

Tested and listed by



HYBRID ENERGIES A.T. Inc

Model: HE-22

Gas/Electrical Fired Heater

SERIAL NUMBERS 1001 AND HIGHER

**USERS' INSTALLATION
OPERATION and
MAINTENANCE MANUAL**

This appliance may be installed in an aftermarket permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

*Conversion kit required for Propane use

⚠ WARNING:

FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

- 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.
 - Leave the building immediately.
 - 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.

⚠ DANGER



HOT GLASS WILL CAUSE BURNS.

DO NOT TOUCH GLASS UNTIL COOLED.

NEVER ALLOW CHILDREN TO TOUCH GLASS.

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and must be installed for the protection of children and other at-risk individuals.

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.



We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

Hybrid Energies Inc.
12285 Cardinal Street, Mission
BC V4S1L3, Canada

LABTEST Certification Inc
Delta, British Columbia
ANSI Z21.88-2019 / CSA 2.33-2019,
CSA 2.17-2017 CAN/CSA P.4.1-15

Electrical listings:
CSA-C22.2 No. 46-13 (R2018)
UL 2021 "Fixed and Location-Dedicated Electric Room Heaters"

INTRODUCTION

Congratulations on choosing a Hybrid Energies patented heating appliance.

The HE-22 is one of the most advanced Power Vented Gas heaters available today. It is solidly designed using the latest technology and manufactured to the highest quality. It is our aim to provide you with an appliance for many trouble-free years of reliable service.

Some of the many features of your HE-22 are:

- **Heater Classification** The HE-22 is classified as a fireplace heater and furnace.
- **Multi Zone Heating**
operated zone heating. It uses the latest safety technology and is suitable for continuously
- **Safe Touch Front** The front surface is safe to touch for all your family.
- **Hybrid Gas/Electric** Choose between electric and gas heating.
- **High Efficiency** The HE-22 has one of the highest efficiency ratings, making it
• less expensive to operate.
- **Adjustable Flame** The flame aesthetics and heat output can be adjusted to suit
the owner's liking and heating needs.
- **Solid Construction** Firebox constructed of stainless steel and aluminized coated
steel for long life and durability.
- **Optional Accessories** Check with your Authorized Hybrid Energies Dealer for optional
accessories to suit your home's décor and your tastes.
- **Electronic Control System** The HE-22 uses a gas control valve that is operated by a
multifunction remote control. It can be used as either an
Intermittent Pilot or Standing Pilot system. (See page 31 for
information regarding this system)

Fireplace Model Number HE-22

Fireplace Serial Number _____

Date of Installation _____

Type of Gas Used by the Heater NGas Propane

Dealer's Name _____

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CAUTION

FOR YOUR SAFETY - Do not install or operate your HE-22 without reading and understanding this manual. Any installation or operational deviation from this instruction manual voids the Hybrid Energies Warranty and may prove hazardous.

This appliance must be installed by a qualified gas installer and the installation must conform to the installation codes.

Provide adequate clearance around air openings for combustion and ventilation air.

Never obstruct front openings.

Provide adequate clearances for proper operation and servicing of the appliance.

This appliance must be properly connected to an approved venting system and must not be connected to a chimney flue serving a separate solid fuel burning appliance.

Must provide adequate clearance around the intake and exhaust openings

Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperature and stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at risk individuals in the house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children and other at risk individuals out of the room and away from hot surfaces.

Clothing or other flammable material should not be placed on or near the appliance.

Do not operate with cracked or broken glass. Be careful not to strike or slam the glass. Never use abrasive cleaners or clean when hot.

Any safety screen or guard removed for servicing an appliance must be replaced prior to operating.

Installation and Repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding materials, etc. It is imperative that the control compartments, burners and circulating air passageways of the appliance are kept clean.

Periodic examination of venting systems by a qualified agency.

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 which has been under water.

SAFETY

APPLIANCE CERTIFICATION

This appliance was listed by LABTEST Certification Inc to the following USA and Canadian gas appliance standards.

- ANSI Z21.88-2019 / CSA 2.33-2019 Vented Gas Fireplace Heaters.
- CSA-C22.2 No. 46-13 (R2018) "Electric air-heaters".
- UL 2021 "Fixed and Location-Dedicated Electric Room Heaters.
- CSA 2.17-2017 – Gas-Fired Appliances for Use at High Altitudes.
- CAN/CSA P.4.1-15 – Testing Method for Measuring Annual Fireplace Efficiency.

The listing label is attached to the appliance on the front fan housing.

Please contact Hybrid Energies A.T. Inc., if you have any questions regarding the certification of this appliance.

Electrical equipment and wiring supplied on this appliance is in compliance with the applicable clauses of the Standard for Electrical Features of Fuel Burning Equipment, CSA C22.2 No. 3.

This vented gas fireplace may be installed in a bedroom or bedsitting room when installed with a certified thermostat and automatic ignition system.

INSTALLATION CODES

This appliance must be installed by a qualified gas appliance installer. The installation must conform with the local codes or, in the absence of local codes, with the current National Fuel Gas Code ANSI Z223.1/ NFPA 54 in the US, or Installation Code CAN/CGA-B149.1 in Canada. Electrical connections and grounding must conform with local code, or current National Electrical code ANSI/NFPA No. 70-1987 in the US, and in Canada the current Canadian Electrical Code CSA C22.1.

A manufactured home (USA only) or mobile home OEM installation must conform with the Manufactured Home Construction and Safety Standard, Title 24CFR, Part 3280, or, when such a standard is not applicable, the Standard for manufactured Home Installations, ANSI/NCSBCS A225.1 or Standard for Gas Equipped Recreational vehicles and Mobile Housing, CSA Z240.4

We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute®(NFI) as NFI Gas Specialists.

HIGH ALTITUDE INSTALLATION

When installing this appliance beyond 4500 ft. (1372 M) above sea level, the appliance must be properly de-rated and installed according to local codes. In the absence of local codes in accordance with the current National Fuel Gas Code, ANSI Z223.1/ NFPA 54 in the US, or Installation Code, CAN/CGA-B149, in Canada.

APPLIANCE FOR INSTALLATION IN MANUFACTURED OR MOBILE HOME

Note: If this appliance is intended for mobile home, manufactured home or recreational vehicle please contact your dealer for the appropriate conversion kit

 WARNING:**FIRE OR EXPLOSION HAZARD**

Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

- 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.
 - Evacuate all persons from the vehicle immediately.
 - Shut off the gas supply at the gas container or source.
 - Do not touch any electrical switch or use any phone or radio in the vehicle.
 - Do not start the vehicle's engine or electric generator.
 - Contact the nearest gas supplier or qualified service technician for repairs.
 - If you cannot reach your gas supplier, or qualified technician, contact the nearest fire department.
 - Do not turn on the gas supply until the gas leak(s) has been repaired.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

APPLIANCE FOR INSTALLATION IN MANUFACTURED OR MOBILE HOME (CONTINUED)

This appliance may be installed in an OEM installation in a manufactured home (USA only) or mobile home and must be installed in accordance with the manufacturer's instructions and the *Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280*, in the United States, or the *Standard for Installation in Mobile Homes, CAN/CSA Z240 MH Series*, in Canada.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.

Cet appareil peut être installé comme du matériel d'origine dans une maison préfabriquée (É.-U. seulement) ou mobile et doit être installé selon les instructions du fabricant et conformément à la norme *Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280* aux États-Unis ou à la norme *CAN/CSA Z240, Série MM, Maisons mobiles* au Canada.

Cet appareil doit être utilisé uniquement avec le type de gaz indiqué sur la plaque signalétique. Cet appareil ne peut être converti à d'autres gaz, sauf si une trousse de conversion est utilisée.

