had		
INSTALLATION CERTIFICATE		CF-6R-MECH-04
Space Conditioning Systems, Ducts and Fans		(Page 1 of 2)
Site Address:	Enforcement Agency:	Permit Number:

# **Space Conditioning Systems**

## Heating Equipment

Equip Type (package-heat pump)	CEC Certified Mfr. Name and Model Number Mfr. Madej	ARI Reference Number <sup>2</sup>	# of Identical Systems	Efficiency (AFUE, etc.) <sup>1,3</sup> (≥CF-1R value) <sup>4</sup> frence	Duct Location (attic, crawl- space, etc.)	Duct R-value	Heating Load (Btu/hr)	Heating Capacity (Btu/hr) Capacity
35: 352	383 384	385	386	387	389	391	392	393
				-				

# Cooling Equipment

Equip Type (package heat pump)	CEC Certified Mfr. Name and Model Number	ARI Reference Number <sup>2</sup>	# of Identical Systems	Efficiency (SEER and EER) 1,3 (>CF-1R value)	Duct Location (attic, crawl- space, etc.)	Duct R-value	Cooling Load (Btu/hr)	Cooling Capacity (Btu/hr)
395396	377 398	399	400	401	- 403	404	405	40/07
				5 8 8 R	,			
							-	

<sup>1.</sup> If project is new construction, see Footnotes to Standards Table 151-B and Table 151-C for duct ceiling alternative compliance.

r	ALL BOXES MUST BE CHECKED TO BE A VALID FORM
405	\$110-\\$113: HVAC equipment is certified by the California Energy Commission.
404	☐ §150(h): Heating and/or cooling loads calculated in accordance with ASHRAE, SMACNA, or ACCA.
410	\$150(i): Setback Thermostat on all applicable heating and/or cooling systems meet the requirements of §112(c).
¥11	☐ §150(j)2: Pipe insulation for cooling system refrigerant suction, chilled water and brine lines meets minimum
\$ . 8	requirements of Table 150-B and includes a vapor retardant or is enclosed entirely in conditioned space.

<sup>2.</sup> ARI Reference Number can be found by entering the equipment model number at http://www.aridirectory.org/ari/ac.php#

<sup>3.</sup> Listed efficiency on this page must be greater than or equal  $(\geq)$  to the value shown on the CF-1R form.

<sup>4.</sup> When CF-1R is reference it is also applicable to the CF-1R, CF-1R-AA or CF-1R-ALT

INSTALLATION CERTIFICATE		CF-6R-MECH-04
Space Conditioning Systems, Ducts and Fans		(Page 2 of 2)
Site Address:	Enforcement Agency:	Permit Number:

# **Ducts and Fans**

icis and rans
§150(m): Duct and Fans  1. All air-distribution system ducts and plenums installed, sealed and insulated to meet the requirements of CMC Sections 601, 602, 603, 604, 605 and Standard 6-5; supply-air and return-air ducts and plenums are insulated to a minimum installed level of R-4.2 or enclosed entirely in conditioned space. Openings shall be sealed with mastic, tape or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than 1/4 inch, the combination of mastic and either mesh or tape shall be used; and
1. Building cavities, support platforms for air handlers, and plenums defined or constructed with materials other than sealed sheet metal, duct board or flexible duct shall not be used for conveying conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms shall not be compressed to cause reductions in the cross-sectional area of the ducts.
2D. Joints and seams of duct systems and their components shall not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
7. Exhaust fan systems have back draft or automatic dampers.
8. Gravity ventilating systems serving conditioned space have either automatic or readily accessible, manually operated dampers.
9. Protection of Insulation. Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Cellular foam insulation shall be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation that can cause degradation of the material.
10. Flexible ducts cannot have porous inner cores.

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).
- I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation) conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
- I reviewed a copy of the Certificate of Compliance (CF-1R) form approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF-1R that apply to the installation have been met.
- I will ensure that a completed, signed copy of this Installation Certificate 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 Installation Certificate is required to be included with the documentation the builder provides to the building owner at occupancy.

Company Name: (Installing Subcontracto	or General Contractor of	or Builder/Owner)	
Responsible Person's Name:		Responsible Person's Signature:	
CSLB License:	Date Signed:	Position With Company (Title):	

INSTALLATION CERTIFICATE		CF-6R-MECH-	
Duct Leakage Test – Completely New or Ro	eplacement Duct System	(P:	age 1 of
Site Address:	Enforcement Agency:	Permit Number:	
Enter the Duct System Name or Identification/Tag	: 23		
Enter the Duct System Location or Area Served:	24		
Note: Submit one Installation Certificate for each	duct system that must demonstrate o	compliance in the dwelling	<u> </u>
This certificate is required for compliance for com for completely new or replacement duct systems in replacement duct system can also include existing plenums, etc.) if those parts are accessible and the	n existing dwellings. For existing dw parts of the original duct system (e.z	vellings, a completely new	or
Duct Leakage Diagnostic Test – completely new Enter a value for the Allowed Leakage (CFM) for	the duct system leakage verification	. The value entered must be	be the
Verified Low Leakage Ducts in Conditioned Space Verified Low Leakage Ducts in Conditioned Sp	e criteria or one of the three calculated	t. If compliance credit	
for verified low leakage ducts in conditioned space leakage to outside test method must be used to ver- entered for Allowed Leakage.	e is shown in the special features secrify duct leakage (refer to RA3.1.4.3.	tion of the CF-1R, the 4), and 25 CFM must be	Allowed Leakage (CFM)
Allowed leakage calculation — (select one calculat 0.06) for calculations if tested at "final" or 4% (leakage Low Leakage Air Handler (LLAH) credit, the allow than 6%, in which case the user-specified leakage the user-specified leakage (specified as a percentage leakage factor of 0.03 in the calculations below.	akage factor = 0.04) if tested at "roughwed duct leakage may be specified by rate must be used in the calculations	gh." When utilizing by the CF-1R to be less below. For example, if	
□ Cooling system method:  Nominal capacity of condenser in Tons 26  □ Heating system method:			
21.7 x Output Capacity in T	Thousands of Btu/hr x leakage fact	or = 2 (CFM)	
☐ Measured airflow method (RA3.3): Enter measured fan flow in CFM here	x leakage factor =	3/ (CFM)	
Enter value for <b>Actual</b> leakage (CFM) in the right pressurization test procedure from Reference Residual			Actual Leakag (CFM)
	List Actual Leakage from	duct leakage test (CFM)	32
Pass if Actual Leakage is less than Allowed Lea	nkage	3301	Pass □ Fa
For complete replacement of duct systems only, if test should be performed to verify that the excess lair handler cabinet), and not from other <i>accessible</i> installation (No sampling allowed).	leakage is coming only from a pre-ender portions of the duct system. A HE	xisting furnace cabinet	34
Pass if all accessible leaks (except for existing a	ir handler) are sealed using smoke	35 01	Pass □ Fa

