

CERTIFICATE OF INSTALLATION		CF2R-PLMB-06-E
Pool And Spa Heating Systems		(Page 1 of 2)
Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City	Zip Code

A. SYSTEMS AND EQUIPMENT (SECTION 114.0(A))	
1.	Heater has a thermal efficiency that complies with the Appliance Efficiency Regulations.
2.	Has a readily accessible on-off switch mounted outside of the heater.
3.	Weatherproof plate or card containing operating instructions for the pool or spa heater.
4.	No electric resistance heating except for listed package units that has fully insulated enclosures and tight fitting covers that are insulated to at least R-6. Or if documentation is provided that at least 60 % of the annual heating energy is from site solar energy or recovered energy.
5.	Heating system has no pilot light.
The responsible person's signature on this Certificate of Installation indicates the system identified on this Certificate has complied with all applicable requirements specified in this Table.	

B. INSTALLATION (SECTION 114.0(B))	
1.	System is installed with at least 36" of pipe between the filter and heater, or dedicated suction and return lines, or built-in or built-up connections for future solar heating.
2.	A cover for outdoor pools or spas that have a heat pump or gas heater.
3.	Pool system has directional inlets to adequately mix the pool water
4.	Time switch which will allow the pump to be set or programmed to run during off-peak periods only
The responsible person's signature on this Certificate of Installation indicates the system identified on this Certificate has complied with all applicable requirements specified in this Table.	

C. PUMP SIZING AND FLOW RATE SPECIFICATION (SECTION 150.0(P))	
1.	The pump specified is listed in the CEC database of certified pool pumps.
2.	The pump flow rate shall be calculated based on pool sizing table below.
3.	The pump is capable of operating at 2 or more speeds (not applicable if pump is less than 1 horsepower).
4.	Each auxiliary pool load is served by either a separate pump, or the system is served by a multi-speed pump.
5.	Calculated volume of pool (gallons).
6.	Return Pipe Diameter (inches).
7.	Suction Pipe Diameter (inches).
8.	Filter Type (Cartridge, Sand, DE).
9.	Filter Surface Area (ft ²).
10.	Max Pump Flow (gpm).
The responsible person's signature on this Certificate of Installation indicates the system identified on this Certificate has complied with all applicable requirements specified in this Table.	

D. SYSTEM PIPING	
1.	The suction side pipe is straight for at least 4 pipe diameters before entering the pump (See table below for the required straight run lengths for various pipe sizes).
2.	The design uses low pressure drop fittings (sweep 90s)
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E. FILTRATION EQUIPMENT	
1.	If a backwash valve is used: The diameter of the backwash multi-port valve is 2 inches or as large as the circulation pipe, whichever is greater
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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Installation documentation is accurate and complete.	
Name:	Signature:
Company:	Date:
Address:	CEA or CEPE or HERS Certification # If Applicable:
City/State/Zip:	Phone:
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
<ol style="list-style-type: none"> 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 (CF1R) approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF1R that apply to the installation have been met. I will ensure that a completed, signed copy of this Certificate of Installation shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a signed copy of this Certificate of Installation is required to be included with the documentation the builder provides to the building owner at occupancy. 	
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):

CF2R INSTRUCTIONS

Table C Pool sizing (Values are based on a maximum allowable turnover rate of 6- hours) Note: For pumps greater than 1 hp. The maximum Pump Flow is the lowest speed default filtration						
Max Pool Volume (gallons)	Min Pipe D or Greater (inches)		Min Filter Area or more (square feet)			Max Pump Flow (gpm)
	Return	Suction	Cartridge	Sand	DE	
13,000	1.5	1.5	100	2.4	20	36
17,000	1.5	2	130	3.1	25	47
21,000	2	2	160	3.9	30	58
28,000	2	2.5	210	5.2	40	78
42,000	2.5	3	320	7.8	60	117
48,000	3	3	360	8.9	70	133

Table D Pipe Diameter/Pipe Length	
Pipe Diameter (inch)	Required Pipe Length leading into pump (inch)
1.5	6
2	8
2.5	10
3	12