

INSTALLER AND INSPECTOR QUICK-REFERENCE: 2025 NRCA-PRC-13-F

Escalator and Moving Walkway Speed Control

Purpose and Scope of the Test

This test is to ensure that the speed of the escalator or moving walkway slows when unoccupied and speeds up when passengers approach.

The control system must be able to detect occupancy and approaching pedestrians in either direction.

Speed controls save energy by reducing the speed of escalators and moving walkways when not in use.

Test Trigger

This test is required for newly installed escalators and moving walkways located in airports, hotels, and transportation function areas.

Relevant Energy Code References and Required Compliance Documents

Title 24, Part 6 of the California Building Standards Code, Building Energy Efficiency Standards (Energy Code) sections 120.6(g); NA7.15; NRCC-PRC-E; NRCI-PRC-E ; also ASME A17.1/CSA B44.

Who Can Perform the Test

There are no restrictions. The installing contractor will typically perform this test.

Note that the contractor can complete the test, and ATTCP certification is not required for this test at this time.

Required Tools

This test verifies the functionality of installed automatic controls visually after a prolonged period of time. A clock or stopwatch and calculator will be needed.

Estimated Time to Complete Test

Construction inspection: 0.5 hour (per system).

Functional testing: 1 hour (per system).

Potential Issues and Cautions

The test will be performed by varying the control parameters used by the escalator or moving walkway control system. Therefore, the escalator or moving walkway must be installed and operating, including completion of all start-up procedures per manufacturer's or designer's recommendations, to perform the test.

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Inspection Enforcement

Required:

- Verify that sensors are located in an unobstructed location.
- Verify that escalators are installed with a variable speed drive.
- Verify that the construction inspection and functional testing items on NRCA-PRC-13-F are marked with "Complies."
- Verify that all declaration statements on the last page of the NRCA-PRC-13-F are complete and that the document is signed.

Acceptance Criteria

The control systems must do the following:

- Occupant sensing controls are located to minimize false signals and do not trigger from pedestrians on adjacent escalators. The escalator should trigger if approached from multiple angles while vacant.
- Reduce speed to 10 feet per minute (ft/min) when passengers are not detected for more than three times the duration of a full-length ride.
- Ramp up speed to 100 ft/min when the controls detect an approaching passenger, and the escalator should reach full speed before boarding if approached at an average walking pace.
- Acceleration and deceleration of the conveyance does not exceed 1 foot per second squared.
- Sound an alarm if a pedestrian is approaching the conveyance in the wrong direction.