

CEC-CF2R-MCH-01-E

SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS

CERTIFICATE OF INSTALLATION

Note: This table completed by ECC Registry.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Permit Application Date:

A. General Information

Notes:

- The outdoor design temperatures for heating shall be ≥99.0% Heating Dry Bulb or the Heating Winter Median of Extremes values.
- The outdoor design temperatures for cooling shall be ≤1.0% Cooling Dry Bulb and Mean Coincident Wet Bulb values.
- In fields A13 and A14,
 - 1. If the airflow is verified to be 350 CFM/ton or higher there is no maximum capacity (Section 150.2(a)1Eii) and user should enter N/A.
 - 2. If the space conditioning system is ductless (Exception 1 to Section 150.2(a)1Eii), user should enter N/A.

01	Dwelling Unit Name	02	Climate Zone
03	Dwelling Unit Total Conditioned Floor Area (ft²)	04	Number of Space Conditioning Systems in this Dwelling Unit
05	Certificate of Compliance Type	06	Method Used to Calculate HVAC Loads (See Section 150.0(h).)
07	Outdoor Design Condition Source (See Section 150.0(h)2	08	Cooling Outdoor Design Temperature Selected (°F)
09	Heating Outdoor Design Temperature Selected (°F)	10	Calculated Dwelling Unit Sensible Cooling Load (Btu/h
11	Calculated Dwelling Unit Heating Load (Btu/h)	12	Dwelling Unit Number of Bedrooms
	This table reports for Addition only, if project scop on the CF1R do	not l	nave Additions, then display the "section does not apply" message
13	Maximum Heating Capacity According to Table 150.2-A (Btu/h)	14	Maximum Cooling Capacity According to Table 150.2-B (Btu/h)
15	Envelope Leakage Specified in Load Calculation (ACH)	16	Source of Envelope Leakage Specified in Load Calculation

MCH-01d - Space Conditioning Systems Ducts and Fans - Performance E+A+A

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B. Design Space Conditioning (SC) System Component Specifications from CF1R

This table reports the space conditioning system features that were specified on the registered CF1R-PRF compliance document for this project.

01	02	03	04	05	06	07	08	09	10	11	12
				Central Fan							
SC				Ventilation				Cooling			
System			Cooling	Cooling		Required		System	Low Leakage	SC	
ID/Name	SC	Heating	System	System	Distribution	Thermostat	Cooling	Compressor	Air-Handling	System	Duct System
from CF1R	System Type	System Type	Туре	Туре	System Type	Туре	Zoning Type	Speed Type	Unit Status	Status	Status
Notes:							45				

C. Design Space Conditioning (SC) System Compliance Requirements from CF1R

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This table reports the space conditioning system features that were specified on the registered CF1R-PRF compliance document for this project.

01	02	03	04	05	06a	06	07	08	09	10	11	12
SC System ID/Name	Heating Efficiency	Minimum Heating Efficiency	Heat Pump Heating Capacity	Heat Pump Heating Capacity	Cooling Efficiency	Minimum Cooling Efficiency	Minimum Cooling Efficiency EER/EER2/	Minimum Cooling System Airflow Rate	Maximum SC System Fan Efficacy	Modeled Duct	Central Fan Ventilation Cooling	Central Fan Ventilation Cooling
from CF1R	Туре	Value	@ 47°F	@ 17°F	Туре	SEER/SEER2	CEER	(CFM/ton)	(W/CFM)	R-Value	Airflow	Fan Efficacy

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D. Installed New, Altered, and Existing Space Conditioning (SC) System Component Information

01	02	03	04	05	06	07	08	09	10	11	12	13
												Number of
												Ducted
												Indoor
												Units
		Conditione										Connected
	SC System	d Floor			Number of				Cooling			to the
SC System	Description	Area Served	Heating	Cooling	Indoor	Distribution	SC System		System	SC	Duct	System's
ID/Name	of Area	by the	System	System	Units for	System	Thermostat	Cooling	Compressor	System	System	Outdoor
from CF1R	Served	System (ft ²)	Type	Type	this System	Туре	Туре	Zoning Type	Speed Type	Status	Status	Unit
							\mathbf{C}					
Notes:	otes:											

E. Space Conditioning (SC) System Alteration Type Determination

01	02	03	04	05	06	07	08	9	10	11
			Does work							
			include	Does work	Does work	Does work	Does work			
		Is the SC	installing	include	include	include	include			
SC System	SC System	system a	refrigerant	installing new	installing more	installing	installing		Altered	Altered
ID/Name from	Description of	ducted	containing	SC System	than 25 feet of	entirely new	entirely new	Alteration	Heating	Cooling
CF1R	Area Served	system?	component?	component?	ducts?	duct system?	SC system?	Туре	Components	Components
			4 D-	100						
Notes:				11			<u> </u>		L	1

F. Installed Heating System Equipment Information (not heat pumps)

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01	02	03	04	05	06	07	08	09	10	11
		Indoor Unit	Does Indoor			Heating				
SC System	SC System	Name or	Unit Provide		Heating	Efficiency		Heating Unit		Rated Heating
ID/Name from	Description of	Description of	CFI IAQ	Indoor Unit	Efficiency	Value	Heating Unit	Model	Heating Unit	Capacity,
CF1R	Area Served	Area Served	Ventilation?	Duct Status	Туре	(%)	Manufacturer	Number	Serial Number	Output (Btu/h)
Notes:	•	•	•		•				•	•

G. Installed Cooling System Outdoor Condensing Unit or Package Unit Equipment Information (not heat pumps)

	<u> </u>						<u> </u>		
01	02	03	04	05	06	07	08	09	10
						4	System Cooling		
							Capacity at	Condenser	Condenser
SC System	SC System	Cooling	Cooling	Condenser or	Condenser or	Condenser or	Design	Nominal Cooling	Rated Cooling
ID/Name from	Description of	Efficiency	Efficiency	Package Unit	Package Unit	Package Unit	Conditions	Capacity	Capacity
CF1R	Area Served	SEER/SEER2	EER/EER2/CEER	Manufacturer	Model Number	Serial Number	(Btu/h)	(ton)	(Btu/h)
				·					
Notes:			•						

H. Installed Split System Indoor Unit Coil or Fan Coil Equipment Information - applicable to DX or hydronic, heating or cooling, coils and fan coil units.

