



Electric Heat Inspection Form

Revised September 2012

Existing furnace New Furnace Audit Date: _____

Job/Client Information

Client name: _____ Client/Job number: _____

Phone: _____ Home: _____

Work: _____

Address: _____ Cell: _____

Equipment Information

Primary Heat Source: Heat Pump Electric furnace Baseboard Cable ceiling

Auxiliary Heat Electric Gas Oil Other: _____

If there are gas or oil appliances, include appropriate forms

Application: Up flow Down flow Horizontal Site-built Mobile home

Heat Pump Information:

Make: _____ Model: _____

Serial: _____ Btuh: _____

Furnace Information:

Make: _____ Model: _____

Serial: _____ Btuh/Kw: _____

Coil Information(if coil is separate from furnace, e.g.. heat pump with gas or oil furnace)

Make: _____ Model: _____

Serial: _____

Electric Furnace Inspection

- Service disconnect/breaker in unit, or within reach of unit
- Breakers/fuses correct size
- Conductor(s) correct size
- Terminals/connections tight and good condition
- Wiring dark, discolored or burnt
- Unit properly grounded
- All elements operational
- Sequencer/heat relay/board operating properly
- All elements on for 5 minutes
- Blower on with first element, off with or after last

	Auditor		Tech		Final
	NA	Y N	Y N	Y	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Element Amperage: Auditor: E1: _____ E2: _____ E3: _____ E4: _____ E5: _____

 Tech: E1: _____ E2: _____ E3: _____ E4: _____ E5: _____

 Final: E1: _____ E2: _____ E3: _____ E4: _____ E5: _____

Airflow Calculation

$$CFM = \text{Btuh output} \div (\text{temperature difference} \times 1.08)$$

Final airflow cfm must be calculated after duct sealing is performed

	Inspection	Technician	Final
Total amps of elements :	_____ amps	_____ amps	_____ amps
Voltage applied:	_____ volts	_____ volts	_____ volts
Multiply volts and amps	_____ watts	_____ watts	_____ watts
Multiply watts x 3.413	_____ Btuh	_____ Btuh	_____ Btuh
Supply air temperature:	_____ °F	_____ °F	_____ °F
Return air temperature:	_____ °F	_____ °F	_____ °F
Temperature rise	_____ °F	_____ °F	_____ °F
Temp rise x 1.08	_____ °F	_____ °F	_____ °F
Divide Btuh output by the adjusted temp rise	_____ cfm	_____ cfm	_____ cfm

Minimum airflow for heat pump system 400 cfm per ton

Blower, Coil, Ducts and Electric Water Heater

	Auditor	Tech	Final
	NA	Y N	Y
Blower clean			
Filter clean, supported and user friendly			
Coil and condensate drain pan clean			
Secondary drain pan installed if above finished ceiling			
Condensate drain trapped and terminated properly			
Ducts outside thermal/pressure boundary sealed			
Ducts outside thermal/pressure boundary insulated			
Water heater level and free of leaks			
T & P correct and properly piped			
Water temperature set to 120 °F or less			
Record water temperature			
	_____ °F	_____ °F	_____ °F

Baseboard and Ceiling Cable Heat

	Auditor	Tech	Final
	NA	Y N	Y
All base board heaters and ceiling cable heaters operational			
All base board heaters clean and free of obstructions			
All base board covers in place			
Properly sized breaker panel and circuit breakers			

Heat Pump Inspection

- Heat pump level and elevated above snow grade
- Entire vapor line insulated
- Outdoor coil clean
- Terminals, connections, wiring tight and good condition
- Crankcase heater or trickle circuit functional
- System wired to stage auxiliary heat correctly
- Reversing valve operational

- Outdoor metering device Expansion valve Fixed restrictor
- Indoor metering device Expansion valve Fixed restrictor

	Auditor		Tech		Final
	NA	Y N	Y N	Y N	Y
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Refrigerant: R410A R22

Heat Pump Operation

Only EPA Section 608 CFC certified technicians are permitted to attach gauges to systems

System tested in heating or cooling? Heat AC Heat AC Heat AC

Outdoor temperature _____ °F _____ °F _____ °F

High pressure

	Inspection	Technician	Final
Liquid line pressure	<u> N/A </u> psig	<u> </u> psig	<u> N/A </u> psig
Saturation temperature	<u> N/A </u> °F	<u> </u> °F	<u> N/A </u> °F
Liquid line temperature	<u> N/A </u> °F	<u> </u> °F	<u> N/A </u> °F
Calculated subcooling	<u> N/A </u> °F	<u> </u> °F	<u> N/A </u> °F
Required subcooling <input type="checkbox"/> NA	<u> N/A </u> °F	<u> </u> °F	<u> N/A </u> °F

Low pressure

Suction pressure	<u> N/A </u> psig	<u> </u> psig	<u> N/A </u> psig
Saturation temperature	<u> N/A </u> °F	<u> </u> °F	<u> N/A </u> °F
Suction line temperature	<u> N/A </u> °F	<u> </u> °F	<u> N/A </u> °F
Calculated superheat	<u> N/A </u> °F	<u> </u> °F	<u> N/A </u> °F
Required superheat <input type="checkbox"/> NA	<u> N/A </u> °F	<u> </u> °F	<u> N/A </u> °F

Indoor air temperatures

Dry bulb return air	<u> </u> °F	<u> </u> °F	<u> </u> °F
Wet bulb r/a (superheat charging) <input type="checkbox"/> NA	<u> N/A </u> °F	<u> </u> °F	<u> N/A </u> °F
Supply air temperature	<u> </u> °F	<u> </u> °F	<u> </u> °F
Temperature rise or drop(dry bulb)	<u> </u> °F	<u> </u> °F	<u> </u> °F

- If in heating mode, meets factory charging specifications
- Meets expected indoor temp rise ± 2°F: (ODA°F x .33)+ 9°F
- Meets expected indoor temp drop(14°F to 22°F dry bulb)

	Auditor		Tech		Final
	NA	Y N	Y N	Y N	Y
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Heat pump indoor temp rise when 32 °F outdoor = 18-20°F, add/subtract 1° rise for every 3° ± outside

Mechanical Work

		Completed	
1	_____	Y	N
2	_____	Y	N
3	_____	Y	N
4	_____	Y	N
5	_____	Y	N
6	_____	Y	N
7	_____	Y	N
8	_____	Y	N
9	_____	Y	N
10	_____	Y	N

Additional Comments: _____

Audit performed by: _____ **Date:** _____
Mechanical work performed by: _____ **Date:** _____
Mechanical inspection performed by: _____ **Date:** _____
Final inspection performed by: _____ **Date:** _____

Agency reviewer: _____ **Date:** _____
