

Electrical Overview

The following is a standard description of the electrical wiring of an F series VRC. This does not include any specifics on options available or ordered (e.g., gates, DeckLocks, photo eyes). A copy of the electrical schematic can be found in the control panel and the shipping packet originally included in the parts crate.

WARNING

Falling hazard! Make sure all safety devices are in place and operable before using the equipment. If any safety device is missing or inoperable, immediately remove the equipment from service.

Per ASME B20, all gates or doors accessing the lift area must be electro-mechanically interlocked. This requires electrical contacts to prevent the lift from operating if a gate is open when the carriage is at the level and mechanical locks to lock the gate until the carriage is at that level.

NOTE

Different gate interlock types and styles are supplied depending upon the gate type and site conditions. Standard gate styles can incorporate one to four electrical components per gate.

Main Control Panel

All electrical devices are connected individually to the main control panel. The main control panel contains a fused transformer, motor starter, relays, etc. A motor overload and current sensor is provided to protect the motor from excessive current draw.

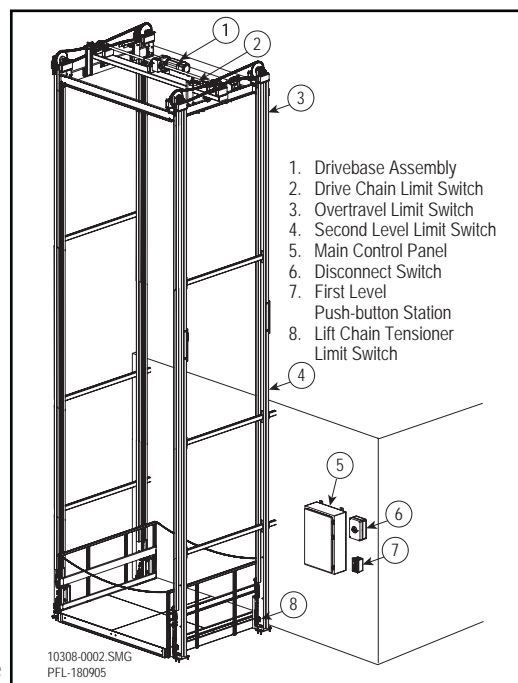
Push-button Stations

One push-button station is normally supplied for each level. ASME B20.1 code requires that the push-button stations be remotely located and unable to be activated by someone standing on the carriage. Each push-button station contains Send to "x" push-buttons and an emergency stop (E-stop).

The Send to "x" push-buttons are momentary contact. This means the operator can press and release the Send to "x" push-button and the carriage will travel to the selected level. The operator does not need to hold the Send to "x" push-button for the carriage to continue moving. When pressed, the emergency stop prevents the carriage from moving. The emergency stop must be pulled out before carriage movement can be initiated again.

Main Disconnect Switch

As required by NEC code, the main disconnect switch must be lockable and located within line of sight of the control panel and no more than 6' 6" (1981mm) off the floor.



Electrical Components Figure 8-1



Drivebase Assembly

The motor / brake is located on the drivebase assembly. The motor and brake wiring must be verified prior to energizing the VRC.

Limit Switches

The F series VRC has ight (8) limit switches incorporated into a standard two-level VRC: one (1) at each level to stop the carriage, one (1) overtravel, two (2) lift chain tensioner switches, and four (4) drive chain tensioner switches. All limit switches require field mounting and wiring. VRCs servicing more than two levels require two (2) additional limit switches for each intermediate level.