Systems with more than one indoor coil or fan coil unit (e.g. multi-split systems) shall provide information for each of the system indoor unit coils or fan coil units.

01	02	03	04	05	06	07	08	09	
		Indoor Unit	67.7						
	SC System	Name or			Does Indoor				
SC System	Description	Description			Unit Provide				
ID/Name	of Area	of Area	Indoor Unit	Indoor Unit	CFI IAQ	Indoor Unit	Indoor Unit Model	Indoor Unit Serial	
from CF1R	Served	Served	Туре	Duct Status	Ventilation?	Manufacturer	Number	Number	
			4						
Notes:					•				

I. Installed Heat Pump System – Split System Condensing Unit or Package Unit Equipment Information

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01	02	03	04	05
SC System ID/Name from	SC System Description of			Condenser or Package Unit
	· ·			
CF1R	Area Served	Condenser or Package Unit Manufacturer	Condenser or Package Unit Model Number	Serial Number
Notes:				~

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J. Installed Heat Pump System – Efficiency and Performance Compliance Information

01	02	03	04	05	06	07	08	09	10
SC System ID/Name from CF1R	SC System Description of Area Served	Heating Efficiency Type	Heating Efficiency Value	System Rated Heating Capacity at 47°F	System Rated Heating Capacity at 17°F	System Rated Cooling Efficiency SEER/SEER2	System Rated Cooling Efficiency EER/EER2	System Cooling Capacity at Design Conditions (Btu/h)	Condenser Nominal Cooling Capacity (ton)
Notes:		•		1					

K. Altered Space Conditioning System Duct Information (<75% of duct system is altered; or duct system is not altered)

01	02	03	04	05	06	07	08	09	10	11	12
							XVX			Can	
		Indoor Unit		Required						Approved	Indoor Unit
	SC System	Name or		New Duct R-	Installed	Installed	Installed	Installed		Airflow	Nominal
SC System	Description	Description	Were New	Value	New Supply	New Supply	New Return	New Return	Exception	Protocols be	Cooling
ID/Name	of Area	of Area	Ducts	(Uncondition	Duct	Duct	Duct	Duct	from Min	used to test	Capacity
from CF1R	Served	Served	Installed?	ed Space)	Location	R-Value	Location	R-Value	R-Value	this System?	(ton)
Notes:											

L. Installed New or Replacement Duct System Information

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
										Method of		Can		
				Required						compliance	Number	Approved	Can	Indoor
		Indoor Unit		New Duct		New or		New or		with Airflow	of Air	Airflow	Approved	Unit
	SC System	Name or	Indoor	R-Value		Replaced		Replaced		and Fan	Filter	Protocols	Fan Efficacy	Nominal
SC System	Description	Description	Unit Total	(Unconditi	Supply	Supply	Return	Return	Exception	Efficacy Req's	Devices	be used to	Protocol be	Cooling
ID/Name	of Area	of Area	Duct	oned	Duct	Duct	Duct	Duct	from Min	in	on Indoor	test this	used to test	Capacity
from CF1R	Served	Served	Length	Space)	Location	R-Value	Location	R-Value	R-Value	150.0(m)13	Unit	System?	this system?	(ton)
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M. Installed Air Filter Device Information

Mandatory requirements for air filter devices are specified Section 150.0(m)12. The installer shall place a sticker in or near each filter grille that displays the design airflow rate for that filter grille/rack and the maximum allowed clean filter pressure drop at the design airflow rate. This will inform the occupant of the airflow vs pressure drop performance required for replacement air filters.

01	02	03	04	05	06	07	08	09	10	11	12	13
												Design
					Design							Allowable
		Indoor Unit			Airflow				Air Filter	Air Filter		Pressure
	SC System	Name or	Air Filter		Rate	Air Filter	Air Filter	Air Filter	Calculated	Required		Drop for Air
SC System	Description	Description	Name or		for Air Filter	Nominal	Nominal	Nominal	Nominal	Minimum		Filter
ID/Name	of Area	of Area	Description	Air Filter	Device	Depth	Length	Width	Face Area	Face Area	Face Area	Device
from CF1R	Served	Served	of Location	Rack Type	(cfm)	(inch)	(inch)	(inch)	(inch²)	(inch²)	Compliance	(inch W.C.)
Notes:	1	I.	1								1	1

N. Air Filter Device Requirements

The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.

Mandatory Air Filter Device Requirements can be found in Section 150.0(m)12A-E. Some mandatory requirements may apply in addition to those listed below.

