



Quality HVAC Program | Quality Installation Tier I Checklist

Company Name & CSLB Number:

Household Last Name & Street Number:

Customer email:

Service Date:

DIRECTIONS: This comprehensive checklist is to be completed onsite and uploaded to Iris. Certain key findings -- indicated by thick boxes below -- must be reviewed with and signed off by the customer. This customer review can be done using this checklist or via the Quality Service Report you will get by email. The key findings must also be entered in the online form at https://frontierenergy.formstack.com/forms/qi_i

INSPECTIONS

Attic Insulation	Results	4	<input type="radio"/> No Further Attention Needed on Attic Insulation	All sections must be completed. If they are Not Applicable, write "NA" and add an explanation in the comments box. Remember, boxed values must be entered online	
		5	<input type="checkbox"/> NA – no attic / not accessible		
		6	<input type="checkbox"/> Adequate and in good condition		
		7	<input type="checkbox"/> Needs minor adjustments		
		8	<input type="radio"/> Further Attention May Be Needed on Attic Insulation		
		9	<input type="checkbox"/> Needs more insulation		
10	<input type="checkbox"/> Needs replacement				
Duct Insulation	Results	12	<input type="radio"/> No Further Attention Needed on Duct Insulation		
		13	<input type="checkbox"/> NA – ductless system		
		14	<input type="checkbox"/> NA – ducts not accessible		
		15	<input type="checkbox"/> Ducts in conditioned space		
		16	<input type="checkbox"/> Adequate and in good condition		
		17	<input type="checkbox"/> Vapor barrier has only minor tears or gaps		
18	<input type="radio"/> Further Attention May Be Needed on Duct Insulation				
19	<input type="checkbox"/> Inadequate or in very poor condition				
20	<input type="checkbox"/> Vapor barrier has significant tears/gaps or no barrier				
Air Filter	Results	22	<input type="radio"/> No Further Attention Needed on Air Filter	Enter anything the customer should know and explain anything that is Not Applicable (NA)	
		23	<input type="checkbox"/> NA – no filter needed		
		24	<input type="checkbox"/> Filters are adequate		
		25	<input type="checkbox"/> Minor fouling		
		26	<input type="radio"/> Further Attention May Be Needed on Air Filter		
		27	<input type="checkbox"/> Extremely fouled		
28	<input type="checkbox"/> No filter				
29	<input type="checkbox"/> Undersized for system				
INSPECTION Comments, Recommendations, and/or NA Explanation	72				

TESTS

System Airflow	Results	76	Total Airflow		cfm	
		77	System Capacity		tons	
		78	Normalized Airflow		cfm/ton	= total airflow / system capacity; ideally ≥ 350
Temperature Split	System Mode During Test	86	<input type="radio"/> Heating Mode			
		87	<input type="radio"/> Cooling Mode			
	Results	89	Supply Air Temperature		°F	For heating = supply - return, ideally 25-65 For cooling = return - supply, ideally 15-25
		90	Return Air Temperature		°F	
91	Temperature Split		°F			