	INSTALLATION CERTIFICATE			CF-6R-MECH-20-HERS		
	Duct Leakage Test - Completely	New or Replacer	nent Duct System	(Page 2 of 2)		
	Site Address:		Enforcement Agency:	Permit Number:		
	Compliance Method					
	This dwelling was: (select one of the	following two choice	es):			
3/1	☐ Tested at Final					
36/	Tested at Rough-in (requires insta	ller to complete the	visual inspection at final con	struction stage described below)		
4	Visual Inspection at Final Construc	tion Stage (if applic	eahle)			
ſ	After installing the interior finishing v			as completed, the		
	following procedure must be performed	ed:				
37	☐ For all supply and return registers,	verify that the space	es between the register boot a	and the interior finishing wall are		
	properly sealed.					
39	☐ If the house rough-in duct leakage					
	between the air handler and the su	pply and return plent	ims to verify that the connec	tion points are properly sealed.		
39	☐ Inspect all joints to ensure that no	cloth backed rubber	adhesive duct tape is used.			
YU	☐ Outside air (OA) ducts for Central leakage testing. CFI OA ducts that ut meet ASHRAE Standard 62.2, and cloduring duct leakage testing.	ilize controlled moto	rized dampers, that open onl	y when OA ventilation is required to		
41	☐ All supply and return register boot	s must be sealed to t	he drywall			
47	☐ New duct installations cannot utili		•	as in lieu of ducts.		
43	☐ Mastic and draw bands must be us connections.					
	DECLARATION STATEMENT					
				rovided on this form is true and correct.		
	<ul> <li>I am eligible under Division 3 of the B representative of the person responsible</li> </ul>	business and Profession e for construction (res	is Code to accept responsibility ponsible person).	for construction, or an authorized		
	<ul> <li>I certify that the installed features, mat conforms to all applicable codes and re enforcement agency.</li> </ul>			d on this certificate (the installation) ans and specifications approved by the		
	<ul> <li>I understand that a HERS rater will check the installation to verify compliance, and that that if such checking identifies defects, I am required to take corrective action at my expense. I understand that Energy Commission and HERS provider representatives will also perform quality assurance checking of installations, including those approved as part of a sample group but not checked by a HERS rater, and if those installations fail to meet the requirements of such quality assurance checking, the required corrective action and additional checking/testing of other installations in that HERS sample group will be performed at my expense.</li> <li>I reviewed a copy of the Certificate of Compliance (CF-1R) form approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF-1R that apply to the installation have been met.</li> </ul>					
F	• I will ensure that a completed, signed copy of this Installation Certificate 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 Installation Certificate is required to be included with the documentation the builder provides to the building owner at occupancy. I will ensure that all Installation Certificates will come from a HERS provider data registry for multiple orientation alternatives, and beginning October 1, 2010, for all low-rise residential buildings.					
	Company Name: (Installing Subcontracto	r or General Contracto	r or Builder/Owner)			
	Responsible Person's Name:		Responsible Person's Sign	nature:		
	CSLB License:	Date Signed:	Position With Company (	Γitle):		
	Is this installation monitored by a Third Pa Program (TPQCP)?	arty Quality Control □Yes □No	Name of TPQCP (if applic	cable):		

Registration Number: \_\_\_\_\_\_ Registration Date/Time: \_\_\_\_\_ HERS Provider: 2008 Residential Compliance Forms

August 2009

INSTALLATION CERTIFICATE CF-6R-MECH-21-HERS Duct Leakage Test - Existing Duct System (Page 1 of 2) Permit Number: Site Address: Enforcement Agency: Enter the Duct System Name or Identification/Tag: Enter the Duct System Location or Area Served: Note: Submit one Installation Certificate for each duct system that must demonstrate compliance in the dwelling. This installation certificate is required for compliance for alterations and additions in existing dwellings to space conditioning systems and duct systems. Note: For existing dwellings, a completely new or replacement duct system can also include existing parts of the original duct system (e.g., register boots, air handler, coil, plenums, etc.) if those parts are accessible and they can be sealed. For a completely new or replacement duct system installed in an existing dwelling, use the Installation Certificate titled "Duct Leakage Test – Completely New or Replacement Duct System." Duct Leakage Diagnostic Test – Existing Duct System Select one compliance method from the following four choices. Doption 1. Measured leakage less than 15% of Fan Airflow. □ Option 2. Measured leakage to outside less than 10% of Fan Airflow. □ Option 3. Reduce leakage by 60% or more, and conduct smoke test to seal all accessible leaks. Option 4. Fix all accessible leaks using smoke test, and HERS rater must verify. Note: (One of Options 1, 2 or 3 must be attempted before utilizing Option 4.) Determine nominal Fan Airflow using one of the following three calculation methods.  $\square$  Cooling system method: Size of condenser in Tons  $\frac{165}{x}$  x 400 =  $\frac{166}{x}$  CFM Heating system method: 21.7 x  $\frac{1}{3}$  Heating Output Capacity (kBtuh) =  $\frac{168}{3}$ ☐ Measured system airflow using RA3.3 airflow test procedures: \_\_\_\_ Option 1 used then: Allowed leakage = Fan Airflow Actual leakage = 172 ☐ Pass ☐ Fail Pass if Actual leakage is less than Allowed leakage Option 2 used then: Allowed leakage = Fan Airflow 2 Actual leakage to outside = \_ Pass if Actual leakage to outside is less than Allowed leakage ☐ Pass ☐ Fail Option 3 used then: Initial leakage prior to start of work= Final leakage after sealing all accessible leaks using smoke test = \_\_\_\_\_/ 3 = Leakage reduction 182 CFM Initial leakage - Final leakage (Leakage reduction 183  $) \times 100\% = \% \text{ Reduction} = / \% / \%$ / Initial leakage Pass if % Reduction > 60% ☐ Pass ☐ Fail Option 4 used then: 186 All accessible leaks repaired using smoke test. HERS rater must verify (No sampling). 4 Pass if all accessible leaks have been sealed using Smoke Test ☐ Pass ☐ Fail Registration Number: Registration Date/Time:

2008 Residential Compliance Forms

HERS Provider:

INSTALLATION CERTIFICATE		CF-6R-MECH-21-HERS
Duct Leakage Test – Existing Duct System		(Page 2 of 2)
Site Address:	Enforcement Agency:	Permit Number:

[8]	Outside air (OA) ducts for Central Fan Integrated (CFI) ventilation systems, shall not be sealed/taped off during duct leakage testing. CFI OA ducts that utilize controlled motorized dampers, that open only when OA ventilation is required to meet ASHRAE Standard 62.2, and close when OA ventilation is not required, may be configured to the closed position during duct leakage testing.
194	All supply and return register boots must be sealed to the drywall if smoke test is utilized for compliance – applies to duct leakage compliance option 3 (leakage reduction by 60%) and option 4 (fix all accessible leaks) described above.
18	☐ New duct installations cannot utilize building cavities as plenums or platform returns in lieu of ducts.
	Mastic and draw bands must be used in combination with cloth backed rubber adhesive duct tape to seal leaks at all new duct connections.

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).
- I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation) conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
- I understand that a HERS rater will check the installation to verify compliance, and that that if such checking identifies defects, I am required to take corrective action at my expense. I understand that Energy Commission and HERS provider representatives will also perform quality assurance checking of installations, including those approved as part of a sample group but not checked by a HERS rater, and if those installations fail to meet the requirements of such quality assurance checking, the required corrective action and additional checking/testing of other installations in that HERS sample group will be performed at my expense.
- I reviewed a copy of the Certificate of Compliance (CF-1R) form approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF-1R that apply to the installation have been met.
- I will ensure that a completed, signed copy of this Installation Certificate 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 Installation Certificate is required to be included with the documentation the builder provides to the building owner at occupancy. I will ensure that all Installation Certificates will come from a HERS provider data registry for multiple orientation alternatives, and beginning October 1, 2010, for all low-rise residential buildings.

Company Name: (Installing Sub	ocontractor or General Contractor	or Builder/Owner)	
Responsible Person's Name:		Responsible Person's Signature:	
CSLB License:	Date Signed:	Position With Company (Title):	
Is this installation monitored by a Program (TPQCP)?	Third Party Quality Control  ☐Yes ☐No	Name of TPQCP (if applicable):	

Registration Number:	Registration Date/Time:	HERS Provider:	
2008 Residential Compliance Forms		March 201	0

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INSTALLATION CERTIFICATE		CF-6R-MECH-22-HERS
HSPP/PSPP Installation; Cooling Coil Airflow & Far	n Watt Draw Test	(Page 1 of 2)
Site Address:	Enforcement Agency:	Permit Number:

As many as 4 systems in the dwelling can be documented for compliance using this form. Attach an additional form(s) for any additional systems in the dwelling as applicable.

# Hole for the placement of a Static Pressure Probe (HSPP), and Permanently installed Static Pressure Probe (PSPP) in the supply plenum

When the Certificate of Compliance (CF1R) indicates Cooling Coil Airflow or Fan Watt Draw verification are required, HSPP or PSPP are required to be installed in each air handler in the dwelling. Procedures for installing HSPP and PSPP are described in Reference Residential Appendix RA3.3. This measure requires verification by a HERS rater.

	Select one	method from the two choices be	low fo	or compliance with the	HSPP/PSPP requireme	ent for this dwelling.		
1		HSPP		1/4 inch (6 mm) hole labeled and located downstream of the evaporator coil in the supply blenum as shown in the figure in Section RA3.3.1.1.				
AND COMPANIONS OF THE PROPERTY		PSPP	1/4 i loca	1/4 inch (6 mm) hole equipped with a permanently installed pressure probe, labeled and located downstream of the evaporator coil in the supply plenum as shown in the figure in Section RA3.3.1.1.				
	System N	Jame or Identification/Tag		14/				
	System L	ocation or Area Served		142				
	installed	that a HSPP or PSPP has beer on the air handler per the ents of RA3.3.1.1. Enter Pass or I		143				

# **Cooling Coil Airflow Verification**

When the Certificate of Compliance indicates Cooling Coil Airflow verification is required, the procedures for measuring the cooling coil airflow must be performed as specified in Reference Residential Appendix RA3.3. Results of the cooling coil airflow diagnostic test must be entered in the table below. This measure requires verification by a HERS rater.

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Select one method from the three choices below for	compliance with the	Cooling Coil Airflow	test requirement for th	is dwelling.
Diagnostic Fan Flow Using Plenum Pres	ssure Matching acco	rding to the procedu	ares in RA3.3.3.1.1	
☐ / Diagnostic Fan Flow Using Flow Grid N	leasurement accord	ing to the procedure	es in RA3.3.3.1.2	
Diagnostic Fan Flow Using Flow Captur	re Hood according to	o the procedures in	RA3.3.3.1.3	
System Name or Identification/Tag	145			
System Location or Area Served	146			
Nominal Cooling Capacity (ton) of the outdoor unit.	147			
Enter the minimum airflow requirement from the CF-1R (CFM/ton).	149		Tr.	
Calculate the target minimum airflow for the test by multiplying the CFM/ton criteria specified on the CF-1R by the nominal cooling capacity of the outdoor unit (ton).  Target (CFM)	1-49	,		
Enter the diagnostically tested airflow (CFM).  Tested (CFM)	150			
The system complies if Tested (CFM) is equal or greater than Target (CFM).  Enter Pass or Fail	151			
Lincol Lagg Of Lan			L	

