

ESCALATOR & MOVING WALKWAYS SPEED CONTROL

CEC-NRCA-PRC-13-F (Revised 05/16)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF ACCEPTANCE		NRCA-PRC-13-F
Escalator & Moving Walkways Speed Control		(Page 1 of 3)
Project Name:	Enforcement Agency:	Permit Number:
Project Address:	City:	Zip Code:
System Name or Identification/Tag:	System Location or Area Served:	

<i>Note: Submit one Certificate of Acceptance for each system that must demonstrate compliance.</i>	Enforcement Agency Use: Checked by/Date
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Intent:	To ensure that the intermittent speed control for escalators and moving walkways are functioning in accordance with §120.6-G and ASME A17.1/CSA B44.
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A. Construction Inspection
1. Field technician should verify the following:
a. A variable speed drive is installed on the escalator/moving walkway.
b. Occupancy sensor has been installed in a location that will minimize false signals.
c. Occupancy sensors are unobstructed.
d. If ultrasonic occupancy sensors are being used, verify they do not emit audible sound.

B. Functional Testing	Confirmed
Step 1: Verify speed setting using the controller	
a. Verify the full speed is less than 100 ft/min.	<input type="checkbox"/>
b. Verify the slow speed setting is 10 ft/min.	<input type="checkbox"/>
c. Verify the acceleration and deceleration, does not exceed 1 ft/sec	<input type="checkbox"/>
If completed, you may skip step 2, 4, 6, and 9. If it is not possible to verify the speed through this method, proceed to step 2.	
Step 2: Measure the diagonal length of the escalator	
a. Diagonal length: _____ ft	
Step 3: Measure the speed of the escalator/moving walkway.	
a. Using a stopwatch, board the escalator and measure the travel time from one landing to the other in seconds. Time: _____ sec	<input type="checkbox"/>
Step 4: Divide the length of the escalator by the time required to travel the full length to calculate the speed.	
a. Verify that the speed is under 100 ft/min. Length: _____ ft/ Travel time: _____ sec = _____ ft/sec * [(60 ft/min)/(1 ft/sec)] = _____ ft/min	<input type="checkbox"/>
Step 5: Stand away from the escalator and wait approximately 3 times the escalator travel time.	
a. Verify that the escalator has slowed to a minimum speed. Time from Step 3: _____ sec * 3 = _____ sec	<input type="checkbox"/>
Step 6: While the escalator is still operating at a lower speed, record the time it takes for one step to make the full trip of the escalator. Take the length of the escalator and divide by this time to calculate the low speed.	
a. Verify the slow setting speed is approximately 10 ft/min. Length: _____ ft/Time: _____ sec = _____ ft/sec * [(60ft/min)/1 ft/sec] = _____ ft/min	<input type="checkbox"/>
Step 7: Approach the escalator while in low speed mode while walking at a standard pace towards the entrance. Repeat this process from multiple angles of entry.	
a. Verify the escalators ramps up to full speed before getting on.	<input type="checkbox"/>
b. Verify the occupancy sensors correctly trigger from multiple angles.	<input type="checkbox"/>
Step 8: Approach the escalator while in low speed mode from the opposite direction (The exit).	
a. Verify the escalator ramps up to full speed before getting on.	<input type="checkbox"/>
b. Verify a warning alarm sounds to alert the passenger that they are entering from the wrong direction.	<input type="checkbox"/>

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Step 9: Approach the escalator while in low speed mode and record the amount of time it takes for the escalator to reach maximum speed. Take the difference of the high and low speed velocities (ft/sec), and divide by this recorded time to calculate acceleration.

a. Verify the acceleration or deceleration does not exceed 1 ft/sec^2 (High velocity: _____ ft/sec - Low velocity: _____ ft/sec)/Time: _____ sec = _____ ft/sec^2	<input type="checkbox"/>
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C. Testing Results	PASS / FAIL	
System passes if criteria in Section B are confirmed.	<input type="checkbox"/>	<input type="checkbox"/>

For information and data collection only. Not valid until registered with a HERS provider

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Acceptance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Documentation Author Company Name:	Date Signed:
Address:	CEA/HERS/ATT Certification Identification (if applicable):
City/State/Zip:	Phone:

FIELD TECHNICIAN'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Acceptance is true and correct.
- I am the person who performed the acceptance verification reported on this Certificate of Acceptance (Field Technician).
- The construction or installation identified on this Certificate of Acceptance complies with the applicable acceptance requirements indicated in the plans and specifications approved by the enforcement agency, and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7.
- I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and signed by the responsible builder/installer and has been posted or made available with the building permit(s) issued for the building.

