



Installation / Operating Instructions for
SYNERGY PATIO HEATERS

Infrared Radiant Heater/Radiateur a rayonnant a infra rouge

Certified for Indoor or Outdoor Use

A COPY OF THIS MANUAL MUST BE PROVIDED TO THE END USER

Technical Data for 0SYP series 2 stage 30,000/40,000 BTUH high intensity heaters.

0SYP.40N2B – NG, Black
0SYP.40N2S – NG, Stainless

0SYP.40P2B – LP, Black
0SYP.40P2S – LP, Stainless



The installation must conform with local building codes or, in the absence of local codes, the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54, or the *Natural Gas and Propane Installation Code*, CSA B149.1 The latest edition Electrical Code PART 1 CSA C22.1 in Canada and ANSI/NFPA NO 70 in the USA must also be observed.

It is beyond the scope of these instructions to consider all conditions that may be encountered.

⚠ WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this heater.

⚠ AVERTISSEMENT: Une installation, un réglage, une modification, une réparation ou un entretien incorrect peut entraîner des dommages matériels, des blessures ou la mort. Lisez attentivement les instructions d'installation, de fonctionnement et d'entretien avant de procéder à l'installation ou à l'entretien de cet radiateur.

⚠ SAFETY ALERT: Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other gas fired appliance.

⚠ ALERTE DE SÉCURITÉ : Ne pas stocker ou utiliser d'essence ou d'autres vapeurs et liquides inflammables à proximité de cet appareil ou d'un autre appareil à gaz

WARNING: This equipment, its related accessories and by-products of operation, contain chemicals (including carbon monoxide) known to the State of California to cause cancer, birth defects, or other reproductive harm. **For more information go to www.P65Warnings.ca.gov.**

ATTENTION : Cet équipement, ses accessoires et ses sous-produits connexes contiennent des produits chimiques (y compris du monoxyde de carbone) connus de l'État de Californie pour causer le cancer, des malformations congénitales ou d'autres problèmes de reproduction. **Pour plus d'informations, visitez www.P65Warnings.ca.gov.**



FOR YOUR SAFETY IF YOU SMELL GAS	Consignes De Securite SI VOUS SENTEZ UNE ODEUR DE GAZ
1. Open windows	1. Ouvrez les fenetres
2. Do not touch electrical switches, or telephone	2. Ne touchez pas aux interrupteurs electriques
3. Extinguish any open flame	3. Eteignez toute flamme nue
4. Immediately call your fuel supplier from a neighbor's phone	4. Contactez immediatement compagnie de gaz
5. If your gas supplier is not available, call the fire department	5. Si votre fournisseur de gaz n'est pas disponible, appeler les pompiers.
6. Do not attempt to light this or any other appliance	6. Ne pas tenter d'allumer ceci ou aucun autre appareil.



WARNING This appliance may have sharp edges and corners. Wear protective clothing such as gloves and protective eye wear when servicing this or any other appliance	ATTENTION Cet appareil peut avoir des arêtes vives et des coins. Porter des vêtements de protection tels que des gants et des lunettes de protection lors de l'entretien de cet appareil ou de tout autre appareil.
<u>For either indoor or outdoor installations.</u> <u>Not for use in residential dwellings.</u>	Installer à l'intérieur ou à l'extérieur. Ne pas utiliser pour le chauffage d'habitations.

SPECIFICATIONS

Gas Supply	N.G.	Propane	Electrical	
Manifold Pressure	4.5” - 6” W.C.	7” - 11.5” W.C.	120 volts 60Hz	
Min. Inlet Pressure	7.0” W.C.	12” W.C.	Starting Current	3 amps
Max. Inlet Pressure	½ PSIG	½ PSIG	Running Current	1 amp
Max. Outlet Pressure	6” W.C.	11.5” W.C.	Control	120V (Standard)
Gas Connection	½ in. N.P.T.			24V (factory ready, optional)
Ignition System: 120V Direct Spark				

WARNING



THIS HEATER MUST BE INSTALLED AND SERVICED BY A TRAINED GAS SERVICE TECHNICIAN ONLY. READ AND UNDERSTAND THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THE COMBUSTION RESEARCH CORPORATION HEATER. FAILURE TO COMPLY WITH THESE WARNINGS AND INSTRUCTIONS, AND THOSE ON THE HEATER COULD RESULT IN PERSONAL INJURY, DEATH, FIRE, ASPHYXIATION, AND / OR PROPERTY DAMAGE.

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPOURS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER GAS FIRED APPLIANCE

THIS APPLIANCE MAY HAVE SHARP EDGES AND CORNERS, WEAR PROTECTIVE CLOTHING SUCH AS GLOVES AND PROTECTIVE EYE WEAR WHEN SERVICING THIS OR ANY OTHER APPLIANCE.

APPLICATION

This gas fired radiant heater may be installed for heating of outdoor areas or indoor commercial / industrial / agricultural / non-residential spaces. **Note:** A residential dwelling is a domicile intended for use by one or more persons and that includes one or more areas, such as those used for cooking, eating, living, sleeping, or a sanitary facility. A residential dwelling does not include an attached and detached garage, workshop, or outdoors.

It is beyond the scope of these instructions to consider all conditions that may be encountered. Installation must conform with all local building codes or, in the absence of local codes, to the National Fuel Gas Code, ANSI Z223.1/NFPA54 in the U.S.A. or the Natural Gas and Propane Installation Code, CSA B149.1 in Canada. The latest edition Electrical Code ANSI/NFPA N0 70 in the U.S.A. and PART 1 CSA C22.1 in Canada must also be observed.

Installation of this appliance at altitudes above 2,000 ft (610 m) shall be in accordance with local codes, or in the absence of local codes, the *National Fuel Gas Code*, ANZI Z223.1/NFPA 54, or *National Standard of Canada, Natural Gas and Propane Installation Code*, CSA B149.1. For installations above 2,000 ft., see high-altitude rating plate inside appliance. If the appliance is installed at an elevation other than that specified on the plate, or if a high altitude rating plate is not installed on the appliance, contact the manufacturer for the proper high altitude conversion kit.