Registration Number:	Registration Date/Time:	HERS Provider:
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INSTALLATION CERTIFICATE		CF-6R-MECH-22-HERS
HSPP/PSPP Installation; Cooling Coil Airflow & Far	n Watt Draw Test	(Page 2 of 2)
Site Address:	Enforcement Agency:	Permit Number:

#### Fan Watt Draw Verification

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When the Certificate of Compliance indicates Fan Watt Draw verification is required, the procedures for measuring the Fan Watt Draw must be performed as specified in Reference Residential Appendix RA3.3. Results of the Fan Watt Draw diagnostic test must be entered in the table below. This measure requires verification by a HERS rater. Note: Fan watt draw must be measured simultaneously with cooling coil airflow. The fan watt draw measurement and cooling coil airflow measurement must simultaneously meet or exceed their target criteria specified by the CF-1R for the dwelling.

ompliance with the Far	ı Watt Draw test requi	rement for this dwellin	g.
ling to the procedure	es in RA3.3.3.3.1		
ording to the procedu	ires in RA3.3.3.3.2		
153			
154			
16-6-			
())			
16-1			
()6			
S Secretary			
11-1			
150			
1-5			
	ling to the procedure	ling to the procedures in RA3.3.3.3.1 ording to the procedures in RA3.3.3.3.2	ording to the procedures in RA3.3.3.2

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).
- I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation)
  conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the
  enforcement agency.
- I understand that a HERS rater will check the installation to verify compliance, and that that if such checking identifies defects, I am required to take corrective action at my expense. I understand that Energy Commission and HERS provider representatives will also perform quality assurance checking of installations, including those approved as part of a sample group but not checked by a HERS rater, and if those installations fail to meet the requirements of such quality assurance checking, the required corrective action and additional checking/testing of other installations in that HERS sample group will be performed at my expense.
- I reviewed a copy of the Certificate of Compliance (CF-1R) form approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF-1R that apply to the installation have been met.
- I will ensure that a completed, signed copy of this Installation Certificate 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 Installation Certificate is required to be included with the documentation the builder provides to the building owner at occupancy. I will ensure that all Installation Certificates will come from a HERS provider data registry for multiple orientation alternatives, and beginning October 1, 2010, for all low-rise residential buildings.

Responsible Person's Name:		Responsible Person's Signature:	
CSLB License:	Date Signed:	Position With Company (Title):	
Is this installation monitored by Program (TPQCP)?	a Third Party Quality Control  ☐ Yes ☐ No	Name of TPQCP (if applicable):	

Registration Number:	Registration Date/Time:	HERS Provider:	March 2010

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Ver	ification of High EER Equip	ment			(Page	
	Address:		Enforcement Agenc	y: Permit N	Permit Number:	
Proc multi	ification of High EER Equipment edures for verification of High EER E iple systems, the procedures must be a coliance using this form. Attach an add	quipment are described applied to each system se	parately. As many as 4	systems in the dwelling	can be documen	
1	System Name or Identification/	Tag 12	7			
2	System Location or Area Serve	d 12.	Ŷ.			
3	Certified EER Rating of the ins equipment (Btu/Watt-hr)	talled /2	-9			
4	Make and Model Number of the Outdoor Unit	e installed 13	0/13/			
5	Make and Model Number of the Inside Coil	e installed 132	/133			
6	Make and Model Number of the Furnace or Air Handler.	e installed	135			
7	Minimum Equipment EER required compliance as reported on the C	CF-1R	, C		1 'C' 1 C	
comp	When a high EER system specification pliance credit. Refer to Reference Res	sidential Appendix RA3.	4.3 for the Time Delay F	Relay Verification Proce	edure.	
□ V verif	When installation of specific matched of its defense of the compliance credit. Refer to Ro	eference Residential App	o achieve a high EER, in bendix RA3.4.3 for the M	stallation of the specification and the specification of the specificati	e equipment mus	
8	If the Certified EER Rating in requal to or greater than the requirement minimum EER in row 7, the un complies.  If the unit complies en	nired 13	9			
DEC	CLARATION STATEMENT	1 435	L		· · · · · · · · · · · · · · · · · · ·	
	certify under penalty of perjury, under	r the laws of the State of	California, the informat	ion provided on this for	rm is true and co	
• I	am eligible under Division 3 of the B epresentative of the person responsible	usiness and Professions	Code to accept responsib	-		
С	certify that the installed features, mat conforms to all applicable codes and re- inforcement agency.					
r p r: a	understand that a HERS rater will che equired to take corrective action at my perform quality assurance checking of ater, and if those installations fail to midditional checking/testing of other instructions are copy of the Certificate of	expense. I understand installations, including the the requirements of stallations in that HERS stallations in that HERS stallations.	that Energy Commission hose approved as part of such quality assurance cl sample group will be per	and HERS provider re a sample group but not necking, the required co formed at my expense.	presentatives will checked by a H prrective action a	
r • I p t b	equirements for the installation. I cert will ensure that a completed, signed permit(s) issued for the building, and that a signed copy of this Installation puilding owner at occupancy. I will multiple orientation alternatives, and be	ify that the requirements of copy of this Installation of this Installation of the control of th	s detailed on the CF-1R to on Certificate shall be penforcement agency fo to be included with the on Certificates will come 0, for all low-rise resider	hat apply to the installate osted, or made availate all applicable inspected documentation the befrom a HERS provider	tion have been n ble with the bui tions. I unders uilder provides	
Com	pany Name: (Installing Subcontractor	r or General Contractor of	or Builder/Owner)			
	W1 75 1 3 F					
Resp	onsible Person's Name:		Responsible Person's	Signature:		

Registration Number: \_\_\_\_\_\_2008 Residential Compliance Forms



INSTALLATION CERTIFICATE		CF-6R-MECH-24-HERS
Charge Indicator Display (CID)		(Page 1 of 1)
Site Address:	Enforcement Agency:	Permit Number:

#### CHARGE INDICATOR DISPLAY (CID)

Charge Indicator Display (CID) specifications are available in Reference Joint Appendix JA6; HERS verification procedure for the CID is in Reference Residential Appendix RA3.4.2. If refrigerant charge verification is required for compliance, and a CID has been installed on the system, a pass for this CID verification for an installed system is sufficient for demonstrating compliance with the refrigerant charge verification requirement for that system, thus submittal of a standard refrigerant charge verification compliance form (MECH 25) is not required for a system that has a passing CID verification shown in the table below.

