



Project Name and Address	Authority Having Jurisdiction
Name: Project Name	Enforcement Agency: Agency
Address: Project Address	Permit Number: Permit Number
City, Zip: City, Zip Code	Permit Application Date: Date

Building: Enter Value	Floor: Enter Value	Room: Enter Value	Control/tag: Value
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<input type="checkbox"/> Construction inspection and functional testing comply <input type="checkbox"/> Does not comply	Date Submitted to AHJ: Date
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Intent:	<p>This acceptance test is meant for new installations of constant volume, single zone, unitary (packaged and split) air conditioner and heat pump systems in nonresidential or multifamily occupancies. Either an NRCC-MCH-E for nonresidential construction that is completed and approved by the authority having jurisdiction <u>or NRCC-PRF-E for the performance path</u>, or a LMCC-MCH-E <u>or LMCC-PRF-E</u> for multifamily construction that is registered with a CEC approved <u>HERS-ECC</u> data registry, is required prior to beginning this acceptance test. Submit one Certificate of Acceptance for each room, area, or zone that is directly or indirectly served by a thermostatic controls system. References: §120.2(a), §120.2(b), §110.12(a), §160.3(a), §180.2(b), <u>and NA7.5.2.</u></p>
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Table A: Construction Inspection

Prior to functional testing, verify and document all of the following:

Step	Entry	Item	Code Reference
1.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the NRCC-MCH-E as approved by the authority having jurisdiction <u>or NRCC-PRF-E for the performance path</u> , or LMCC-MCH-E <u>or LMCC-PRF-E</u> as registered by a CEC approved <u>HERS-ECC</u> data registry, is available for reference.	§10-103(a)2A
1.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the demand responsive controls are certified OpenADR 2.0a or OpenADR 2.0b Virtual End Node or <u>certified Baseline Profile OpenADR 3.0 Virtual End Node or a certificate from the manufacturer to the Energy Commission</u> stating that the demand response control system is capable of responding to a demand response signal from a certified OpenADR 2.0b <u>or a certified Baseline Profile OpenADR 3.0</u> Virtual End Node by automatically implementing the control functions requested by the Virtual End Node for the equipment it controls.	NA7.5.2.1(b) §120.2(b)4 §110.12(a)1 §160.3(a)2Biv §160.3(a)2G
2.0	No Entry	Thermostatic controls for each zone served by the system – One of the following Steps must pass: 2.1, 2.2, or 2.3	NA7.5.2.1(a)

Step	Entry	Item	Code Reference
2.1	P, F, N/A	Thermostat is located within the space conditioning zone that is served by the HVAC system as required by Standards Section §120.2(a). (Pass, Fail, or N/A)	§120.2(a) §160.3(a)2A
2.2	P, F, N/A	An Energy Management Control system is installed to comply with the requirement of one or more thermostatic controls. (Pass, Fail, or N/A)	§120.2(a) §160.3(a)2A
2.3	P, F, N/A	An independent perimeter heating or cooling system that serves more than one zone without individual thermostatic controls is installed. Mark as "pass" only if all of the following s Steps pass: 2.3.1, 2.3.2, 2.3.3, and 2.3.4. (Pass, Fail, or N/A)	Exception to §120.2(a) Exception to §160.3(a)2A
2.3.1	P, F, N/A	All zones served by the perimeter system are also served by an interior cooling system (Pass, Fail, or N/A); and	Exception to §120.2(a) Exception to §160.3(a)2A
2.3.2	P, F, N/A	The perimeter system is designed solely to offset envelope heat losses or gains (Pass, Fail, or N/A); and	Exception to §120.2(a) Exception to §160.3(a)2A
2.3.3	P, F, N/A	The perimeter system has at least one thermostatic control for each building orientation of 50 feet or more (Pass, Fail, or N/A); and	Exception to §120.2(a) Exception to §160.3(a)2A
2.3.4	P, F, N/A	The perimeter system is controlled by at least one thermostat located in one of the zones served by the system. (Pass, Fail, or N/A)	Exception to §120.2(a) Exception to §160.3(a)2A
3.0	No Entry	Criteria for Thermostatic zone controls. Both steps 3.1 and 3.2 must pass.	NA7.5.2.1(b) §120.2(b)
3.1	P, F, N/A	Set Points and Dead-band. One of the following steps must pass: 3.1.1, 3.1.2, 3.1.3, or 3.1.4	§120.2(b) §160.3(a)2B
3.1.1	P, F, N/A	The thermostatic control is used to control comfort heating only and is capable of being set, locally or remotely, down to 55°F or lower. (Pass, Fail, N/A)	§120.2(b)1 §160.3(a)2Bi
3.1.2	P, F, N/A	The thermostatic control is used to control comfort cooling only and is capable of being set, locally or remotely, up to 85°F or higher. (Pass, Fail, N/A)	§120.2(b)2 §160.3(a)2Bii