01	All recirculated air and all outdoor air (including make up air) supplied to the occupiable space is filtered before passing through the system's thermal conditioning components.
02	The space conditioning system shall be designed to accommodate the clean-filter pressure drop imposed by the system air filter device(s). The design airflow rate and maximum allowable clean-filter pressure drop at the design airflow rate applicable to each air filter shall be determined by the system designer. The system installer shall affix a sticker/label to each system air filter grille/rack location that discloses the filter's design airflow rate and the filter's maximum allowable clean-filter pressure drop at the design airflow rate. The sticker/label shall be permanently affixed to the air filter grille/rack, readily legible, and visible to a person replacing the air filter.
03	All system air filter devices shall be located and installed in such a manner as to allow access and regular service by the system owner.
04	The system shall be provided with air filters having a designated efficiency equal to or greater than MERV 13 when tested in accordance with ASHRAE Standard 52.2, or a particle size efficiency rating equal to or greater than 50 percent in the 0.30-1.0 μm range and equal to or greater than 85 percent in the 1.0-3.0 μm range when tested in accordance with AHRI Standard 680.
05	The system shall be provided with air filters that have been labeled by the manufacturer to disclose efficiency and pressure drop ratings that conform to the efficiency and pressure drop requirements for the air filter grilles/racks.
06	Filter racks or grilles shall use gaskets, sealing, or other means to close gaps around inserted filters and prevent air from bypassing the filter.

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O. ECC Verification Requirements for Duct Systems

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01	02	03	04	05	06	07	08	09	10	11
				MCH-20	MCH-21	MCH-22	MCH-23	MCH-28	MCH-29	МСН30
SC System ID/Name from CF1R	SC System Description of Area Served	Indoor Unit Name or Description of Area Served	Exemption from Duct Leakage Requirements	Duct Leakage Test	Duct Location Verification	AHU Fan Efficacy (W/cfm)	AHU Airflow Rate (cfm/ton)	Return Duct Design - Table 150.0-B or C	Supply Duct Surface Area R-Value Buried Ducts	Central Fan Ventilation Cooling Credit
									2 0 0 0	
						6				
Notes:						\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				

P. ECC Verification Requirements for Space Conditioning Equipment

01	02	03	04	05				
		MCH-25	MCH-26	MCH-33				
		71,41,40	Rated					
	SC System Description of Area		SC System					
SC System ID/Name from CF1R	Served	Refrigerant Charge	Equipment Verification	VCHP Compliance Credit				
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		77.0						
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Q. Space Conditioning Systems, Ducts and Fans – Mandatory Requirements and Additional Measures

The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.

Note: Additional mandatory requirements from Section 150.0 that are not listed here may be applicable to some systems. These requirements may be applicable to only newly installed equipment or portions of the system that are altered. Existing equipment may be exempt from these requirements.

Heating Equipment

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01	Equipment Efficiency: All heating equipment must meet the minimum efficiency requirements of Section 110.1 and Section 110.2(a) and the Appliance Efficiency Regulations.
02	Controls: All unitary heating systems, including heat pumps, must be controlled by a setback thermostat. These thermostats must be capable of allowing the occupant to program the temperature set points for at least four different periods in 24 hours. See Sections 150.0(i), 110.2(c).
03	Sizing: Heating load calculations must be done on portions of the building served by new heating systems to prevent inadvertent undersizing or oversizing. See sections 150.0(h)1 and 2, and the exceptions.
04	Furnace Temperature Rise: Central forced-air heating furnace installations must be configured to operate at or below the furnace manufacturer's maximum inlet-to-outlet temperature rise specification. See Section 150.0(h)4.
05	Standby Losses and Pilot Lights: Fan-type central furnaces may not have a continuously burning pilot light. Section 110.5 and Section 110.2(d).

Cooling Equipment

06	Equipment Efficiency: All cooling equipment must meet the minimum efficiency requirements of Section 110.1 and Section 110.2(a) and the Appliance Efficiency Regulations.
07	Refrigerant Line Insulation: All refrigerant line insulation in split system air conditioners and heat pumps must meet the R-value and protection requirements of Section 150.0(j)1 and 2, and Section 150.0(m)9.
08	Condensing Unit Location: Condensing units shall not be placed within 5 feet of a dryer vent outlet. See Section 150.0(h)3A.
09	Liquid Line Filter Drier: A liquid line filter drier shall be installed according to the manufacturer's specifications 150.0(h)3B.
10	Sizing: Cooling load calculations must be done on portions of the building served by new cooling systems to prevent inadvertent undersizing or oversizing. See Section 150.0(h)1 and 2, and the exception.
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Cooling and Heating Equipment (Additional Requirement)

	ing and heating Equipment (Additional Requirement)
11	System Selection: See section 150.0(h)5
	A. Equipment sizing and selection shall meet the cooling and heating loads of Section 150.0(h)1 and 2.
	B. Systems shall be sized based on ACCA Manual S-2023 in accordance with these requirements:
	i. Cooling Capacity: There is no limit on the minimum capacity.
	ii. Furnaces: Heating capacity shall be sized based on ACCA Manual S-2023, Table N2.5.
	iii. Heat Pump Heating Capacity:
	a. Minimum: Heating systems are required to have a heating capacity meeting the minimum requirements of the CBC not including any supplementary heating.
	b. Maximum: There is no limit on the maximum heating capacity.
12	Defrost: See section 150.0(h)6 and the exceptions.
	A. If a heat pump is equipped with an installer adjustable defrost delay timer, the delay timer shall be set to greater than or equal to 90 minutes.
	B. The installer shall certify on the Certificate of Installation (CF2R) that the control configuration has been tested in accordance with the testing procedure in the CF2R.
	Exception 1 to Section 150.0(h)6. Dwelling units in Climate Zones 6 and 7.
	Exception 2 to Section 150.0(h)6. Dwelling units with a conditioned floor area of 500 square feet or less in Climate Zones 3, 5 through 10, and 15.
13	Supplementary heating control configuration: See section 150.0(h)7.
	Heat pumps with supplementary heat, including, but not limited to, electric resistance heaters or gas furnace supplementary heating, shall comply with the following requirements: See
	section 150.0(h)7 for exceptions.
	A. Lock out supplementary heating above an outdoor air temperature of no greater than 35°F. There are additional thermostat requirements in section 150.0(i)2.
	B. The installer shall certify on the Certificate of Installation that the control configuration has been tested in accordance with the testing procedure found in the CF2R.
	C. The controls may allow supplementary heater operation above 35°F only during defrost; or when the user selects emergency operation.
14	Sizing of electric resistance supplementary heat: See section 150.0(h)8.
	For heat pumps with electric resistance heating, the capacity of electric resistance heat shall not exceed the heat pump nominal cooling capacity (at 95°F ambient conditions) multiplied by
	2.7 kW per ton, rounded up to the closest kW.
15	Capacity variation with third-party thermostats: See section 150.0(h)9
	Variable or multi-speed systems shall comply with the following requirements:
	A. The space conditioning system and thermostat together shall be capable of responding to heating and cooling loads by modulating system compressor speed, and meet thermostat requirements in section 150.0(i)2.

