

Elevator Operation Rules for PLC Systems

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1. When a hall call signal is registered, the elevator will respond to hall calls in the same direction as the current travel direction, in sequence.
2. Unlike car calls, the last hall call in the opposite direction will also be responded to.
3. If the elevator is stopped at a floor:
 - A hall call in the same direction will reopen the doors.
 - A hall call in the opposite direction will be held and not immediately acted upon.
4. Hall call signals are cleared under the following conditions:
 - (a) If the hall call is registered before the deceleration point, it will be cleared at the deceleration point.
 - (b) If the hall call is registered after the deceleration point, it will be cleared upon reaching the DZ (door zone).
 - (Other reasons for signal cancellation, such as emergency stop, maintenance mode, or malfunction, are not covered here as they are considered abnormal cancellations.)
5. If both “up” and “down” hall calls are registered at a mid-level floor:
 - When the elevator arrives (with no other calls active), it will clear the hall call in the same direction as its current travel.
 - The opposite direction call will be retained.
 - The elevator will close its doors, then reopen them fully.
 - After reopening, the system will reverse the elevator’s direction and cancel the

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previously retained opposite direction hall call.

6. When the “LNS” full-load signal is active:

- The full-load indicator will light up.
- Hall calls will be ignored, and the elevator will not stop in response to them.
- However, the hall call signals will still be held (not cleared).

7. When a hall call “HB” signal is registered:

- The corresponding hall call button light (CTTL or DTTL) will be illuminated.

8. When a hall call button is pressed:

- A buzzer inside the car will sound to indicate an external call (only if the system supports this function; standard Otis elevators typically do not include this feature).