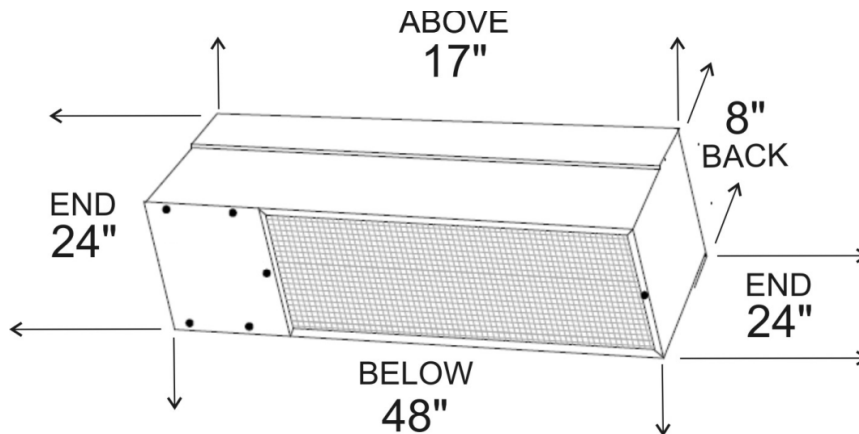
Installation of a gas fired heater must conform to all heating installation design procedures including clearance to combustibles, connection to the gas and electrical supplies, and ventilation.

This heater is not for installation in a Class 1 or Class 2 explosive environment, nor a residence. If installation of this equipment is in question, consult with local authorities having jurisdiction (Fire Marshall, labour department, insurance underwriter, or others).

Revisions to codes and/or standards may require revision to equipment and installation procedures. In case of discrepancy, the latest revisions of applicable codes, standards, and installation manuals will supersede previous versions.

CLEARANCES TO COMBUSTIBLES

SIDES / ENDS: 24" (61 cm)
ABOVE / TOP: 17" (43 cm)
BELOW: 48" (122 cm)
BACK: 8" (20.25 cm)



MINIMUM MOUNTING DISTANCE TO FLOOR OR GROUND IS 7 FT (2.13 m)

The Synergy Patio Heater must be installed so that the minimum clearances to combustibles are maintained. Combustible materials are considered to be any material that is flammable, including wood, compressed paper, plant fibres, or other materials capable of being ignited and burned. Such materials shall be considered combustible even if covered, flame proofed, fire retardant treated and/or plastered, and minimum clearances must still be maintained.

The stated clearance to combustible materials represents the minimum distance that must be maintained between the outer heater surface and a nearby surface. The stated clearance to combustibles represents a surface temperature of 90 degree Fahrenheit (32 degrees Celsius) above ambient temperature. Building material with a low heat tolerance (such as plastics, vinyl siding, canvas, tri-ply, filmy materials, fabrics, etc.) may be subject to degradation at lower temperatures. It is the installer's responsibility to assure that adjacent materials are not subject to degradation.

A minimum clearance of 24 inches (61 cm) above the Synergy Patio Heater must be maintained to plastics, polymers, vinyls or any other materials that may be adversely affected by radiant and/or convection heat.

PRE-INSTALLATION SURVEY

It is recommended that a full heating design, including a heat loss calculation (if applicable) be conducted. Heater sizing and placement must consider available mounting height, sources of heat loss, and clearances to combustibles with respect to stored material, moveable objects, fire suppression/sprinkler systems, and any other obstructions on the site.

- Carefully survey the area to be heated and place the heaters at the source of greatest heat loss if possible.
- The heater shall be installed in such a fashion so as to conform with the clearances to combustibles described on the name plate.
- Clearances to combustibles must be maintained from vehicles parked below.
- Adequate clearances must be maintained for installation in public garages and airplane hangars as dictated by relevant gas code.
- Verify location with respect to the building construction and equipment, so as to provide sufficient clearances and accessibility for servicing.
- The installation must comply with local codes and CAN/CSA-B149.1 in Canada or the National Fuel Gas codes ANSI Z 223.1 (NFPA 54) in the United States.
- Ensure site electrical requirements are met. Consult the latest edition Electrical Code PART 1 CSA C22.1 in Canada and ANSI/NFPA NO 70 in the USA.
- The heating system must have gas piping of the correct diameter, length, and arrangement to supply adequate fuel to allow the appliance to function properly.

**This heater may be installed from 15 degrees
up to a 35 degree angle.
Installation above a 35 degree
angle will void warranty
on the heater.**

OUTDOOR/PATIO HEATING DESIGN CONSIDERATIONS

Appliance placement is critical for effective and efficient outdoor patio heating. Each Synergy Patio Heater has an effective coverage area of 14' x 14' (4.27m x 4.27m) when installed 10' (3.05 m) from the ground. If installed closer to the ground the heat distribution area will grow smaller, and the intensity of heat higher. If installed higher from the ground the coverage area will increase, and the intensity will decrease.

For multiple heaters, if heaters are placed too close together, or mounted too low, occupants of the space may be uncomfortable. If heaters are placed too far apart, or too high, on a breezy or wind-swept patio, heat distribution may be spread too thin, and the area may never become comfortable. Refer to following coverage diagrams for optimal installation parameters.