Air Distribution System Ducts, Plenums and Fans

16	Insulation: The minimum duct insulation value is R-6 or ducts can be uninsulated if the duct system is located entirely in conditioned space. Note that higher values may be required by
10	the prescriptive or performance requirements. See Section 150.0(m)1B for exceptions.
17	Connections and Closures: All installed air-distribution system ducts and plenums must meet the requirements of CMC Sections 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-
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Heat Pump Thermostat

18	A thermostat shall be installed that meets the requirements of Section 110.2(b) and Section 110.2(c).
19	The thermostat shall be installed in accordance with the manufacturers published installation specifications.
20	First stage of heating shall be assigned to heat pump heating.
21	Second stage back up heating shall be set to come on only when the indoor set temperature cannot be met.
22	Setback thermostats: All heating or cooling systems, including heat pumps, not controlled by a central energy management control system (EMCS) shall have a setback thermostat, as specified in Section 110.2(c). See Section 150.0(i)1
23	Thermostats that are applied to heat pumps with supplemental heating: See Section 150.0(i)2 The thermostats controlling heat pumps with electric resistance supplementary heat or gas furnace supplementary heat shall comply with the following requirements: See Section 150.0(i)2 for exceptions. A. The thermostat shall receive outdoor air temperature from an outdoor air temperature sensor or from an internet weather service. B. B. The thermostat shall display the outdoor air temperature. C. The thermostat and heat pump shall lock out supplementary heat when the outdoor air temperature is above 35°F. D. The thermostat shall have an indicator to notify when supplementary heat or emergency heat is in use. E. During defrost or when the user selects emergency heating, supplementary heat operation is permitted above 35°F.

Space Conditioning Load Calculations and System Capacity for Additions

-	5 Containing Total Cartainanon and Official Capacity 1017 (Cartaine)
24	Minimum capacity limits and supplemental heating requirements are as described in Section 150.0(h)
	The maximum capacity depends on the relative sizes of the calculated heating design load (HL) and cooling design load (CL), the type of space conditioning system, and the duct sizing.
	See section 150.2(a)1Eii for exceptions
25	a. In situations where airflow is field verified to be at least 350 cfm/ton, there is no maximum capacity limit.
	b. In situations where airflow is NOT field verified to be at least 350 cfm/ton, the system capacities shall be no larger than indicated in Table 150.2-A for heating and Table 150.2-B for
	cooling.
26	For additions, the envelope leakage specified in the load calculation shall be no greater than the values shown in Table 150.2-C. See section 150.2(a)1Eiii for exceptions

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R. Test of Defrost Delay Timer Setting

The installing contractor shall confirm that a heat pump's installer-adjustable Defrost Delay Timer Setting (if it exists) is set to no less than 90 minutes.

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	Test App	plicability. Select the statement describing test applicability for this project:				
	1.	The test applies because the heat pump utilizes an installer adjustable Defrost Delay Timer Setting to control defrost and				
		there are no exceptions.				
01	2.	The test does not apply because the heat pump does not utilize an installer-adjustable Defrost Delay Timer Setting to				
	3.	control defrost. The test does not apply because Exception 1. Dwelling units in Climate Zones 6 and 7 applies.	,			
	4.	The test does not apply because Exception 1. Dwelling units with a conditioned floor area of 500 square feet or less in				
		Climate Zones 3, 5 through 10, and 15 applies.				
	Recordi	ng Configuration of Controls. Specify the mechanism for setting the Defrost Delay Timer Setting (for example, the name of				
02	defrost	delay timer setting in the thermostat setup, or the location and number of the specific dip switch, jumper, or dial that adjusts				
	Defrost	Delay timer).				
03	Record the heat pump's Maximum Available Defrost Delay Timer Setting (minutes).					
04	Record	where you set the Defrost Delay Timer Setting (fo example, the numeric timer setting, dip switch position, jumper				
		ation, or dial setting).				
05	Record	where you set the Defrost Delay Timer Setting, in minutes.				
	1	ing Configuration of Controls. If possible, the Defrost Delay Timer Setting must be 90 minutes or greater. Confirm the				
06	Defrost	Delay Timer Setting is at least 90 minutes.				



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S. Test of Supplementary Heating Lockout

The installing contractor shall confirm the heat pump or thermostat is configured to lock out supplementary heating anytime the outdoor air temperature is above 35°F.

