COMFORT PACK

PACKAGED THRU-THE-WALL AIR CONDITIONER WITH GAS HEAT

USER'S INFORMATION MANUAL

AHRI CERTIFIED®
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Single Package Vertical AC
AHRI Standard 390

ETL LISTED c US

National Comfort Products

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NOTE: These installation and maintenance instructions should be left with the unit for future reference.

INSTALLATION:
This unit must be installed in accordance with all applicable codes. This unit is not to be used for temporary heating of buildings or structures under construction.

FOR MAXIMUM PERFORMANCE, IT IS IMPERATIVE THAT THE COOLING CHASSIS AIR DIVIDER BE SEALED TO THE CABINET AIR SEAL. ANY LEAKAGE WILL ALLOW OUTSIDE UNCONDITIONED AIR TO INFILTRATE AND MIX WITH THE CONDITIONED AIR.THIS CONDITION WILL DEGRADATE UNIT PERFORMANCE. ALL UNITS SHOULD BE INSPECTED FOR THIS CONDITION, AS DURING TRANSPORTATION AND INSTALLATION THE SEALS CAN BE DISTURBED. IF REQUIRED, A LIGHT BEAD OF CAULKING IS RECOMMENDED TO SEAL THE CHASSIS, TO THE AIR SEAL TO ELIMINATE LEAKAGE.

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

Do **NOT** store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS

- Do **NOT** try to light any appliance.
- Do **NOT** touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service **must** be performed by a qualified installer, service agency or the gas supplier.

WARNING: IF THE INFORMATION IN THIS MANUAL IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

For Your Safety

WHAT TO DO IF YOU SMELL GAS:

- Do **NOT** try to light any appliance.
- Do **NOT** touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call your fire department.

Do **NOT** store or use combustible materials, gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE, OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY, OR DEATH. READ THE INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

WARNING: GAS-FIRED APPLIANCES ARE NOT DESIGNED FOR USE IN HAZARDOUS ATMOSPHERES CONTAINING FLAMMABLE VAPORS OR COMBUSTIBLE DUST, IN ATMOSPHERES CONTAINING CHLORINATED OR HALOGENATED HYDROCARBONS, OR IN APPLICATIONS WITH AIRBORNE SILICONE SUBSTANCES. SEE HAZARD LEVELS BELOW.

WARNING: SHOULD OVERHEATING OCCUR, OR THE GAS SUPPLY FAIL TO SHUT OFF, SHUT OFF THE MANUAL GAS VALVE TO THE APPLIANCE BEFORE SHUTTING OFF THE ELECTRICAL SUPPLY.

WARNING: DO NOT USE THIS APPLIANCE IF ANY PART HAS BEEN UNDER WATER. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE APPLIANCE AND REPLACE ANY GAS CONTROL THAT HAS BEEN UNDER WATER.

HAZARD INTENSITY LEVELS

1. **DANGER: FAILURE TO COMPLY WITH RESULT IN SEVERE PERSONAL INJURY OR DEATH AND/OR PROPERTY DAMAGE.**
2. **WARNING: FAILURE TO COMPLY COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH AND/OR PROPERTY DAMAGE.**
3. **CAUTION: FAILURE TO COMPLY COULD RESULT IN MINOR PERSONAL INJURY AND/OR PROPERTY DAMAGE.**

Installation Codes

These units must be installed in accordance with local building codes. In the absence of local codes, in the United States, the unit must be installed in accordance with the National Fuel Gas Code (latest edition). A Canadian installation must be in accordance with the CAN/CGA-B149.1 and B149.2 Installation Code for Gas Burning Appliances and Equipment. These codes are available from CSA Information Services, 1-800-463-6727. Local authorities having jurisdiction should be considered before installation is made to verify local codes and installation procedure requirements.

Heating Specifications

HEAT MODULE P/N	14208309	14208308	14208303
INPUT BTUH	38,000	51,000	64,000
OUTPUT BTUH	30,400	40,800	51,200
MAXIMUM EXTERNAL STATIC PRESSURE (INCHES W.C.)	.5	.5	.5
DISCHARGE AIR TEMPERATURE RISE RANGE (°F)	40 to 70	40 to 70	55 to 85
BLOWER SPEED SETTING	Low	Medium	High

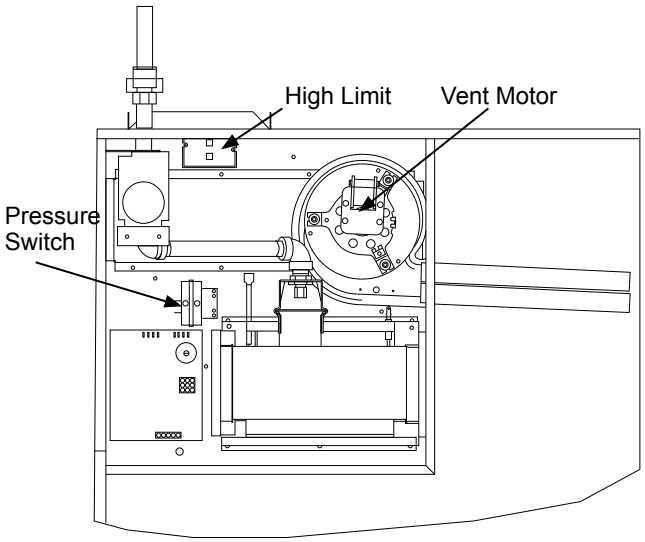
To ensure safe operation and long life of the heat exchanger, the maximum static pressure and/or maximum temperature rise must not be exceeded. Operation of the heater at conditions that exceed the heater's specifications will void the heat exchanger warranty.

MODEL SIZE	38	51	64
ORIFICE SIZE N.G.	31	28	22
ORIFICE SIZE LP	49	2.1 mm	41
NOMINAL TEMPERATURE RISE (°F)	55	55	65
ALLOWABLE AIR TEMPERATURE RANGE	140 - 170	140 - 170	135 - 165
CO^2 % - ACCEPTABLE RANGE	4.2 to 5.2	4.8 to 5.8	4.5 to 5.5
CO^1 AIR FREE - PPM	0 - 200	0 - 200	0 - 200
SENSING COLD	1.05 +/-.1	1.05 +/-.1	1.05 +/-.1
PRESSURE HOT	.8 +/-.05	8 +/-.05	8 +/-.05
EFFICIENCY (% - RANGE)	81.5 - 82.5	81.5 - 82.5	80.1 - 81.1
STACK TEMPERATURE (°F)	245 - 300	245 - 300	270 - 330

High Altitude Operation

If the heater is being installed at an elevation above 2000 ft. (610M), the input rate will have to be derated. This is done by adjusting the valve outlet pressure. In addition, if the heater is being installed at an altitude above 6000 ft. (1830M), the pressure switch will have to be changed. Adjusting the valve outlet pressure is done after the heater is in operation; follow the instructions below. If the pressure switch needs changed, do that before the heater is operated (**see Figure 1**).

Figure 1 - Pressure Switch



Heat Section Burner/Control Compartment
(**NOTE**: Unit side panel is removed for clarity; side panel is not removable. Access to the burner/control compartment is through the small rear access panel as illustrated in **Figure 2**.)

High Altitude Combustion Air Pressure Switch

SIZE	P/N	DESCRIPTION
ALL	14208325	Set to break on pressure increase @ -0.5" w.c.

Instructions for Changing Pressure Switch

1. Open the burner/control compartment access panel. Locate the pressure switch.
2. Mark and disconnect the two wires attached to the pressure switch.
3. Disconnect the flow sensing tubing from the pressure switch.
4. Locate the two screws holding the switch mounting bracket. Remove the screws (save screws) and the pressure switch.
5. Install the high altitutde pressure switch. Attach the sensing tube and wires. Replace access panel.

Derating by Valve Outlet Pressure Adjustment for High Altitude Operation

Instructions

NOTE: This adjustment can only be done after the heater is in operation. It is included in the startup procedures.

1. Determine the required valve outlet pressure for the elevation where the heater will be operating. If unsure of the elevation, contact the local gas supplier.

VALVE OUTLET PRESSURE SETTINGS BY ELEVATION			
ALTITUDE		NATURAL GAS (inches w.c.)	PROPANE GAS (inches w.c.)
Feet	Meters		
0 - 2000	1 - 610	3.5	10.0
2001 - 3000	611 - 915	2.8	7.7
3001 - 4000	916 - 1220	2.5	7.1
4001 - 5000	1221 - 1525	2.3	6.4
5001 - 6000	1526 - 1830	2.1	5.8
6001 - 7000	1831 - 2135	1.9	5.2
7001 - 8000	2136 - 2440	1.7	4.6
8001 - 9000	2441 - 2745	1.5	4.1

2. With the manual valve positioned to prevent flow to the main burner, connect a manometer to the 1/8" pipe outlet pressure tap in the valve. Use a water column manometer that is readable to the nearest tenth of an inch.

3. Remove the cap from the pressure adjusting screw and adjust the valve outlet pressure to the pressure setting selected from the table. Cycle the main burner once or twice to properly seat the adjustment spring in the valve. Re-check the pressure. If necessary, re-adjust the pressure. When the pressure is correct, remove the manometer and replace the cap. Check for leaks at the pressure tap fitting.

4. With the heater operating determine that the inlet pressure to the heater for natural gas is between 5 and 13.5 inches w.c., and for propane between 10 and 13.5 inches w.c. Take this reading as close as possible to the heater (heaters are equipped with gas valves that have an inlet pressure tap.) **If the inlet is not within the specified range, the inlet pressure must be corrected and Steps 3 and 4 repeated**.

5. Find the Valve Outlet Pressure Adjustment label in the plastic bag that contained these instructions. Using a permanent marker, fill in the pressure setting. Adhere the label on the heater near the gas valve so that it is conspicuous to someone serving the valve.

Clearances

Clearance to combustibles is defined as the minimum distance from a heater to a surface or object that is necessary to ensure that a surface temperature of 90°F above the surrounding ambient temperature is not exceeded. Minimum clearance to combustibles from all sides of this properly installed unit is zero inches. Adequate clearances must be provided to allow installation of the union and shutoff valve, as well as accessibility to wiring and control compartments. If this unit is installed in an attic or other insulated space, it must be kept free and clear of insulating material. The area must be inspected when the unit is installed or insulation is added. Some insulating materials may be combustible.