Step	Entry	Item	Code Reference
3.1.3	P, F, N/A	The thermostatic control is used to control both comfort heating and comfort cooling and requires manual changeover between heating and cooling modes. (Pass, Fail, N/A)	Exception to §120.2(b)3 Exception to §160.3(a)2Biii
3.1.4	P, F, N/A	The thermostatic control is used to control both comfort heating and comfort cooling and does NOT require manual changeover between heating and cooling modes and is capable of all of the following (all of the following steps must pass): 3.1.4.1, 3.1.4.2, and 3.1.4.3 (Pass, Fail, N/A)	§120.2(b)3 §160.3(a)2Biii
3.1.4.1	P, F, N/A	A minimum heating setpoint of 55°F or lower (Pass, Fail, N/A); and	§120.2(b)3 §160.3(a)2Biii
3.1.4.2	P, F, N/A	A maximum cooling setpoint of 85°F or higher (Pass, Fail, N/A); and	§120.2(b)3 §160.3(a)2Biii
3.1.4.3	P, F, N/A	A temperature range or dead band of at least 5°F within which the supply of heating and cooling energy to the zone is shut off or reduced to a minimum. (Pass, Fail, N/A)	§120.2(b)3 §160.3(a)2Biii
3.2	P, F, N/A	Additional Thermostatic Setback Controls. One of the following steps must pass: 3.2.1, 3.2.2, 3.2.3, or 3.2.4	§120.2(b) §160.3(a)2B
3.2.1	P, F, N/A	The heating or cooling systems is NOT a heat pump system and is NOT controlled by an Energy Management Control System, and has a clock mechanism that allows the building occupant to program the temperature setpoints for at least four periods within 24 hours (a setback thermostat). (Pass, Fail, N/A)	§110.2(c)1 §120.2(b)4 §160.3(a)1 §160.3(a)2Biv §180.2(b)2Aiv
3.2.2	P, F, N/A	Thermostatic setback control is NOT required. The heating or cooling system is one of the following (One of the following steps must pass): 3.2.2.1, 3.2.2.2, 3.2.2.3, or 3.2.2.4 . (Pass, Fail, N/A)	Exception to §110.2(c)
3.2.2.1	P, F, N/A	Gravity gas wall heater (Pass, Fail, N/A)	Exception to §110.2(c)
3.2.2.2	P, F, N/A	Gravity floor heater (Pass, Fail, N/A)	Exception to §110.2(c)
3.2.2.3	P, F, N/A	Gravity room heater (Pass, Fail, N/A)	Exception to §110.2(c)
3.2.2.4	P, F, N/A	Non-central electric heater, fireplace or decorative gas appliance, wood stove, room air conditioner, or room air-conditioner heat pump. (Pass, Fail, N/A)	Exception to §110.2(c)

