

Project Title:	Date:	© 2005 CalCERTS
		Enforcement Agency Use Only
Project Address:	Climate Zone:	Building Permit #
Installing Contractor:	Telephone:	Plan Check Date
CalCERTS Rater Name:	Telephone:	Field Check Date
Rater's Company Name:		CalCERTS Rater ID #:

IMPORTANT: This CF-4R-ALT form is only for use when an HVAC-only alteration is made to an existing home
Use one form for each system being altered. This is system # _____ of _____ systems altered in this house.
Do not release CF-4Rs for a sample group until all verification and testing in the group is completed and passed.
Copies to: Homeowner, Installer, and Building Department

Hers Rater Compliance Statement:

As the HERS rater providing diagnostic testing and field verification, I certify that the house identified on this form complies with the diagnostic testing compliance requirements as checked ✓ on this form. I also certify that I have followed all protocols and procedures as required by the CalCERTS Rater Agreement.

Signed: _____

Sampling First test Re-test (attach previous CF-4R-ALT)

This house is NOT part of a sample group.

This house passes all necessary tests. (Rater to sign HERS rater compliance statement above).

This house did NOT pass the necessary tests. Retest required. See notes below and next page.

This house is part of a sample group Other houses in the group include (max 6):

Home owner's last name/Street address/City

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

This house passes all necessary tests. (Rater to sign HERS rater compliance statement above).
All homes in sample group will be issued CF-4R certificates from CalCERTS registry.

This house did NOT pass the necessary tests. Retest required. See notes below and next page.

This is the first house to fail in this group. (Select one of the above homes for second test).

This is the second house to fail in this group. All homes in group must be tested.

Notes:

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<p>IMPORTANT: This CF-4R-ALT form is only for use when an HVAC-only alteration is made to an existing home Use one form for each system being altered. This is system # _____ of _____ systems altered in this house. Copies to: Homeowner, Installer, and Building Department</p> <p>Rater to verify only results of test that passed on CF-6R-ALT form. See lines 26 to 29 of CF-6R-ALT form. Results must be uploaded to CalCERTS Registry for issuance of final certificate per Title 20.</p>			
Step 1 - Pre-test: Leakage of the system before any alterations. (Only if line 27 is checked on the CF-6R-ALT form.)			
1	Pre-test leakage :	CFM25	From Line 1 of CF-6R -ALT form.
2	Line 1 x 0.4 = _____ target for 60% reduction		
Step 2 - Determine Total System Fan Flow: Use any of these methods. (Only if lines 26, 27 or 28 are checked on CF-6R-ALT form)			
3	Cooling: Condenser tonnage: _____ tons x 400 CFM/ton = _____	CFM	
4	Heating: Furnace output: _____ Btuh x .0217 CFM/Btuh = _____	CFM	
5	Measured: (refer to ACM Manual Appendix RE, section 4.1) = _____	CFM	
6	Measurement method: <input type="checkbox"/> flow hood <input type="checkbox"/> plenum pressure matching <input type="checkbox"/> flow grid		
7	Total system fan flow value to be used: _____	CFM	may use highest of lines 3, 4, or 5.
Step 3 - Determine Targets: (Only if lines 26 or 28 are checked on CF6R-ALT form)			
8a	Total System fan flow (line 7 from above) x 0.06 = _____	CFM25 = 6% leakage target	
8b	Total System fan flow (line 7 from above) x 0.15 = _____	CFM25 = 15% leakage target	
9	Total System fan flow (line 7 from above) x 0.10 = _____	CFM25 = 10% leakage to outside target	
Step 4 - Alterations: Must be consistent with the CF-1R form.			
10	<input type="checkbox"/> Verify that all new connections are sealed with approved materials.		
11	<input type="checkbox"/> No newly constructed portions of the system can have unducted building cavities to convey system air.		
12	Duct insulation to be checked by local code enforcement agency.		
Step 5 - Total Leakage (Only if lines 26 or 27 are checked on CF-6R-ALT form)			
13	leakage = _____	CFM25	refer to 2005 ACM appendix RC, Sections RC 4.3.1
14a	<input type="checkbox"/> If line 13 is less than line 8a, house passes the 6% leakage requirement. Go to Step 9		
14b	<input type="checkbox"/> If line 13 is less than line 8b, house passes the 15% leakage requirement. Go to Step 9		
15	<input type="checkbox"/> If line 13 is less than line 2, house passes the 60% reduction requirement after line 17 is checked.		
16	<input type="checkbox"/> This house does not yet pass the necessary tests. Retest required. Attach new CF-4R-ALT. See notes, below.		
17	<input type="checkbox"/> If line 15 is checked, but not 14a or 14b, Smoke Test and Visual Inspection of Accessible Duct Sealing is required. Go to Step 8		
Step 6 - Leakage to Outside: (Only if line 28 is checked on CF-6R-ALT form)			
18	leakage = _____	CFM25	refer to 2005 ACM appendix RC, Sections RC 4.3.3
19	<input type="checkbox"/> If line 18 is less than line 9, house passes the 10% leakage to outside requirement.		
20	<input type="checkbox"/> This house does not yet pass the necessary tests. Retest required. Attach new CF-4R-ALT. See notes, below.		
Step 7 - (If line 29 is checked on the CF-6R-ALT form.)			
21	<input type="checkbox"/> Smoke Test and Visual Inspection of Accessible Duct Sealing are required.		
22	<input type="checkbox"/> Install required label per ACM Appendix RC, Sections RC.4.3.5.		
23	<input type="checkbox"/> House can NOT be part of a sample.		
	<input type="checkbox"/> This house does not yet pass the necessary tests. Retest required. Attach new CF-4R-ALT. See notes, below.		
Step 8 - Smoke Test and Visual Verification (Only if lines 27 or 29 are checked on CF-6R-ALT form)			
24	<input type="checkbox"/> Perform smoke test per ACM Appendix RC, Sections RC 4.3.6.		
25	<input type="checkbox"/> Perform Visual Inspection and verify repair of excessively damaged ducts per ACM Appendix RC, Sections RC 4.3.7.		
26	<input type="checkbox"/> Verify that register boots are sealed to surrounding material per ACM Appendix RC, Sections RC 4.3.7.		
Step 9 - TXV(RCA)			
27a	<input type="checkbox"/> If TXV is required by the CF-1R form (line 23 on CF-1R-ALT form), it has been installed and access has been provided for visual verification by HERS rater.		
27b	<input type="checkbox"/> If "Refrigerant Charge and Airflow" (see ACM appendix RD) was done in lieu of TXV, attach completed pages 3 of 8 and 4 of 8 from the CEC's CF-4R form.		
Step 10 - Upgraded Equipment Efficiencies			
28	<input type="checkbox"/> If upgrade equipment efficiencies are required (line 24 of CF-1R-ALT) HERS rater to verify necessary make and model number of equipment. Installing contractor to provide rater adequate documentation to verify efficiencies.		
Notes: refer to line numbers above			