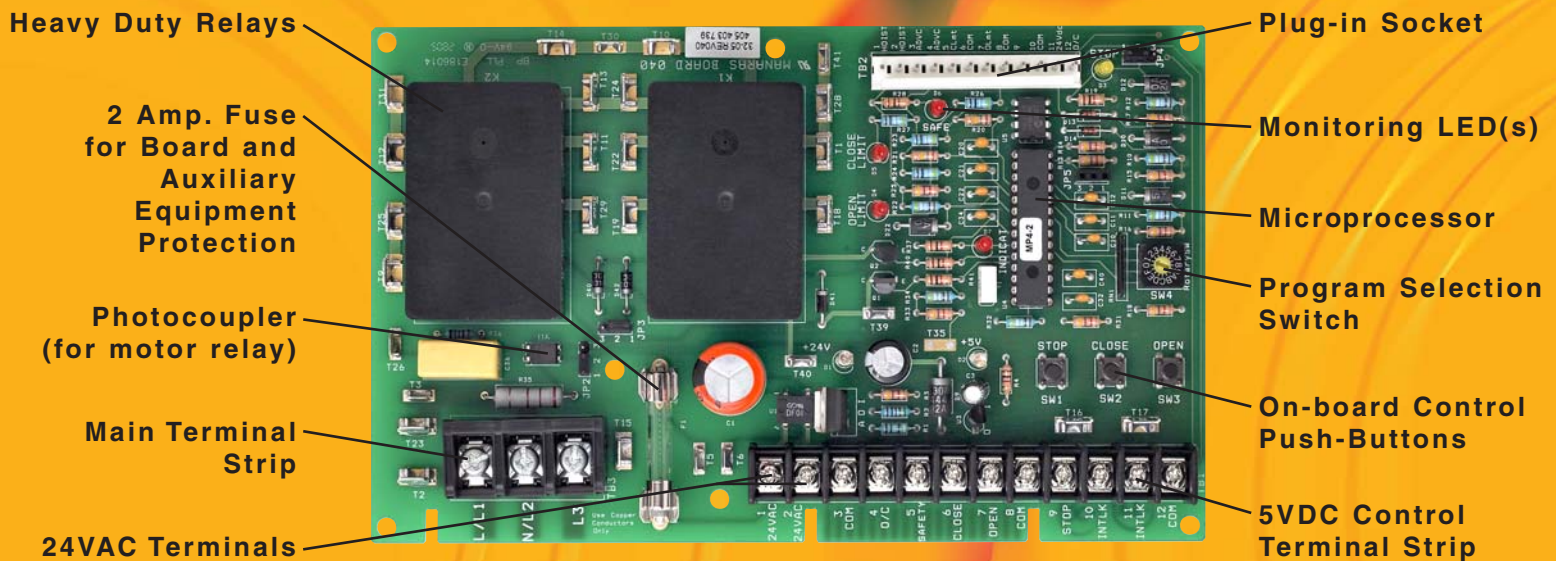


Specification Sheet

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, wiring for accessories and troubleshooting are made easier due to on-board LED monitoring. On-board push-buttons and a rotary-type programming switch simplify the process of programming and controlling the door.



Advanced and Safe Design



- Programmable Microprocessor.
- 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) allows the door to pause before reversing and extends the lifetime of the operator and the door.
- Wrong wiring protection will stop the door if the wrong limit switch is activated during the door travel. Pressing the open or close buttons will return the operator to its normal operating mode.
- Programmable advance close system allows for easy adjustment of the point where the obstacle detection devices will be disabled before reaching the floor. Patent pending feature.
- High resistance to voltage spikes and transients.
- 2 amp fuse protects the on-board 24VDC and 24VAC for auxiliary control devices.
- Door lock sensor detects all engaged door locks. Automatically releases the tension on the door locks. Only works with units with a properly adjusted clutch.

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

- On-board open, close and stop push-buttons to control the operator during installation directly at the control box.
- Plug-in socket for easy connection to limit switches and radio control devices.
- 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.
- Outlet (JP5) is available for connection of red and green warning lights (Optional feature - separate warning light module needed).

Easy Maintenance

Monitoring LEDs help with wiring and troubleshooting:

- 24VAC LED (green): when ON indicates the presence of power on the logic board.
- 5VDC LED (green): when ON indicates the presence of 5VDC power in the control circuit.
- "Open Limit" LED (red): when ON indicates door position, completely open.
- "Close" Limit LED (red): when ON indicates door position, completely closed.
- "Safety" LED (red): when ON indicates that a safety device is activated.
- "Indicat" LED (red): when ON indicates that the stop circuit or the hoist switch is open. When FLASHING indicates that the wrong limit switch was activated during the door travel. Pressing the open or close buttons will return the operator to its normal operating mode.
- "Stop" LED (yellow): when OFF indicates that the stop button has been pressed or if the hoist switch is activated. Stays ON under normal conditions.

Programming Options

- The Run Timer automatically stops the operator from travelling upwards or downwards after an adjustable time delay. It is designed to protect the door and the operator by preventing the motor from over running.
- 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. Works only in T and TS wiring modes.
- Timer to Close From Fully Open Position is used in conjunction with the mid-stop function. 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 push-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. Factory preset.
- B2 Wiring: Momentary contact to open, close and stop with a 3 push-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. If the Timer to Close is programmed, the safety devices reverse upon activation and will disable the Timer to Close. If there is a power outage, if the chain hoist is engaged or if the stop button is pushed before time-out, the Timer to Close is deactivated. The Timer to Close resumes its normal operation once the close cycle is completed.
- TS Wiring: Momentary contact to open, close and stop. If the Timer to Close is programmed, the safety devices reverse upon activation and will refresh the Timer to Close. The Timer to Close will also get refreshed if there is a power outage, if the chain hoist is engaged or if the stop button is pushed before time-out.

Operators Available with the ECB

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

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-6112-0E00.