Field Technician Name:	Field Technician Signature:
Field Technician Company Name:	Position with Company (Title):
Address:	CEA/HERS/ATT Certification Identification (if applicable):
City/State/Zip:	Phone: Date Signed:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- I am the Field Technician, or the Field Technician is acting on my behalf as my employee or my agent and I have reviewed the information provided on this Certificate of Acceptance.
- I am eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Acceptance and attest to the declarations in this statement (responsible acceptance person).
- The information provided on this Certificate of Acceptance substantiates that the construction or installation identified on this Certificate of Acceptance complies with the acceptance requirements indicated in the plans and specifications approved by the enforcement agency, and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7.
- I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and is posted or made available with the building permit(s) issued for the building.
- I will ensure that a completed, signed copy of this Certificate of Acceptance shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a signed copy of this Certificate of Acceptance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Acceptance Person Name:	Responsible Acceptance Person Signature:
Responsible Acceptance Person Company Name:	Position with Company (Title):
Address:	CSLB License:
City/State/Zip:	Phone: Date Signed:

NRCA-PRC-13-F User Instructions**Section A. Construction Inspection**

This section consists of check boxes for checking the condition of the sensors, equipment and systems before beginning the actual test. Complete each check box to confirm that the construction inspection is complete for all items.

Section B. Functional Testing

This section consists of the steps followed during the acceptance test. Enter data as instructed in each column or answer either yes or no to the yes/no questions.

Section C. Testing Results

This section consists of data entry requirements for the results of the test(s). Enter data associated with the appropriate system type as instructed.

Documentation Author's Declaration Statement

- NAME is the name of the person completing this compliance document.
- COMPANY is the name of the company the DOCUMENTATION AUTHOR represents.
- ADDRESS is the address of the COMPANY.
- CITY/STATE/ZIP is the city, state and zip code of the COMPANY.
- SIGNATURE is the signature of the DOCUMENTATION AUTHOR.
- DATE is the date on which the acceptance test was completed and the DOCUMENTATION AUTHOR signed the compliance document.
- CEA, HERS OR ATT CERTIFICATION # is the certification number of the CEA (Certified Energy Auditor), HERS (Home Energy Rating System) or ATT (Acceptance Test Technician) certification, in case the DOCUMENTATION AUTHOR is CEA, HERS or ATT certified.
- PHONE is the phone number where the DOCUMENTATION AUTHOR can be reached during regular business hours.

Field Technician's Declaration Statement

The FIELD TECHNICIAN is responsible for performing and documenting the results of the acceptance procedures on the Certificate of Acceptance compliance documents. The FIELD TECHNICIAN must sign the Certificate of Acceptance to certify that the information he or she provides on the Certificate of Acceptance is true and correct. It is important to note that the FIELD TECHNICIAN is not required to have a contractor's, architect's or engineer's license.

- COMPANY NAME is the name of the company that the FIELD TECHNICIAN represents.
- FIELD TECHNICIAN'S NAME is the name of the FIELD TECHNICIAN.
- FIELD TECHNICIAN'S SIGNATURE is the signature of the FIELD TECHNICIAN.
- DATE SIGNED is the date on which the acceptance test was completed and the FIELD TECHNICIAN signed the compliance document.
- POSITION WITH COMPANY (TITLE) is the title of the FIELD TECHNICIAN in the company he represents, e.g. SENIOR ELECTRICAL TECHNICIAN.

Responsible Person's Declaration Statement

A RESPONSIBLE PERSON is eligible under Division 3 of the Business and Professions code in the applicable classification, to take responsibility for the scope of work specified by the Certificate of Acceptance document. The RESPONSIBLE PERSON can also perform the field testing and verification work, and if this is the case, the RESPONSIBLE PERSON must complete and sign both the FIELD TECHNICIAN's SIGNATURE block and the RESPONSIBLE PERSON'S SIGNATURE block on the Certificate of Acceptance compliance document. The RESPONSIBLE PERSON assumes responsibility for the acceptance testing work performed by the FIELD TECHNICIAN agent or employee.

- COMPANY NAME is the name of the company the RESPONSIBLE PERSON represents.
- PHONE is the phone number where the RESPONSIBLE PERSON can be reached during regular business hours.
- RESPONSIBLE PERSON'S NAME is the name of the RESPONSIBLE PERSON.
- RESPONSIBLE PERSON'S SIGNATURE is the signature of the RESPONSIBLE PERSON.
- LICENSE is the professional license number of the RESPONSIBLE PERSON.
- DATE SIGNED is the date on which the acceptance test was signed by the RESPONSIBLE PERSON.
- POSITION WITH COMPANY (TITLE) is the title of the RESPONSIBLE PERSON in the company he represents, e.g. SENIOR ELECTRICAL ENGINEER.

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