Step	Entry	Item	Code Reference
3.2.3	P, F, N/A	The heating or cooling system is a heat pump WITH supplementary electric-resistance heaters and has all of the following controls. All of the following steps must pass: 3.2.3.1, 3.2.3.2, and 3.2.3.3. (Pass, Fail, N/A)	§110.2(c) §110.2(b)
3.2.3.1	P, F, N/A	Has a clock mechanism that allows the building occupant to program the temperature setpoints for at least four periods within 24 hours (a setback thermostat). (Pass, Fail, N/A)	§110.2(c)1
3.2.3.2	P, F, N/A	The cut-on temperature for compression-heat pump heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression-heat pump heating is higher than the cut-off temperature for supplementary heating. (Pass, Fail, N/A)	§110.2(b)2
3.2.3.3	P, F, N/A	Verify that supplementary heater operation is prevented when the heating load can be met by the heat pump alone, UNLESS the thermostatic controls provide preferential rate control, intelligent recovery, staging, ramping or another control mechanism designed to preclude the unnecessary operation of supplementary heating; supplementary heater operation is limited the following conditions: <ul style="list-style-type: none"> • Defrost • Transient Periods (i.e., start-ups or following thermostat setpoint advance) (Pass, Fail, N/A)	§110.2(b)1 Exception <u>1</u> to §110.2(b) 1
3.2.4	P, F, N/A	The heating or cooling system is a heat pump WITHOUT supplementary electric-resistance heaters and has a clock mechanism that allows the building occupant to program the temperature setpoints for at least four periods within 24 hours (a setback thermostat). (Pass, Fail, N/A)	§110.2(c)1 §110.2(b)
4.0	No Entry	Demand Response Controls & Demand Responsive Zonal HVAC Controls. All of the following steps must pass: 4.1, 4.2, 4.3, 4.4, and 4.5.	NA7.5.2.1(b) §120.2(b) §160.3(a)2B §110.12
4.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the demand responsive controls are capable of communicating with the Virtual End Node (VEN) using wired or wireless bi-directional communication pathway protocol.	§110.12(a)2

Step	Entry	Item	Code Reference
4.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that when the demand responsive control communications are signal is disabled or unavailable, all demand responsive controls continue to perform all other control functions provided by the control.	§110.12(a)4
4.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the demand response control system has been certified to the Energy Commission as meeting all of the requirements in Reference Joint Appendix 5 (Occupant Controlled Smart Thermostat). https://www.energy.ca.gov/rules-and-regulations/building-energy-efficiency/manufacture-certification-building-equipment-7	§110.12(a)5
4.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the controls are programmed to provide an adjustable rate of change for the temperature setup increase, decrease, and reset.	§110.12(b)4
4.5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the controls have the following features: All of the following steps must pass: 4.5.1, 4.5.2, and 4.5.3	§110.12(b)5
4.5.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Disabled. Disabled by authorized facility operators;	§110.12(ab)5A
4.5.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Manual control. Manual control by authorized facility operators to allow adjustment of heating and cooling set points globally from a single point in the EMCS.	§110.12(ab)5B
4.5.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Automatic Demand Shed Control. Upon receipt of a demand response signal, the space conditioning systems conduct a centralized demand shed for non-critical zones during the demand response period.	§110.12(b)1 §110.12(b)2 §110.12(a)5C
5.0	No Entry	Occupancy and Pre-Occupancy Programming. Both of the following steps must pass: 5.1 and 5.2	NA7.5.2.1(c)
5.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Occupied, unoccupied, and holiday schedules have been programmed per the schedule provided.	NA7.5.2.1(c)
5.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Pre-occupancy purge has been programmed for the 1-hour period immediately before the building is normally occupied to provide ventilation by one of the following methods (One of the following steps must pass): 5.2.1 or 5.2.2	NA7.5.2.1(d) §120.1(d)2 §160.2(c)5B
5.2.1	P, F, N/A	The minimum CFM specified by design for the heating or cooling unit is supplied to all zones served by the unit during the 1-hour period immediately before the building is normally occupied. (Pass, Fail, N/A)	NRCC-MCH-E or LMCC-MCH-E, Table J. §120.1(d)2 §160.2(c)5B

Step	Entry	Item	Code Reference
5.2.2	P, F, N/A	Three complete air changes to the zone served by the heating or cooling unit is supplied to all zones served by the unit during the 1-hour period immediately before the building is normally occupied. (Pass, Fail, N/A)	NRCC-MCH-E or LMCC-MCH-E, Table J. §120.21(d)2 §160.2(c)5B
6.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Check "Pass" if construction inspection complies with all requirements. Check "Fail" if construction inspection does not comply with all requirements.	N/A