Venting

The venting system is an integral part of the heater as shipped to you. Do not modify or add to the vent system. The heat section includes an exhaust blower. The blower draws the combustion products out of the heat exchanger, mixes combustion products with dilution air and forces the mixture to the outside. A chimney is not required. No special provisions are required for supplying air for combustion.

Do not alter or extend the vent outlet. The venting system is designed for proper operation under all weather conditions and for winds up to 40 mph.

Gas Piping and Pressures

WARNING: THIS HEATER IS EQUIPPED FOR A MAXIMUM GAS SUPPLY PRESSURE OF 1/2 POUND, 8 OUNCES OR 14 INCHES WATER COLUMN. SUPPLY PRESSURE HIGHER THAN 1/2 POUND REQUIRES INSTALLATION OF AN ADDITIONAL LOCKUP-TYPE SERVICE REGULATOR EXTERNAL TO THE UNIT.

PRESSURE TESTING SUPPLY PIPING

Test Pressures Above 1/2 PSI: Disconnect the heat manual valve from the gas supply line that is to be tested. Cap or plug the supply line.
Test Pressures Below 1/2 PSI: Before testing, close the manual valve on the heater.

All piping must be in accordance with requirements outlined in the National Fuel Gas Code ANSI/Z223,1a (latest edition) or CAN/CGA-B149.1 and B149.2. Gas supply piping installation should conform with good practice and the local codes. Support gas piping with pipe hangers, metal strapping or other suitable material; do not rely on the heater to support the gas pipe.

CAPACITY OF PIPING
Cubic Feet Per Hour Based on 0.3" w.c. Pressure Drop
Specific Gravity for Natural Gas - 0.6 (Natural Gas - 1000 BTU/Cubic Feet)
Specific Gravity for Propane Gas - 1.6 (Propane Gas - 2550 BTU/Cubic Feet)

LENGTH OF PIPE	DIAMETER OF PIPE											
	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"	
	NATURAL	PROPANE	NATURAL	PROPANE	NATURAL	PROPANE	NATURAL	PROPANE	NATURAL	PROPANE	NATURAL	PROPANE
20'	92	107	190	116	350	214	730	445	1100	671	2100	1281
30'	73	45	152	93	285	174	590	360	890	543	1650	1007
40'	63	38	130	79	245	149	500	305	760	464	1450	885
50'	56	34	115	70	215	131	440	268	670	409	1270	775
60'	50	31	105	64	195	119	400	244	610	372	1105	674
70'	46	28	96	59	180	110	370	226	560	342	1050	641
80'	43	26	90	55	170	104	350	214	530	323	990	604
90'	40	24	84	51	160	98	320	195	490	299	930	567
100'	38	23	79	48	150	92	305	186	460	281	870	531
125'	34	21	72	44	130	79	275	168	410	250	780	476
150'	31	19	64	39	120	73	250	153	380	232	710	433
175'	28	17	59	36	110	67	225	137	350	214	650	397
200'	26	16	55	34	100	61	210	128	320	195	610	372

NOTE: When sizing supply lines, consider possibilities of future expansion and increased requirements.
Refer to National Fuel Gas Code for additional information on line sizing.

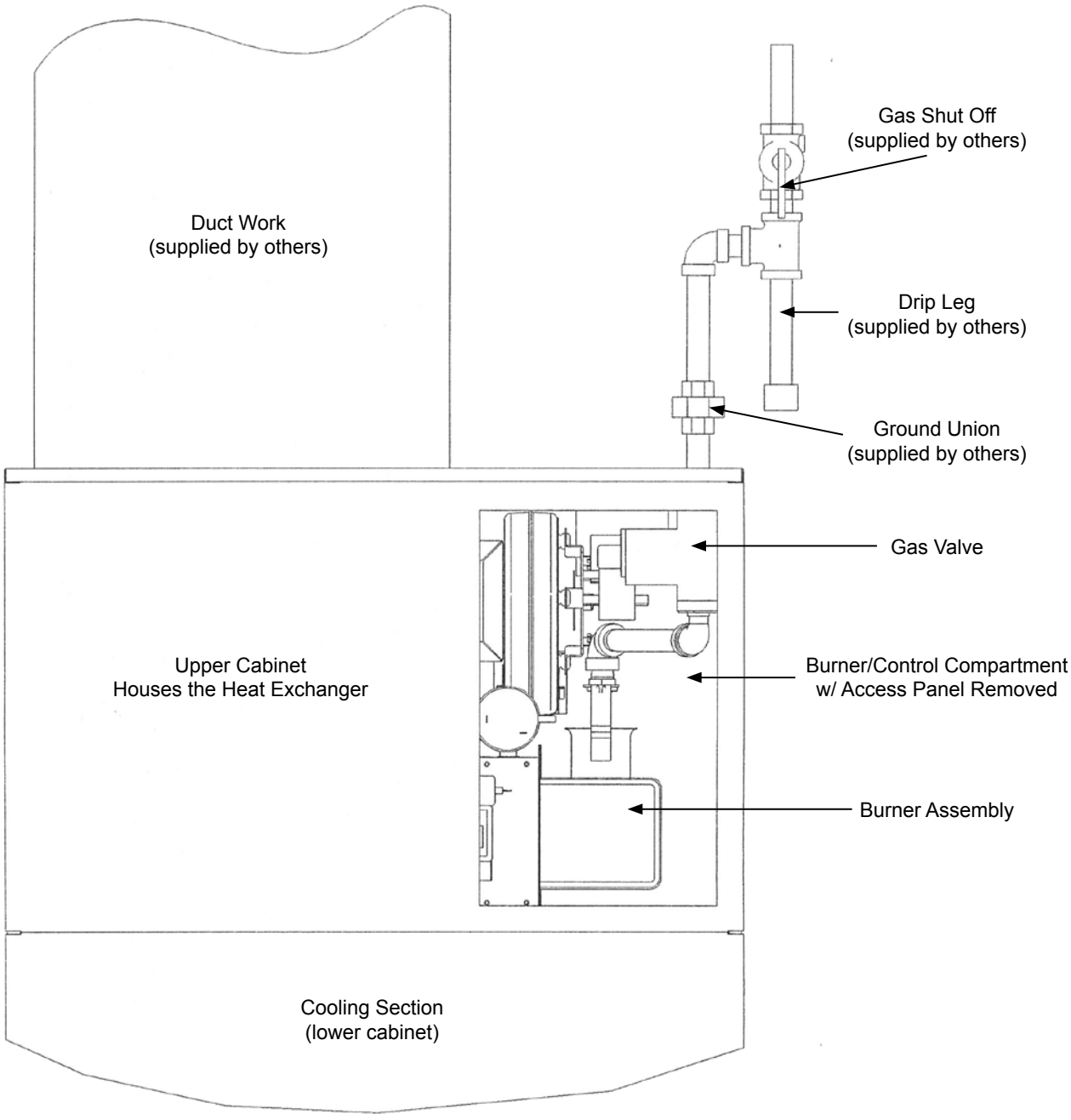
The heater is orificed for operation with natural gas having a heating value of 1000 (+/-50) BTUH per cubic feet or propane gas with a heating valve of 2500 (+/-100) BTUH per cubic feet. If the gas at the installation does not meet these specifications, consult the factory for proper orificing. **Pipe joint compounds (pipe dope) shall be resistant to the action of liquefied petroleum gas or any other chemical constituents of the gas being supplied**.

Install a ground joint union and manual shut off valve upstream of the unit control system, as shown in **Figure 2**. The 1/8" plugged tapping in the shut off valve provides connection for a supply line pressure test gauge**. The National Fuel Gas Code requires the installation of a trap with a minimum 3" drip leg. Local codes may require a minimum drip leg longer than 3" (typically 6"). Gas connection is 1/2". Leak-test all connections by brushing on a leak-detecting solution.

WARNING: ALL COMPONENTS OF A GAS SUPPLY SYSTEM MUST BE LEAK TESTED PRIOR TO PLACING EQUIPMENT IN SERVICE. NEVER TEST FOR LEAKS WITH AN OPEN FLAME. FAILURE TO COMPLY COULD RESULT IN PERSONAL INJURY, PROPERTY DAMAGE OR DEATH.

Figure 2 - Gas Connection and View

Showing Access Panels and Heat Exchanger Inspection Panel



* Install the heat exchanger inspection panel in the ductwork in such a manner that will prevent air leaks.
** 1/8" NPT plugged tapping for test gauge not permitted in the Massachusetts.

Gas Piping and Pressures cont'd...

Valve Outlet Gas Pressure Setting
Measuring valve outlet gas pressure cannot be done until the heater is in operation. It is included in the steps of the "Check-Test-Start" procedure. Normally adjustments should not be necessary to the factory preset regulator (also, see paragraph on high altitude operation). If adjustment is necessary, the following warnings and instructions apply.

WARNING: VALVE OUTLET GAS PRESSURE MUST NEVER EXCEED 3.5" w.c. FOR NATURAL GAS AND 10" w.c. FOR PROPANE GAS.

For Natural Gas: When the heater leaves the factory, the combination gas valve is set so that the valve outlet gas pressure is regulated to 3.5" w.c. Inlet supply pressure to the valve for natural gas must be a minimum of 5" w.c. and a maximum of 14" w.c. Normally, field adjustment should not be required.

For Propane Gas: When the heater leaves the factory, the combination gas valve is set so that the valve outlet gas pressure is regulated to 10" w.c. Inlet supply pressure to the valve for propane gas must be a minimum of 11" w.c. and a maximum of 14" w.c. Normally, field adjustment should not be required.

Before attempting to measure or adjust valve outlet gas pressure, the inlet supply pressure **must** be within the specified range both when the heater is in operation and on standby.

Incorrect inlet pressure could cause excessive valve outlet gas pressure immediately or at some future time. If natural gas supply pressure is too high, install a regulator in the supply line before it reaches the heater. If natural gas supply pressure is too low, contract your gas supplier.

Instructions on How to Check Valve Outlet Pressure (can only be done after heater is installed):

1. With the manual valve positioned to prevent flow to the main burner, connect a manometer to the 1/8" pipe outlet pressure tap in the valve. **NOTE:** A manometer (fluid-field gauge) is recommended rather than a spring type gauge due to the difficulty of maintaining calibration of a spring type gauge.

2. Open the valve and operate the heater. Measure the gas pressure at the outlet of the automatic gas valve. Normally adjustments should not be necessary to the factory-preset regulator. If adjustment is necessary, set pressure to correct settings by turning the regulator screw IN (clockwise) to increase pressure. Turn regulator screws OUT (counterclockwise) to decrease pressure.