CID - Verification of the Presence and Proper Function of a Charge Indicator Display

System Name or Identification/Tag

System Location or Area Served

258

Yes to 1 and 2 and yes to either 3 or 4 is a pass enter Pass or Fail ✓ □ Pass ✓ □ Fail

263

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).
- I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation) conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
- I understand that a HERS rater will check the installation to verify compliance, and that that if such checking identifies defects, I am required to take corrective action at my expense. I understand that Energy Commission and HERS provider representatives will also perform quality assurance checking of installations, including those approved as part of a sample group but not checked by a HERS rater, and if those installations fail to meet the requirements of such quality assurance checking, the required corrective action and additional checking/testing of other installations in that HERS sample group will be performed at my expense.
- I reviewed a copy of the Certificate of Compliance (CF-1R) form approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF-1R that apply to the installation have been met.
- I will ensure that a completed, signed copy of this Installation Certificate 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 Installation Certificate is required to be included with the documentation the builder provides to the building owner at occupancy. I will ensure that all Installation Certificates will come from a HERS provider data registry for multiple orientation alternatives, and beginning October 1, 2010, for all low-rise residential buildings.

Company Name: (Installing Subcontractor	r or General Contractor or	Builder/Owner)
Responsible Person's Name:		Responsible Person's Signature:
CSLB License:	Date Signed:	Position With Company (Title):
Is this installation monitored by a Third Pa Program (TPQCP)?	arty Quality Control ☐ Yes ☐ No	Name of TPQCP (if applicable):

Registration Number: Registration Date/Time: HEI	RS Provider:		
2009 Paridantial Compliance Forms		F	7 2010

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INSTALLATION CERTIFICATE		CF-6R-MECH-25-HERS
Refrigerant Charge Verification - Standard Measure	ement Procedure	(Page 1 of 5)
Site Address:	Enforcement Agency:	Permit Number:

Note: If installation of a Charge Indicator Display (CID) is utilized as an alternative to refrigerant charge verification for compliance, a MECH-24 Certificate (instead of this MECH-25 Certificate) should be used to demonstrate compliance with the refrigerant charge verification requirement. TMAH and STMS are not required for compliance, when a CID is utilized for compliance.

As many as 4 systems in the dwelling can be documented for compliance using this form. Attach an additional form(s) for any additional systems in the dwelling as applicable.

Temperature Measurement Access Holes (TMAH) and Saturation Temperature Measurement Sensors (STMS)

Procedures for installing TMAH are specified in Reference Residential Appendix RA3.2. If refrigerant charge verification is required for compliance, TMAH are also required for compliance. STMS are only required for completely new or replacement space-conditioning systems that utilize prescriptive compliance method.

Syste	em Name or Ide	entification/Ta	g	243			
Syste	em Location or	Area Served		244			
1	□Yes	□No			nole upstream of evapre in Section RA3.2.2		eturn plenum a
2	□Yes	□No			nole downstream of e		
Yes	to 1 and 2 is a p	ass.			Enter Pass or Fail	✓ □ Pass	√ □ Fa
STIV	IS - Sensor on	the Evanorate	or Coil			1	
	em Name or Ide			247			
3	□Yes	□No		ations, or is installe	led, or field installed d by methods/specifi		
	i	1	DHCCto	Γ•			
4	□Yes	□No	The sen	sor wire is terminate hermometer. The se	ed with a standard mensor mini plug is aconging the airflow thr	cessible to the install	ling technician
4 5	□Yes	□No	The sen digital t the HEI	sor wire is terminate hermometer. The se RS rater without cha	ensor mini plug is ac	cessible to the install ough the condenser	ling technician
5 Yes	☐Yes to 3, 4, and 5 is	□No a pass.	The sen digital t the HEI	sor wire is terminate hermometer. The se RS rater without cha	ensor mini plug is aconging the airflow thr	cessible to the install ough the condenser of the coil within 1.3	ling technician coil degrees F
5 Yes 1 N/A	☐Yes to 3, 4, and 5 is if STMS are no	□No a pass. ot applicable. (	The sen digital the HEI The sen	sor wire is terminate hermometer. The so RS rater without cha sor measures the sate Enter	ensor mini plug is aconging the airflow thracturation temperature	cessible to the install ough the condenser of the coil within 1.3	ling technician
5 Yes 1 N/A STM	☐Yes to 3, 4, and 5 is	□No a pass. of applicable. ( the Condense	The sen digital t the HEI The sen Otherwise	sor wire is terminate hermometer. The so RS rater without cha sor measures the sate Enter	ensor mini plug is aconging the airflow thracturation temperature	cessible to the install ough the condenser of the coil within 1.3	ling technician coil degrees F
5 Yes 1 N/A STM	☐Yes to 3, 4, and 5 is if STMS are no	□No a pass. of applicable. ( the Condense	The sen digital t the HEI The sen Otherwise  The sen T	sor wire is terminate hermometer. The set of	ensor mini plug is aconging the airflow thracturation temperature	cessible to the install ough the condenser of the coil within 1.3  Pass  356	ling technician coil  3 degrees F  ✓ □ Fa
5 Yes 1 N/A STM	☐Yes to 3, 4, and 5 is if STMS are no IS - Sensor on em Name or Ide	□No a pass. ot applicable. ( the Condense entification/Tag	The sen digital t the HEI The sen Otherwise  The sen Specific Director The sen digital t	sor wire is terminate hermometer. The set of	ensor mini plug is according the airflow thracturation temperature  N/A  ed, or field installed	cessible to the install ough the condenser of the coil within 1.3  Pass  356  according to manufacations approved by ini plug suitable for exessible to the install	ling technician coil  3 degrees F
5 Yes n/A STM Syste	□Yes  to 3, 4, and 5 is if STMS are no  IS - Sensor on  em Name or Ide  □Yes	□No a pass. ot applicable. ( the Condense entification/Tag	The sen digital t the HEI The sen Otherwise  The sen Specific Director The sen digital t the HEI	sor wire is terminate thermometer. The set of the set o	ensor mini plug is according the airflow thracturation temperature  I N/A  ed, or field installed d by methods/specificated with a standard minersor mini plug is according to the control of the control	cessible to the install ough the condenser of the coil within 1.3  Pass  3 5 6  according to manufacations approved by ini plug suitable for cessible to the install ough the condenser of	ling technician coil  degrees F  Fatering Graphs of the Executive connection to a ling technician coil