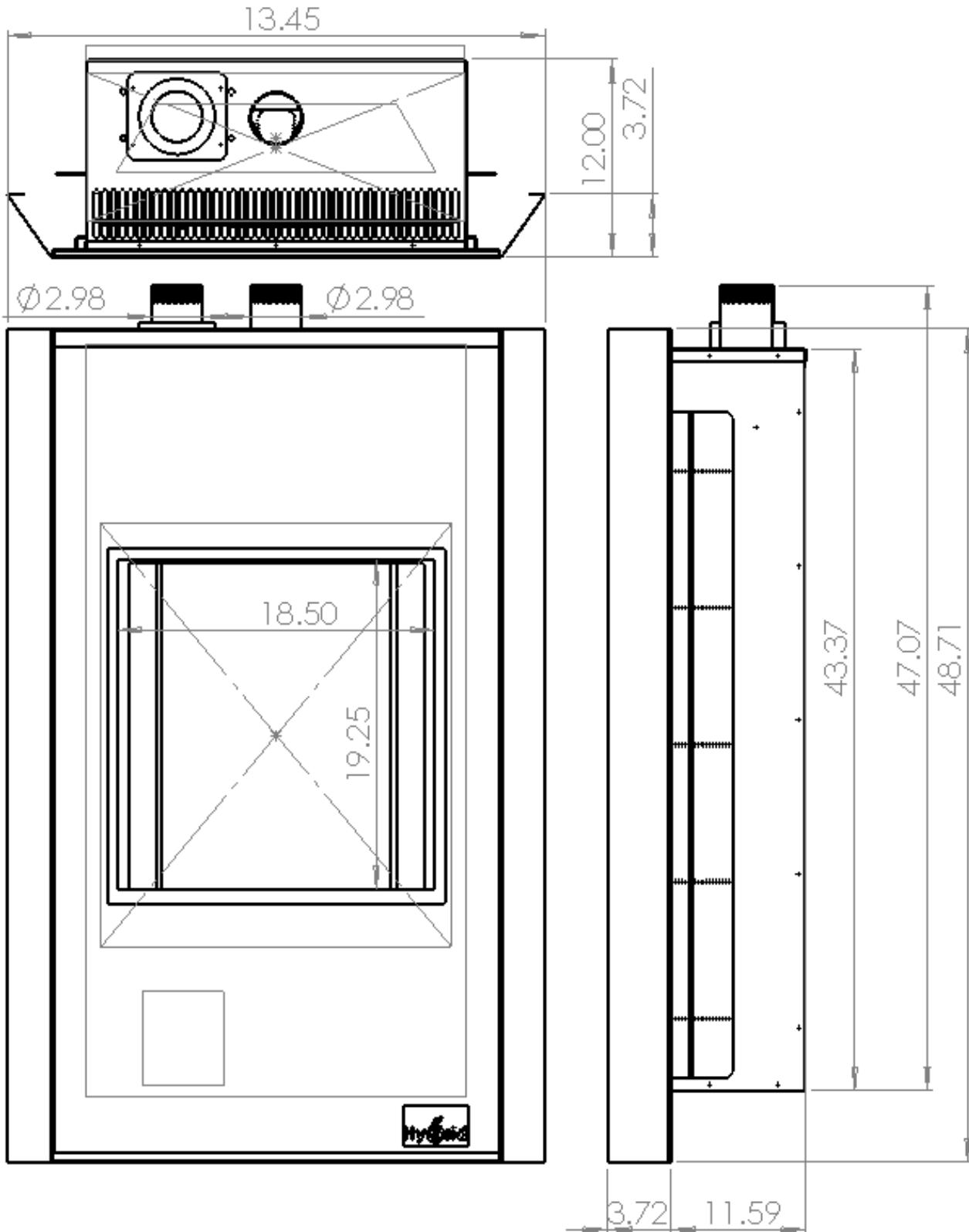
INSTALLATEUR: Laissez cette notice avec l'appareil.
CONSOMMATEUR: Conservez cette notice pour consultation ultérieure.

SPECIFICATIONS

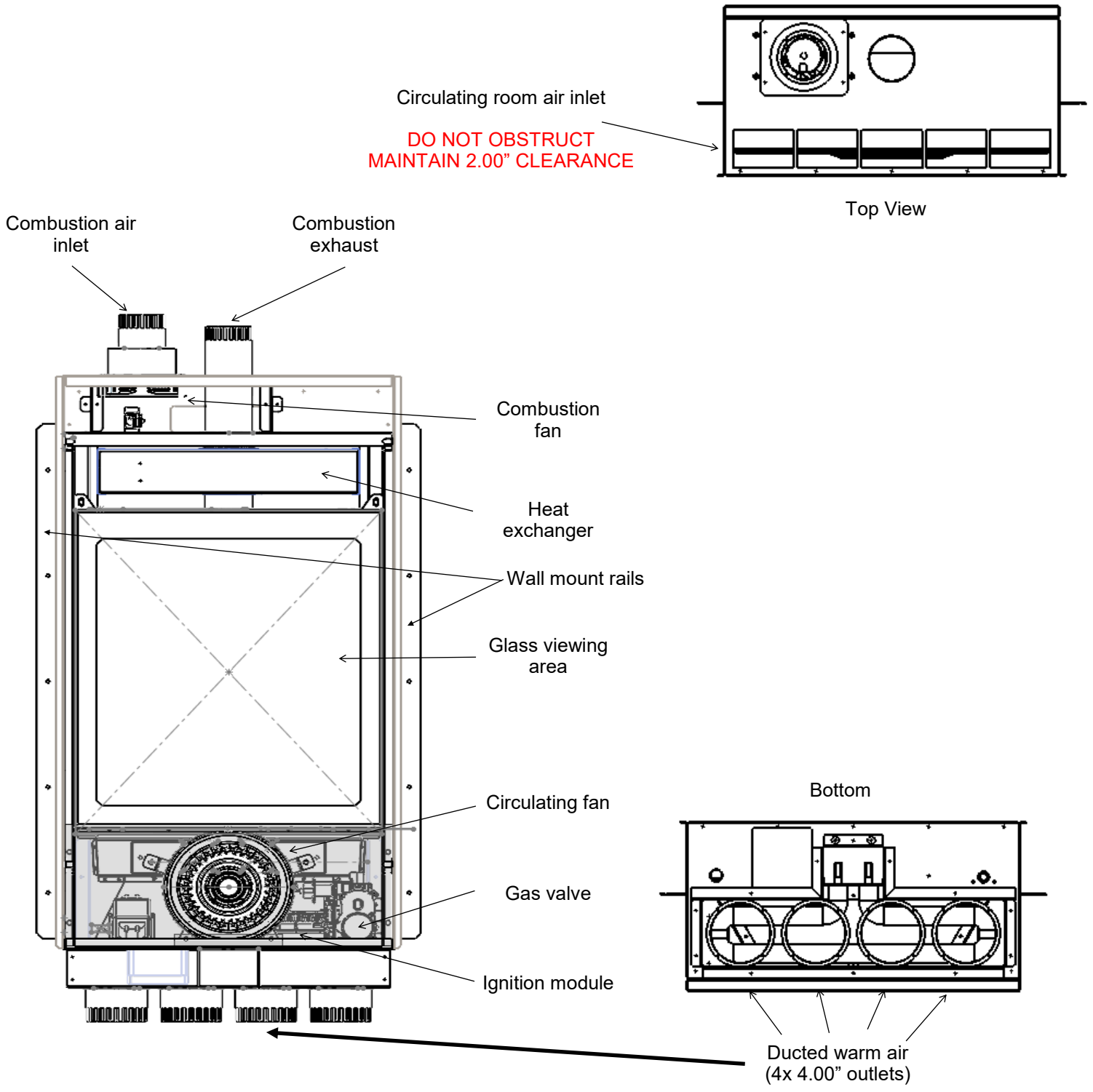
	NG	LPG
Input rating / Entrée assignée	10,000—15,500btu (3.0—4.5kw)	12,700—15,500btu (3.7—4.5kw)
Manifold pressure / Pression d'admission	3.5" W.C. (0.9 kPa)	10" W.C. (2.5 kPa)
Orifice size - Center/ Dimension de l'orifice Orifice size - Outside/ Dimension de l'orifice	48# DMS (mm) 48# DMS (mm)	60# DMS 60# DMS
Minimum supply pressure for purpose of input adjustment / Pression minimale d'alimentation pour le but d'ajustement de contribution	5 in. W.C. (1.24 kPa)	11.0 in. W.C. (2.8 kPa)
Control valve / La soupape contrôle:	SIT Proflame 2	SIT Proflame 2
Altitude / Elevation	0 - 4500 ft (0 - 1372 m)	0 - 4500 ft (0 - 1372 m)
Electrical rating / Tension électrique	120 VAC, 60 Hz, 0.64A	120 VAC, 60 Hz, 0.64A
Electrical rating / Tension électrique	240ac, 60 Hz, 13A 3.Kw	240ac, 60 Hz, 13A 3.Kw
<p>Keep burner and control compartment clean. See instructions accompanying the heater. Maintenir propres le brûleur et le compartiment de commande. Voir les instructions relatives à l'installation et au fonctionnement qui accompagnent le radiateur.</p> <p>Optional fuel conversion kit : HE-P-16</p>	<p>Minimum clearances to Combustibles / Distances: Minimales entre l'appareil et les combustibles:</p> <p>Ceiling / Plafond: 0" (0 mm) Floor / Plancher: 2"(51 mm) Adjacent Side Wall/Paroi latérale adjacent: 0" (0 mm) Mantle: 2" (51 mm) See Owner's Manual for additional clearances</p> <p>Clearances are measured from the edge of the firebox door unless otherwise noted.</p>	

APPLIANCE DIMENSIONS

All dimension are shown in inches



APPLIANCE DESCRIPTION



Installers unpacking and installation road map



Installers unpacking and installation road map

Note: This is a simple road map guide, to use in conjunction with the detailed HE-22 manual.

