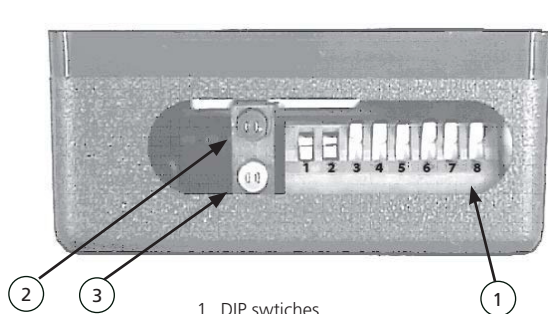


MC-15

Lock-out relay

DESCRIPTION



1. DIP switches
2. Red LED (safety)
3. Green LED (activation)



TECHNICAL SPECIFICATIONS

Power supply:	12 – 24 VAC/VDC
Operating frequency:	4 MHz (microprocessor)
Power consumption:	10 mA at rest; 50 mA max.
Output:	2 SPST relays
Max. voltage (relay contact):	60 VDC / 120 VAC
Max. current (relay contacts):	2.0A DC / 0.5A AC

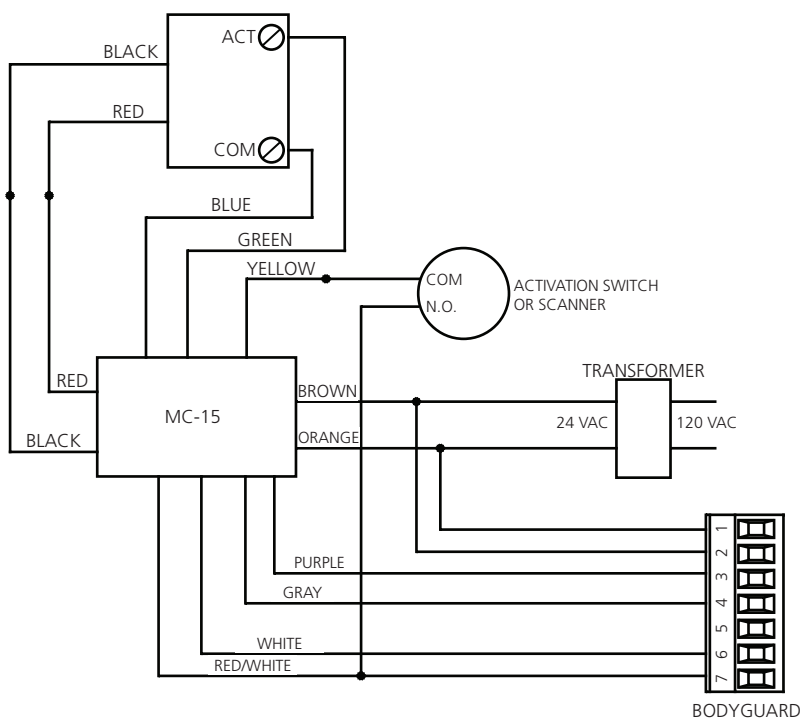
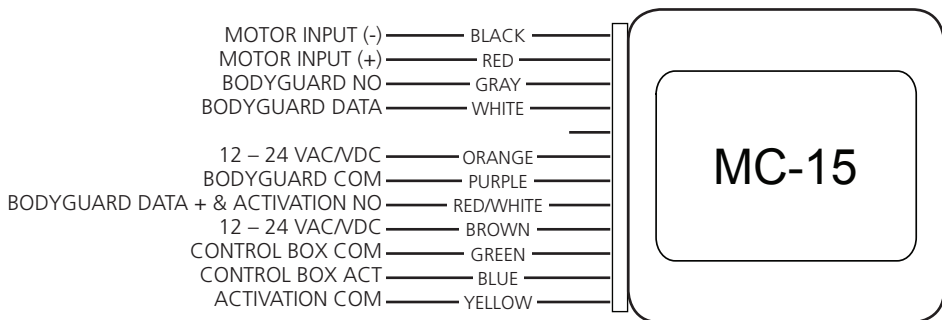
*Specifications are subject to change without prior notice.
All values measured in specific conditions.*

