

HEATING TECHNICAL EVALUATION FORM



Date: _____ Installation Date: _____

Dealer: _____ Distributor: _____

Tech: _____ Customer: _____

Equipment

	Model #	Serial #
Furnace		
Thermostat		
Humidifier		
Indoor Coil		
Outdoor Unit		
Electronic Air		

INSTALLATION DATA

Furnace Location _____ Furnace Orientation: Upflow Downflow Horizontal Right Horizontal Left

Type of Fuel _____ Filter Size _____ inches Thickness _____ inches
(Natural Gas, LP, Oil)

Single Stage Furnace

Heat Off Delay _____ sec. Heating Speed Tap Selected _____ Cooling Speed Tap Selected _____

Two Stage Furnace

Low Fire Tap Selected _____ High Fire Tap Selected _____ Cooling Speed Tap Selected _____

Furnace Control Board DIP Switches: 1. ON OFF 2. ON OFF 3. ON OFF (Check answer)

Variable Speed Furnace

Tap Select Interface Board Part# (TSIB) _____ Board Color GREEN WHITE (Check answer)

SW1 DIP Switch Settings: ON or \emptyset 1. ON 2. ON 3. ON 4. ON 5. ON 6. ON 7. ON 8. ON (Select \emptyset Select Switch

SW2 DIP Switch Settings: ON or \emptyset 1. ON 2. ON 3. ON 4. ON 5. ON 6. ON 7. ON 8. ON Setting)

SW3 DIP Switch Settings: ON or \emptyset 1. ON 2. ON 3. ON SW4 DIP Switch Settings: ON or \emptyset 1. ON 2. ON 3. ON

DIP SWITCH SETTINGS ARE DEPENDANT ON FURNACE MODEL. NOT ALL FURNACES HAVE ALL DIP SWITCHES.

J1 jumper position: + NOM + NOM - NOM J2 jumper: AC/HP EFFICIENCY HP COMFORT

OPERATIONAL CHECKS

FLASHCODE _____ (number) FLAME SENSOR CURRENT _____ μ A D.C

Voltage Checks

Line Voltage _____ vac(s) Control Voltage _____ vac(s) Line Voltage _____ vac(o) Control Voltage _____ vac(o)

Main Limit _____ vac(o) Roll Out Switch _____ vac(o) Pressure Switch _____ vac(o)

* S = Static Condition O = Operating Condition

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BLOWER AMP DRAW Low Fire _____ amps High Fire _____ amps Low Cool _____ amps High Cool _____ amps

INDUCER AMP DRAW Low Fire _____ amps High Fire _____ amps

PRESSURE SWITCH Makes @ _____ " w.c. Low Fire Breaks @ _____ " w.c. Low Fire
 Makes @ _____ " w.c. High Fire Breaks @ _____ " w.c. High Fire

DUCT SYSTEM STATIC PRESSURE (ESP)

Low Fire _____ " w.c. High Fire _____ " w.c. Low Cool _____ " w.c. High Cool _____ " w.c.

Firing Rate

Firing rate = heat content (btu/cu. ft.) X 3600(sec/hr)/ seconds for 1 revolution(assume 1 cu. ft. dial)

Example - (950 btu/cu. ft.) X (3600 sec/hr.) / 48 sec. = 71,250 btu/hr.

Local Gas Heat Content _____ btu/hr. High Fire _____ btu/hr. Low Fire _____ btu/hr.

Supply Pressure* _____ "w.c. Orifice # _____ Altitude _____ ft.

Manifold Pressure: High Fire _____ "w.c. Low Fire _____ "w.c.

*Supply pressure should be checked with all other gas appliances running

Temperature Rise

Supply Air Temperature _____ (°F) High Fire _____ (°F) Low Fire

Return Air Temperature _____ (°F) High Fire _____ (°F) Low Fire

Temperature Rise** _____ (°F) High Fire _____ (°F) Low Fire

**Temperature rise is equal to the supply air temp minus the return air temp @ steady state operation.

The supply temperature should be measured away from the line of sight of the heat exchanger.

VENT SYSTEM

PVC:

Total Length _____ ft. Pipe Diameter _____ in. # of Elbows _____ Long Radius Elbows? ___ Y ___ N

Termination Location _____ Termination Type ___ SIDEWALL ___ CONCENTRIC ___ 1 PIPE ___ 2 PIPE

METAL:

Vent Height _____ ft. Vent Diameter _____ in. Vent Type ___ CHIMNEY LINER ___ DOUBLE WALL

Cap Above Peak ___ Y ___ N If No, Distance From Peak _____ ft.

Connector Length _____ ft. Connector Diameter _____ in. Connector Height Above Furnace _____ ft.

Connector Type ___ SINGLE WALL ___ DOUBLE WALL Water Heater Input _____ btu/hr

COMBUSTION ANALYSIS

O₂ _____ % CO₂ _____ % CO _____ PPM Stack Temp. _____ (°F) Ambient Temp. _____ (°F)

Excess Air _____ %

Air Stream Measurements

Supply Air Stream CO _____ % Return Air Stream CO _____ %