- Typical HE-22 install requires minimum of 3 separate packages which contain the following:
 1. Main HE-22 Engine (complete with black or white firebox ceramic kit).
 2. Front panel kit (main front glass and mid panels with choice of front panel finish).
 3. Side panel & top bottom trim kit (stainless finish or black).

**** additional package(s) dependent on options selected.*
- Before unpacking, check area for install is prepared (correct framing, gas & electric ready for hook up). At this point wall structure should be open stud without wall finish.
- Depending on install it is generally recommended that the vent termination and air circulation ducts along with necessary piping be installed prior to mounting HE-22.
- Lay main box on back (see label on box) and carefully unpack.
 - **KEEP BOX.** This may be cut to use as front protector/dust shield in place of the front panel kit, which can be installed later along with the Side panel kit when required.
- **Remove bottom air circulating plate** and attach 4 x 4" outlets (configure as required).
- Checking manual install side rail supports to suit the final depth required with wall finish.
- Determine the ideal height for the unit (see manual for recommendations).

BEFORE LIFTING UNIT INTO POSITION FOR INSTALLATION MAKE SURE THAT THE ELECTRICAL SOCKET FOR THE TOP FAN ASSEMBLY IS PLUGGED IN (THIS REQUIRES REMOVING THE WARNING STICKER AND ATTACHING PLUG WITH TWIST LOCK CONNECTOR).

CONSULT THE MANUAL FOR DETAILS ON CORRECT INSTALLATION PROCEDURE

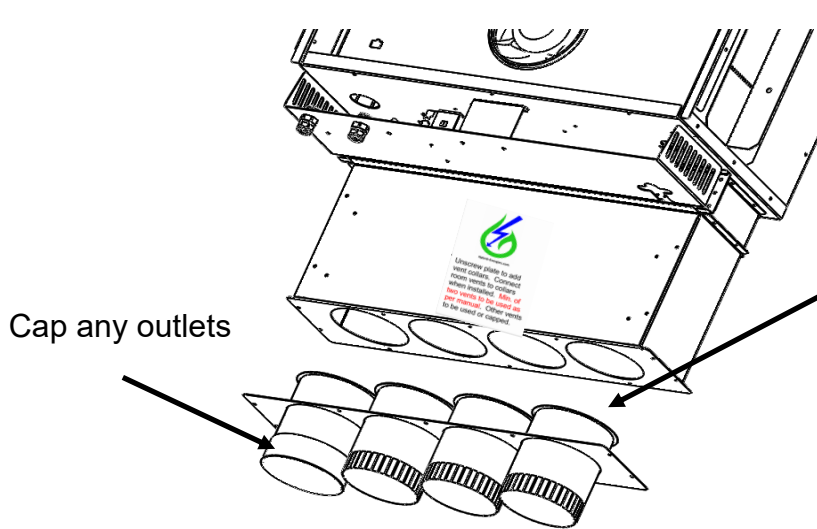
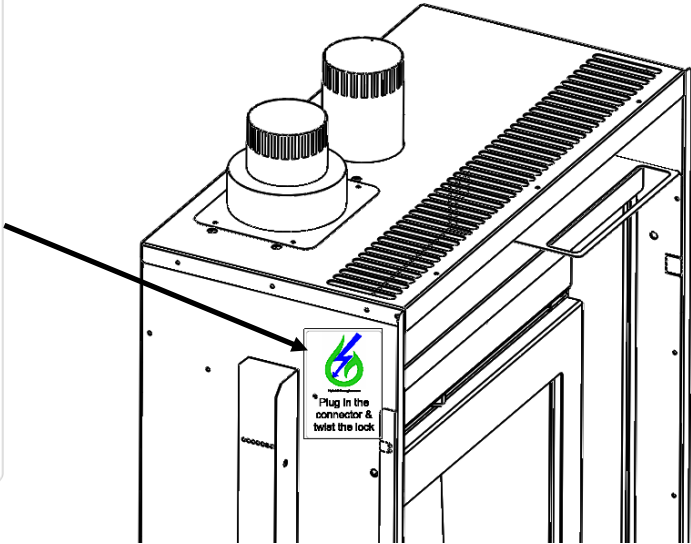
Attaching air circulating pipes

WARNING
Before mounting the unit into the wall the top combustion plug must be connected and the four outlet pots attached




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Plug in the connector & twist the lock



Remove label and

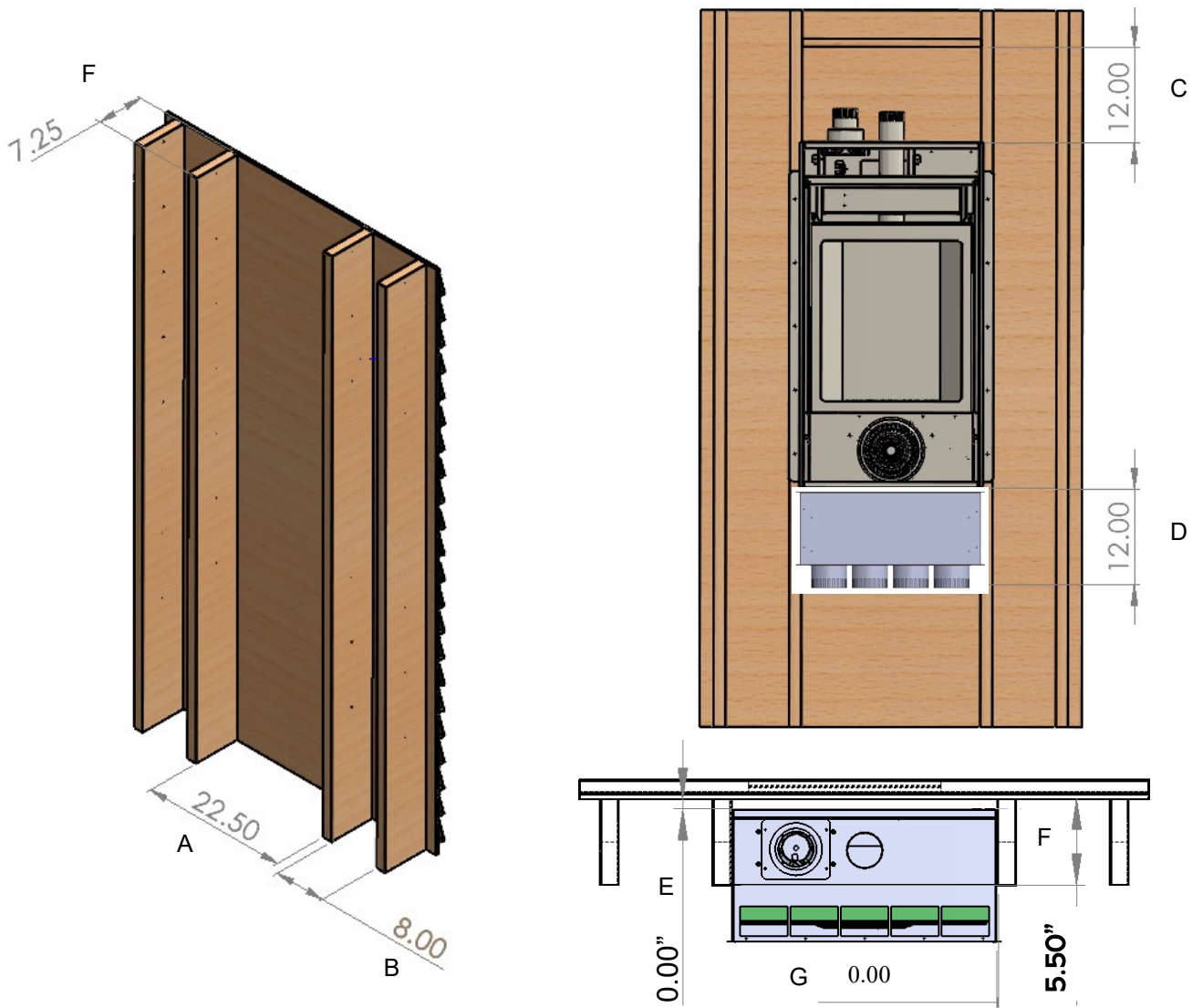


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Unscrew plate to add vent collars. Connect room vents to collars when installed. **Min. of two vents to be used as per manual.** Other vents to be used or capped.

