164 Australia
P 02 9609 4668
W **www.elsema.com**

Documents / Resources

ELSEMA MC240 Eclipse Operating System [pdf] Instruction Manual
MC240 Eclipse Operating System, MC240, Eclipse Operating System, Operating System, System

References

- [**User Manual**](#)