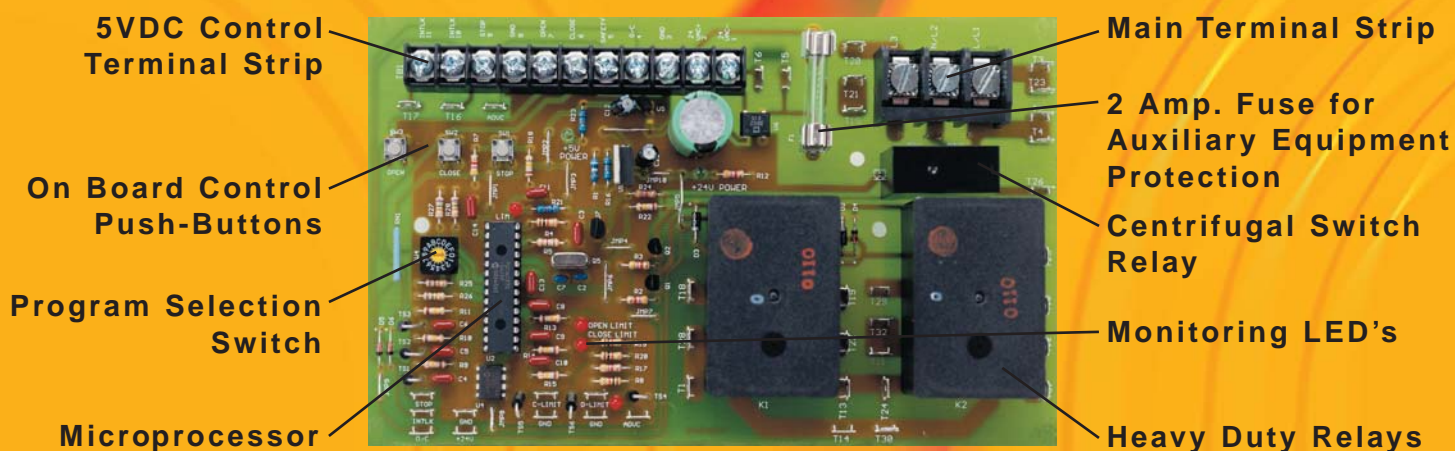


Specification Sheet

ECB

The Electronic Control Board may be installed in most Manaras operators. All control options are managed by means of a microprocessor, which is user programmable. This full-featured controller provides most of the control options required for commercial door openers, resulting in improved inventory management and quicker response to customer needs. With the ECB, your operator installations, set-up and maintenance are simplified with On-Board LED's, On-Board push-buttons, and a Rotary-type programming switch.



Advanced and Safe Design



- Programmable Micro-Processor.
- Non volatile memory to save all programming in case of power loss.
- Centrifugal switch relay to insure that the motor has stopped before reversing.
- Delay on reverse (1.5s) to allow the door to pause before reversing and to extend the lifetime of the operator and the door.
- Wrong wiring protection will prevent the operator from surpassing the set limits when 3-phase power is incorrectly connected.
- High resistance to voltage spikes and transients.
- 2 amp fuse to protect the supply of 24V auxiliary control devices.
- Door lock sensor: please consult Manaras for information about this function.

Control Inputs

The ECB terminal strip is ready to receive various control devices:

- Three-button control stations
- Safety devices such as: sensing edges or photo cells
- Open/Close controls, including radio receivers
- Pull switches, ceiling switches, loop detectors
- External interlocks

Easy Installation

- Open, close and stop test push-buttons to control the operator during installation directly at the control box.
- Easy to use rotary switch for selection of operating modes.
- 5VDC logic circuit allows for longer control lines.
- 24VAC output is available on the terminal strip to power accessories.

Easy Maintenance

Monitoring LED's help wiring and speed up troubleshooting:

- 24VAC LED: confirms presence of secondary voltage.
- 5VDC LED: confirms that there is power at the logic circuit.
- Open Limit LED: indicates that the operator has reached the top limit.
- Close Limit LED: indicates that the operator has reached the bottom limit.
- Safety LED: indicates that a safety device is activated.
- Wrong Wiring LED: indicates that the motor, stop circuit or centrifugal switch are incorrectly wired. All commands are ignored until the power is cut off and the problem is corrected.

Programming Options

- The Run Timer automatically stops the operator after an adjustable time delay. It is designed to protect the door and the operator by preventing the motor to over run.
- Mid-Stop function, when set, will move the door from the down position to a predetermined Mid-stop position when the open button or Open/Close device is activated. Once at Mid-stop, subsequent Open/Close commands will close the door. To move the door to the fully open position, the open button has to be pressed again.
- Timer to Close, when set, is a function that will close the door after an adjustable time delay once the door has reached its fully open and mid-stop positions.
- Timer to Close From Fully Open Position: Option used in conjunction with mid-stop. When set, the Timer to Close is only active from the fully open position and not from the mid-stop position.

Operating Modes

- C2 Wiring: Momentary contact to open and stop, constant pressure to close with a 3 button station. Activation of safety devices will reverse the door during closing. Auxiliary devices function as an Open control and to reverse the door during closing.
- B2 Wiring: Momentary contact to open, close and stop with a 3 button station. Activation of safety devices will reverse the door during closing. Auxiliary devices function as Open/Close control and reverse the door during closing.
- D1 Wiring: Constant pressure to open and constant pressure to close. Activation of safety devices will stop the door during closing.
- E2 Wiring: Momentary contact to open and constant pressure to close. Release of close button activates the door upwards. Activation of safety devices will reverse door motion to its fully open position.
- T Wiring: Momentary contact to open, close and stop. Timer to Close if programmed, safety devices open upon activation but do not activate Timer to Close. If stop button is pushed before time-out, the timer is deactivated until the next open control.
- TS Wiring: Momentary contact to open, close and stop. Timer to Close if programmed, safety devices open upon activation and activate the Timer to Close.

Operators Available with the ECB

The Electronic Control Board is available with the following operator models: Opera-J, Opera-H, MSJ, Opera-GH, MGH, MTH, MTBH, MGT, MSLD, and MGSLD. It is standard with the Opera-HJ model.

HP limitations: 1HP on 115V-1Ph operators; 1.5HP on 230V-1Ph and 3Ph; 460V-3Ph and 575V-3Ph.

Coding: The letter E has to be added to the standard operator code. Ex: OPE-6112-0 E 00.