Electrical Supply and Connections

All electrical wiring and connections, including electrical grounding **must** be made in accordance with the National Electric Code ANSI/NFPA No. 70 (latest edition) or, in Canada, the Canadian Electrical Code, Part I-C.S.A. Standard C22.1. In addition, the installer should be aware of any local ordinances or utility company requirements that might apply.

Check the rating plate for the supply voltage and current requirements. A dedicated line voltage supply with fused disconnect switch should be run directly from the main electrical panel to the unit. All external wiring must be within approved conduit and have a minimum temperature rise rating of 60°C. Conduit from the disconnect switch must be run so as not to interfere with the service panels.

CAUTION: ROUTE THE WIRES SO THAT THEY DO NOT CONTACT THE FLUE GAS COLLECTION BOX OR VENTER HOUSING. CONSULT THE WIRING DIAGRAM SUPPLIED WITH YOUR HEATER.

CAUTION: IF ANY OF THE ORIGINAL WIRES AS SUPPLIED WITH THE APPLIANCE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105°C, EXCEPT FOR LIMIT CONTROL, FLAME ROLLOUT SWITCH AND SENSOR LEAD WIRES, WHICH MUST BE 150°C. SEE HAZARD INTENSITY LEVELS.

Ignition System

This heater is equipped with a direct spark integrated control system. The system monitors the safety devices and controls the operation of the blower and venter motors and the gas valve between heat cycles. It also controls the blower for cooling.

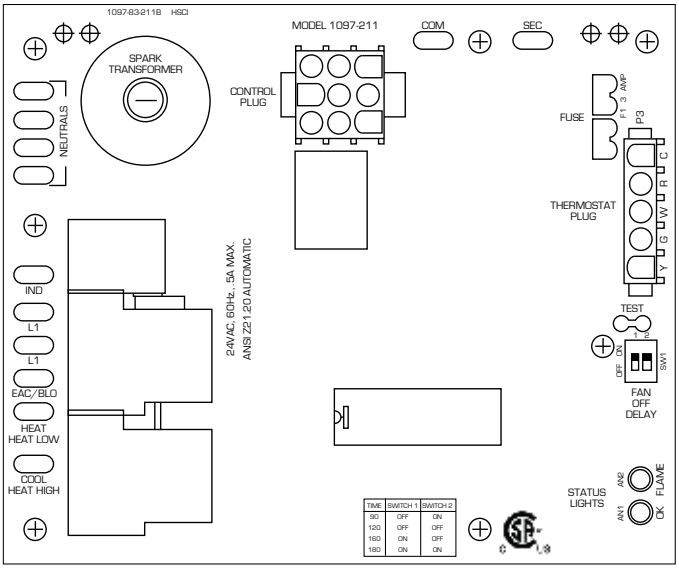
Ignition System Operating Sequence - On a call for heat from the thermostat, the system energizes the venter motor and goes through a 10-second prepurge. The system verifies that the pressure switch, the high limit and the flame rollout switch are in the closed state. The gas valve is then energized and the ignition system provides the high voltage spark to the electrode to ignite the main burner gas. Burner flame is electronically sensed by the control upon carry over of flame. (A separate solid metal probe is used as the flame sensing function. A low voltage electrical signal is imposed on the metal probe that is electrically isolated from ground. When the flame impinges on the flame sensing probe, the flame acts as a conduction path to ground. The flame rectifies and completes the DC circuit and the ignition system acknowledges the flame.) The fan motor is energized by the system after 30 seconds of flame sensing.

After the thermostat has been satisfied, the system de-energizes the gas valve, the venter motor goes through a 45-second post-purge and the fan motor remains energized for an additional time.

NOTE: This is a three trial system. Should the unit not sense burner flame, two additional tries will be made. If the unit does not sense flame in three tries, it will lockout for one hour before initiating another 3-sequence trial for ignition. To initiate another trial for ignition before the one hour elapses requires that either the thermostat be reset or the power to the unit be interrupted for 30 seconds. **The user should not continue to try resetting the system. Contact a qualified service agency**.

FIGURE 3 - DSI INTEGRATED CONTROL MODULE	
CONTROL STATUS	**GREEN LED**
STEADY ON	Normal operation, no call for heat
FAST FLASH	Normal operation, call for heat
1 FLASH	In lockout from failed ignition or flame loss
2 FLASH	Pressure switch does not close within 30 seconds
3 FLASH	Limit switch or rollout switch open
4 FLASH	Limit switch is closed before venter is energized
STEADY OFF	Internal control fault or no power
FLAME STATUS	**YELLOW LED**
STEADY ON	Flame sensed
SLOW FLASH	Weak flame (current below 1.0 microamps = +/-50%)
FAST FLASH	Undesired flame (valve open and no call for heat)

FAN OFF DELAY		
TIME	**SWITCH**	
	1	**2**
90	OFF	ON
120	OFF	OFF
160	ON	OFF
180	ON	ON



Combustion Air Proving Switch

The combustion air proving switch is a pressure sensitive switch that monitors air pressure to ensure that proper combustion air flow is available. The switch is a single pole/normally open device that closes when a decreasing pressure is sensed in the venter housing.

On start-up when the heater is cold, the sensing pressure is at the most negative level, and as the heater warms up, the sensing pressure becomes less negative. After the system has reached equilibrium (about 10 minutes), the sensing pressure levels off.

If a restriction causes the sensing pressure to be outside the switch setpoint, the pressure switch will function to shut off the main burner. The main burner will remain off until the system has cooled and/or the resistance is reduced. The **Table** below lists the approximate water column negative pressure readings and switch setpoints for sea level operating conditions.

HEAT MODULE P/N	14208309	14208308	14208303
START-UP COLD	1.0 +/- .1	1.0 +/- .1	1.05 +/- .1
EQUILIBRIUM	.72 +/- .05	.72 +/- .05	.8 +/- .05
SETPOINT "OFF"	.55	.55	.55
SETPOINT "ON"	.65	.65	.65

Limit Switch

All units are equipped with a temperature activated auto reset limit control. The control is factory set and is non-adjustable. If the setpoint is reached, the limit control acts to interrupt the electric supply to the gas valve. This safety device provides protection in the case of motor failure or lack of airflow due to a restriction at the inlet or outlet.

Flame Rollout Switch

All units are equipped with a temperature activated manually reset switch. The flame rollout switch is located centrally on the top of the burner assembly. It is factory set and is non-adjustable. If the setpoint is reached, the flame rollout acts to interrupt the electric supply to the gas valve. If the flame rollout switch activates, identify and correct the cause before resetting the switch. Refer to the **Maintenance Section** for information on probable causes and instructions on resetting the flame rollout switch.

Burner

The heater has a one-piece burner designed to provide controlled flame stability without lifting or flashback with either natural or propane gas. The burner can be removed as a unit for inspection or service.

Gas Valve

The main operating gas valve is powered by the 24-volt control circuit through the thermostat and safety controls. The main control valve is of the diaphragm type providing regulated gas flow preset at the factory.

WARNING: THE OPERATING VALVE IS THE PRIME SAFETY SHUTOFF. ALL GAS SUPPLY LINES MUST BE FREE OF DIRT OR SCALE BEFORE CONNECTING THE UNIT TO ENSURE POSITIVE CLOSURE. SEE HAZARD INTENSITY LEVELS, PAGE 2.

Check Installation

Check the installation prior to start-up:

1. Unit must be secure and level.
2. Verify proper clearances from combustibles.
3. Check vent and combustion air systems to be sure that they are not blocked.
4. Check piping for leaks and proper gas line pressure. Bleed gas lines of trapped air.
5. Check electrical wiring. Be sure all wire gauges are as recommended. A service disconnect switch should be used. Verify that fusing or circuit breakers are adequate for the load use.
6. Verify that the return air duct connection is physically sound, sealed to the unit cabinet and terminates outside of the space containing the furnace.
7. Check that the vent connector is in place and is physically sound without holes or excessive corrosion.
8. Check that flue product carrying areas external to the furnace are clear and free of obstructions.
9. Check that there are no obvious signs of deterioration of the furnace.
10. Check that the physical support of the unit and furnace are sound without sagging, cracks, gaps, etc., around the base so as to provide a seal between the support and the base.

These examinations should be done by qualified service personnel prior to initial start-up, and then at least on a yearly basis.

Heater Start-Up

SAFTEY WARNINGS

WARNINGS: FOR YOUR SAFETY, READ BEFORE OPERATING. IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

- This appliance does not have a pilot. It is equipped with an ignition device that automatically lights the burner. Do not try to light the burner by hand.
- Before operating, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

- Use only your hand to turn the gas control ON/OFF knob on the gas valve. Never use tools. If the valve ON/OFF knob will not turn by hand, do not try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- Should overheating occur, or the gas supply fail to shut off, turn off the manual gas valve to the appliance before shutting of the electrical supply.
- Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

Operating Instructions and Operating Sequence

1. Set thermostat at lowest setting.
2. Turn off all electric power to the appliance.
3. This appliance is equipped with an ignition device that automatically lights the burner. Do not try to light the burner by hand. Open the access door and locate the gas control (ON/OFF) knob on the gas valve.
4. Turn the gas control knob clockwise to "OFF."
5. Wait five (5) minutes to clear for any gas. Then smell for gas, including near the floor. **If you smell gas, STOP!** and follow the steps in the **WARNINGS** above or on the **Operating Label** on the heater. If you do not smell gas, proceed to the next step.
6. Turn the gas control knob counterclockwise to "ON." Close the access door.
7. Turn on the electric power to the heater.
8. Set the thermostat to the desired setting.
   - Thermostat calls for heat, energizes venter motor.
   - Venter pressure switch closes, firing the unit.
   - Burner flame is sensed and in 30 seconds, the fan motor is energized.
   - If the flame is extinguished during the main burner operation, the integrated control system closed the main valve and must be reset by interrupting power to the control circuit (see lighting instructions on the heater).

NOTE: If the appliance does not operate, follow the instructions "To Turn Off Gas to Appliance" (below) and call your service technician.