INSTALLATION CERTIFICATE			CF-6R-I	MECH-25-HERS
Refrigerant Charge Verification - Sta	ndard Measur			(Page 2 of 5)
Site Address:		Enforcement Agency:	Permit Nu	mber:
Standard Charge Measurement Procedur Procedures for determining Refrigerant Charge Residential Appendix RA3.2. As many as 4 syste additional form(s) for any additional systems in to The system should be installed and charged The system must meet minimum airflow region If outdoor air dry-bulb is 55 °F or below, the Charging Method). If the Weigh-In Method compliance.  Space Conditioning Systems	using the Standard ms in the dwelling the dwelling as app in accordance wit. uirements as prere te installer must us	Charge Measurement Proce can be documented for complicable. It the manufacturer's specific quisite for a valid refrigeran e the RA3.2.3 Alternate Cha	edure are available i pliance using this for cations before startin t charge test. rge Measurement Pr	m. Attach an  ng this procedure.  cocedure (Weigh-In
System Name or Identification/Tag	191			
System Location or Area Served	192			
Outdoor Unit Serial #	193			
Outdoor Unit Make	194			
Outdoor Unit Model	195			
Nominal Cooling Capacity (ton)	196			
Date of Verification	197			
Calibration of Diagnostic Instruments				
Date of Refrigerant Gauge Calibration	198		(must be re-cal	ibrated monthly)
Date of Thermocouple Calibration	199		(must be re-cal	ibrated monthly)
Measured Temperatures (°F)				
System Name or Identification/Tag	206			
Supply (evaporator leaving) air dry-bulb	201			
temperature (T <sub>supply</sub> , db)  Return (evaporator entering) air dry-bulb				
temperature (T <sub>return</sub> , <sub>db</sub> ) Return (evaporator entering) air wet-bulb	202			
temperature (T <sub>return</sub> , wb)	203			
Evaporator saturation temperature (T <sub>evaporator</sub> , sat)	204			
Condensor saturation temperature	200			
(T <sub>condensor</sub> , sat)	20)			
Suction line temperature (T <sub>suction</sub> )	206			
Liquid Line Temperature (T <sub>liquid</sub> )	207			
Condenser (entering) air dry-bulb temperature (T <sub>condenser</sub> , db)	208			

Registration Number: Registration De	nte/Time: HERS Provider:
	ue/11me. 11EAD 1 (OVIGE).
2008 Residential Compliance Forms	July 2010

INSTALLATION CERTIFICATE			CF-6R-MECH-25-HERS
Refrigerant Charge Verification - Sta	ndard Measure		(Page 3 of 5)
Site Address:		Enforcement Agency:	Permit Number:
450 F (809)			
Minimum Airflow Requirement			
Temperature Split Method Calculations of Verification. The temperature split method			
System Name or Identification/Tag	209		
Calculate: Actual Temperature Split = $T_{return}$ , db - $T_{supply}$ , db	210		
Target Temperature Split from Table RA3.2-3 using T <sub>return</sub> , wb and T <sub>return</sub> , db	21/		
Calculate difference: Actual Temperature Split – Target Temperature Split =	212		
Passes if difference is between -3°F and +3°F or, upon remeasurement, if between -3°F and -100°F Enter Pass or Fail	213		
Note: Temperature Split Method Calculatio airflow measurement procedures specified in measured, the value must be equal to or grea	n Reference Resid	ential Appendix RA3.3. If a	ctual cooling coil airflow is
Calculated Minimum Airflow Requireme	nt (CFM) = Nor	ninal Cooling Capacity (to	on) X 300 (cfm/ton)
System Name or Identification/Tag	214		
Calculated Minimum Airflow Requirement (CFM)	215		
Measured Airflow using RA3.3 procedures (CFM)	216		
Passes if measured airflow is greater than or equal to the calculated minimum airflow requirement. Enter Pass or Fail	217		
Superheat Charge Method Calculations for fixed orifice metering device systems	or Refrigerant C	harge Verification. This pr	ocedure is required to be used for
System Name or Identification/Tag	218		
Calculate: Actual Superheat =			
T <sub>suction</sub> - T <sub>evaporator</sub> , sat	219		
Target Superheat from Table RA3.2-2	220		
using T <sub>return</sub> , wb and T <sub>condenser</sub> , db  Calculate difference:	660		
Actual Superheat - Target Superheat =	221		
System passes if difference is between -5°F and +5°F Enter Pass or Fail	222	_	

