

Elevator Door Lock Monitoring Overview

ASME A17.3-2020 serves as the basis for state and local jurisdictional authorities in adopting retroactive requirements for existing elevators and escalators with the ultimate goal of enhancing the safety of the general public.

ELEVATOR DOOR LOCK MONITORING FAQs*

Q 1: What is door lock monitoring?

In 2020 the state of Minnesota adopted ASME A17.3-2015 - Safety Code for Existing Elevators and Escalators. New in the 2015 version of this code is section 3.10.12; commonly referred to as "door lock monitoring." This requirement ensures that an elevator will not operate if the hoistway door interlock or car door gate switch circuitry were either bypassed or failed in a way that renders the circuitry bypassed.

Q 2: Which elevators need this upgrade?

This requirement applies to all elevators that have power car doors that are mechanically coupled to the hoistway doors, i.e. typical passenger elevator doors.

Q 3: How do I know for sure that my elevator needs to be upgraded?

Elevator controllers manufactured to meet the A17.1-2000 - Safety Code for Elevators and Escalators, likely have door lock monitoring. Because of the adoption dates of previous editions of ASME Codes in Minnesota, each elevator controller installed prior to 2007 will have to be evaluated to determine if it complies with this requirement or not. This can be confirmed by a qualified licensed elevator contractor or possibly by the controller manufactures records based on a serial number or similar reference.

*State of Minnesota website

Most passenger elevators in jurisdictions that have adopted the current A17.3 code will need the door lock monitoring function.

Load Tech DLM01 Door Lock Monitor

(Overview)

Load Tech's DLM01 Door Lock Monitor is a cost effective solution for elevator systems which don't already have the function built into the elevator controller. It eliminates the necessity for a controller modernization, greatly reducing the cost and down time to bring the elevator into code compliance.

The DLM01 can be installed on most, if not all elevator controllers. The footprint is small enough to mount it inside the controller or in a small enclosure adjacent to the controller. A car door limit kit and power supply are included with the DLM01 mod. kit. The DLM01 can be installed on front and rear jobs as well as front only jobs. The inputs can accept voltages from 24 to 300 VDC and 85 to 260 VAC.

No field programming is required.

The status of the car gate and doorlocks as well as the DLM01 outputs can be viewed on the touchscreen display on the DLM01.