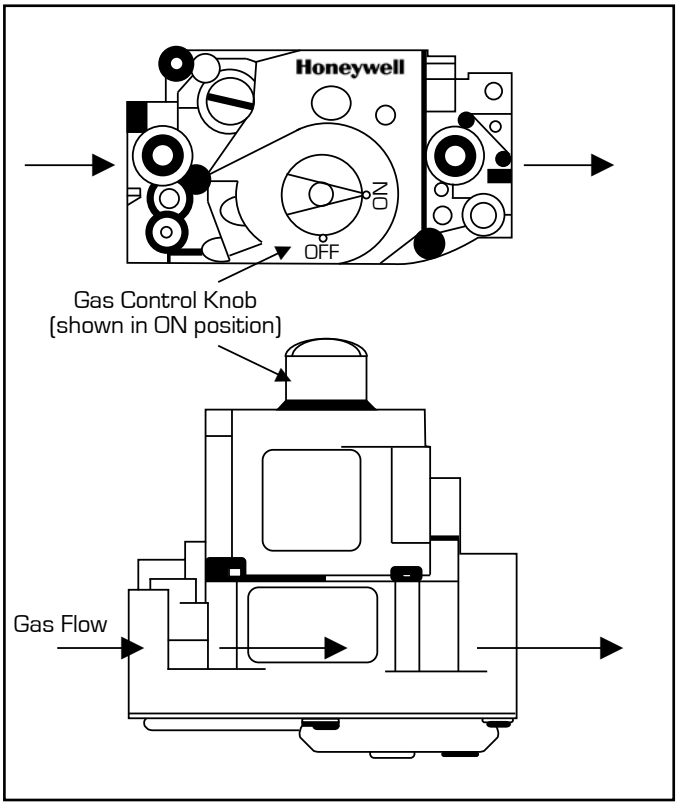
TO TURN OFF GAS TO THE APPLIANCE

1. Set thermostat to lowest setting.
2. If service is to be performed, turn off all electrical power to the appliance.
3. Open the access door.
4. Turn the gas control knob clockwise to "OFF." Do not force.
5. Close the access door.

CHECK INSTALLATION AFTER START-UP:

- ☐ If the heater is being derated for high altitude operation, follow the instructions to adjust the valve outlet pressure. Be sure to complete the "change pressure" tag and adhere it to the heater close to the gas valve.
- ☐ If unit is not being derated, measure to verify valve outlet gas pressure.
- ☐ Inspect the venting system. Determine that there is no blockage or restriction or leakage.
- ☐ Turn the unit off and on, pausing two minutes between each cycle. Observe for smooth ignition.

Figure 4 - Gas Valve



Special Notes for Extremely Cold Weather Areas (below - 20°F/-29°C)

In areas where extremely cold outdoor temperatures can be expected, some additional installation and operating precautions should be taken to prevent possible vent system ice blockage that could result in safety shutdown of the burners:

1. Adjust to the highest achievable temperature rise within the rise and static pressure ranges specified on the rating plate.
2. Make sure there are no leaks of outside air into the return air system.
3. Keep the outside louver grill as free as possible of any ice that may form and obstruct the flue outlet.

DANGER: THE GAS BURNER IN THIS GAS-FIRED EQUIPMENT IS DESIGNED AND EQUIPPED TO PROVIDE SAFE AND COMPLETE COMBUSTION. HOWEVER, IF THE INSTALLATION DOES NOT PERMIT THE BURNER TO RECEIVE THE PROPER SUPPLY OF COMBUSTION AIR, COMPLETE COMBUSTION MAY NOT OCCUR. THE RESULT IS INCOMPLETE COMBUSTION THAT PRODUCES CARBON MONOXIDE, A POISONOUS GAS THAT CAN CAUSE DEATH. SAFE OPERATION OF DIRECT-FIRED GAS BURNING EQUIPMENT REQUIRES A PROPERLY OPERATING VENT SYSTEM THAT VENTS ALL FLUE PRODUCTS TO THE OUTSIDE ATMOSPHERE. FAILURE TO PROVIDE VENTING WILL RESULT IN A HEALTH HAZARD WHICH COULD CAUSE SERIOUS PERSONAL INJURY OR DEATH. ALWAYS COMPLY WITH THE COMBUSTION AIR REQUIREMNETS IN THE INSTALLATION CODES. COMBUSTION AIR AT THE BURNER SHOULD BE REGULATES ONLY BY MANUFACTURER-PROVIDED EQUIPMENT. NEVER RESTRICT OR OTHERWISE ALTER THE SUPPLY OF COMBUSTION AIR TO ANY HEATER.

MAINTENANCE AND SERVICE

WARNING: IF YOU TURN OFF POWER SUPPLY, TURN OFF THE GAS. SEE HAZARD LEVELS, PAGE 2.

The material contained in the MAINTENANCE AND SERVICE section of this manual is designed to aid a qualified service person in maintaining and servicing this equipment. This unit will operate with minimum maintenance. To ensure long life and satisfactory performance, a heater that is operated under normal conditions should be inspected and cleaned at the start of each heating season. If the heater is operating in an area where an unusual amount of dust, soot or other impurities are present in the air, more frequent maintenance is recommended. When any service is complete, be careful to reassemble correctly to ensure that no unsafe conditions are created. When re-lighting, always follow the lighting instructions on the heater.

Maintenance Schedule

At least every six weeks check the filter. Clean or replace as necessary. A clean filter in addition to providing a comfortable environment ensures fuel-efficient operation and long heat exchanger life. Do the following procedures at least annually.

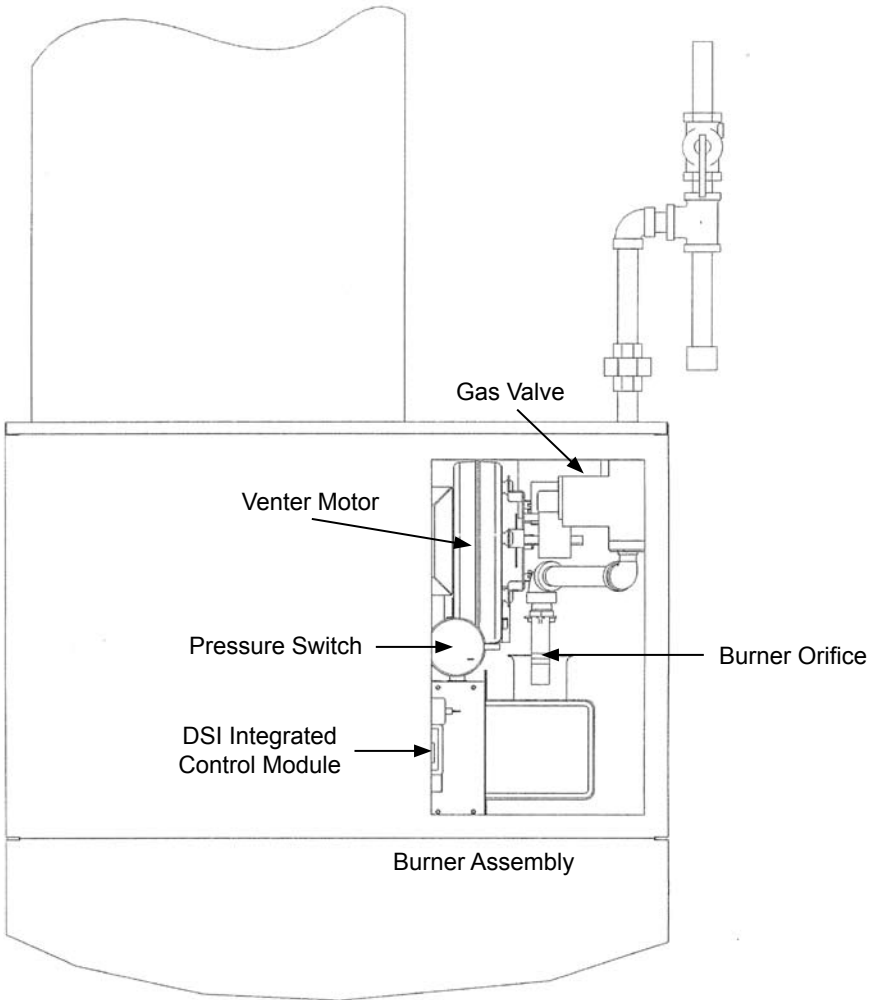
- Clean all dirt, lint, and grease from the combustion air openings and venter motor.
- Inspect the heat exchanger. Clean if needed.
- Check the burner for scale, dust, or lint accumulation. Clean if needed.
- Check the vent system for soundness. Replace any parts that do not appear sound.
- Check the wiring for any damaged wire. Replace damaged wiring.

NOTE: USE ONLY FACTORY-AUTHORIZED REPLACEMENT PARTS.

Figure 5 - Burner/Control Compartment

Showing Locations of Burner Assembly and Controls

NOTE: Unit side panel is removed for clarity; side panel is not removable. Access to the burner/control compartment is through the small rear access panel as illustrated in **Figure 2**.



Inspect the Heat Exchanger

Remove the heat exchanger inspection panel (**see Figure 2**). Remove any dirt or dust accumulation. Visually check the heat exchanger for cracks and holes. If a crack or hole is observed, replace the heat exchanger.

