

PROPER USE OF JUMPERS (May 1, 2023)



This document provides information about the proper use of jumpers during construction, inspection, servicing, and maintenance of conveyances.

Scope:

It is recognized that at times, conveyance electrical circuits will need to be temporarily bypassed with jumpers while performing work on conveyances. All field employees shall be trained in the proper use of jumpers for temporarily bypassing electrical circuits and must clearly understand the effect that jumpers will have on the operating system. Special care must be taken to protect the employee, co-workers, and passengers while jumpers are in place. Jumpers must always be removed at the earliest possible opportunity and must never be placed or configured to resemble permanent wiring.

Definitions:

Jumper means a temporary means of bypassing or shunting an electrical circuit.

Qualified Person means a person who by possession of a recognized degree, certificate, or professional standing, or by extensive knowledge, training, and/or experience has successfully demonstrated the ability to solve or resolve problems related to the work.

Overview:

1. Jumpers shall not be used as a diagnostic tool. Always use a meter to troubleshoot circuits.
2. Make sure you understand what effect using or removing a jumper will have on the entire conveyance system prior to use.
3. Remove conveyance from public use and ensure no passengers are in or on the conveyance (except for entrapments).
4. Communicate to all other elevator personnel on the jobsite when jumper(s) are in use and what equipment will be affected.
5. Jumpers should be easily identifiable by being extra-long, tied in a knot or tagged, and should use brightly colored wire.
6. Jumper wires shall never be placed or configured to resemble permanent wiring.

Section 1: Maintenance Jumper Practices

1. Only assigned jumper kits should be used.
2. Jumpers shall be numbered in sequence, for example 1 of 3, 2 of 3, 3 of 3.
3. Each employee shall have their name or personnel number marked in indelible ink on a label permanently attached to each jumper.
4. The number of jumpers carried shall be limited so that all jumpers can be accounted for at all times (numbering jumpers in sequence will help).
5. Temporary bridging devices (e.g., tomahawk, stationary contacts) should not be used to short out hall door contacts.
6. Do not jump out the door and gate at the same time. NOTE: You may deviate from this requirement only when a second qualified person is on site and in direct communication. USE EXTREME CAUTION WHEN THESE CIRCUITS ARE JUMPED OUT.

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7. Ensure the conveyance is placed on inspection mode before placing jumpers on door, gate, or safety circuits. Make a visual inspection that all hoistway doors are mechanically closed.
8. **Ensure all jumpers are removed, accounted for, and returned to the jumper kit before placing equipment back in service.**
9. Companies shall have a process to control jumpers for maintenance and troubleshooting.
 - a. The use of a jumper log is one form of jumper control that could be used.
10. Place jumper kit on machine room door handle or other conspicuous place as a reminder that they are in use.
11. Never leave jumpers on equipment or in the machine room.

Section 2: Modernization and New Construction

1. A Jumper Log shall be established to ensure that affected personnel are aware of the safety circuits which are not functioning. It is the responsibility of the mechanic/mechanic-in-charge to ensure that the Jumper Log is completed and up to date. The Jumper Log shall be kept with the controller and shall not be removed until all jumpers are removed.
2. Jumpers shall be removed as soon as they are no longer needed, and the Jumper Log shall be updated accordingly.

Through the Alliance between OSHA's 10 Regional Offices and the Elevator Contractors of America (ECA), Elevator Industry Work Preservation Fund (EIWPF), International Union of Elevator Constructors (IUEC), National Association of Elevator Contractors (NAEC), National Elevator Industry Educational Program (NEIEP), and National Elevator Industry Inc. (NEII), collectively known as The Elevator Industry Safety Partners (EISP), the EISP developed this Industry Specific Best Practice for informational purposes only. It does not necessarily reflect the official views of OSHA or the U.S. Department of Labor. May 2023

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