	Test Applicability. Select the statement describing test applicability for this project:
	The test applies because the heating system is a heat pump with supplementary heating and there are no exceptions.
01	The test does not apply because the heating system does not include a heat pump with auxiliary heating.
01	The test does not apply because Exception 1. Heat pump being installed in a single family dwelling unit in Climate Zones 7 or 15.
	The test does not apply because Exception 2. Heat pump being installed in a single family dwelling unit with a conditioned floor area of
	500 square feet or less.
02	If supplementary heating is electric resistance, what is its rated capacity (kW)?
03	If supplementary heating is gas, what is its rated input capacity (kBtu/hr)?
	Confirming Configuration of Controls. Specify the mechanism for locking out the supplementary heating (for example, the name of
04	supplementary heating lockout setting in the thermostat setup, or the location and number of the specific dip switch, jumper, or dial that
	adjusts lockout temperature). If there is no mechanism to lock out supplementary heating above a temperature no greater than 35°F this
	test fails.
05	Record supplementary heating lock-out setting (for example, the numeric thermostat lock-out setpoint, dip switch position, jumper
03	configuration, or dial setting).
06	At what Outdoor Air Temperature (OAT) are the controls configured to begin locking out supplementary heating? If this number is above
06	35°F this test fails.

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

2. For the time continuate of instanction documentation is accorded and complete.		
Documentation Author Name:	Documentation Author Signature:	
Dogwood to the Comment News	Data Cirmada	
Documentation Author Company Name:	Date Signed:	
Address:	CEA/AEA/ECC Certification Identification (If applicable):	
City/State/Zip:	Phone:	

RESPONSIBLE PERSON'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 Installation is true and correct.
- 2. I am either: a) a responsible person 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 Installation, and attest to the declarations in this statement, or b) I am an authorized representative of the responsible person and attest to the declarations in this statement on the responsible person's behalf.
- 3. The constructed or installed features, materials, components or manufactured devices (the installation) identified on this Certificate of Installation conforms to all applicable codes and regulations and the installation conforms to the requirements given on the Certificate of Compliance, plans, and specifications approved by the enforcement agency.
- 4. I understand that a registered copy of this Certificate of Installation shall be posted or made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
- 5. I understand that a registered copy of this Certificate of Installation is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Builder/Installer Name:	Responsible Builder/Installer Signature:	
Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)	Position With Company (Title):	
Address:	CSLB License:	
City/State/Zip:	Phone:	Date Signed:

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300

Registration Number: Registration Date/Time: ECC Provider:

CA Building Energy Efficiency Standards - 2025 Single-Family Compliance January 1, 2026

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CF2R-MCH-01d-E User Instructions

Section A. General Information

- 1. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 2. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 3. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. When the project scope includes an addition to an existing building, the value is equal to the sum of the existing conditioned floor area plus the conditioned floor area of the addition. The default value from the CF1R-PRF may be overwritten in this document. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 4. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 5. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 6. Oversized equipment can result in reduced efficiency and capacity. Entirely new systems (see definition in Section 9.6.9 of the RCM) must be properly sized to match the heating and cooling load of the space that it serves. To do this, heating and cooling load calculations must be performed using an approved calculation methodology. These are listed here. Select the load calculation methodology used for this dwelling unit. If the project consists of a partial replacement of equipment or ducts (change-out) then load calculations are not required. Select N/A. Load calculations are always recommended, especially if the loads of the house have been changed since the original equipment has been installed (reduced via weatherization, other improvements).
- 7. Enter the Outdoor Design Condition Source (See Section 150.0(h)2), user select from the list.
- 8. Enter the Cooling Outdoor Design Temperature Selected (°F) for the dwelling unit described by this document.
- 9. Enter the Heating Outdoor Design Temperature Selected (°F) for the dwelling unit described by this document.
- 10. Enter the total sensible cooling load for the dwelling unit described by this document. For projects involving dwelling units with more than one system, this will be a sum of the loads for the parts of the dwelling unit served by those systems. If the project consists of a partial replacement of equipment or ducts (change-out) then load calculations are not required. Select N/A.
- 11. Enter the total heating load for the dwelling unit described by this document. For projects involving dwelling units with more than one system, this will be a sum of the loads for the parts of the dwelling unit served by those systems. If the project consists of a partial replacement of equipment or ducts (change-out) then load calculations are not required. Select N/A.
- 12. Enter the number of bedrooms in the dwelling unit. This field is filled out automatically using the default value from the CF1R-PRF for performance compliance, and is user entry for prescriptive compliance. The default value from the CF1R-PRF may be overwritten in this

- document. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 13. User select from the list or user input. If airflow is field verified to be 350 CFM/ton or higher, or if the space conditioning system is ductless, then enter N/A.
- 14. User input. If airflow is field verified to be 350 CFM/ton or higher, or if the space conditioning system is ductless, then enter N/A.
- 15. User input. Referenced from Table 152.2-C and Field Verification and Diagnostic Testing.
- 16. User select from the list.

Section B. Design Space Conditioning (SC) System Component Specifications from CF1R

- 1. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 2. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 3. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 4. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 5. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 6. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 7. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 8. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 9. This field is filled out automatically. It is determined based on entries on the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 10. This field is filled out automatically. It is determined based on entries on the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 11. This field is filled out automatically. It is determined based on entries on the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 12. This field is filled out automatically. It is determined based on entries on the Certificate of Compliance (CF1R), which must be completed prior to this document.

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Section C. Design Space Conditioning (SC) System Compliance Requirements from CF1R

- 1. This field is filled out automatically. It is referenced from the same row and column in the previous section.
- 2. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 3. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 4. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 5. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 6a. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 6. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 7. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 8. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 9. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 10. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 11. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.
- 12. This field is filled out automatically. It is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document.

Section D. Installed New, Altered, and Existing Space Conditioning (SC) System Component Information

- 1. Select System name from the list of systems identified in previous sections and originally specified on the CF1R.
- 2. Briefly describe the area served by this system. Examples: entire house, upstairs, downstairs, sleeping area, north wing, etc.
- 3. Enter the conditioned floor area served by the system described in this row. The total value of this column for all rows must equal the total dwelling unit conditioned floor area as shown in Section A.