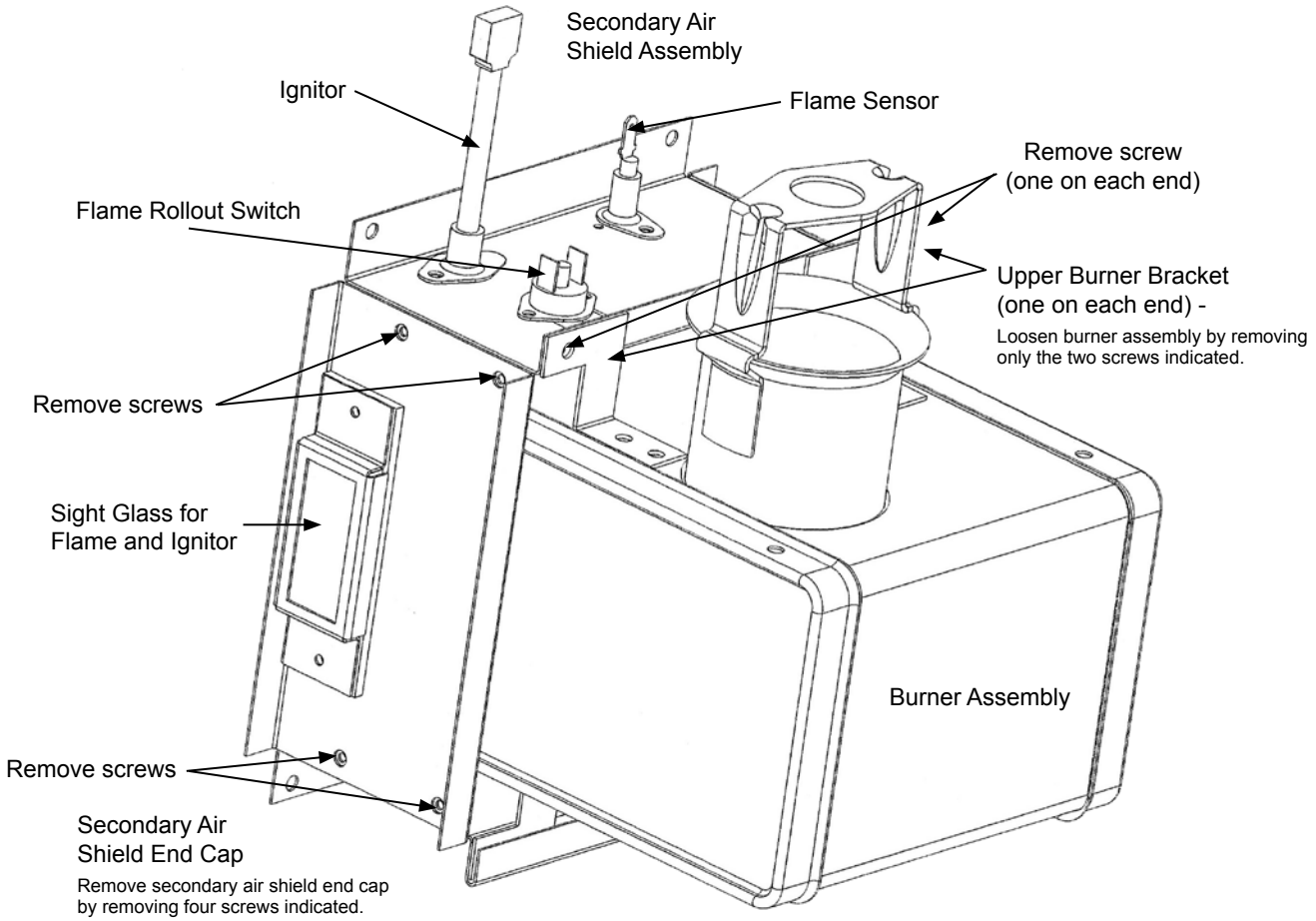
NOTE: Inspection of the lower portion of the heat exchanger is done with the burner removed. See the **Burner Service** section below for information on inspecting the lower portion of the heat exchanger.

Burner Service

Inspect the burner/control compartment annually to determine if cleaning is necessary. Open the burner/control compartment and on the burner housing, clean the compartment and follow the instructions below to remove and clean the burner.

Figure 6A - Instructions for Burner Removal

1. Shut the gas supply off ahead of the combustion valve.
2. Turn off electric supply.
3. Remove the upper cabinet panel to expose the heat exchanger section and the burner/contol compartment (**see Figure 2**).
4. Carefully loosen and remove the gas valve and gas train from the side panel and burner orifice bracket.
5. Mark and disconnect the pressure switch wires. Disconnect the tubing and remove the pressure switch.
6. Locate the secondary air shield end cap. Remove the four screws holding it to the air shield and remove the end cap.
7. Locate the upper burner brackets (one on each side). Remove the two screws (one on each side) that attach the burner assembly to the secondary air shield assembly.
8. Tilt the burner assembly slightly and lift it free from the retaining track under the burner assembly. Remove the burner assembly from the cabinet.



Inspect and Clean the Burner

With the burner assembly removed, shine a flashlight on the burner ribbons. Look for carbon buildup, scale, dust, lint, and/or anything that might restrict flow through the spaces between the burner ribbons. Holding the burner assembly so that any foreign material will fall away from the burner, use a stiff bristle brush to loosen and remove any foreign material(s). If the burner is excessively dirty, refer to **Figure 6A** and remove one of the burner end caps. Remove the four screws that hold the end cap to the burner housing. Lightly tap the end cap to remove it.

Clean all foreign material from the burner and venturi. After the burner is thoroughly clean, replace the end cap making certain that it is tight against the burner housing.

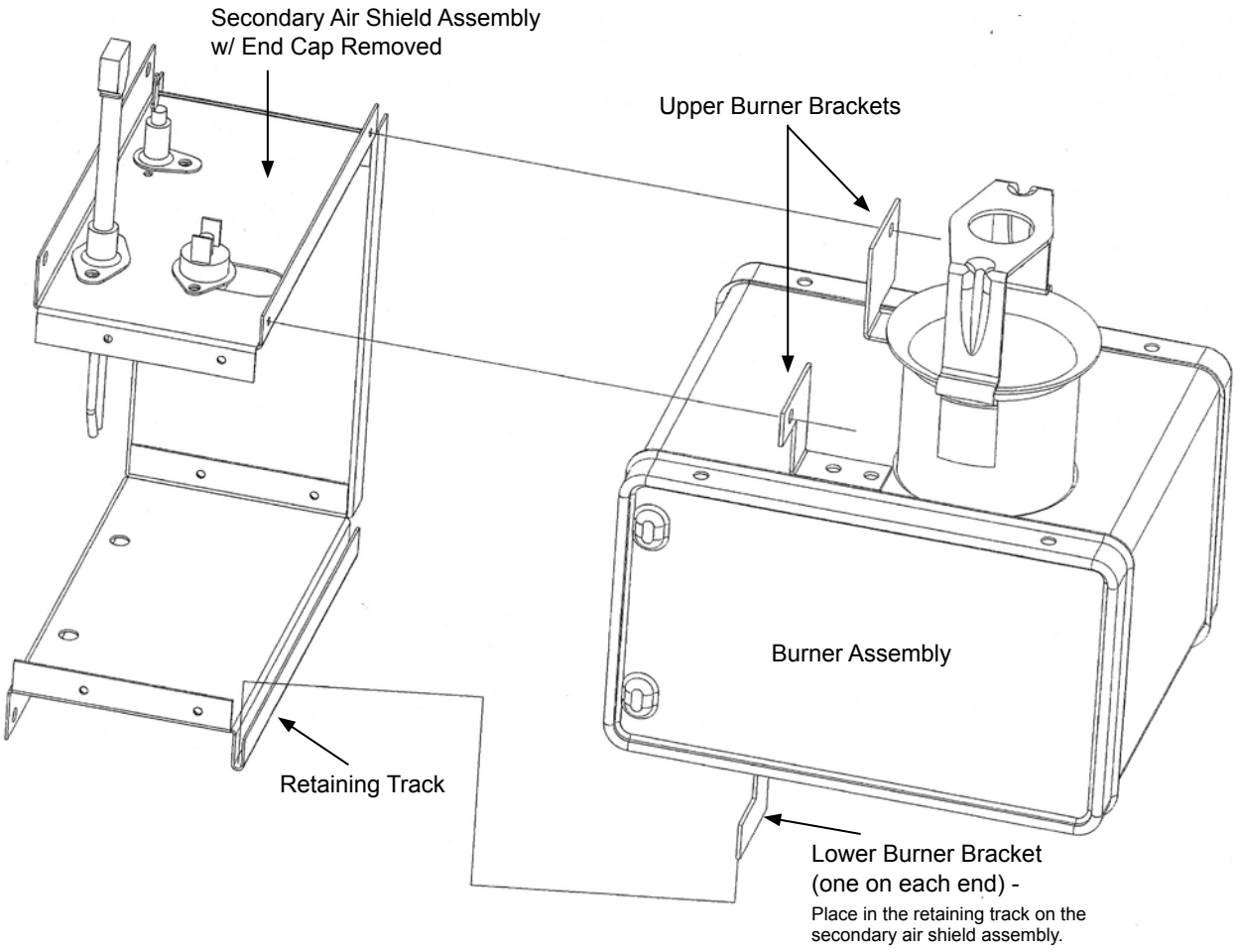
NOTE: If any of the burner components are damaged or deteriorated, replace the burner assembly.

Inspect the Lower Portion of the Heat Exchanger (with burner assembly removed)

At the burner flame entrance of each tube, shine a bright light into each heat exchanger section. If any light is observed, replace the heat exchanger.

Figure 6B - Instructions for Burner Installation

1. With lower burner brackets going inside the retaining track, set the fully assembled, clean burner in the unit.
2. Secure the upper burner brackets to the secondary air shield assembly.
3. Replace the secondary air shield end cap.
4. Attach and reconnect the pressure switch.
5. Reinstall the gas train and gas valve to the burner orifice bracket and side panel.
6. Turn on the electric and the gas. Operate the furnace. Check gas supply lines with a liquid leak detector or soap solution. After it has been determined that there are no gas leaks and the burner is operating satisfactorily, replace the cabinet panel and the burner/control compartment panel.



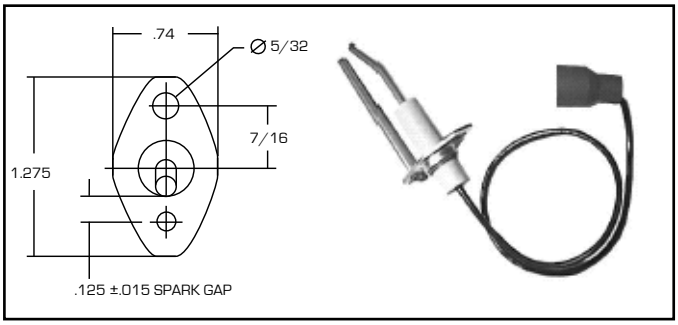
Burner Orifice

Burner orifice only needs to be replaced when a change in gas is made. When ordering a replacement orifice, give BTUH content and specific gravity of gas, as well as the model and serial number of the unit. To prevent dropping the orifice into the burner housing, block the venturi with something the size of a credit card when removing the burner orifice. Be careful not to damage the venturi tube and/or the bracket.

Ignition System

Igniter - Refer to **Figure 5** and locate the igniter. Disconnect the wire; remove the screw and the igniter. Clean the igniter assembly with an emery cloth. Spark gap must be maintained to 1/8" (**see Figure 7**).

Figure 7 - Spark Gap



IMPORTANT: When re-assembling, the brown ground wire must remain attached to the igniter.