INSTALLATION CERTIFICATE	CF-6R-IVII	CF-6R-MECH-25-HER		
Refrigerant Charge Verification - Sta	ndard Measure	ment Procedure		(Page 4 of 5
Site Address:		Enforcement Agency:	Permit Numb	er:
Subcooling Charge Method Calculations	for Refrigerant C	harge Verification. Thi	s procedure is requi	red to be used
for thermostatic expansion valve (TXV) and				
System Name or Identification/Tag	223			
Calculate: Actual Subcooling =				
$T_{condenser, Sat} - T_{liquid}$	SSA			
Target Subcooling specified by	225			
manufacturer Calculate difference:				
Actual Subcooling – Target Subcooling =	226			
System passes if difference is between	and many many			
		1	i	
-3°F and +3°F Enter Pass or Fail	227			
		fication This procedure	is required to be us	ad for
Metering Device Calculations for Refriger	rant Charge Veri		is required to be us	ed for
	rant Charge Veri		is required to be us	ed for
Metering Device Calculations for Refriger thermostatic expansion valve (TXV) and ele	rant Charge Veri		is required to be us	ed for
Metering Device Calculations for Refriger thermostatic expansion valve (TXV) and ele System Name or Identification/Tag  Calculate: Actual Superheat =	rant Charge Veri		is required to be us	ed for
Metering Device Calculations for Refriger thermostatic expansion valve (TXV) and ele System Name or Identification/Tag  Calculate: Actual Superheat = $T_{\text{suction}} - T_{\text{evaporator, sat}}$ Enter allowable superheat range from	rant Charge Veri		is required to be us	ed for
Metering Device Calculations for Refriger thermostatic expansion valve (TXV) and elector System Name or Identification/Tag  Calculate: Actual Superheat = $T_{\text{Suction}} - T_{\text{evaporator, sat}}$ Enter allowable superheat range from manufacturer's specifications (or use range	rant Charge Verictronic expansion		is required to be us	ed for
Metering Device Calculations for Refriger thermostatic expansion valve (TXV) and elector System Name or Identification/Tag  Calculate: Actual Superheat =  Tsuction - Tevaporator, sat  Enter allowable superheat range from manufacturer's specifications (or use range between 4°F and 25°F if manufacturer's	rant Charge Veri		is required to be us	ed for
Metering Device Calculations for Refriger thermostatic expansion valve (TXV) and elector System Name or Identification/Tag  Calculate: Actual Superheat =  T <sub>suction</sub> - T <sub>evaporator</sub> , sat  Enter allowable superheat range from manufacturer's specifications (or use range between 4°F and 25°F if manufacturer's specification is not available)	rant Charge Verictronic expansion		is required to be us	ed for
Metering Device Calculations for Refriger thermostatic expansion valve (TXV) and elector System Name or Identification/Tag  Calculate: Actual Superheat =  Tsuction - Tevaporator, sat  Enter allowable superheat range from manufacturer's specifications (or use range between 4°F and 25°F if manufacturer's	rant Charge Verictronic expansion		is required to be us	ed for

INSTALLATION CERTIFICATE			CF-6R-MECH-25-HERS		
Refrigerant Charge Verification - Star	ndard Measuro			(Page 5 of 5	
Site Address:		Enforcement Agency:	Permit Nui	mber:	
Standard Charge Measurement Summary System shall pass both refrigerant charge cr		evice criteria (if annlica	hle) and minimum	cooling coil	
airflow criteria based on measurements take					
applicable verification criteria must be re-m				, , , , , , , , , , , , , , , , , , , ,	
System Name or Identification/Tag	237				
ystem meets all refrigerant charge and irflow requirements. Enter Pass or Fail	233				
rnow requirements. Enter Pass or Fail					
·					
Residential Appendix RA3.2.2 requires the					
emperature shall be maintained above 70°F					
Responsible Person in the declaration statem	ent below certific	es this requirement has b	een met for all app	licable system	
erifications reported on this certificate.					
ECLARATION STATEMENT	Cal Cal Ca	7 1 2 2 1 1 2 2 1 1			
I certify under penalty of perjury, under the la			•		
I am eligible under Division 3 of the Business			y for construction, or	an authorized	
representative of the person responsible for co		* .			
I certify that the installed features, materials, of	components, or mai	nufactured devices identific		the installation)	
	-				
	ns, and the installa	tion is consistent with the p	plans and specification		
enforcement agency.		tion is consistent with the 1		ns approved by the	
enforcement agency.  I understand that a HERS rater will check the	installation to verif	tion is consistent with the property of the pr	t if such checking ide	ns approved by the ntifies defects, I am	
enforcement agency.  I understand that a HERS rater will check the required to take corrective action at my expen	installation to verif se. I understand th	tion is consistent with the property of the compliance, and that that the set Energy Commission and	t if such checking ide I HERS provider repr	ns approved by the ntifies defects, I am resentatives will also	
enforcement agency.  I understand that a HERS rater will check the required to take corrective action at my expen perform quality assurance checking of installar	installation to verif se. I understand th tions, including the	tion is consistent with the property of the compliance, and that that the set Energy Commission and set approved as part of a set.	t if such checking ide I HERS provider repr ample group but not c	ns approved by the ntifies defects, I am esentatives will also hecked by a HERS	
enforcement agency.  I understand that a HERS rater will check the required to take corrective action at my expen perform quality assurance checking of installarater, and if those installations fail to meet the	installation to verif se. I understand th tions, including the requirements of su	tion is consistent with the property of the compliance, and that that the set of the consistency Commission and set approved as part of a set of quality assurance check	t if such checking ide I HERS provider repr ample group but not c cing, the required corr	ns approved by the ntifies defects, I am esentatives will also hecked by a HERS	
enforcement agency.  I understand that a HERS rater will check the required to take corrective action at my expen perform quality assurance checking of installar rater, and if those installations fail to meet the additional checking/testing of other installation	installation to verif se. I understand th tions, including the requirements of su ns in that HERS sa	ition is consistent with the process of the compliance, and that that at Energy Commission and see approved as part of a second quality assurance checken ple group will be perform	t if such checking ide I HERS provider repr ample group but not c king, the required corn and at my expense.	ntifies defects, I am resentatives will also hecked by a HERS rective action and	
enforcement agency.  I understand that a HERS rater will check the required to take corrective action at my expen perform quality assurance checking of installarater, and if those installations fail to meet the	installation to verifice. I understand thations, including the requirements of suns in that HERS salance (CF-1R) form	y compliance, and that that the part of a second quality assurance check mple group will be perform approved by the enforcem	t if such checking ide I HERS provider repr ample group but not c ting, the required corn ned at my expense. ment agency that ident	ns approved by the entifies defects, I am resentatives will also hecked by a HERS rective action and tifies the specific	
enforcement agency.  I understand that a HERS rater will check the required to take corrective action at my expen perform quality assurance checking of installar rater, and if those installations fail to meet the additional checking/testing of other installatio I reviewed a copy of the Certificate of Complication of the installation. I certify that	installation to verificate. I understand the strong, including the requirements of sums in that HERS satiance (CF-1R) forms the requirements of	y compliance, and that that the property compliance, and that that at Energy Commission and one approved as part of a such quality assurance check mple group will be perform approved by the enforcent letailed on the CF-1R that	t if such checking ide if HERS provider repr ample group but not c cing, the required corn ned at my expense. ment agency that ident apply to the installati	ns approved by the ntifies defects, I am resentatives will also hecked by a HERS rective action and tifies the specific on have been met.	
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Registration Date/Time:

