

**875—73.7 (89A) Electrical protective devices.**

**73.7(1)** All electric elevators shall have a labeled emergency stop switch. The switch shall be located on or adjacent to the operating panel.

**73.7(2)** All electric elevators shall have upper and lower final limit switches. Open-type switches shall not be accepted. Drum-type machines shall have final limit switches mounted on the machine and hoistway final limit switches.

**73.7(3)** All operating devices of car switch operations shall automatically return to the stop position and latch there when released.

**73.7(4)** Tiller-rope operations shall not be used unless all direction switches on controllers are mechanically operated. Contacts on direction switches shall be broken when the rope is at the centered position.

**73.7(5)** Except for firefighter service switches, leveling switches, and truck zone switches, no elevator shall be provided with a switch or device which makes more than one door or gate switch inoperative at any one time.

**73.7(6)** No person at any time shall make any required safety device or electrical protective device inoperative, except where necessary during tests, inspections or maintenance. Such devices shall be restored to their normal operating conditions as soon as all tests, inspections and maintenance have been completed. The conveyance shall not be left unattended while any of these devices are inoperative. To ensure that no jumpers are left behind, a counting system shall be utilized.

**73.7(7)** Each winding drum machine shall be provided with an electrical switch which shall disconnect power to the hoisting motor and brake when ropes are slackened.

**73.7(8)** No person shall enter an elevator pit for any reason without disconnecting power to the equipment using the pit stop switch, lockout, tagout procedures, or other appropriate means of de-energization in accordance with 875—Chapters 2 to 26.

**73.7(9)** Elevators having a polyphase AC power supply shall be provided with means to prevent the starting of the elevator drive motor or door motor if a reversal of phase rotation, or phase failure of the incoming polyphase AC power, will cause the elevator car or elevator door(s) to operate in the wrong direction.

**73.7(10)** All electrical equipment in the machine room shall be grounded and shall conform to ANSI C1-1975 (NFPA 70-1975).

**73.7(11)** All electrical wiring in the machine room and hoistway shall be enclosed in metal conduit, flexible conduit or metal raceways.