CAUTION: DUE TO HIGH VOLTAGE ON THE SPARK WIRE AND ELECTRODE, DO NOT TOUCH WHEN ENERGIZED. SEE HAZARD LEVELS, PAGE 2.

Flame Sensor - Refer to **Figure 5** and locate the flame sensor. Disconnect the wire; remove the screw and the flame sensor. Clean with an emery cloth.

DSI Integrated Control Module - The module monitors the operation of the heater including ignition. The only replaceable component is the 3 amp fuse. If the fuse is blown, the problem is most likely an external overload. Correct the problem and replace the fuse. Do not attempt to disassemble the control module. However, each heating season check the lead wires for insulation deterioration and good connections.

Proper operation of the direct spark ignition system requires a minimum flame signal of 1.0 microamps as measured by a microammeter.

For further information and check out procedure on the direct spark ignition system, refer to the circuit board manufacturer's instructions supplied with the heater.

Venter Motor and Wheel Assembly

Remove dirt and grease from the motor casing. Venter motor bearings are permanently lubricated. The DSI Integrated Control Module controls and monitors operation of the venter motor. If the contacts fail to close the venter motor will not run. If the contacts fail to open, the venter motor will not shut off, preventing the combustion air pressure switch from opening.

Follow these instructions for replacement of the venter motor and wheel assembly. Keep all hardware removed to be used in reassembling and installing the replacement parts.

1. Turn off the gas and disconnect the electric power.
2. Open the burner/control compartment access panel.
3. Disconnect the three venter motor wires at their terminal block connections.
4. Holding the motor, remove the three screws that attach the venter motor mounting plate to the venter housing. Remove the motor and wheel assembly from the heater.
5. Re-assemble with the replacement venter motor and wheel assembly.
6. Follow the wiring diagram to connect the venter wires.
7. Restore power to the heater and turn on the gas. Light, following the instructions plate. Check for proper operation. Replace the access panel.

Limit Control

If it is determined that a limit control needs replacing, use only the factory-authorized replacement part that is designed for the size of heater. The limit control is accessible in the control compartment. For approxiamte limit control location (**see Figure 5**).

Gas Valve

The gas valve requires no field maintenance except careful removal of external dirt accumulation and checking of wiring connections. Instructions for testing pressure settings are in paragraph entitled "**Gas Piping and Pressures**."

WARNING: THE OPERATING VALVE IS THE PRIMARY SAFETY SHUTOFF. ALL GAS SUPPLY LINES MUST BE FREE OF DIRT OR SCALE BEFORE CONNECTING TO THE UNIT TO ENSURE POSITIVE CLOSURES. SEE HAZARD INTENSITY LEVELS, PAGE 2.

Pressure Switch

If it is determined that the pressure switch needs replacing, use only the factory-authorized replacement part that is designed for this heater. For approximate location (**see Figure 5**).

NOTE: A unit operating above 6000 ft elevation requires a high altitude pressure switch, P/N 14208325 (**see Figure 1 in the High Altitude section on Page 3**).

Flame Rollout Switch

For approximate location (**see Figure 5**). The cause of a flame rollout switch activating must be determined. Activation of the manually reset flame rollout switch could be caused by one or more of the following:

- Restricted or plugged heat exchanger.
- Pressurization of the heat exchanger.
- Restricted combustion air inlet or exhaust outlet in combination with a defective pressure switch.
- Electrical power interruption during operation.

If a flame rollout switch trips, inspect the burner/control

compartment for signs of excessive heat and burned wiring.

If the compartment appears normal, reset by depressing the red button on the switch. 15 to 20 minutes are required for the switch to cool sufficiently for resetting. A distinct click will be felt when the switch resets. Operate the furnace. If the flame rollout switch trips again, determine and correct the cause before resetting the switch.

If there is damage to the burner/control compartment, repairs must be made before resetting the switch.

If it is determined that the flame rollout switch needs replacing, use only the factory-authorized replacement part that is designed for that size of heater.

Vent System

Check at least once a year. Inspect all joints and seams. Replace any defective parts.

Troubleshooting

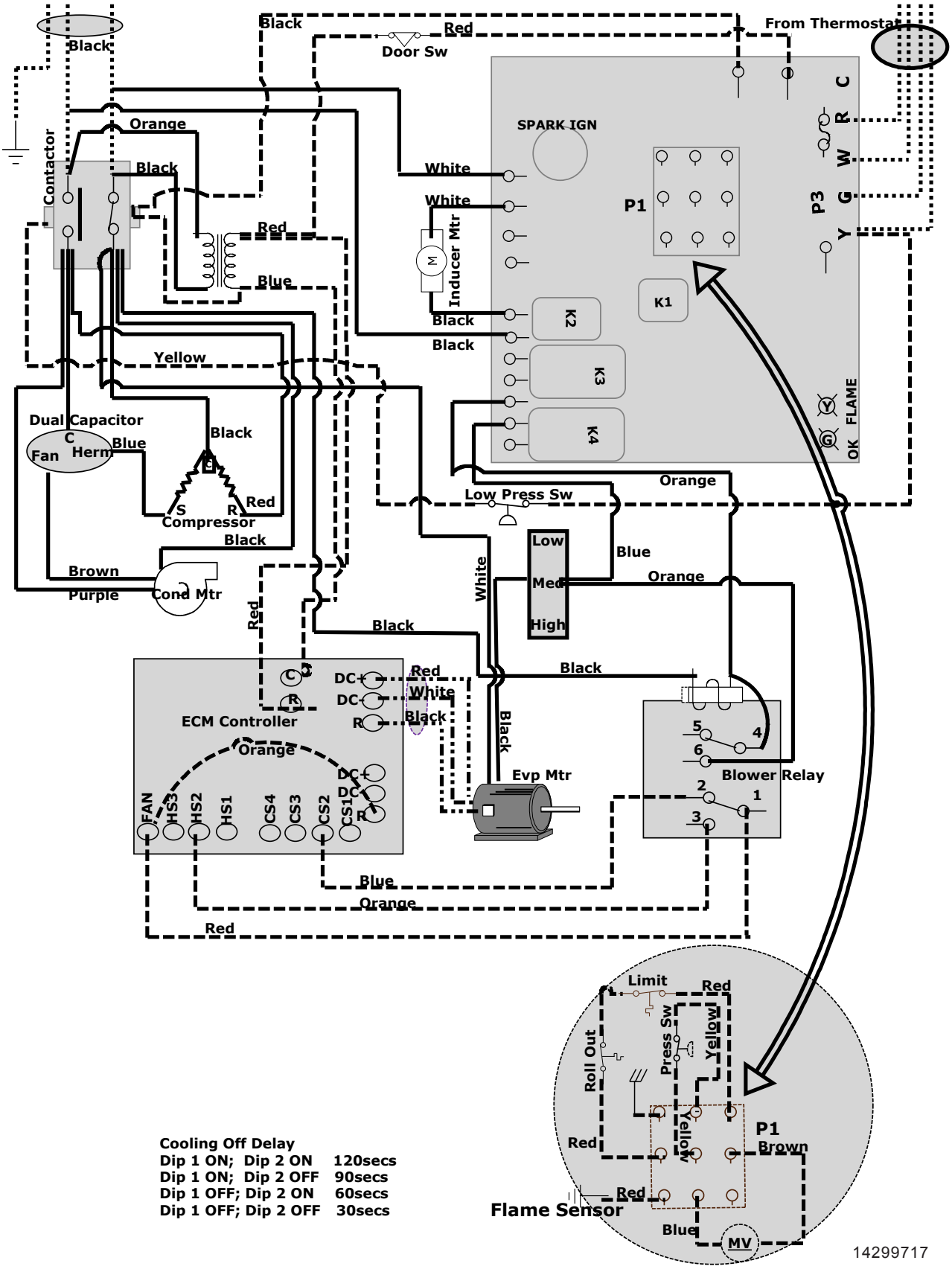
Check the DSI Integrated Control Module (Circuit Board) - The Integrated Circuit Board monitors the operation of the heater and includes an LED signal that indicates normal operation and various abnormal conditions. If the heater fails to operate properly, check this signal to determine the cause and/or to eliminate certain causes.

Do not attempt to repair the DSI integrated control module; the only field replaceable component is the fuse.

DSI INTEGRATED CONTROL MODULE	
CONTROL STATUS	**GREEN LED**
STEADY ON	Normal operation, no call for heat
FAST FLASH	Normal operation, call for heat
1 FLASH	In lockout from failed ignition or flame loss
2 FLASH	Pressure switch does not close within 30 seconds
3 FLASH	Limit switch or rollout switch open
4 FLASH	Limit switch is closed before venter is energized
STEADY OFF	Internal control fault or no power
FLAME STATUS	**YELLOW LED**
STEADY ON	Flame sensed
SLOW FLASH	Weak flame (current below 1.0 microamps = +/-50%)
FAST FLASH	Undesired flame (valve open and no call for heat)