WARNING
To prevent overheating of the HE-22 a minimum of 20sq" must left open at all times.
Failure to do this may result in damage to compo-

Installation Instructions / Framing (24" 2X8 studs shown as example)



Chase Clearances:

The model HE-22 is zero clearance to combustibles

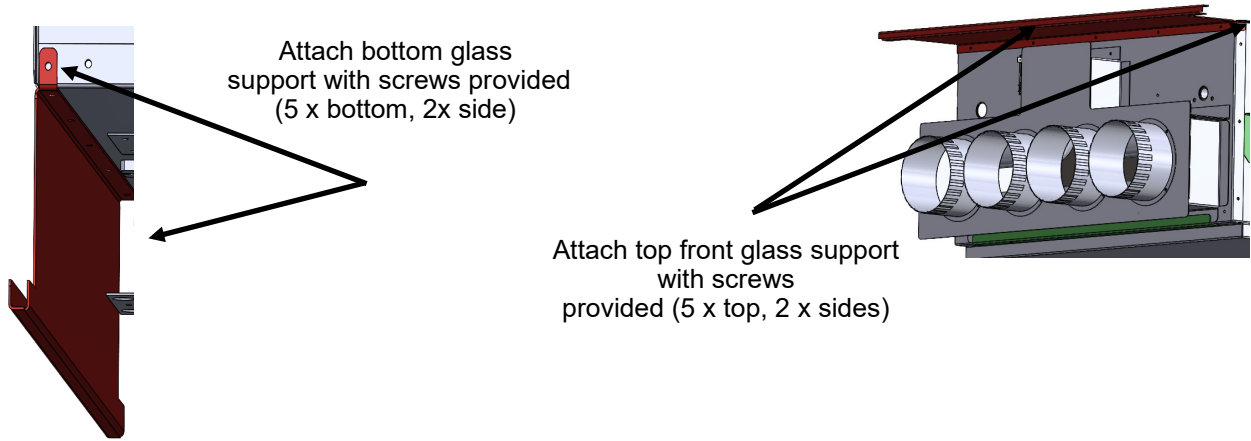
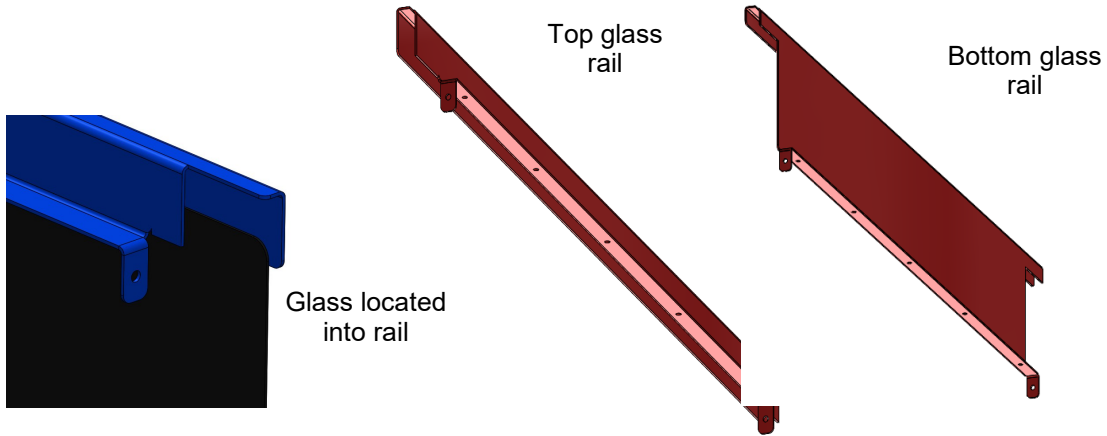
- | | | |
|----|---|---------|
| A. | Minimum Chase width (24" stud center). | 22.50" |
| B. | Minimum boxed opening for air circulating pipes (optional for additional heat zones). | 6.00" * |
| C. | Minimum clearance from top of case heater to top enclosure. | 2.00" |
| D. | Minimum clearance from bottom of case heater to bottom enclosure. | 12.00" |
| E. | Minimum clearance from back of case heater to back enclosure. | 0.00" |
| F. | Minimum chase depth. | 7.50" |
| G. | Minimum clearance from side of unit to stud. | 0.00" |

Note:

Framing including additional supports to be constructed as required by local building code(s) and good construction practice.

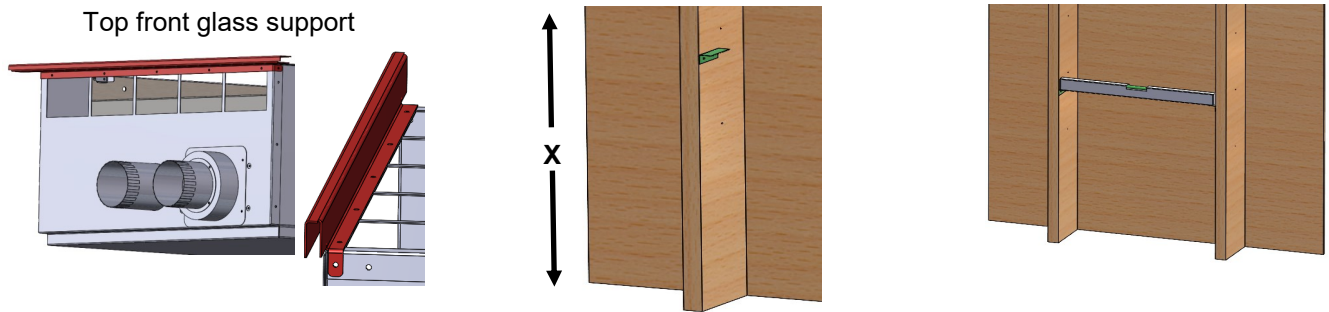
* Optional chase for zoned warm air circulating pipes.

Installation Instructions (Top & bottom glass rail)



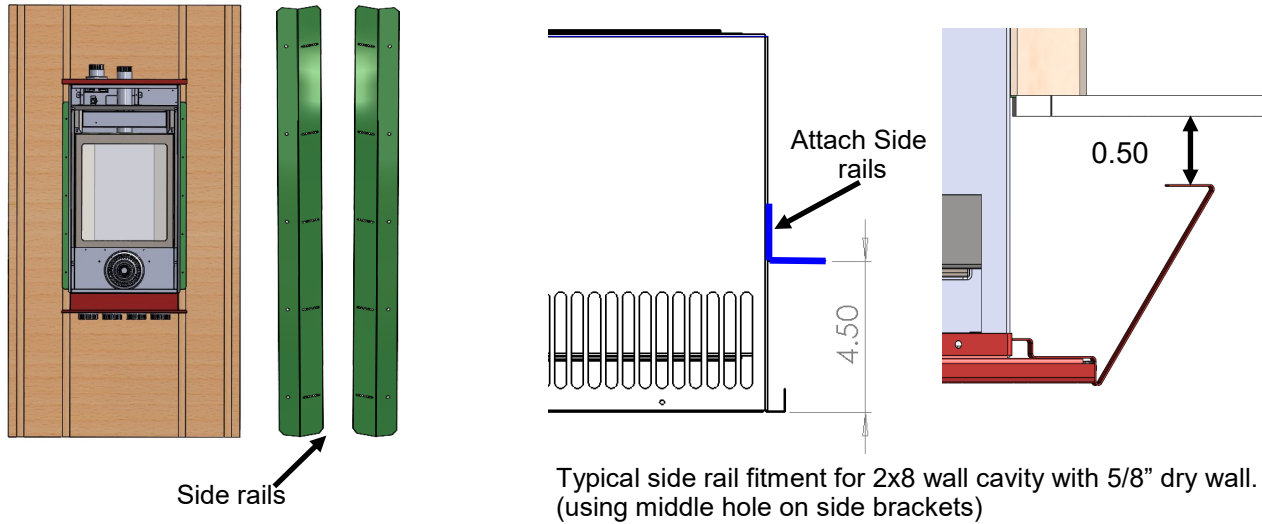
X = Desired height of unit from floor (bottom of glass holder). Recommend 34.00" for optimal viewing.