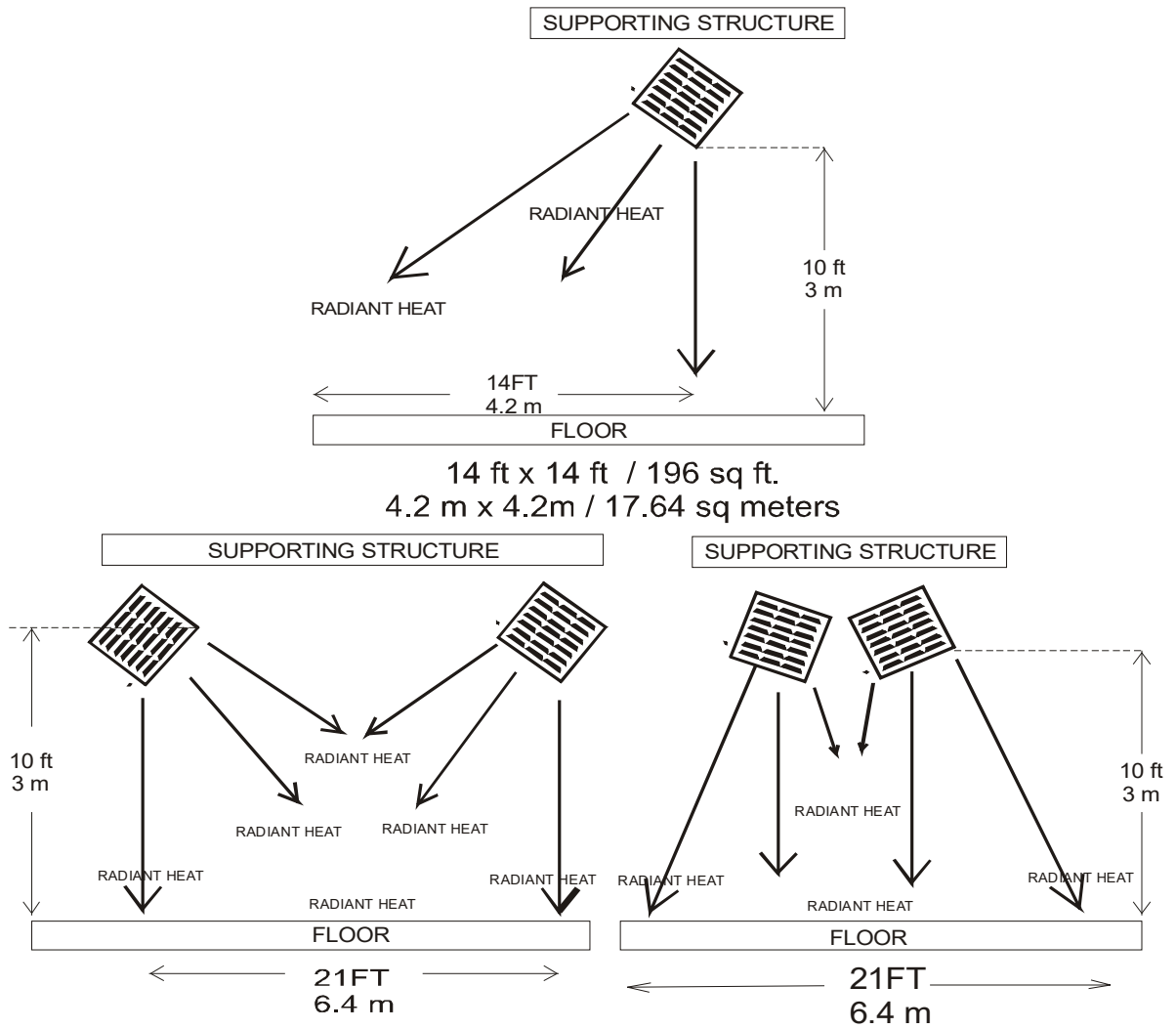
Infrared heaters work best if coverage is situated in areas of greatest heat loss, such as the open side of a semi-protected patio.

The Synergy Patio Heater may be angled mounted to a maximum of 35 degrees. Horizontal or flat installations are not permitted.

Windy conditions will decrease the effectiveness of outdoor radiant heating. Windbreaks can be extremely effective in increasing comfort levels.

The heating requirements of any patio depend greatly on local climatic conditions. It is recommended that you work with a local, and experienced supplier and installer who is familiar with the heating requirements in your area. The manufacturer can also provide assistance with system design and appliance location selection.

TYPICAL INSTALLATION CONFIGURATIONS



INDOOR INSTALLATION VENTING REQUIREMENTS

In all cases, appliance venting must satisfy all requirements of the most recent versions of the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54, or the *Natural Gas and Propane Installation Code*, CSA B149.1, and any other provisions made by local authorities having relevant jurisdiction.



WARNING

FLAMMABLE/EXPLOSIVE/CORROSIVE VAPORS

Where there is the possibility of exposure to combustible airborne materials or vapour, consult the local fire inspector's office, the fire insurance carrier or other applicable authorities for approval of the proposed installation.

Do not use in an atmosphere containing halogenated hydrocarbons or other corrosive chemicals.

The heater manufacturer cannot anticipate all types and chemical composition of possible contaminants at project sites. Consult with project site safety, health and engineering staff and/or local authorities having jurisdiction such as the Fire Marshall and Department of Labour for possible contaminants and any conflict with the installation of hot surface heating equipment.



WARNING

Inadequate venting of a heater may result in asphyxiation, carbon monoxide poisoning, injury or death. The products of combustion of this heater must be indirectly vented from the space. Venting must be in accordance with all local, state, provincial, and national codes (ANSI Z223.1/NFPA 54 in USA; CSA B149.1 in Canada) and as indicated in this manual.

INTERLOCKED INDIRECT VENTING REQUIREMENTS

This appliance is certified for installation without a direct exhaust vent connection to the outdoors, subject to the following criteria.

CANADA: It is required that the heaters(s) be electrically interlocked to dedicated exhaust fan(s) by means of an Air Proving Switch. Exhaust fan(s) must be sized to create 300 cfm (8.5 cu m/min) exhaust for every 100,000 BTUH (30 kW), or a fraction thereof of total input, of installed equipment. Exhaust must be located as high as practicable in the structure above the level of the heater(s). Sufficient supply air must be provided. Consult the latest edition of CSA.B149.1 Section 8 for venting system and air supply requirements.

INTERLOCKED INDIRECT VENTING REQUIREMENTS (CONT.)

USA: Natural or mechanical means shall be provided to supply and exhaust at least 4ft³/ min/1000Btuh (0.38m³/min/kW) input of installed heaters. Some local codes may require an electrical interlock to a dedicated exhaust fan. Exhaust must be located as high as practicable in the structure above the level of the heater(s). Sufficient supply air must be provided. Consult your local code and ANSI Z223.1 latest edition for all venting requirements and practices.

ELECTRICAL/CONTROLS

ELECTRICAL REQUIREMENTS

120VAC / 60 Hz / Single Phase / 1A / 3 Wire Grounded

Starting Current: 3 amps

Running Current: 1 amp

1. Electrical installation must be grounded in accordance with CSA Standard C22.1 part 1 in Canada or The National Electrical code ANSI NFPA 70 (latest edition) in the United States.
2. Polarity of line voltage and neutral wires must be maintained.
3. The total load of all heaters in a circuit must be considered so as to not overload the circuit.