TROUBLSHOOTING		
PROBLEM	**PROBABLE CAUSE**	**REMEDY**
Venter motor will not start	1. No power to unit 2. No 24 volt power to integrated circuit board. 3. Integrated circuit board fuse blown. 4. Integrated circuit board defective. 5. Defective motor.	1. Turn power, check supply fuses or circuit breaker 2. Turn up thermostat; check control transformer output 3. Correct cause. Replace fuse (type ATC, 24VAC, 3A) 4. Replace integrated circuit board 5. Replace motor
Burner will not light	1. Manual valve not open 2. Air in the gas line 3. Gas pressure too high or too low 4. No spark: a. Loose wire connections b. Transformer failure c. Incorrect spark gap. d. Spark cable shorted to ground e. Spark electrode shorted to ground f. Burner not grounded g. Circuit board not grounded h. Integrated circuit board fuse blown i. Faulty integrated circuit board 5. Lockout device interrupting control circuit by above causes 6. Faulty combustion air proving switch 7. Main valve not operating a. Defective valve b. Loose wire connections 8. Integrated circuit board does not power main valve a. Loose wire connections b. Flame sensor grounded c. Incorrect gas pressure d. Cracked ceramic at sensor	1. Open manual valve 2. Bleed gas line (initial startup only) 3. Correct supply pressure is 5” - 14” w.c. for natural gas or 11” - 14” w.c. for propane gas 4. a. Be certain all wire connections are solid b. Be sure 24 volts are available c. Maintain spark gap at 1/8” d. Replace worn or grounded spark cable e. Replace if ceramic spark electrode is cracked or grounded f. Make certain integrated circuit board is grounded to ignitor g. Make certain integrated circuit board is grounded to furnace chassis h. Correct cause; replace fuse (type ATC, 24VAC, 3A) i. If 24 volt is available to the integrated circuit board and all other causes have been eliminated, replace board 5. Reset lockout by interrupting control at the thermostat or main power 6. Replace combustion air proving switch 7. a. If 24 volt is measured at the valve connections and valve remains closes, replace valve b. Check and tighten all wiring connections 8. a. Check and tighten all wiring connections b. Be certain flame sensor lead is not grounded or insulation or ceramic is not cracked. Replace as required c. Correct supply pressure is 5” -14” w.c. for natural gas or 11” - 14” w.c. for propane gas d. Replace sensor
Burner cycle on and off	1. Gas pressure too high or too low 2. Burner not grounded 3. Circuit board not grounded 4. Faulty integrated circuit board 5. Faulty combustion air proving switch 6. Flame sensor grounded 7. Cracked ceramic at sensor	1. Correct supply pressure is 5” -14” w.c. for natural gas or 11” - 14” w.c. for propane gas 2. Make certain integrated circuit board is grounded to ignitor 3. Make certain integrated circuit board is grounded to furnace chassis 4. If 24 volt is available to the integrated circuit board and all other causes have been eliminated, replace board 5. Replace combustion air proving switch 6. Be certain flame sensor lead is not grounded or insulation or ceramic is not cracked; Replace as required 7. Replace sensor
No heat (heater operating)	1. Incorrect valve outlet pressure or orifice 2. Cycling on limit control 3. Improper thermostat location or adjustment	1. Check valve outlet pressure 2. Check air throughput 3. See thermostat manufacturer’s instructions
Cold air delivered	1. Incorrect valve outlet pressure	1. Check valve outlet pressure
Unit blower motor will not run	1. Circuit open 2. Defective Integrated circuit board 3. Defective motor	4. Check wiring and connections 5. Replace board 6. Replace motor
Unit blower motor turns on and off while burner is operating	1. Motor overload device cycling on and off	1. Check motor lead against motor rating plate; replace motor if needed
Unit blower motor cuts out on overload	1. Low or high voltage supply 2. Defective motor 3. Poor air flow 4. Defective bearing or lubrication	1. Correct electric supply 2. Replace motor 3. Clean motor, fan, fan guard, filter and coils 4. Lubricate bearings or replace motor

Wiring Schematic/Gas Heat



Cooling Off Delay

Dip 1 ON;	Dip 2 ON	120secs
Dip 1 ON;	Dip 2 OFF	90secs
Dip 1 OFF;	Dip 2 ON	60secs
Dip 1 OFF;	Dip 2 OFF	30secs

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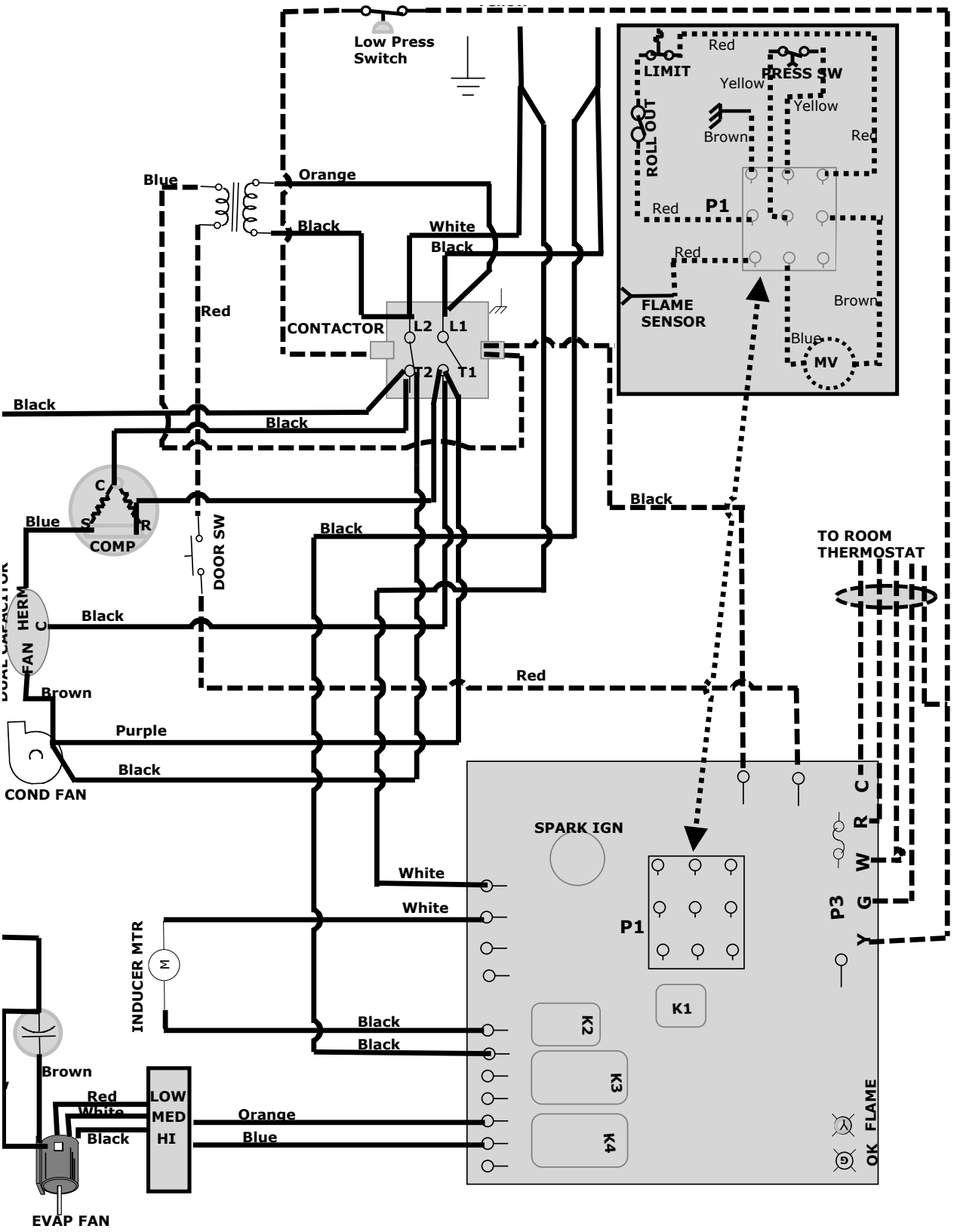
Wiring Schematic/Gas Heat



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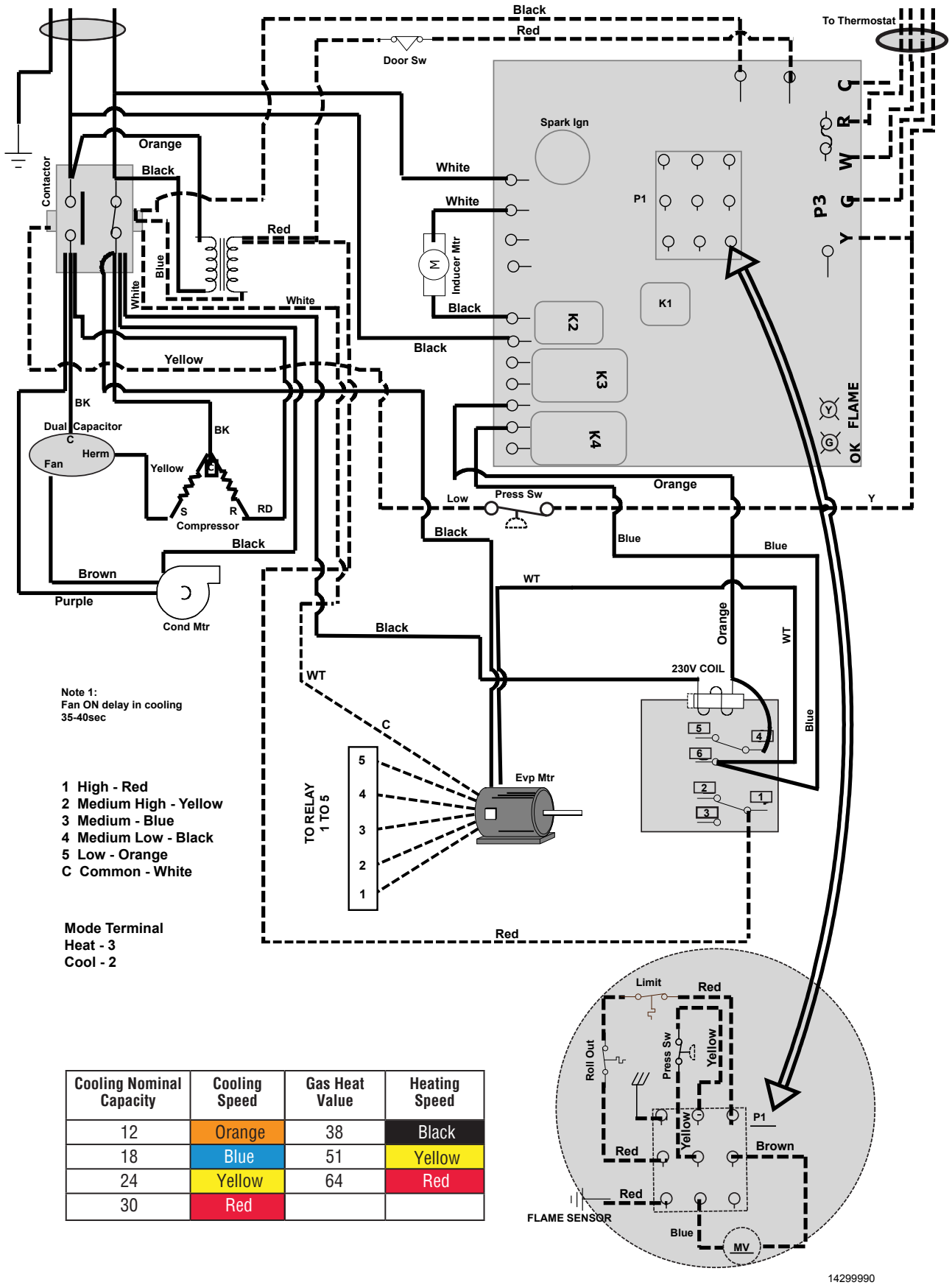
Wiring Schematic/Gas Heat