Table B: Functional Testing

Step	Entry	Functional Test	Code Reference
1.0	P, F, N/A	Disable economizer control and demand-controlled ventilation (if applicable) to prevent unexpected interactions. (Pass, Fail, N/A)	NA7.5.2.2 Step 1
2.0	No Entry	Occupied Mode: Simulate a heating demand during the occupied condition. ALL of the following steps must pass: 2.1, 2.2, 2.6, and 2.4.	NA7.5.2.2 Step 2
2.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Supply fan operates continuously.	NA7.5.2.2 Step 2(a)
2.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	The unit provides heating.	NA7.5.2.2 Step 2(b)
2.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	No cooling is provided by the unit.	NA7.5.2.2 Step 2(c)
2.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Outside air damper is at minimum position.	NA7.5.2.2 Step 2(d)
3.0	No Entry	Occupied Mode: Simulate operation in the dead band during occupied condition. ALL of the following steps must pass: 3.1, 3.2, 3.3, and 3.4.	NA7.5.2.2 Step 3
3.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Supply fan operates continuously.	NA7.5.2.2 Step 3(e)
3.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	No heating is provided by the unit.	NA7.5.2.2 Step 3(f)
3.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	No cooling is provided by the unit.	NA7.5.2.2 Step 3(f)
3.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Outside air damper is at minimum position.	NA7.5.2.2 Step 3(g)



Step	Entry	Functional Test	Code Reference
4.0	No Entry	Simulate cooling demand during occupied condition. Lock out economizer (if applicable). ALL of the following steps must pass: 4.1, 4.2, 4.3, and 4.4.	NA7.5.2.2 Step 4
4.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Supply fan operates continuously.	NA7.5.2.2 Step 4(h)
4.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	No heating is provided by the unit.	NA7.5.2.2 Step 4(j)
4.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Cooling is provided by the unit.	NA7.5.2.2 Step 4(i)
4.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Outside air damper is at minimum position.	NA7.5.2.2 Step 4(k)
5.0	No Entry	Simulate operation in the dead band during unoccupied mode. All of the following steps must pass: 5.1, 5.2, 5.3, and 5.4.	NA7.5.2.2 Step 5
5.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Supply fan turns off.	NA7.5.2.2 Step 5(l)
5.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	No heating is provided by the unit.	NA7.5.2.2 Step 5(n)
5.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	No cooling is provided by the unit.	NA7.5.2.2 Step 5(n)
5.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Outside air damper closes completely.	NA7.5.2.2 Step 5(m)
6.0	No Entry	Simulate heating demand during unoccupied conditions. All of the following steps must pass: 6.1, 6.2, 6.3, and 6.4.	NA7.5.2.2 Step 6
6.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Supply fan cycles on and off.	NA7.5.2.2 Step 6(o)
6.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	The unit provides heating.	NA7.5.2.2 Step 6(p)
6.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	No cooling is provided by the unit.	NA7.5.2.2 Step 6(q)
6.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Outside air damper is either closed or at minimum position.	NA7.5.2.2 Step 6(r)
7.0	No Entry	Simulate cooling demand during unoccupied condition. Lock out economizer (if applicable). All of the following steps must pass: 7.1, 7.2, 7.3, and 7.4.	NA7.5.2.2 Step 7
7.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Supply fan cycles on and off.	NA7.5.2.2 Step 7(s)
7.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	No heating is provided by the unit.	NA7.5.2.2 Step 7(u)
7.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Cooling is provided by the unit.	NA7.5.2.2 Step 7(t)

Step	Entry	Functional Test	Code Reference
7.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Outside air damper is either closed or at minimum position.	NA7.5.2.2 Step 7(v)
8.0	No Entry	Simulate manual override during unoccupied condition. Both of the following steps must pass: 8.1 and 8.2.	NA7.5.2.2 Step 8
8.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	System operates in "occupied" mode.	NA7.5.2.2 Step 8(w)
8.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	System reverts back to "unoccupied" mode when manual override time period expires.	NA7.5.2.2 Step 8(x)
9.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	System returned to initial operating conditions. Restore economizer and demand control ventilation systems (if applicable), and remove all system overrides initiated during the test.	NA7.5.2.2 Step 9
10.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Check pass if Functional Test passes on Steps 1 through 9	N/A



Declaration Statement	Signatory
Document Author I assert that this Certificate of Acceptance documentation is accurate and complete.	Name Company Name Author Signature Date Signed
Acceptance Test Technician 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.	Name Company Name ATT No.: ATT Cert. No. Title Phone Signature Date Signed
Responsible Person I assert 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 understand 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, and I will take the necessary steps to ensure this requirement is accomplished. 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, and I will take the necessary steps to ensure this requirement is accomplished.	Name Company Name Lic. No.: License No. Title Phone Signature Date Signed