PRECAUTIONS

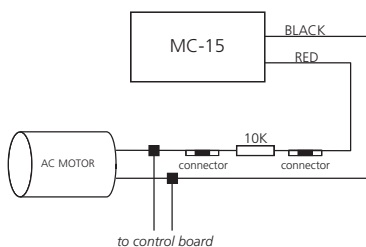


- ☐ Shut off all power going to header before attempting any wiring procedures.
- ☐ Maintain a clean and safe environment when working in public areas.
- ☐ Constantly be aware of pedestrian traffic around the door area.
- ☐ Always stop pedestrian traffic through the doorway when performing tests that may result in unexpected reactions by the door.
- ☐ **ESD (electrostatic discharge):** Circuit boards are vulnerable to damage by electrostatic discharge. Before handling any board, ensure you dissipate your body's ESD charge.
- ☐ Always check placement of all wiring before powering up to ensure that moving door parts will not catch any wires and cause damage to equipment.
- ☐ Ensure compliance with all applicable safety standards (i.e. ANSI A156.10) upon completion of installation.
- ☐ **DO NOT** attempt any internal repair of the components. Unauthorized disassembly or repair:
 1. May jeopardize personal safety and may expose one to the risk of electrical shock.
 2. May adversely affect the safe and reliable performance of the product resulting in a voided warranty.

WIRING

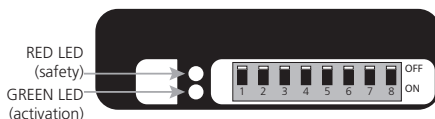


WIRING WITH 10K RESISTOR



PROGRAMMING

1. Verify that the ON/OFF/HO switch is in the ON position. Apply power to the system.
2. Verify that the BODYGUARD-T has performed successful setups in the closed and open positions.
3. Verify that the MC-15 is operating correctly for closed and open positions. See MC-15 LED descriptions below.



RED LED = When the door is closed and someone steps into the safety zone, this indicates that it will ignore any activation signal it receives. Therefore, the door will remain closed until the BODYGUARD-T safety zone is clear. Once the safety zone is clear and the door has been activated, a normal opening cycle will commence.

GREEN LED = If someone steps into the safety zone when the door is open, the green LED will indicate that the BODYGUARD-T will be connected to the activation circuitry of the door thus holding the door open for as long as someone is in its pattern.

4. SET LOCK-OUT TIME DELAY

The lock-out time delay for the door closing cycle must be set using the five DIP switches located on the front of the unit. A 0 to 31 second lock-out time delay can be achieved. The lock-out time delay must be set so that the BODYGUARD-T does not send a safety signal during the closing cycle. As soon as the door reaches the jamb, the MC-15 should reactivate the BODYGUARD-T.

5. SET TIME DELAY ON MC-15

Check to make sure that the MC-15 locks out the BODYGUARD-T for the entire closing cycle of the door. If the BODYGUARD-T sends a safety signal (red LED on) anytime during the closing cycle, the time delay set on the MC-15 must be increased. If the door goes into safety swing as soon as it starts to close and you have a time delay set for the length of the closing cycle, ensure that the AC power is being switched on and off at the point of connection for the red and black wires. Correct any faults before proceeding.

6. SET DIP SWITCHES

Set the DIP switches according to the chart on page 4 to achieve the desired lock out time delay.

Example:

The normal closing cycle of an automatic door lasts about 7 seconds. In order to get the proper closing lock-out time delay needed for the closing cycle of the door, the DIP switches need to be set according to the chart on page 4 for 7 seconds (Default Setting). To get the proper lock-out time delay DIP switches 1, 2, and 3 must be in the ON position and DIP switches 4 thru 8 must be in the OFF position.

PROGRAMMING (cont.)

TIME DELAY (sec)	DIP 1 (1 sec)	DIP 2 (2 sec)	DIP 3 (4 sec)	DIP 4 (8 sec)	DIP 5 (16 sec)	DIP 6	DIP 7	DIP 8
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
29	ON	OFF	ON	ON	ON	OFF	OFF	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF	OFF
31	ON	ON	ON	ON	ON	OFF	OFF	OFF

BEA INSTALLATION/SERVICE COMPLIANCE EXPECTATIONS

BEA, the sensor manufacturer, cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor/device; therefore, BEA does not guarantee any use of the sensor outside of its intended purpose.

BEA strongly recommends that installation and service technicians be AAADM-certified for pedestrian doors, IDA-certified for doors/gates, and factory-trained for the type of door/gate system.

Installers and service personnel are responsible for executing a risk assessment following each installation/service performed, ensuring that the sensor system installation is compliant with local, national, and international regulations, codes, and standards.

Once installation or service work is complete, a safety inspection of the door/gate shall be performed per the door/gate manufacturer recommendations and/or per AAADM/ANSI/DASMA guidelines (where applicable) for best industry practices. Safety inspections must be performed during each service call – examples of these safety inspections can be found on an AAADM safety information label (e.g. ANSI/DASMA 102, ANSI/DASMA 107).

Verify that all appropriate industry signage and warning labels are in place.



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