		N CERTIFIC rge Verificati	VIII. LAND CONTRACTOR AND	ernate Measure	ment Procedure		MECH-26-H (Page 1
Site A	Address:				Enforcement Agency	Permit Nu	mber:
any c	additional syste	ms in the dwell	ing as ap	plicable.	ompliance using this j		
Procis rec	edures for insta quired for comp	alling TMAH ar oliance, TMAH	e specifi are also	ed in Reference Re required for comp	uration Temperatur sidential Appendix R liance. STMS are onl ve compliance method	43.2. If refrigerant of the second of the se	charge verifica
TMA	AH - Access H	oles in Supply	and Reti	urn Plenums of A	ir Handler		
Syste	em Name or Id	entification/Tag	5	360			
Syste	em Location or	Area Served		36/			
1	□Yes	□No			hole upstream of eva ure in Section RA3.2.		return plenum a
2	□Yes	□No			hole downstream of a Figure in Section RA		ne supply plent
Yes t	to 1 and 2 is a p	oass.	una ra	ocioa accoranig to	Enter Pass or Fail	✓ □ Pass	✓ □ Fa
STM	S - Sensor on	the Evaporato	r Coil				
Syste	em Name or Id	entification/Tag	,	366			
3	□Yes	□No		ations, or is install	lled, or field installed ed by methods/specif		
4	□Yes	□No	digital t	thermometer. The	ated with a standard m sensor mini plug is ac anging the airflow th	cessible to the insta	lling techniciar
5	□Yes	□No	The sen	sor measures the s	aturation temperature	of the coil within 1.	3 degrees F
	to 3, 4, and 5 is		Otherwise	Enter enter Pass or Fail	✓ □ N/A	✓ □ Pass	✓ □ Fa
STM	IS - Sensor on	the Condensei	· Coil			370	
Syste	em Name or Id	entification/Tag		37/			
6	□Yes	□No		ations, or is install	lled, or field installed ed by methods/specif		
7	□Yes	□No	digital t	thermometer. The	ted with a standard m sensor mini plug is ac anging the airflow the	cessible to the insta	lling techniciar
8	□Yes	□No	The sen	sor measures the s	aturation temperature	of the coil within 1.	3 degrees F
	to 6, 7, and 8 is if STMS are no		Otherwise	Enter enter Pass or Fail	✓ □ N/A	✓ □ Pass	✓ □ Fa
						2375	

Registration Number: \_\_\_\_\_\_ Registration Date/Time: \_\_\_\_\_ HERS Provider: \_\_\_\_\_\_ 2008 Residential Compliance Forms

INSTALLATION CERTIFICATE				CF-6R-MECH-26-HER	
Refrigerant Charge Verification - Alterna	te Measure	ment Procedure			(Page 2 of 2
Site Address:	Enforcement Agency:		Permit Number:		
Alternate Charge Measurement Procedure (for use Procedures for Determining Refrigerant Charge using many as 4 systems in the dwelling can be documented if systems in the dwelling as applicable.  The alternative charge measurement procedure remanufacturer's specifications for refrigerant charmonical installer verification of line lengths and charge as procedure.  If outdoor air dry-bulb is 55 °F or above, installer	the Alternate It for compliance aquires that the ge using the wijustment calcu	Method are available in using this form. Attach system shall be installe eigh-in charging method lation must be documen Standard Charge Measu	Referenc an addit d and cho l. ted on C.	ional form(s) arged in acco F-6R before s	for any additional rdance with the
Weigh-In Charging Method for Refrigerant C	harge Verifi	cation	<del></del>		
System Name or Identification/Tag	234				
System Location or Area Served	235				
Actual liquid line length (ft)	236				
Manufacturer's Standard liquid line length (ft)	237				
Calculate: difference in length (ft)  = Actual length – Standard length	238				
Manufacturer's correction factor (ounces per foot)	239				
Calculate: charge adjustment = correction factor X difference in length	240				
Alternate Charge Measurement Summary: System refrigerant charge has been adjusted to meet the manufacturer's specifications based on actual line length  Enter Pass or Fail	241				
DECLARATION STATEMENT					
<ul> <li>I certify under penalty of perjury, under the laws of</li> </ul>	the State of Ca	alifornia, the information	provide	d on this form	is true and correct.
<ul> <li>I am eligible under Division 3 of the Business and I representative of the person responsible for constru-</li> </ul>	Professions Coction (responsi	de to accept responsibilitible person).	y for cor	struction, or	an authorized
<ul> <li>I certify that the installed features, materials, comports to all applicable codes and regulations, an enforcement agency.</li> </ul>	onents, or manual the installati	afactured devices identified on is consistent with the	ied on the	is certificate (d specification	the installation) ns approved by the
<ul> <li>I understand that a HERS rater will check the install required to take corrective action at my expense. It perform quality assurance checking of installations, rater, and if those installations fail to meet the required additional checking/testing of other installations in the I reviewed a copy of the Certificate of Compliance requirements for the installation. I certify that the remaining the complex control is the remaining that the remaining the control is the control in the control is the control in the control is the control in the control in the control is the control in the contr</li></ul>	understand that including thos rements of suc that HERS sam (CF-1R) form	t Energy Commission and se approved as part of a se h quality assurance checuple group will be perfor	d HERS ample gr king, the med at m ment age	provider reproup but not correquired corresponding expense.	esentatives will also hecked by a HERS ective action and

# multiple orientation alternatives, and beginning October 1, 2010, for all low-rise residential buildings. Company Name: (Installing Subcontractor or General Contractor or Builder/Owner) Responsible Person's Name: Responsible Person's Signature: CSLB License: Date Signed: Position With Company (Title):

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 Installation Certificate is required to be included with the documentation the builder provides to the building owner at occupancy. I will ensure that all Installation Certificates will come from a HERS provider data registry for