TEST Comments, Recommendations, and/or NA Explanation	147	

DESIGN

Load Calculation	Method	151	Like for Like Replacement?	<input type="radio"/> Yes <input type="radio"/> No	
		154	Load Calculation Input Type		
		155	<input type="radio"/> Simplified Load Calc Inputs Used		
		156	<input type="radio"/> Full Load Calc Inputs Used		
	Results	158	Design Total Cooling Load		kBtuh
		159	Design Heating Load		kBtuh
Uploads	161	<input type="checkbox"/> PDF or Photo of Load Calculation Report			
Design of Installed System	Make, Model	207	Indoor Unit Make and Model		
		208	Outdoor Unit Make and Model		
	Rated Efficiency	210	Cooling Efficiency		SEER or SEER2 (circle one)
		211	Heating Efficiency		HSPF, HSPF2, or AFUE (circle one)
	Capacity	213	Indoor Unit Capacity		kBtuh
		214	Outdoor Unit Capacity		kBtuh
	Determine if Installed System is Compliant: ALL 3 Criteria Must be Met	216	<input type="checkbox"/> Criterion 1: Is a Heat Pump		
		217	<input type="checkbox"/> Criterion 2: Meets all Sizing Criteria:		
		218	<input type="checkbox"/> Heating capacity no less than load		Furnace: capacity ≤ 6 kBtuh over load OR Heat pump: capacity ≤ 12 kBtuh over load
		219	<input type="checkbox"/> Heating not too large		Capacity ≤ 6 kBtuh over load OR airflow ≥ 400 cfm/ton
		220	<input type="checkbox"/> Cooling not too large		Low speed capacity ≤ 80% of load OR NA if single speed
		221	<input type="checkbox"/> Variable or multi speed system turns down		
		222	<input type="checkbox"/> Criterion 3: Meets Other Criteria:		HP strip heater capacity ≤ 2.7 kW/ton
		223	<input type="checkbox"/> HP strip heater capacity not too large		
224		<input type="checkbox"/> HP supp heating lockout has controls & instructions			
225	<input type="checkbox"/> Crankcase heating absent or well-controlled		Enter NA where needed and explain in comments box		
233	Compliant?		<input type="radio"/> Yes <input type="radio"/> No		
If Compliant:	235	<input type="checkbox"/> Upload PDF/Photo of Bid for Installed Compliant System		Redact pricing information	
		Skip to Comments (# 237)			
If Not Compliant:	235	<input type="checkbox"/> Upload PDF/Photo of Bid for Alt. Compliant System		You must give customer a bid for a Compliant System in addition to your noncompliant bid.	
Uploads		<input type="checkbox"/> Upload Photos of Installed Indoor and Outdoor Unit Nameplate			

DESIGN Comments and/or NA Explanation	237	
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ADJUSTMENTS

Thermostat and Programming	Talked to Occupant About...	241	<input type="checkbox"/> Thoughts on Current Thermostat and Settings		
		242	<input type="checkbox"/> Current Strategies for Controlling Temperatures		
		243	<input type="checkbox"/> Interest in Advanced Strategies		
		244	<input type="checkbox"/> Recommended Thermostat Schedule		
	245	<input type="checkbox"/> Other Recommendations, ex. Thermostat Upgrade		Including Demand Response, Setbacks, Precooling, Thermostat Eco Modes.	
	Adjusted and Confirmed	247	<input type="checkbox"/> Checked Sensor Calibration and Adjusted as Needed		
		248	<input type="checkbox"/> Reviewed Programming		
	Scheduled Program	250	<input type="checkbox"/> NA – Not Needed, Already Efficiently Programmed		
		251	<input type="checkbox"/> Offered but Customer Declined		
		252	<input type="checkbox"/> Thermostat Schedule Programmed		
	Programming & Overrides	254	<input type="checkbox"/> Offered Instruction but Customer Declined		
		255	<input type="checkbox"/> Programming and Override Instruction Provided		
Setup App or WiFi	259	<input type="checkbox"/> Offered Assistance but Customer Declined			
	260	<input type="checkbox"/> Assisted Customer in Installing or Connecting App			
Uploads	262	<input type="checkbox"/> PDF or Photo of Recommended or Final Programming			