Use a spirit level to verify bottom support brackets are level

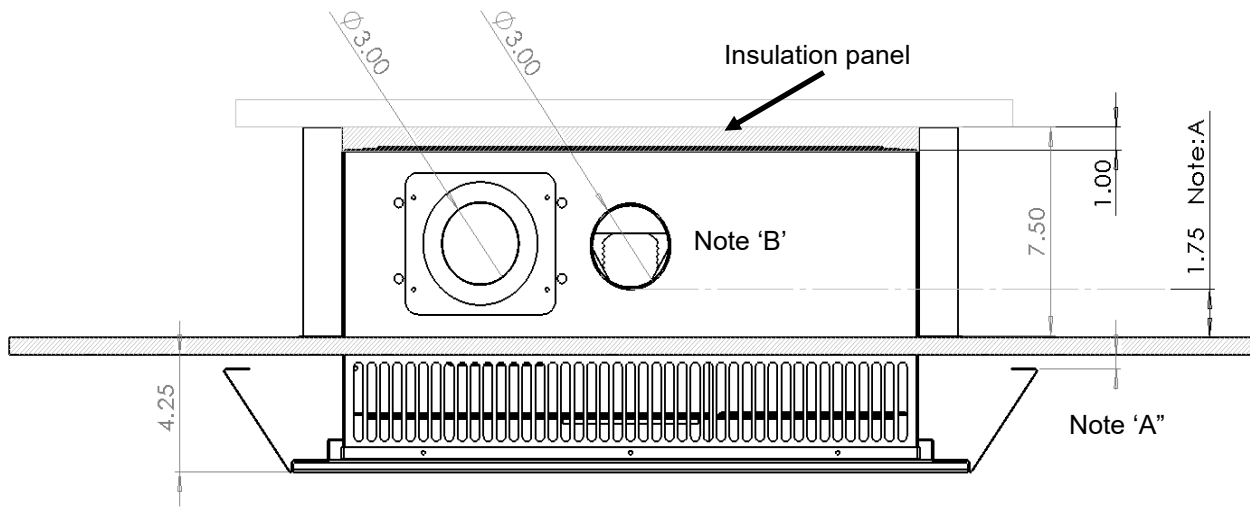


Note: All screws required to mount the top and bottom glass rails can be found attached to the unit as shipped

Installation Instructions (Side rail installation)



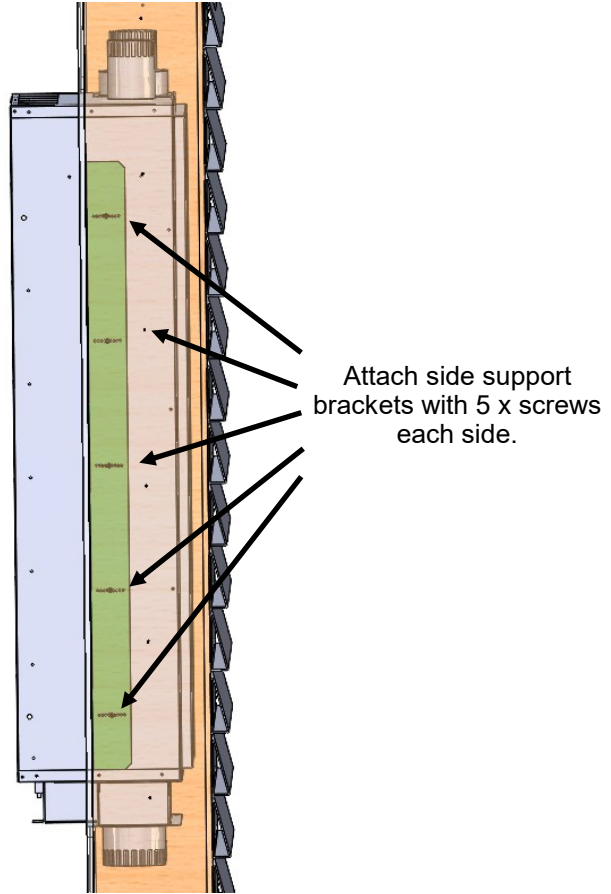
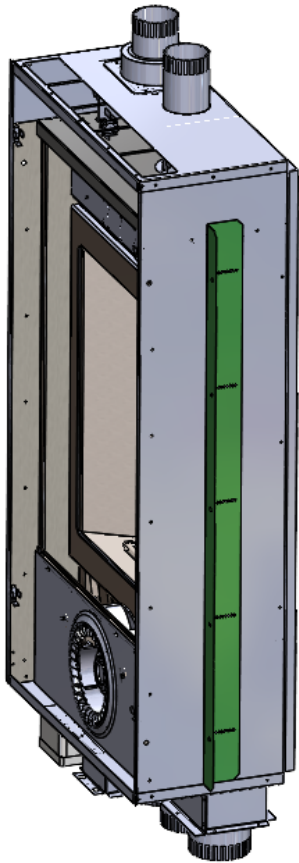
Note: All screws required to mount the 2 x side rails can be found attached to the unit as shipped



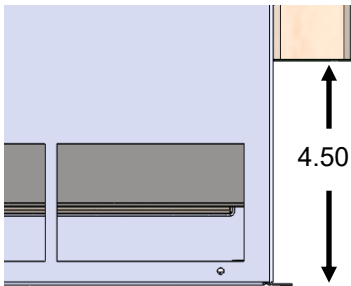
- Notes
- A: Maintain minimal distance to combustibles of 1.00" to exhaust.
 - B: Side panels recommended gab at 0.5" (may be tight to wall if re-

Unit may be installed into 2x6" wall. If this reduces the clearance to the exhaust pipe than non-combustible material must be used until vent set back re-introduces 1:00" clearance.
Please observe local code requiring insulation.

Installation Instructions (Side rail installation)

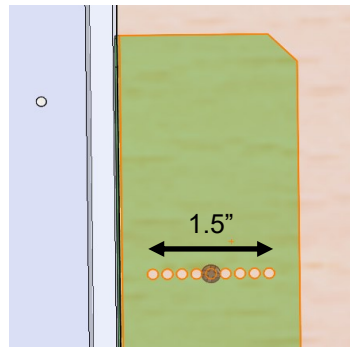


Attach side support brackets with 5 x screws each side.



Top View

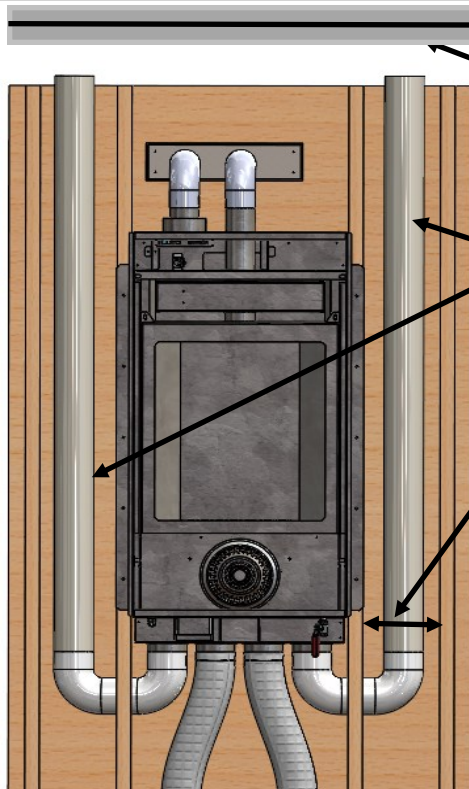
Recommended depth from finished surface.



Using the middle hole in the bracket will set the unit to the correct depth in a standard 2 x 8" stud (7.50" cavity depth).

Adjustment is provided to allow for variations in cavity depth and/or wall finishes.

Installation Instructions Framing Circulating Ducts

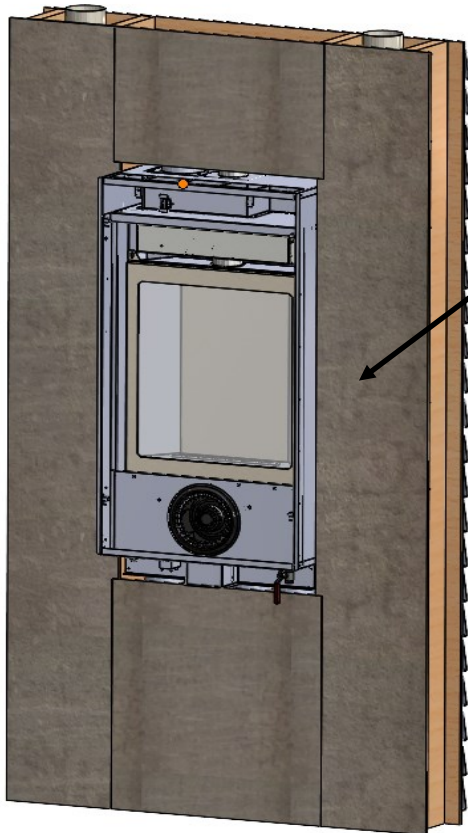
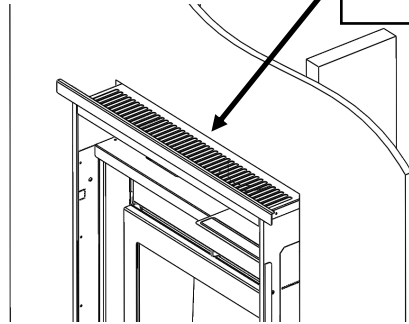


Note: Header across outer beams for support above circulating ducts.