- 4. This field is filled out automatically. It appears in Section B and is referenced from the Certificate of Compliance (CF1R), which must be
- 4. This field is filled out automatically. It appears in Section B and is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 5. This field is filled out automatically. It appears in Section B and is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 6. If the space conditioning system is a multiple-split system, then enter the number of ducted/ductless indoor units (AHU) connected to the outdoor unit. If the system is a type that does not have an outdoor unit, such as a heating-only type that uses only a furnace air-handling unit, enter 1 for the number of indoor units (The furnace air-handling unit is an indoor unit).
- 7. This field is filled out automatically. It appears in Section B and is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 8. This field is filled out automatically. It appears in Section B and is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 9. This field is filled out automatically. It appears in Section B and is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 10. This field is filled out automatically. It appears in Section B and is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel
- 11. This field is filled out automatically. It appears in Section B and is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 12. This field is filled out automatically. It appears in Section B and is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 13. This field may be filled out automatically, otherwise enter the number of ducted indoor units connected to this system's outdoor unit. If the system is a type that does not have an outdoor unit, such as a heating-only type that uses only a furnace air-handling unit, enter 1 for the number of indoor units (The furnace air-handling unit is an indoor unit).

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Section E. Space Conditioning (SC) System Alteration Type Determination

- 1. SC System Identification or Name: Enter a unique identifier for this system that will readily distinguish it from other systems in the dwelling unit, such as "HVAC1," "upstairs system," etc. It is recommended to mark the system with this identifier using a permanent marker for ease of identification in the field. For single-system dwelling units, enter a simple name such as "HVAC."
- 2. SC System Description of Area Served: Enter a unique description of the portion of dwelling unit served by this system, such as "entire second floor," "bedroom wing," etc. For single-system dwelling units, enter a simple description such as "entire house."
- 3. Is the altered or installed system a ducted system? Select "YES" if the system has a central air handler (package or split) that is connected to one or more supply air outlets via ducting of any shape or material. Select "NO" for nonducted systems such as ductless mini-splits, through-the-wall systems, package terminal air conditioners, etc.
- 4. Altering or installing a refrigerant containing component? Select "YES" if the project includes installing or replacing a component that contains refrigerant; otherwise select "NO." Refrigerant containing components include compressors, condensing coils, evaporator coils, refrigerant metering devices or refrigerating lines.
- 5. Installing new components? Select "YES" if new HVAC components such as a packaged unit, condensing unit, cooling/heating coil, or air-handling unit (e.g. furnace), etc. are being installed in the system; otherwise select "NO."
- 6. Installing more than 25 linear feet of new or replacement ducts? This field may be filled out automatically. If required, Select "YES" if the project involves installing more than 25 linear feet of new or replacement ducts; otherwise select "NO."
- 7. Is the entire duct system accessible for sealing and is more than 75% of the duct system new or replaced? Select "YES" when, upon completion of the project, more than 75% of the ducts will be new ducts and/or replaced ducts, AND if at any time during the project all of the ducts are accessible for duct sealing; otherwise select "NO." "Accessible" is defined in Joint Appendix JA1 of the 2025 Reference Appendices (glossary).
- 8. Are all of the system's components and ducts new (entirely new system) or replaced? Select "YES" if the duct system meets the definition of an "Entirely New or Replacement Duct System" and all of the heating and cooling components (furnace, condenser, coil, etc.) are all new or replaced; otherwise select "NO."
- 9. Alteration Type: This field is calculated automatically based on the information entered in previous fields. Alteration types are defined in Joint Appendix JA1 of the 2025 Reference Appendices. The alteration type will determine which of the following sections are required by this document.
- 10. Altered Heating Components. select all that are applicable
- 11. Altered Cooling Components. select all that are applicable

Section F. Installed Heating System Information (not heat pumps)

- 1. This field is filled out automatically. It is referenced from the same row and column in the previous section.
- 2. This field is filled out automatically. It is referenced from the same row and column in the previous section.
- 3. Enter a brief name or description of the indoor unit area served. Examples: Master Bedroom, Dining Room, Living Room, etc.

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- 4. If the indoor unit is used to bring outdoor air into the dwelling, the system may be used to comply with the IAQ mechanical ventilation requirements. This is called central fan integrated ventilation (CFI). Systems that have only one indoor unit may use CFI ventilation if yes is selected in this field. Systems with more than one indoor unit connected to one outdoor unit may not select yes.
- 5. Enter the description of the duct system on this indoor unit. The possible choices are Ductless; Ducted >10ft length, Ducted ≤10ft length
- 6. This field is filled out automatically. It is referenced from the same row and column in Section C.
- 7. Enter the certified heating efficiency of the *installed* equipment. This value is verified against the minimum value shown in Section C. The installed efficiency must be greater than or equal to the required minimum efficiency.
- 8. Enter the name of the *installed* Heating Unit Manufacturer as shown on the equipment nameplate.
- 9. Enter the name of the installed Heating Unit Model Number as shown on the equipment nameplate.
- 10. Enter the name of the installed Heating Unit Serial number as shown on the equipment nameplate.
- 11. Enter the rated heating capacity (output) of the *installed* Heating Unit in BTUs per hour.