CONTROL

Heaters are designed for compatibility with either 120 Volt (line) controllers or 24 Volt controllers (**Note: 24V control not standard, must be specified at order and factory installed**). For use with 120 Volt controllers, the heater must be plugged into a “switched” 120 Volt duplex receptacle, where the receptacle is switched by the controller. Heating zones may be established where one 120 Volt control operates more than one heater, provided the total heater electrical load does not exceed the maximum allowable amperage on the circuit.

For a 24 volt control, factory installed spade connections will be furnished on the unit to control on/off and high/low functionality. Control can be achieved with field supplied 24V switches, or factory supplied wall mount control, part number 5491.1001.

GAS SUPPLY PIPING

1. All gas piping and connections shall be made in accordance with all applicable local codes and the latest versions of CAN/CGA B-149 or ANSI standard Z223.1.
2. A minimum. ½" X 24" (1.2 cm x 61 cm) long flexible gas connector must be used for the final connection to the appliance.
3. Connect the burner to gas supply with flexible gas connector.
4. A drip leg must be installed in the gas line at the heater inlet connection tee followed by a pipe drop to the heater. Failure to provide a drip leg could result in condensation and foreign matter passing into the gas valve. Failure to install a drip leg in the gas line can cause property damage, injury or death and will void the heater warranty.
5. A minimum pipe size of ½" (1.2 cm) is required for inlet piping. A ½" (1.2 cm) lever handled shut-off gas cock should be installed within 6 feet of the Synergy Patio Heater for servicing the unit.
6. Check with local and provincial plumbing and heating codes regarding sizing of the gas lines.
7. All gas pipe connections to the heater(s) must be sealed with a gas pipe compound resistant to liquefied petroleum gases.
8. When checking for gas leaks, do not use an open flame. Use a soap and water solution.
9. For gas supply line pressures in excess of ½ psig, consult the factory or your local representative.
10. Installation of 1/8" N.P.T. plugged tapping, accessible for test gage connections, is required upstream of the gas supply connection to the Synergy Patio Heater.

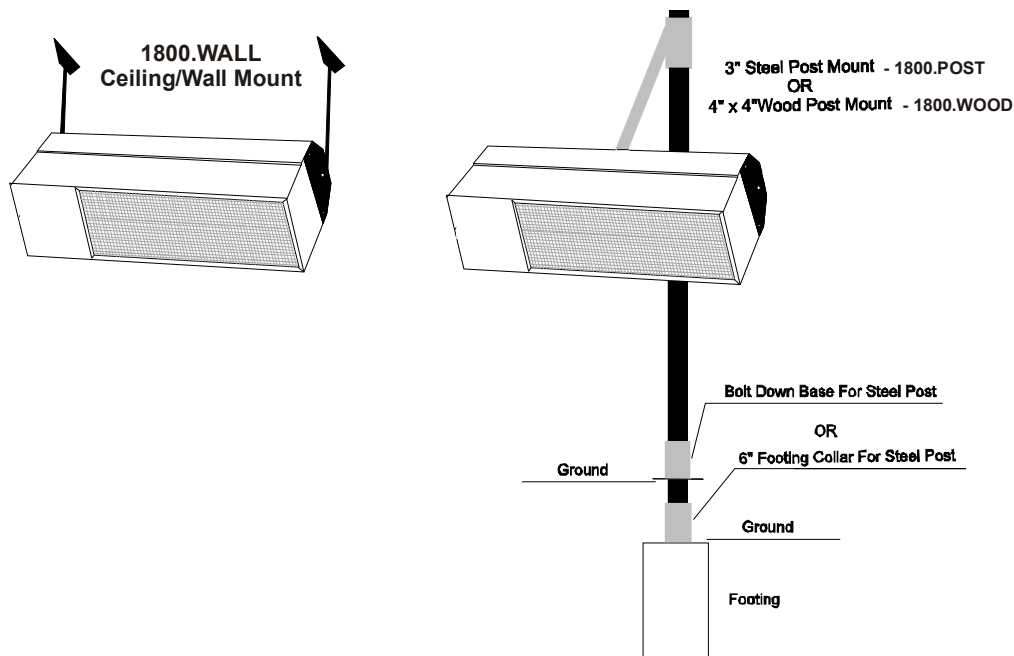
SPECIFICATIONS

Gas Supply	N.G.	Propane
Manifold Pressure	4.5" - 6" W.C.	7" - 11.5" W.C.
Min. Inlet Pressure	7.0" W.C.	12" W.C.
Max. Inlet Pressure	½ PSIG	½ PSIG
Max. Outlet Pressure	6" W.C.	11.5" W.C.
Gas Connection	½ in. N.P.T.	