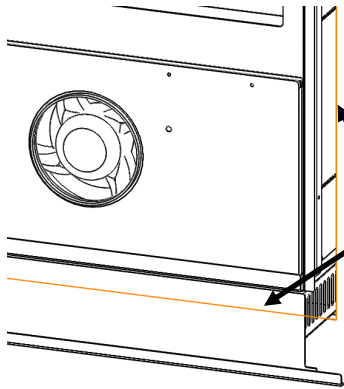
4" insulated air circulating ducts.
Zero clearance to combustibles

6" chase for circulating ducts

Do not obstruct top air inlet grill with wall covering

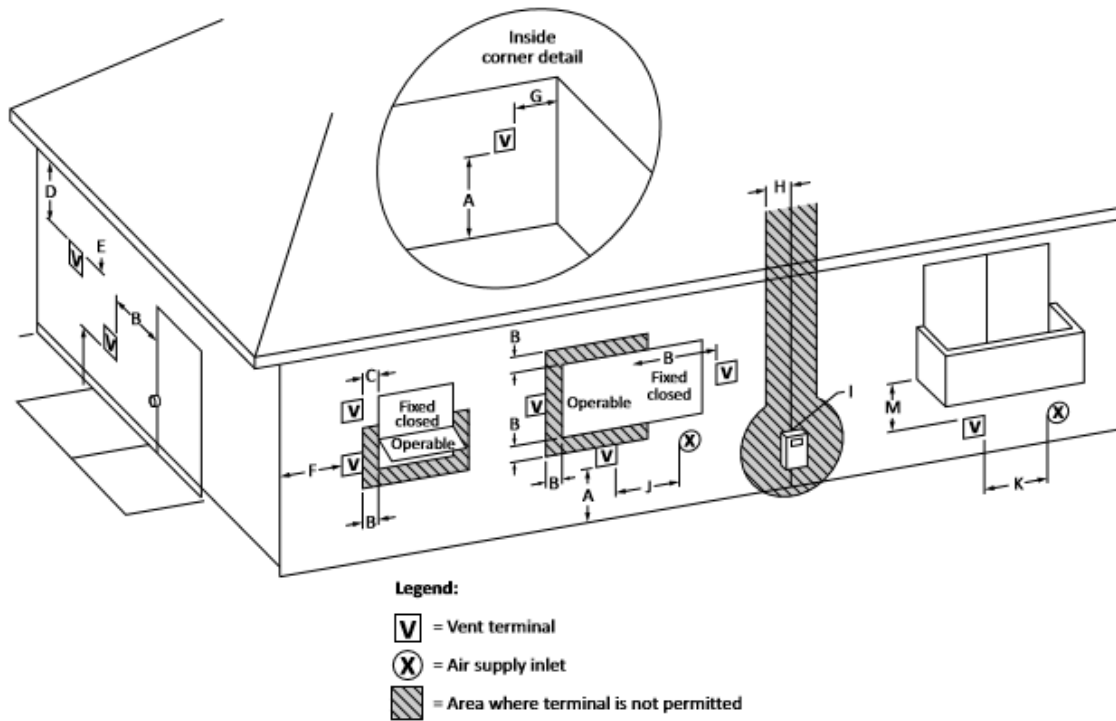


Wall surface maybe constructed of combustible material as long as clearance maintained to exhaust outlet of 1.00"
Unit must be installed into framed chase before wall surface applied.



Maintain 1/4" clearance with wall covering around unit

Venting Clearances and Installation



		Canadian installations¹	US installations²
A	Clearance above grade, veranda, porch, deck, or balcony	12 in (30 cm)	12 in (30 cm)
B	Clearance to window or door that may be opened	6 in (15 cm) for appliances ≤ 10,000 Btu/h (3 kW), 12 in (30 cm) for appliances > 10,000 Btu/h (3 kW) and ≤ 100,000 Btu/h (30 kW), 36 in (91 cm) for appliances > 100,000 Btu/h (30 kW)	6 in (15 cm) for appliances ≤ 10,000 Btu/h (3 kW), 9 in (23 cm) for appliances > 10,000 Btu/h (3 kW) and ≤ 50,000 Btu/h (15 kW), 12 in (30 cm) for appliances > 50,000 Btu/h (15 kW)
C	Clearance to permanently closed window	*	*
D	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal	*	*

Venting Clearances and Installation

		Canadian installations ¹	US installations ²
E	Clearance to unventilated soffit	4.00in (4cm)	4.00in (4cm)
F	Clearance to outside corner	Zero	Zero
G	Clearance to inside corner	Zero	Zero
H	Clearance to each side of center line extended above meter/regulator assembly	3 ft (91 cm) within a height 15 ft (4.5 m) above the meter/regulator assembly	See local code
I	Clearance to service regulator vent outlet	3 ft (91 cm)	See local code
J	Clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance	6 in (15 cm) for appliances ≤ 10,000 Btu/h (3 kW), 12 in (30 cm) for appliances > 10,000 Btu/h (3 kW) and ≤ 100,000 Btu/h (30 kW), 36 in (91 cm) for appliances > 100,000 Btu/h (30 kW)	6 in (15 cm) for appliances ≤ 10,000 Btu/h (3 kW), 9 in (23 cm) for appliances > 10,000 Btu/h (3 kW) and ≤ 50,000 Btu/h (15 kW), 12 in (30 cm) for appliances > 50,000 Btu/h (15 kW)
K	Clearance to a mechanical air supply inlet	6 ft (1.83 m)	3 ft (91 cm) above if within 10 ft (3 m) horizontally
L	Clearance above paved sidewalk or paved driveway located on public property	7 ft (2.13 m)†	See local code
M	Clearance under veranda, porch deck, or balcony	12 in (30 cm)‡	See local code

Notes:

1) *In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code.*

2) *In accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code.*

* *For clearances not specified in ANSI Z223.1/NFPA 54 or CSA B149.1, one of the following shall be indicated:*

a) *A minimum clearance value determined by testing in accordance with Clause 5.25.5; or*

b) *A reference to the following footnote:*

“Clearance in accordance with local installation codes and the requirements of the gas supplier.”

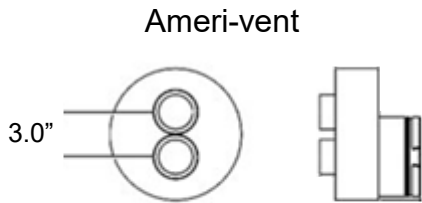
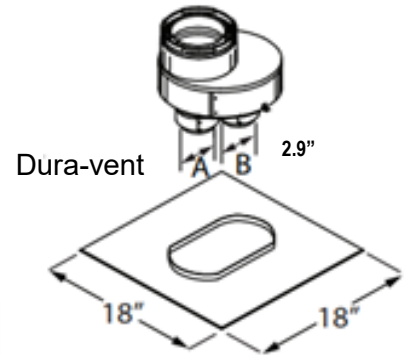
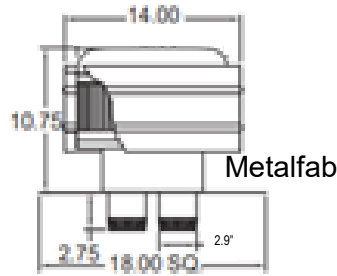
† *A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.*

‡ *Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.*

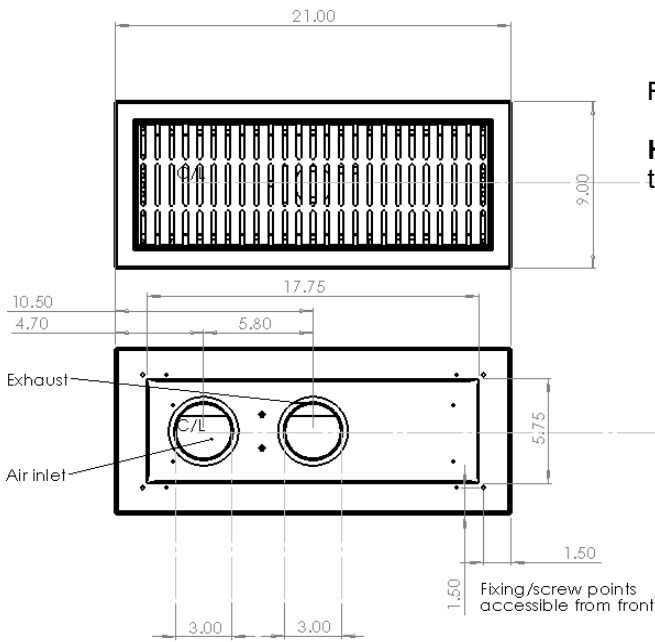
Exhaust Venting Components

Vertical termination

Make	Model
Metalfab	4DVT33FX
Duravent	46DVA—GK
Amerivent	4DCAT33
Selkirk	4DT-33IK35



Horizontal termination



HORIZONTAL TERMINATIONS
For horizontal termination, only the HE-B-100 horizontal termination must be used.

