CONSTANT VOLUME, SINGLE ZONE, UNITARY (PACKAGED AND SPLIT) AIR CONDITIONER AND HEAT PUMP SYSTEMS

CERTIFICATE OF ACCEPTANCE		NRCA-MCH-03-A
Constant Volume, Single Zone, Unitary (Packaged and Split) Air Conditioner and Heat Pump Systems		(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:	

Note: Submit one Certificate of Acceptance for each system that must demonstrate compliance.	Enforcement Agency Use: Checked by/Date

A. Construction Inspection

1. Supporting documentation needed to perform test includes, but not limited to:
   a. 2016 Building Energy Efficiency Standards Nonresidential Compliance Manual *(NA7.5.2 Constant Volume, Single-zone, Unitary Air Conditioner and Heat Pumps Systems Acceptance At-A-Glance).*
   b. 2016 Building Energy Efficiency Standards Manual.
2. Instrumentation to perform test may include:
   a. Temperature Meter
   b. Amp Meter
3. Installation (check if applies):
   ☐ Thermostat is located within the space-conditioning zone that is served by the HVAC system.
4. Programming (check all those that apply):
   ☐ Thermostat meets the temperature adjustment and dead band requirements of 2016 Building Energy Efficiency Standards Manual Section 120.2(b).

   Minimum heating setpoint: _____^{o}F. Maximum cooling setpoint _____^{o}F. Deadband: _____^{o}F.

   ☐ Occupied, unoccupied, and holiday schedules have been programmed per the schedule provided.

   ☐ Pre-occupancy purge has been programmed to meet the requirements of 2016 Building Energy Efficiency Standards Manual Section 120.1(c)2.
   1. Check method used to determine pre-occupancy purge:
      ☐ Lesser of: conditioned floor area times ventilation rate from 2016 Building Energy Efficiency Standards TABLE 120.1-A or 15cfm per person times the expected number of occupants.
      ☐ 3 complete air changes.

Notes:

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B. Functional Testing Requirements		**Operating Modes**						
Step 1: Disable economizer control and demand-controlled ventilation (if applicable) to prevent unexpected interactions.								
Occupied Mode								
Step 2: Heating load during occupied condition								
Step 3: No-load during occupied condition								
Step 4: Cooling load during occupied condition								
Unoccupied Mode								
Step 5: No-load during unoccupied condition								
Step 6: Heating load during unoccupied condition								
Step 7: Cooling load during unoccupied condition								
Step 8: Manual override								
		8	**7**	**6**	**5**	**4**	**3**	**2**
Step 2 – 8: Check and verify the following for each simulation mode required								
a.	Supply fan operates continually							
b.	Supply fan turns off							
c.	Supply fan cycles on and off							
d.	System reverts to "occupied" mode to satisfy any condition							
e.	System turns off when manual override time period expires							
f.	Gas-fired furnace, heat pump, or electric heater stages on							
g.	No heating is provided by the unit							
h.	No cooling is provided by the unit							
i.	Compressor stages on							
j.	Outside air damper is open to minimum position							
k.	Outside air damper closes completely							
Step 9: System returned to initial operating conditions after all tests have been completed:		Y / N						

C. Testing Results	**8**	**7**	**6**	**5**	**4**	**3**	**2**
Indicate if Passed (P), Failed (F), or N/A (X), fill in appropriate letter							

D. Evaluation
☐ PASS: All **Construction Inspection** responses are complete and all applicable **Testing Results** responses are "Pass" (P).

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Constant Volume, Single Zone, Unitary (Packaged and Split) Air Conditioner and Heat Pump Systems		(Page 3 of 3)
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Project Address:	City:	Zip Code:
System Name or Identification/Tag:	System Location or Area Served:	

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:	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:

1. The information provided on this Certificate of Acceptance is true and correct.
2. I am the person who performed the acceptance verification reported on this Certificate of Acceptance (Field Technician).
3. 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.
4. 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:	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:

1. 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.
2. 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).
3. 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.
4. 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.
5. 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-MCH-03-A User Instructions

This compliance document is used to document results of packaged HVAC system operating tests. A separate compliance document should be completed for each system tested. The compliance document is separated into several basic sections: construction inspections; functional testing; testing results; and pass/fail evaluation. Each section consists of a combination of data entry requirements and check boxes.

Section A. Construction Inspection

This pre-test section consists of check boxes. Complete check boxes as instructed.

Section B. Functional Testing

This section consists of check boxes arranged in a matrix pattern, with the various operating modes listed horizontally and expected system responses listed vertically. As the HVAC system is tested under each applicable operating mode, check the box associated with the expected system response. Again, note that operating modes “F” and “G” are mutually exclusive with operating modes “H” and “I”. If the unit does not have an economizer, only modes “F” and “G” should be checked. Conversely, “H” and “I” are used only for systems with an economizer.

Operating Modes

This section documents the various operating modes for packaged HVAC systems under which they will be tested. Note that operating modes “F” and “G” are associated with systems that do not have an economizer and operating modes.

Section C. Testing Results

This section consists of data entry requirements for all operating modes. Enter data associated with the appropriate operating mode as instructed.

Section D. Evaluation

This section contains check boxes to indicate the pass/fail results of the test(s). Check the appropriate box. Any portion that fails should be explained in the given rows.

Declaration Statements

This section contains fillable fields for three declaration statements: one from the Documentation Author, one from the Field Technician, and one from the Responsible Person. Each area contains a number of data entry requirements, including signature; date; and license number.

The Documentation Author is the person completing the compliance document. The Field Technician is responsible for performing and documenting the results of the acceptance procedures on the Certificate of Acceptance compliance document. 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. 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.