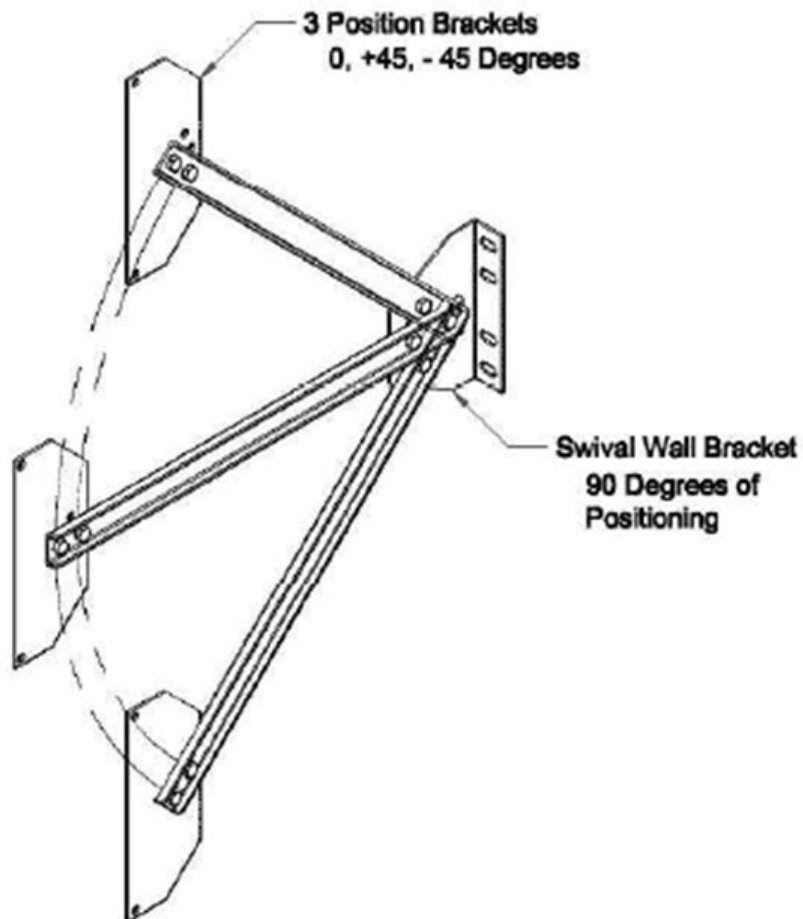
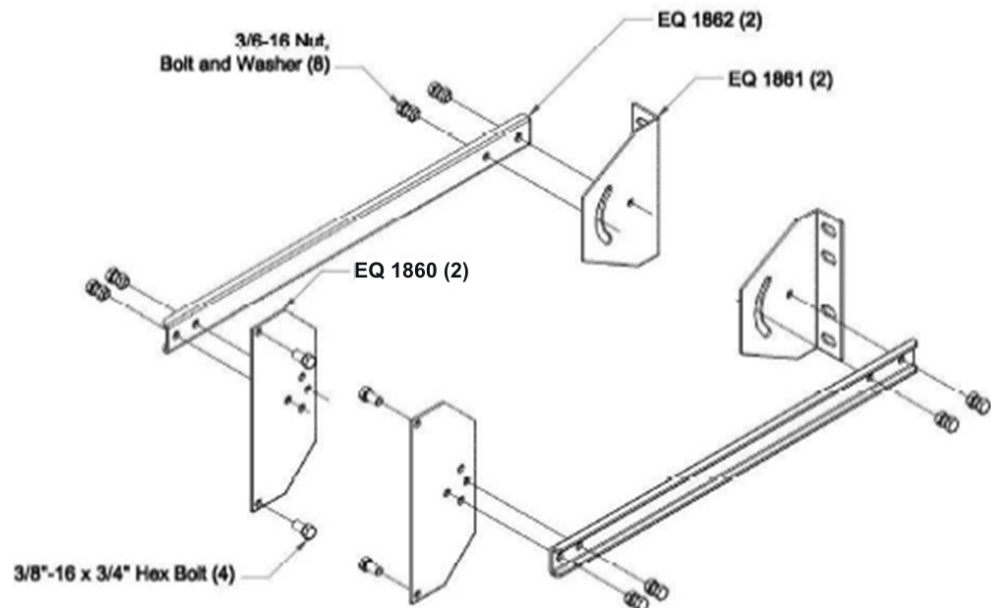
INSTALLATION PROCEDURE

- **Identify and verify all components of heater prior to installation.** Appliances ship in components to be assembled on site. Ensure that correct number of appliances and mounting brackets are accounted for. Verify that all other components/accessories listed on the factory material packing list are present and accounted for.
- The Synergy Patio Heater can be installed with one of the following mounting brackets: 1800.WALL for flush mount wall/ceiling, 1800.POST for 3" (7.62 cm) dia. post mounting, 1800.WOOD for 4x4 wood post flush mounting.
- For flush mount installations, secure the selected mounting brackets to the structure. **Ensure that appropriately rated anchors are used. Be sure to factor not only the weight of the appliance when selecting anchors, but also any additional stresses that could be added from potential wind conditions.**
- For post mount installations, secure the mounting bracket to the post.
- Secure the appliance to the mounting bracket with the provided hardware.
- Connect the appliance to the gas supply using a suitably approved flexible gas connector. (refer to **GAS SUPPLY**)
- Connect electrical and controls as outlined in this manual. (refer to **ELECTRICAL/CONTROLS**)

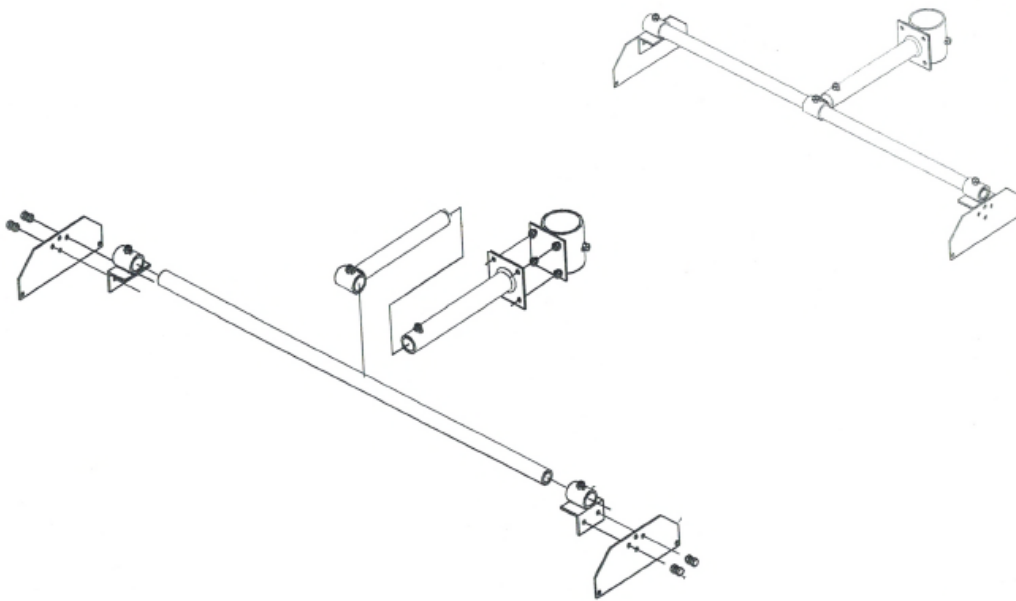
Synergy Patio Heater Mounting Configurations



