

**INSTALLER and INSPECTOR QUICK-REFERENCE:
2025-NRCA-MCH-21-H
Multifamily Dwelling Unit Enclosure Leakage**

Purpose and Scope of the Test

This acceptance test is used to measure and determine compliance with multifamily dwelling unit compartmentalization requirements conform to the requirements of the Energy Code. Submit one certificate of acceptance for each dwelling unit.

Test trigger

Newly constructed four or more stories multifamily dwelling units with supply-only ventilation. Dwelling units using balanced ventilation do not require this test.

This form is completed only when NA1.9 Acceptance Test Technicians Alternative Procedure is used in accordance with Section 160.2(b)2Biv, where a certified ATT is allowed to perform the test that is typically performed by an ECC-Rater for multifamily buildings with four or more stories.

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 160.2(b)2Aivb2, 160.3(d)2B; NA2.3 and NA7.18.2.

See also: ANSI/RESNET/ICC 380- 2019 and ASTM E779- 19 (2019).

Who Can Perform the Test

This test must be performed by an acceptance test technician certified by a CEC-approved Acceptance Test Technician Certification Provider, using compliance document NRCA-MCH-21-H.

Required Tools

The equipment listed must have their calibrations checked at the manufacturer's recommended interval, and at least annually if no time is specified.

- Air-Moving Fan. Capable of moving air into or out of the unit to achieve target pressure differences with the exterior.
- Manometer. Capable of measuring pressure differences within a maximum error of 1 percent of reading or 25Pa (0.001 in. H₂O).
- Airflow Meter. Capable of measuring volumetric airflow with a maximum error of 5 percent of measured flow.
- Thermometer. Capable of measuring air temperature within an accuracy of $\pm 1^{\circ}\text{C}$ (2°F).
- Blower Door. A device that combines the Air-Moving Fan, Airflow Meter, and a cover to integrate into a fenestration.

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Required Tools (cont.)

NOTE: It is highly recommended that the assemblage of the blower door system also integrates the Manometer and include manufacturer software that will correct CFM measurements for altitude and air temperature (i.e., air viscosity and density). Otherwise, these corrections must be made manually.

Estimated Time to Complete Test

Construction Inspection: 5 minutes.

Preparation for functional testing: 0.5 to 1 hour.

Installation of functional testing equipment: 0.25 hour.

Functional Testing: 0.5 to 1 hour.

Potential Issues and Cautions

- This acceptance test requires that the model number and serial number of the testing equipment be recorded.
- Automated calibration of the blower door is highly recommended. Otherwise, the technician will be required to follow the procedures in ASTM E779- 19 (2019), section 9, Equation 4 (RESNET 380 §4.4.1.5) to make the manual calibration changes.
- This test must be performed prior to NRCA-MCH-20-H acceptance tests.
- The complexity of the dwelling unit and the ability of the technician to establish the boundary of the dwelling unit can greatly affect the test results. Using an experienced test technician is highly recommended.

Inspection Enforcement

Required:

Verify the inspector is in receipt of one NRCA-MCH-21-H for EACH system that must demonstrate compliance. All NRCA forms for Mechanical Systems must have a water mark logo from a certified Mechanical ATTCP Provider.

Acceptance Criteria

The dwelling envelope passes if the calculated leakage rate (CFM50/ft²) is equal to or less than 0.3 CFM/ft² (Title 24, Part 6, section 160.2(b)2Aivb2).

Follow the **Construction Inspection** and **Functional Testing** instructions on either NRCA-MCH-21-H.