Section G. Installed Cooling System Outdoor Unit or Package Unit Equipment Information (not heat pump)

- 1. This field is filled out automatically. It is referenced from the same row and column in the previous section.
- 2. This field is filled out automatically. It is referenced from the same row and column in the previous section.
- 3. Enter the certified cooling efficiency (SEER/SEER2) of the *installed* equipment. This value is verified against the minimum value shown in Section C. The installed efficiency must be greater than or equal to the required minimum efficiency.
- 4. Enter the certified cooling efficiency (EER/EER2/CEER) of the *installed* equipment. This value is verified against the minimum value shown in Section C. The installed efficiency must be greater than or equal to the required minimum efficiency.
- 5. Enter the name of the *installed* Condenser or Package Unit Manufacturer as shown on the equipment nameplate.
- 6. Enter the name of the *installed* Condenser or Package Unit Model Number as shown on the equipment nameplate.
- 7. Enter the name of the installed Condenser or Package Unit Serial Number as shown on the equipment nameplate.
- 8. Enter the sensible cooling capacity at design conditions of the *installed* cooling system in BTUs per hour. This information is found in the system performance information on the manufacturer's published documentation for the installed system.
- 9. Enter the *installed* Condenser Nominal Cooling Capacity in tons. Note that this is based on the condenser, not the coil or air handler. This can usually be determined by the condenser model number.
- 10. Enter the installed Condenser Rated Cooling Capacity in BTU/h. Note that this is based on the condenser, not the coil or air handler.

Section H. Installed Split System Indoor Unit Coil or Fan Coil Equipment information - applicable to DX or hydronic, heating or cooling, coils or fan coil units)

- 1. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 2. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 3. Enter a brief name or description of the indoor unit area served. Examples: Master Bedroom, Dining Room, Living Room, etc..

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- 4. Enter the type of indoor unit or air handling unit installed by selecting one of the choices from the list.
- 5. Enter the description of the ducts system on this indoor unit. The possible choices are Ductless; Ducted >10ft length, Ducted ≤10ft length.
- 6. If the indoor unit is used to bring outdoor air into the dwelling, the system may be used to comply with the IAQ mechanical ventilation requirements. This is called central fan integrated ventilation (CFI). Systems that have only one indoor unit may use CFI ventilation if yes is selected in this field. Systems with more than one indoor unit connected to one outdoor unit may not select yes
- 7. Enter the name of the *installed* Indoor Coil or Fan Coil Unit Manufacturer as shown on the equipment nameplate.
- 8. Enter the name of the *installed* Indoor Coil or Fan Coil Unit Model Number as shown on the equipment nameplate.
- 9. Enter the name of the *installed* Indoor Coil or Fan Coil Unit Serial Number as shown on the equipment nameplate.

Section I. Installed Heat Pump System – Split System Condensing Unit or Package Unit Equipment Information

- 1. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 2. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 3. Enter the name of the installed Heat Pump Condenser or Package Unit Manufacturer as shown on the equipment nameplate.
- 4. Enter the name of the installed Heat Pump Condenser or Package Unit Model Number as shown on the equipment nameplate.
- 5. Enter the name of the *installed* Heat Pump Condenser or Package Unit Serial Number as shown on the equipment nameplate.

Section J. Installed Heat Pump System – Efficiency and Performance Compliance Information

- 1. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 2. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 3. This field is filled out automatically. It is referenced from the same row in Section C.
- 4. Enter the certified heating efficiency of the *installed* equipment. This value is verified against the minimum value shown in Section C. The installed efficiency must be greater than or equal to the required minimum efficiency.
- 5. Enter the certified heating capacity at 47F of the *installed* equipment. This value is verified against the minimum value shown in Section C. The installed capacity must be greater than or equal to the required minimum capacity.
- 6. Enter the certified heating capacity at 17F of the *installed* equipment. This value is verified against the minimum value shown in Section C. The installed capacity must be greater than or equal to the required minimum capacity.
- 7. Enter the certified cooling efficiency (SEER/SEER2) of the *installed* equipment. This value is verified against the minimum value shown in Section C. The installed efficiency must be greater than or equal to the required minimum efficiency.
- 8. Enter the certified cooling efficiency (EER/EER2) of the *installed* equipment. This value is verified against the minimum value shown in Section C. The installed efficiency must be greater than or equal to the required minimum efficiency.
- 9. Enter the sensible cooling capacity at design conditions of the *installed* cooling system in BTUs per hour.
- 10. Enter the *installed* Condenser Nominal Cooling Capacity in tons. Note that this is based on the condenser, not the coil or air handler. Can usually be determined by the condenser model number.

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Section K. Extension of Existing Duct System, Greater Than 25 Feet

- 1. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 2. This field is filled out automatically. It is referenced from the same row and column in the previous sections
- 3. This field is filled out automatically. It is referenced from the same row and column in the previous sections
- 4. This field may be filled out automatically. If required, select yes or no.
- 5. This field is filled out automatically.
- 6. Select the supply duct location from the list.
- 7. Enter the R-value of the installed supply ducts. This value is verified against the minimum value shown in field L05. The installed R-value must be greater than or equal to the required minimum R-value.
- 8. Select the return duct location from the list.
- 9. Enter the R-value of the installed return ducts. This value is verified against the minimum value shown in field L05. The installed R-value must be greater than or equal to the required minimum R-value.
- 10. The duct system needs to meet minimum R-6 requirement except for portions of ducts located in conditioned space. Duct systems that are entirely in conditioned space can be uninsulated, subject to ECC verification.
- 11. If the system is of a type that can use one of the approved protocols for testing the airflow rate, then enter yes. Otherwise enter no. Most ducted split systems and package systems are of the type that minimum airflow can be verified using an approved measurement procedure. A "No" response here may subject the project to additional scrutiny by enforcement personnel. Note: that the protocol in RA3.3.3.1.5 (Alternative to Compliance with Minimum System Airflow Requirements for Altered Systems) is not one of the protocols that is allowed to ity, otherwise ti. be used to justify a "yes" to this question.
- 12. If required, enter the indoor unit nominal cooling capacity, otherwise this field is not applicable.