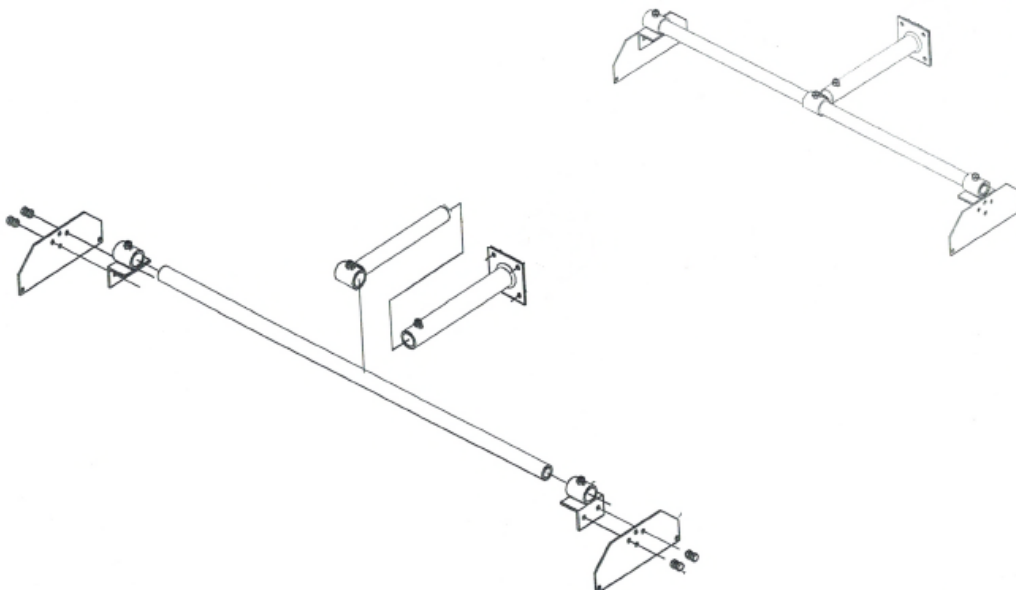
1800.WALL/1800.WALLSS MOUNTING BRACKET DIAGRAM



1800.POST MOUNTING BRACKET DIAGRAM



1800.WOOD MOUNTING BRACKET DIAGRAM



Heater Operation

Upon installation of the Synergy Patio Heater and completion of the gas and electrical supply line to each heater, follow the steps outlined on the “Lighting Instruction” plate located on the inside of the control door.

Sequence of Operation

Turn gas and power “ON”. The pilot and burner should light within 4 seconds. A flame sensor will shut off the spark. If the burner does not light within 15 seconds, the flame sensor will shut “OFF” the gas valve; the unit will try a relite 3 times. To relight the pilot and burner, shut “OFF” power. Wait 5 minutes. Turn power back “ON”.

Lighting Instructions:

To Start:

1. Turn manual gas valve on supply to “ON” position.
2. Turn electrical supply “ON”

To Shut Down:

1. Turn manual gas valve to on supply to “OFF” position.
2. Turn electrical supply “OFF”.

CAUTION:

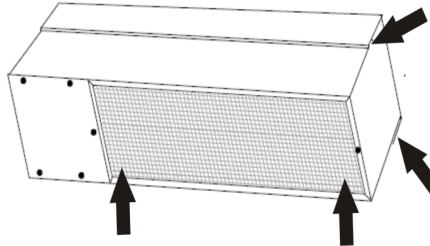
If burner fails to ignite, shut down electrical power and wait five (5) minutes before turning power “ON”.

APPLIANCE INSPECTION AND MAINTENANCE

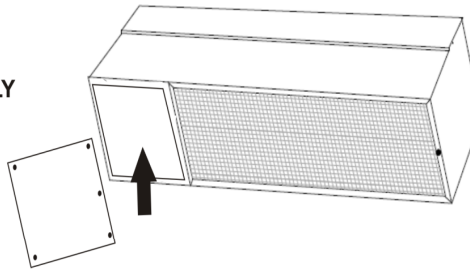
While every possible step is taken to ensure that your enjoyment of your heater will be trouble free, it is impossible to ensure that any outdoor gas fired appliance will be impenetrable to local wildlife, debris, and buildups of dust and dirt. The following visual inspections should be made periodically to ensure your safety and continued enjoyment of your appliance.

IT IS RECOMMENDED THAT THESE INSPECTIONS BE CARRIED OUT, AT A MINIMUM, PRIOR TO THE FIRST SEASONAL START UP OF THE YEAR. During the winter months when the appliance is unused, there are ample opportunities for pests to nest within the appliance and not be noticed. The resulting buildup of debris can potentially cause a fire if not detected and removed.

VISUALLY INSPECT BURNER ASSEMBLY, AND UPPER/LOWER VENT PORTS FOR DEBRIS OR BUILDUP. REMOVE AND CLEAN AS NECESSARY.



REMOVE SCREWS HOLDING CONTROL ACCESS PANEL IN PLACE, REMOVE PANEL, AND VISUALLY INSPECT CONTROL HOUSING FOR DEBRIS OR BUILDUP. REMOVE AND CLEAN AS NECESSARY.



FAILURE TO FOLLOW INSPECTION GUIDELINES CAN RESULT IN FIRE, DAMAGE TO EQUIPMENT, PROPERTY, INJURY AND DEATH. IF YOU ARE UNSURE OR UNABLE TO CARRY OUT THE REQUIRED INSPECTIONS, CONTACT A QUALIFIED GAS TECHNICIAN TO CARRY OUT THE INSPECTIONS FOR YOU PRIOR TO START UP.

IT IS ULTIMATELY THE RESPONSIBILITY OF THE APPLIANCE OWNER TO ENSURE THE SAFE OPERATION OF THE APPLIANCE.

In order to get the maximum performance from the Synergy Patio Heater, it is recommended the following be performed at least annually. More frequent service and maintenance may be required if the Synergy Patio Heater is located within 2,000 feet of a waterfront.

1. With an air hose regulated to 30 psig, blow off any dust and dirt that has accumulated around the burner and inside the control compartment of the Synergy Patio Heater. Proper eye protection required.
2. From the front of the heater, direct the air hose from a distance of approximately 12 inches (30.5 cm) over the entire exposed area of each burner's ceramics.
3. Do not insert air hose into the inlet of the burner.
4. Remove main burner orifice, clean and reinstall.
5. Check to insure heater is securely mounted and the clearance from combustible material is maintained.
6. If additional service to the Synergy Patio Heater is required, contact your local representative of the factory.