Note 1:
Fan ON delay in cooling
35-40sec

1 High - Red
2 Medium High - Yellow
3 Medium - Blue
4 Medium Low - Black
5 Low - Orange
C Common - White

Mode Terminal
Heat - 3
Cool - 2

Cooling Nominal Capacity	Cooling Speed	Gas Heat Value	Heating Speed
12	Orange	38	Black
18	Blue	51	Yellow
24	Yellow	64	Red
30	Red		

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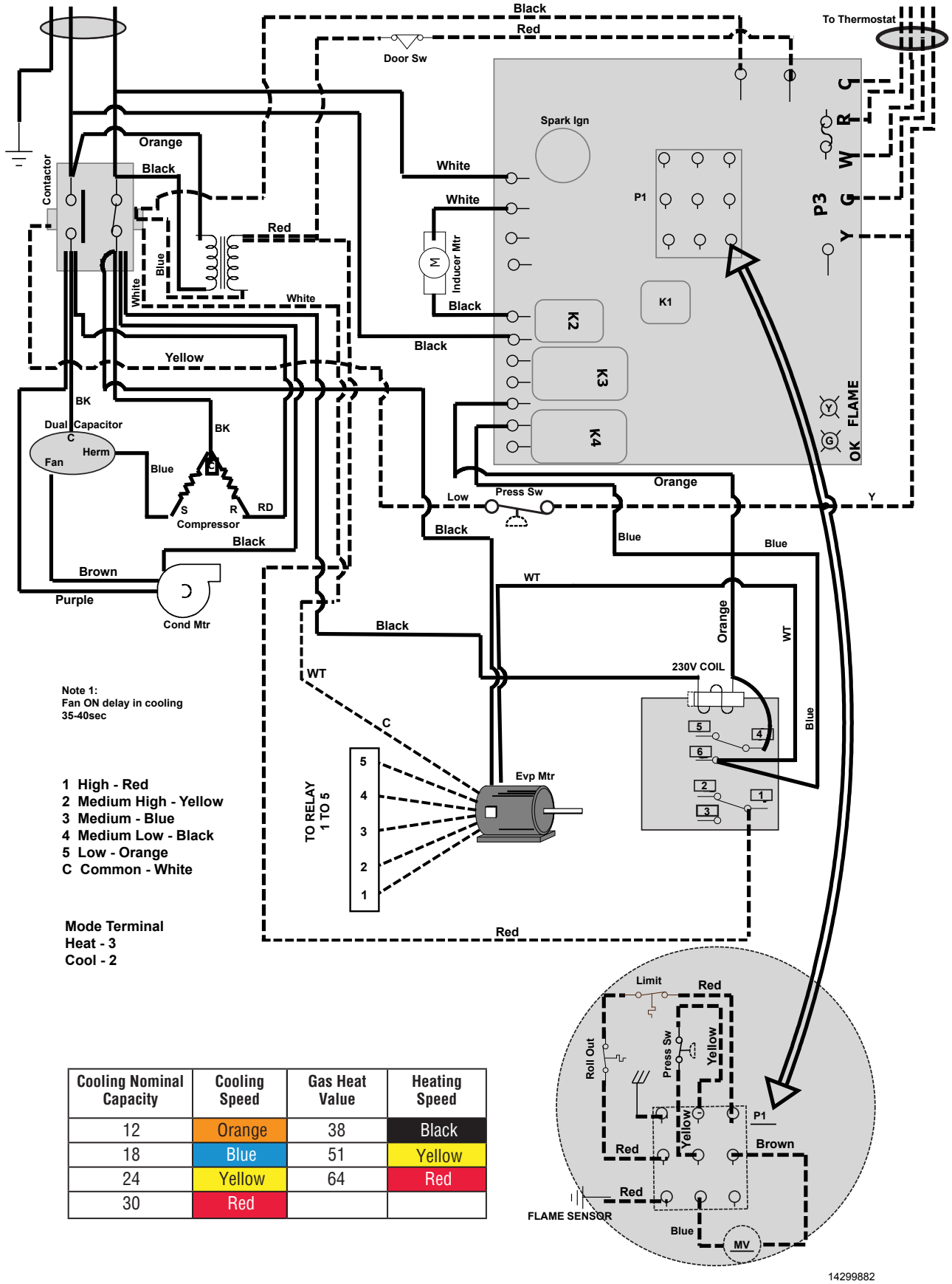
Wiring Schematic/Gas Heat



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Cooling Nominal Capacity	Cooling Speed	Gas Heat Value	Heating Speed
12	Orange	38	Black
18	Blue	51	Yellow
24	Yellow	64	Red
30	Red		

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Legend

DSI INTEGRATED CONTROL MODULE	
CONTROL STATUS	**GREEN LED**
STEADY ON	Normal operation, no call for heat
FAST FLASH	Normal operation, call for heat
1 FLASH	In lockout from failed ignition or flame loss
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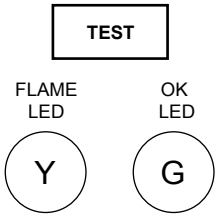
3 FLASH	Limit switch or rollout switch open
4 FLASH	Limit switch is closed before venter is energized
STEADY OFF	Internal control fault or no power
FLAME STATUS	**YELLOW LED**
STEADY ON	Flame sensed
SLOW FLASH	Weak flame (current below 1.0 microamps = +/-50%)
FAST FLASH	Undesired flame (valve open and no call for heat)

FAN OFF DELAY		
TIME	**SWITCH**	
	1	**2**
90	OFF	ON
120	OFF	OFF
160	ON	OFF
180	ON	ON



FIELD CONTROL WIRING		
TOTAL WIRE LENGTH	DISTANCE FROM UNIT TO CONTROL	MIN. RECOMMENDED WIRE GAUGE
150’	75’	#18 GAUGE WIRE
250’	125’	#16 GAUGE WIRE
350’	175’	#14 GAUGE WIRE

OPERATION SEQUENCE

1. SET THERMOSTAT AT LOWEST SETTING.
2. TURN ON MANUAL GAS VALVE.
3. TURN ON POWER TO UNIT.
4. SET THERMOSTAT AT DESIRED SETTING.
5. THERMOSTAT CALLS FOR HEAT, ENERGIZING THE VENTER MOTOR.
6. VENTER PRESSURE SWITCH CLOSES, FIRING UNIT.
7. BURNER FLAME IS SENSED, AND IN 30 SECONDS THE FAN MOTOR IS ENERGIZED.
8. IF THE FLAME IS EXTINGUISHED DURING MAIN BURNER OPERATION, THE INTEGRATED CONTROL SYSTEM CLOSES THE MAIN VALVE AND MUST BE RE-SET BY INTERRUPTING POWER TO THE CONTROL CIRCUIT (SEE LIGHTING INSTRUCTIONS).

NOTES

1. THE FOLLOWING CONTROL IS A FIELD-INSTALLED OPTION: THERMOSTAT.
2. DOTTED WIRING INSTALLED BY OTHERS.
3. CAUTION: IF ANY OF THE ORIGINAL WIRING AS SUPPLIED WITH THE APPLIANCE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105°C EXCEPT FOR SENSOR LEAD WIRE AND LIMIT WIRING WHICH MUST BE 150°C.
4. USE 18 GAUGE WIRE FOR ALL LOW VOLTAGE WIRING ON THE UNIT OR FOLLOW CHART ABOVE.
5. LINE AND FAN MOTOR BRANCH WIRE SIZES SHOULD BE OF A SIZE TO PREVENT VOLTAGE DROPS BEYOND 5% OF SUPPLY LINE VOLTAGE.
6. GROUND WIRE IS USED ONLY ON MODEL 64 UNITS.

Addendum to Gas Furnace User's Information - English/Français

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

Do NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE, OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE. REFER TO THE USER'S INFORMATION MANUAL PROVIDED WITH THIS FURNACE. INSTALLATION AND MATERIALS, SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

This furnace must be installed in accordance with the manufacturer's instructions and local codes. In the absence of local codes, follow, the National Fuel Gas Code, ANSI Z223.1 or the CAN/CGA-B149 Installation Codes.

To be installed without alteration.

WARNING

FOR YOUR SAFETY
Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

If any of the original wire as supplied with the furnace must be replaced, it must be replaced with wiring material having a temperature rating of at least 90°C.

This furnace must be installed so there are provisions for ventilating air."

Should overheating occur, or the gas supply fail to shut off, shut off the manual gas valve to the furnace before shutting off the electrical supply.

AVERTISSEMENT: Quiconque ne respecte pas a la lettre les instructions dans le présent manuel risque de déclencher un incendie ou une entrainant des dommages matériels, des lésions corporelles ou la perte de vies humaines.

Ne pas entreposer ni utiliser de l'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet apparcil, ni de tout autre appareil.

QUE FAIRE S'IL Y A UNE ODEUR DE GAZ

- Ne pas tenter d'allumer aucun appareil.
- Ne toucher a aucun interrupteur electrique; n'utiliser aucun telephone dans le batiment.
- Appeler immédiatement le fournisseur de gaz en employant le téléphone d'un voisin.Respecter a la lettre les instructions du fournisseur de gaz.
- Si personne ne repond, appeler le service des incendies.

L'installation et l'entretien doivent étre effectuce par un installateur qualifié, un organismc de service ou le fournisseur de gaz.

AVERTISSEMENT: Une installation, un réglage, une modification, un entretien ou une maintenance incorrects peuvent entrainer des dommages matériels des lesions corporelles ou la perte de vies humaines. Consulter le manuel des usagers fourni avec ce générateur d'air chaud. L'installation et l'entretien doivent etre effectués par un installateur qualifié, un organisme de maintenance ou le fournisseur de gaz.

Ce générateur d'air chaud doit etre installé conformément aux instructions du fabricant et aux codes locaux. En l'absence de code local, respecter la norme ANSI Z223.1, intitulé National Fuel Gas Code ou les codes d'installation CAN/GCA-B149.

Installer sans modification.

AVERTISSEMENT

AVERTISSEMENT
Ne pos entreposer ni utiliser de l'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil, ni de tout autre appareil.

Ce générateur d'air chaud doit etre installé de maniere a ce qu'il y ait suffisamment d'air de ventilation.

En cas de température excessive, ou s'il est impossible de couper l'alimentation en gaz, fermer le robinet manuel d'alimentation en gaz du générateur d'air chaud avant de couper l'alimentation électrique.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