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Section L. Installed Duct System Information

- 1. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 2. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 3. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 4. This field may be filled out automatically. If required, select the description of the duct length. Choices are >10ft and ≤10ft.
- 5. This field is filled out automatically.
- 6. This field is filled out automatically. It appears in Section B and D, and is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 7. Enter the R-value of the *installed* supply ducts. This value is verified against the minimum value shown in field L05. The installed R-value must be greater than or equal to the required minimum R-value.
- 8. This field is filled out automatically. It appears in Section B and D, and is referenced from the Certificate of Compliance (CF1R), which must be completed prior to this document. This value may be overwritten in this document but valid discrepancies with the CF1R are atypical. Overwriting the default value will automatically flag this entry and subject it to additional scrutiny by QA and enforcement personnel.
- 9. Enter the R-value of the *installed* return ducts. This value is verified against the minimum value shown in field L05. The installed R-value must be greater than or equal to the required minimum R-value.
- 10. The duct system needs to meet minimum R-6 requirement except for portions of ducts located in conditioned space. Duct systems that are entirely in conditioned space can be uninsulated, subject to ECC verification.
- 11. For entirely new duct systems taking the performance credit for better than default air flow or fan efficacy, field verification of these criteria is required and this field is filled out automatically. Otherwise, the user may pick the appropriate choice. Refer to section 150.0(m)13 and Residential Compliance Manual Chapter 4.4 for more information.
- 12. Specify the number of air filter devices installed on this indoor unit. Air filter devices installed in completely new duct systems must be properly sized, as documented in the next section. The value entered here will determine the number of rows needed in the following section.
- 13. If the system is of a type that can use one of the approved protocols for testing the airflow rate, then enter yes. Otherwise enter no. Most ducted split systems and package systems are of the type that minimum airflow can be verified using an approved measurement procedure. A "No" response here may subject the project to additional scrutiny by enforcement personnel. Note: that the protocol in RA3.3.3.1.5 (Alternative to Compliance with Minimum System Airflow Requirements for Altered Systems) is not one of the protocols that is allowed to be used to justify a "yes" to this question.
- 14. If the system is of a type that can use the approved protocols for testing the fan efficacy, then enter "Yes". Otherwise enter "No". Most ducted split systems and package systems are of the type that minimum airflow can be verified using an approved measurement procedure.
- 15. If required, enter the indoor unit nominal cooling capacity, otherwise this field is not applicable.

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Section M. Installed Air Filter Device Information

- 1. This field is filled out automatically. It is referenced from the same row and column in the previous sections.
- 2. This field is filled out automatically. It is referenced from the same row and column in the previous sections
- 3. This field is filled out automatically. It is referenced from the same row and column in the previous sections
- 4. Enter a descriptive name of each air filter device so that it may be distinguished from others in the same system. Examples: FG1, filter2, etc.
- 5. Select the appropriate type of filter device from the list.
- 6. Enter the design flow in CFM of the filter device. The total for all filter devices in a single system should be greater than or equal to the total system design CFM in cooling mode (or heating mode for heat-only systems).
- 7. Enter the nominal depth of the filter in inches. This is the dimension that is parallel to the airflow. many filters available for sale are 1-inch depth. The 2025 Standards encourages use of 2-inch depth filters.
- 8. Enter the nominal length of the filter. for example, if the filter is 20" x 30", enter 30.
- 9. Enter the nominal width of the filter, for example, if the filter is a 20" x 30", enter 20.
- 10. This field is calculated automatically based on your entries in 8 and 9.
- 11. This value is calculated automatically for 1-inch depth filters. 2-inch depth or greater filters may use a value determined by the system designer.
- 12. This field determines whether a 1-inch depth filter complies with the sizing requirements in section 150.0(m)12. A 2-inch depth or greater filter may use the face area determined by the system designer, however most systems have to meet airflow rate and fan efficacy requirements.
- 13. Enter the design static pressure drop determined by the system designer if 2-inch or greater filters are used. For 1-inch depth filters, the maximum pressure drop is mandatory 0.1 inch W.C.. Filters installed in the filter grille/rack must be capable of meeting this maximum pressure drop at the design airflow rate, as shown on the manufacturer's filter label. Not accounting for higher filter pressure drops will result in poor system airflow characteristics, reduced capacity and reduced efficiency. This may result in not passing field verification.

Section N. Air Filter Device Requirements

This table is a list of requirements for air filter devices.

Section O. ECC Verification Requirements

- 1. This field is filled out automatically. It is calculated based on data from the CF1R and from previous sections in this document.
- 2. This field is filled out automatically. It is calculated based on data from the CF1R and from previous sections in this document.
- 3. This field is filled out automatically. It is calculated based on data from the CF1R and from previous sections in this document.
- 4. This field is filled out automatically. It is calculated based on data from the CF1R and from previous sections in this document.
- 5. This field is filled out automatically. It is calculated based on data from the CF1R and from previous sections in this document.
- 6. This field is filled out automatically. It is calculated based on data from the CF1R and from previous sections in this document.

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Section P. ECC Verification Requirements for Space Conditioning Equipment

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Section Q. Space Conditioning Systems, Ducts and Fans – Mandatory Requirements and Additional Measures

This table is a list of requirements for space conditioning systems.

Section S. Test of Defrost Delay Timer Setting (Section 150.0(h)6)

This table is certification requirements for Test of Defrost Delay Timer Setting

Section T. Test of Supplementary Heating Lockout Section 150.0(H)7

This table is certification requirements for Test of Supplementary Heating Lockout

Documentation Declaration Statements

- 1. The person who prepared the CF2R will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
- 2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.