Stainless Steel Finishes

Stainless steel does not rust, however, air pollution and environmental contaminants can leave brown deposits on exterior of the Synergy Patio Heater.

We recommend washing the outer stainless steel casing only with a mild detergent solution and wiping it dry with a soft cloth to bring back the original shine.

The stainless steel may be expected to permanently darken around the flue outlet at the top of the Synergy Patio Heater over time with extended use.

Servicing Instructions:

Turn off gas and electrical before attempting any service to this appliance. The Synergy Patio Heater may be serviced by removing control access panel.

Control access panel can be removed for servicing by removing five screws holding cover in place.

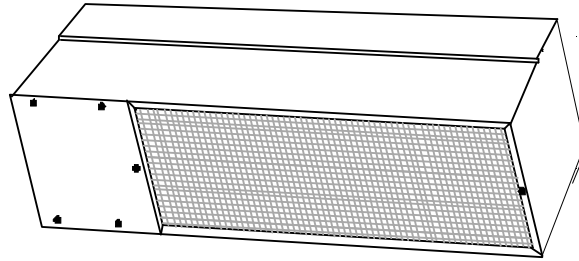
The cover must be removed if the gas controls, burner or burner orifice is to be replaced.

Removal of Direct Spark Ignition Control

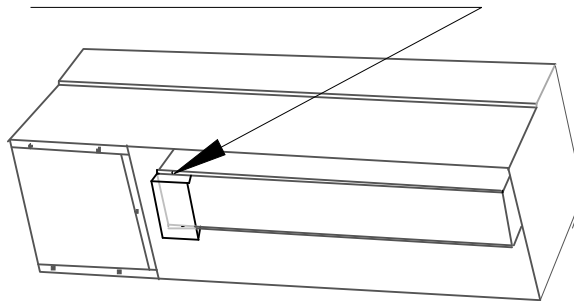
Disconnect 24VAC volt wiring from electronic control. Remove two (2) 8-32 x 1-1/4 screws and nuts holding control in place. Remove control.

Removal of the Burner

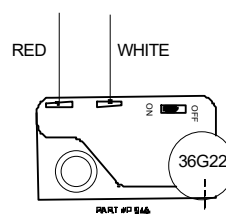
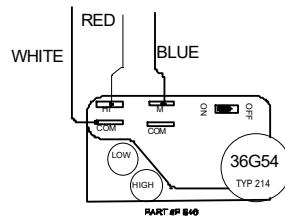
- "A" Remove 6 Screws From Cover Plate and Grill



- "B" Remove Cover Plate and Grill
Remove Pilot Screen if applicable (2 screws)



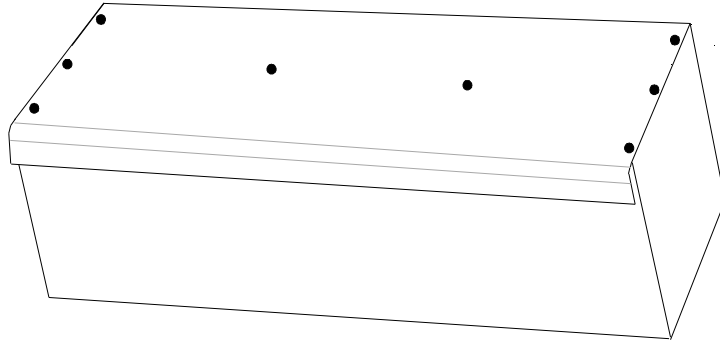
- "C" Disconnect Wiring From Valve
(Two Stage) (Single Stage)



Removal of the Burner (con't)

"E"

Turn Burner Face Down
And
Remove (8) Screws
And
Remove Back Panel



"F"

Remove the screws (4)
And
Lift Burner From Enclosure



Troubleshooting

IF NO SPARK FROM IGNITER OR IF GAS VALVE DOES NOT WORK THEN

- a. Check your power supply. Should have 24 volts between power wires. Use a voltage meter between inlet 24 volts wire and ground terminal at electrode plate to measure 24 volts.
- b. Check continuity. Use ohmmeter. For example, check resistance between valve wire and ground. Should show almost no resistance. (0 ohms) through valve. If high resistance, check wire connectors.
- c. Check spark gap. Should be 7/64" (.109") between electrode tip ground stop. If gap is too large, spark will occur at wrong location. If gap is too small, spark may not be hot enough to light pilot burner.
- d. Be sure connectors are fully inserted into ignition control. (See Wiring Diagram on rating plate).

