

# 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 OFF    1. ☐    2. ☐    3. ☐    4. ☐    5. ☐    6. ☐    7. ☐    8. ☐ (Select Switch Setting)

SW2 DIP Switch Settings: ON or OFF    1. ☐    2. ☐    3. ☐    4. ☐    5. ☐    6. ☐    7. ☐    8. ☐ (Select Switch Setting)

SW3 DIP Switch Settings: ON or OFF    1. ☐    2. ☐    3. ☐    SW4 DIP Switch Settings: ON or OFF    1. ☐    2. ☐    3. ☐

**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

**FLASH CODE** \_\_\_\_\_ (number)

**FLAME SENSOR CURRENT** \_\_\_\_\_  $\mu$ 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

# HEATING TECHNICAL EVALUATION FORM

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 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

O<sub>2</sub> \_\_\_\_\_ % CO<sub>2</sub> \_\_\_\_\_ % CO \_\_\_\_\_ PPM Stack Temp. \_\_\_\_\_ (°F) Ambient Temp. \_\_\_\_\_ (°F)

Excess Air \_\_\_\_\_ %

## Air Stream Measurements

Supply Air Stream CO \_\_\_\_\_ % Return Air Stream CO \_\_\_\_\_ %