

Zone Monitor 3000



WARNING! Usage of safety mats and safety mat devices is governed by each user's local codes and applicable industry standards. Improper usage of these devices could result in severe injuries. In the event that Larco safety mats do not prevent all access to the hazardous operation, the unprotected access must be guarded by other appropriate safeguarding devices or barriers.

The Zone Monitor 3000 Safety Mat Control Unit offers a sophisticated mix of advanced mat system monitoring and simple dependability.

Designed for the toughest industrial environments, the Zone Monitor 3000 provides individual mat status indicators for up to four Larco safety mats through high-visibility LEDs. In addition, the Zone Monitor 3000 can accommodate a variety of power requirements and is designed to meet or exceed CE, UL and CUL safety system requirements.

Features & Benefits

- **Combines Sophistication and Simplicity**
The first control of its kind to offer the dependability of field-proven, reliable technology, while providing the user with diagnostic outputs needed to maintain productivity and reduce downtime
- **Advanced Individual Mat Diagnostics**
Offers the unique ability to indicate open circuits on individual mats to make diagnostics easy
- **Rugged Design**
Suitable for tough industrial environments with an enclosure rated IP 65 and NEMA 12
- **Flexible Power Inputs and Operation Modes**
Accommodates a variety of power requirements, including 120 VAC, 240 VAC and 24 VDC and offers two modes of operation (automatic restart and guard only) in one unit
- **Dependable and Long Lasting**
Field replaceable relay pack designed to last more than 500,000 electrical cycles at 1 Amp.
- **Designed to Meet UL, CE, and CUL Requirements**
Designed to meet or exceed ANSI B11.19-2003, UL 508-1999, EN 1760-1-1998. Designed to meet Category 3 safety requirements.



210 NE 10th Avenue • Brainerd, MN 56401
Phone: 218-829-9797 • Toll Free: 800-523-6996
Fax: 218-829-0139 • Toll Free: 800-589-3705

www.larco.com

IS5-Feb. 2009

Controller Specifications

Response Time	<30 milliseconds	Internal/Lockout restart and External/Remote restart available
Indicators	Run = Green LED Stop = Red LED Mat Status = 4 Mat Activated Red LEDs 4 Mat Disconnected Yellow LEDs Relay Fault = Internal Yellow LED	Reset Function Power-up and Relay Fault Reset internal manual push-button
Operational Modes	Selectable automatic restart and guard only modes	Enclosure Steel (Powdercoat Machinery Black) 8" h x 6" w x 3.75" d (203 mm x 152 mm x 95 mm)
Power Input	120 VAC (for 60Hz), 240 VAC (for 50 Hz) or 24 VDC	Enclosure Rating NEMA 12, IP 65
Rated Supply Current	0.125A AC, 0.75 A DC	Mounting Surface Mount
Safety Inputs	Screw clamp connections for up to four 4-wire safety mats with up to 40' cord length each (quick disconnect mat connections also available)	Shipping Wt. 11 lbs.
Safety Output Relays	Two captive contact relays with two closed when run (NO) and one open when run (NC) sets of contacts rated 8 amps at 230 VAC	Operating Temperature 32° F to 122° F (0° C to 50° C)
Replaceable Relay Pack Life	Mechanical: 10,000,000 operations Electrical: 500,000 operations at 1 amp at 240 VAC	Relative Humidity Acceptable Range = 20-90%
Electrostatic Discharge (ESD)	+/-10kV (air discharge) +/-6kV (contact discharge)	Standards of Conformity Designed to meet UL 508-1999 Standard for Industrial Control Equipment, ANSI B11.19-2003 Performance Criteria for Safeguarding, OSHA 1910.212-1996 General Machine Guarding, ANSI/RIA 15.06-1999 Industrial Robots and Robots Systems-Safety Requirements, EN/IEC 60204-1998 Electric Equipment of Machines and EN 1760-1998 Safety of Machinery, Pressure Sensitive Protective Devices
Radiated RF Field	10 volts/meter, 100 to 1,000 MHz	
Electrical Fast Transients (EFT)	+/-1kV (power supply) +/-0.5kV (control signals)	
Restart Function	Selectable manual or automatic restart	

Details & Dimensions