Heat Pump	Settings	265	Supplementary Heating OAT Lockout Setpoint	°F	Ideally ≤ 35
		266	Defrost Delay Timer Setting	Minutes	Ideally ≥ 90
Evacuation and Charging	Refrigerant Management	298	Refrigerant Type		
		299	Cannister Weight Before Adjustment	lb:oz	= Reading before - reading after; Ideally = target
		300	Cannister Weight After Adjustment	lb:oz	
		301	Amount of Refrigerant Added or Recovered	±lb:oz	
		302	<input type="checkbox"/> Upload Photo of Scale After Charging, or Final SC/SH		
		303	Name of Technician		
		304	Date		
		305	Serial Number of Equipment that was Adjusted		
306	Serial Number of Cannister				
ADJUSTMENT Comments, Recommendations, and/or NA Explanation		314			
SERVICE COMPLETION					
Permit	Building Permit Info	318	Permit Number		
		319	Jurisdiction Having Authority		
		320	Date Permit was Finaled		
Contract	Maintenance Contract	323	<input type="checkbox"/> Enrolled Customer in Maintenance Contract		
		324	<input type="checkbox"/> Customer Declined Offer of Maintenance Contract		
System Manual	System Manual Contents Added	327	<input type="checkbox"/> OEM Installation/Service Manuals or URLs	Mark all that apply	
		328	<input type="checkbox"/> Drawing or Plans		
		329	<input type="checkbox"/> Installing and Maintenance Contactor Contact Info		
		330	<input type="checkbox"/> Recommended / Final Thermostat Programming		
		331	<input type="checkbox"/> Refrigerant Charge Data, if Applicable		
		332	<input type="checkbox"/> HERS Compliance and Verification Paperwork		
		333	<input type="checkbox"/> Commissioning and/or Air Balancing Information		
		334	<input type="checkbox"/> Any New Information		
	335	<input type="checkbox"/> Maintenance Plan			
	336	<input type="checkbox"/> Quality Service Report from Current Service			
Location of Manual		338	<input type="checkbox"/> Mounted on Indoor Unit		
		339	<input type="checkbox"/> Provided in Binder		
Uploads		341	<input type="checkbox"/> Photo of System Manual		
Other Programs	Referral to Other Programs	344	Review the following programs with the customer:		
		344a	<input type="checkbox"/> TECH Clean California: \$1,000 incentives for new single family heat pump HVAC systems (up to two systems per home). Requirements: 1) must be a TECH-enrolled contractor, 2) project must be a non-heat pump to heat pump installation, 3) no new construction, retrofits only, 4) equipment must be AHRI matched systems, and 5) equipment must meet Title 24 code minimum standards. See https://techcleanca.com/ .		
		344b	<input type="checkbox"/> GoGreen Financing: GoGreen Home provides California residents with financing for energy efficiency upgrades with zero fees or closing costs and some of the best rates available. Eligibility requires that the property receive electric or natural gas service from PG&E, SDG&E, SCE, or SoCalGas. See https://gogreenfinancing.com/ .		
		344c	<input type="checkbox"/> Self-Generation Incentive Program: SGIP provides incentives for the installation of qualifying on-site power generation and storage technologies. The current residential incentive is \$0.15 per Wh-AC of the system. Advanced approval and funding reservation is required. The program is implemented by your IOU (PG&E, SDG&E, SCE, or SoCalGas). See https://www.selfgenca.com/ , or research your IOU's website.		
COMPLETION Comments, Recommendations, and/or NA Explanation		346			

SIGNATURES

- Electronic signatures will be uploaded later, after review of the emailed Quality Service Report, at:
https://frontierenergy.formstack.com/forms/qhvac_claim_signature_attachment
- Signatures have been obtained below after review of boxed values in this checklist

Customer Name

Technician Name

Customer Signature

Technician Signature

I hereby certify that I reviewed the above key findings with the technician. I understand that this does not signify that I am selecting this contractor or accepting this bid.

I hereby certify that I reviewed the above key findings with the home decision maker.

The Quality Residential HVAC Services Program is funded by California utility customers under the auspices of the California Public Utilities Commission and implemented by Frontier Energy under a contract awarded by San Diego Gas & Electric® Company (SDG&E®). Customers who choose to participate in this program are not obligated to purchase any additional services offered by the contractor. Actual savings may vary. The trademarks used herein are the property of their respective owners.