Vent piping

Any certified solid pipe 'B' Vent may be used or the following 3" 2 ply flex pipe:

- Selkirk 3" Flexi liner.
- Duravent 3" duraflex liner
- Ecco Heating 3" flex liner.
- Amerivent 3" ALK liner.



Vertical Venting Clearances and Installation

VENTING

Clearance to combustibles

The following clearances must be maintained around the vent pipe:

Vertical runs: 1", Horizontal runs 2".

IMPORTANT: This appliance venting system is any certified 3" 'B' Vent for exhaust outlet and 3" listed metal or plastic pipe for air inlet, which means that all combustion air is supplied from outdoors and the combustion products are exhausted to the outdoors.

Note: Only Certified systems may be used on the exhaust outlet of this appliance.

Fire stops are required at each floor level the vent passes through.

'B' Vent must be installed as per 'B' Vent manufactures instructions and local code requirements.

Vertical Cap Installations

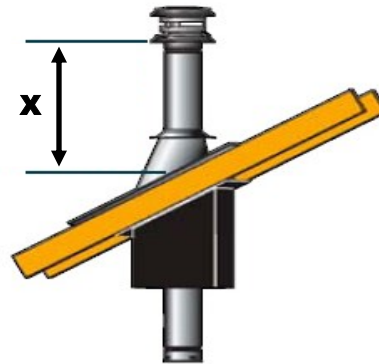
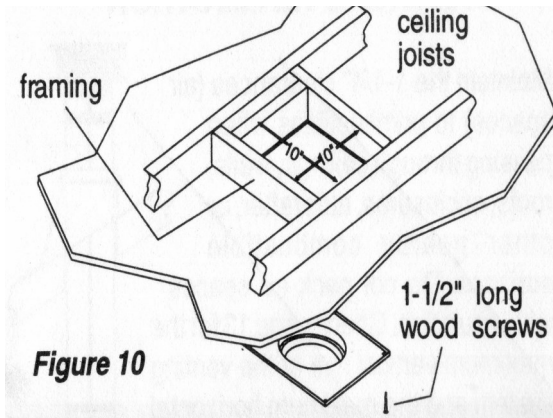
Always maintain a 2" clearance around the vent pipe (vertical) and on horizontal venting 1" clearance on the top of the vent, when passing through ceilings, walls, roofs, enclosures, attic rafters or any combustible surfaces.

DO NOT PACK AIR SPACES WITH INSULATION.

When planning your installation, determine if ceiling joists, roof rafters or other framing will obstruct the vent system. You may have to use 45° elbows to navigate around any obstacles. When passing through a flat ceiling, install a Box/Wall thimble. Cut a 10" square hole and frame as shown in the diagram opposite. Ensure all pipe sections are fully twist locked.

Pitch (Ratio)	'X'
0/12 - 2/12	4"
2/12 - 7/12	5 1/2"
7/12 - 12/12	6 3/4"
12/12 - 24/12	7 1/2"
24/12+	12 1/2"

Fig #10



Check local code for minimum termination height (pitch table shows typical)

Gas appliance must not be connected to a chimney flue serving a separate solid-fuel burning appliance.

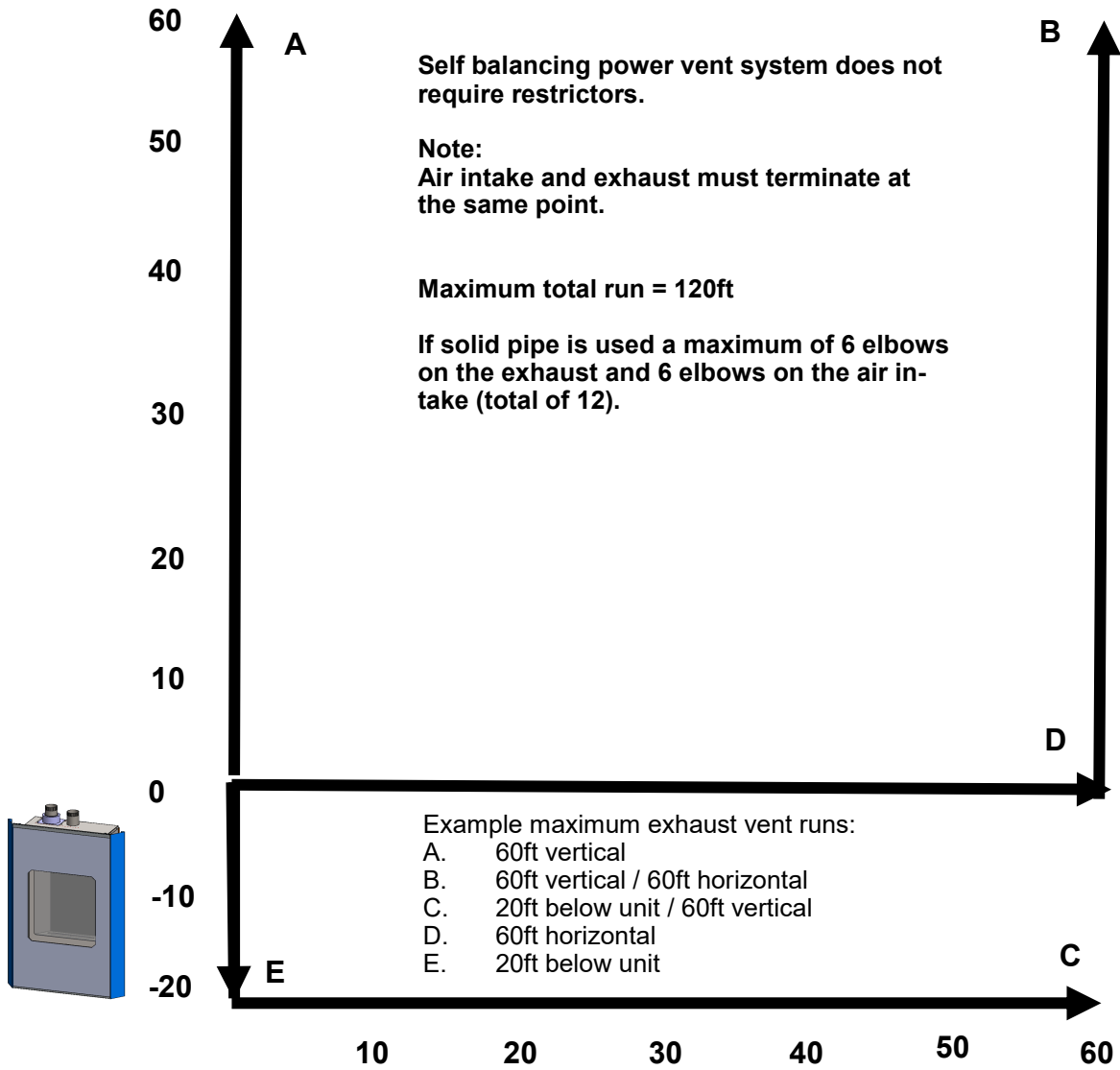
NOTE: ALWAYS CHECK YOUR LOCAL CODES BEFORE INSTALLING VENTING. CLEARANCES, ETC, MAY VARY FROM STATE TO STATE (PROVINCE TO PROVINCE).

To prevent water seepage, install the flashing with the upper portion slid under the roofing material and the lower portion over the roofing material.

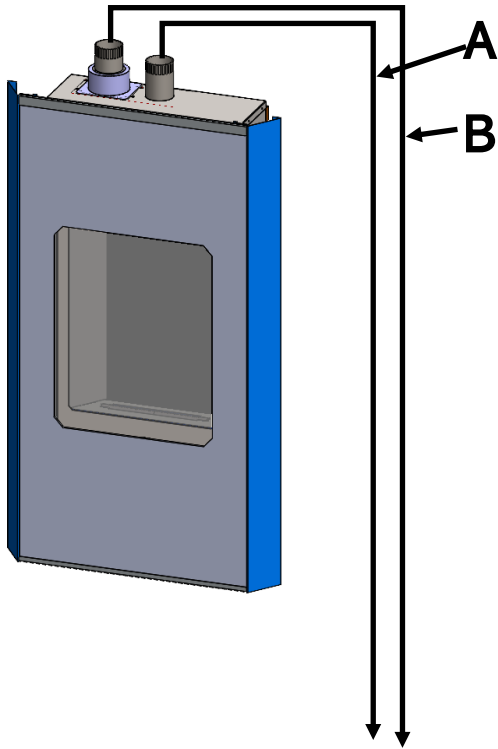
Note: Do not fasten down until the final adjustments to the vent have been made.