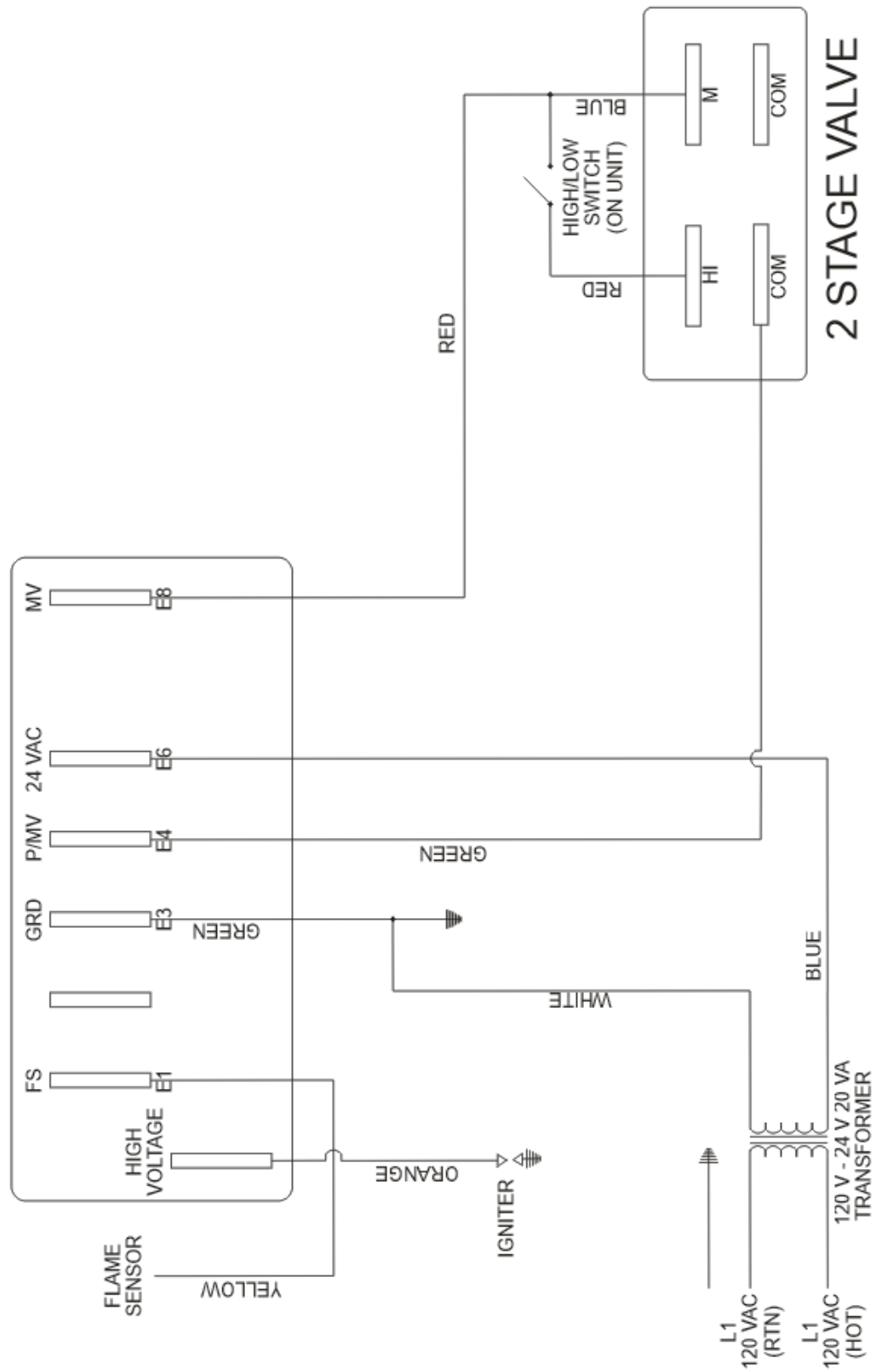
IF INSUFFICIENT GAS FLOW THEN

- a. Gas supply valve/shutoff not full "ON". Turn valve/shutoff handle to full "ON" position.
- b. Burner orifice plugged. Remove control access panel, remove burner orifice (use 1/2" hex wrench) and thoroughly clean. Spiders often crawl into orifice hole and make a web, blocking the orifice.

Trouble Shooting (continued)

Problem	Possible Causes
No Spark	<ul style="list-style-type: none">• Voltage under 24VAC• Improper spark gap (7/64" or .109)• Loose/faulty connection to ground• Broken electrode• Faulty electronic module
Burner Won't Light	<ul style="list-style-type: none">• Low gas pressure• Air in gas line• Bad gas valve• Blockage in gas line/gas orifice• Manual gas valve turned "OFF"
Inconsistent Operation	<ul style="list-style-type: none">• Variable gas pressure (improperly sized gas line)• Variable voltage• Wind exceeding 15 mph (24kmh)• Tip angle exceeding 35 degrees• Debris inside burner• Erratic winds
Deterioration of the Front Grill	The Synergy Patio Heater must be installed in such a manner as to allow the products of combustion or hot gases to vent out the top portion of the heaters. When operating normally, only radiant heat passes through the front grill. If conditions exist which force hot gases through the front grill of heater, the installation must be altered to correct the condition.

FENWAL 35-602901-117



WARRANTY

Synergy Patio Heaters are covered by a 4-year guarantee. All Synergy Patio Heaters manufactured by Combustion Research Corporation are warranted to the original user against defects in materials and workmanship under normal use for a period of 4 years from date of purchase. Any part that is determined to be defective in material or workmanship during the warranty period, and returned to Combustion Research Corporation, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at the discretion of Combustion Research Corporation. For warranty claim procedures see "Prompt Disposition of Warranty Claims" below.

To the extent allowable under applicable law, Combustion Research Corporation liability for consequential or incidental damages is expressly disclaimed.

Combustion Research Corporation liability in all events is limited to and shall not exceed the purchase price paid.

Many jurisdictions have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary among jurisdictions. While Combustion Research Corporation attempts to assure that its products comply with these many codes, it cannot guarantee compliance, or cannot be responsible for how the product is installed or used. Before purchase or use of a product, review the product applications, and all applicable national and local codes and regulations, and ensure that the product and installation will comply with them.

PROMPT DISPOSITION OF WARRANTY CLAIMS

Combustion Research Corporation will make a good faith effort for prompt correction or other adjustment with respect to any product that proves to be defective in material or workmanship within the warranty period. For any product believed to be defective under this warranty, first write or call the dealer / retailer from whom the product was purchased. The dealer / retailer will give further instructions. If unable to resolve satisfactorily, write or call Combustion Research Corporation giving dealer's name, address, date and number of dealer's invoice, and describe the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product is damaged in transit to you, file a claim with the carrier.

MANUFACTURER CONTACT INFORMATION

Combustion Research Corporation

2516 Leach Rd
Rochester Hills, Michigan, 48309-3555
United States

1-888-852-3611

Email: info@combustionresearch.com Website: www.combustionresearch.com

START-UP/TECHNICAL SUPPORT INFORMATION

This equipment has been factory fired and tested prior to shipment. To ensure that site conditions are compatible with the heater's performance, a start up performance test needs to be completed by the qualified gas installer.

A technician calling for technical support must provide the information from the following completed reports. Completed reports can be faxed or emailed to Combustion Research Corporation.



During the initial start up, material coatings used in the production may "burn off" and create smoke during the first hour of operation. This is temporary and normal. Please ensure that there is sufficient ventilation to adequately clear the smoke from the space. Notify site and safety personnel to ensure that alarm systems are not unduly activated.

CONTRACTOR NAME:.....

ADDRESS:

CITY

PHONE

JOB SITE

HEATER MODEL NUMBER

HEATER SERIAL NUMBER

DATE

**This heater may be installed
up to a 35 degree angle.
Installation above a 35 degree
angle will void warranty
on the heater.**

**THESE INSTRUCTIONS MUST
BE KEPT WITH THE
APPLIANCE**