See maintenance section for general care and maintenance of the vent system page 24

Venting Chart



Venting Pipe Clearances and Installation



VENT PIPE

Any certified solid pipe 'B' Vent may be used or the following 3" 2 ply flex pipe:

- Selkirk 3" Flexi liner.
- Duravent 3" duraflex liner
- Ecco Heating 3" flex liner.
- Amerivent 3" ALK liner.

VERTICAL TERMINATION

Only The Following 'B' Vent terminations may be used for vertical termination.

- Amerivent 3" cap
- Metalfab 3" cap
- Selkirk 3" cap
- Duravent 3" cap

HORIZONTAL TERMINATIONS

For horizontal termination, only the **HE-B-100** horizontal termination must be used.

Maximum horizontal run - 60ft.

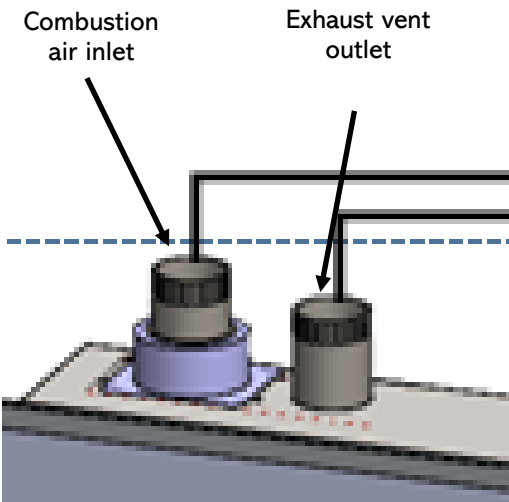
Maximum vertical vent - 60ft.

Maximum vent run below unit - 20ft

Total maximum vent run - 120ft

Note:
Vent should be securely attached to unit using self tapping screws as per code requirements.

Note: Non-metallic venting systems shall not interchange components with another listed or unlisted metallic vent system.

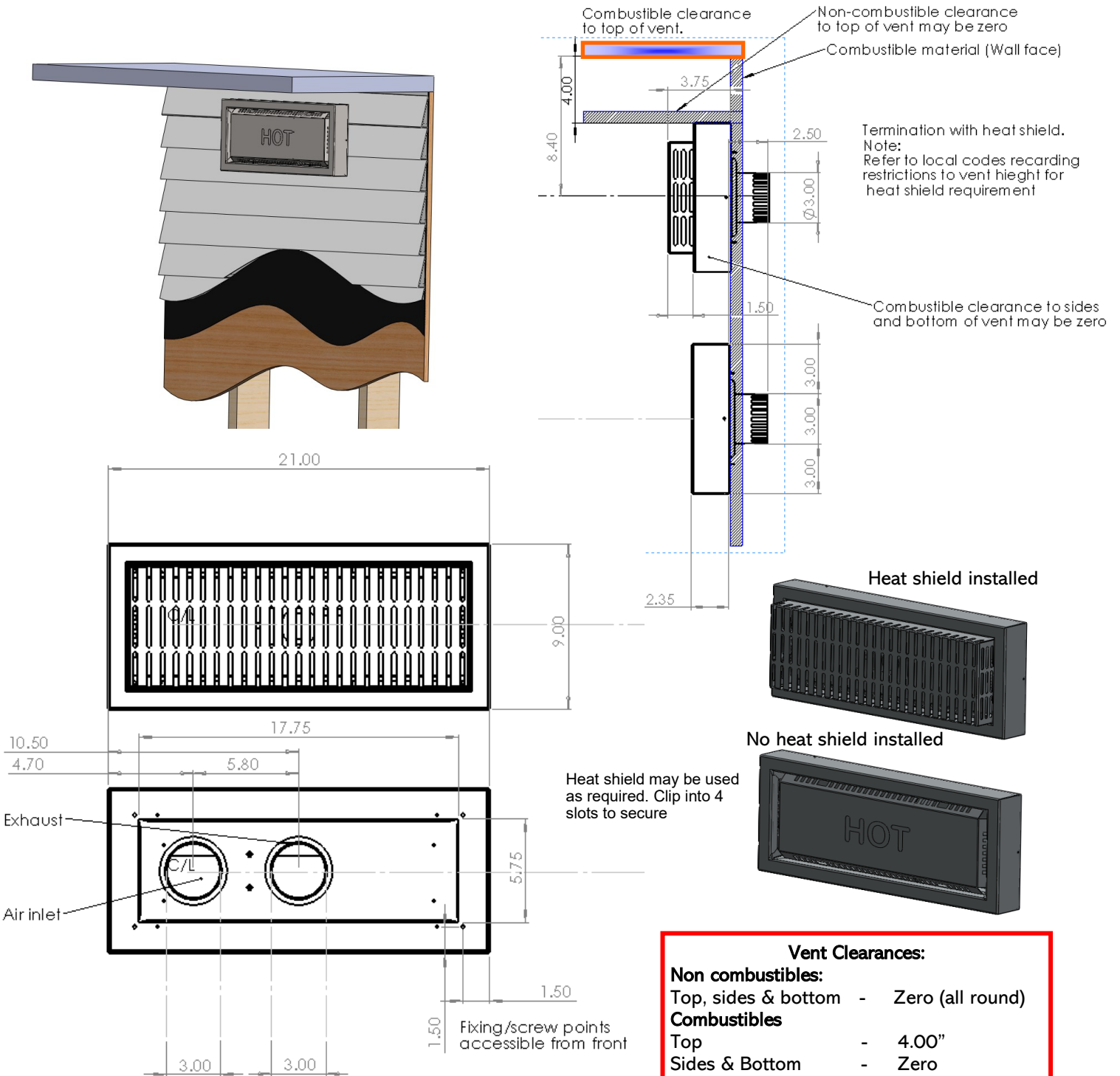


WARNING

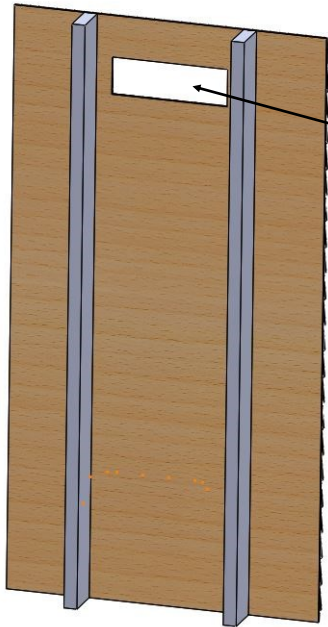
Vent Pipe Clearances:

- Vertical Clearance - 1.00"
- Horizontal Clearance - 2.00"

Rear Vent installation using HE-B-100—Dimensions



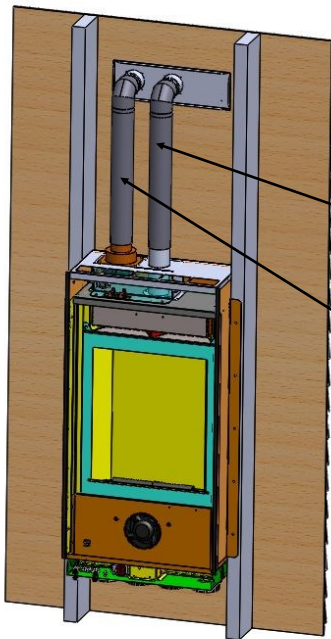
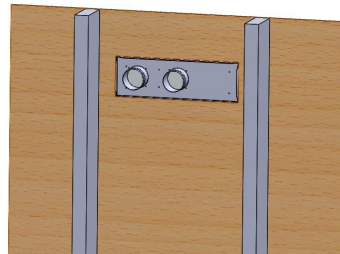
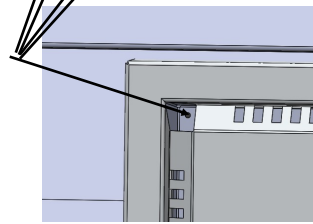
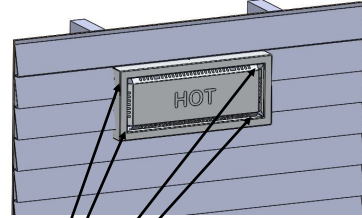
Rear Vent installation using HE-B-100



Cut rectangular hole in whole center of chase

17 3/4" x 5 3/4"

Attach termination to wall using 4 x 2" wood screws provided



Exhaust outlet

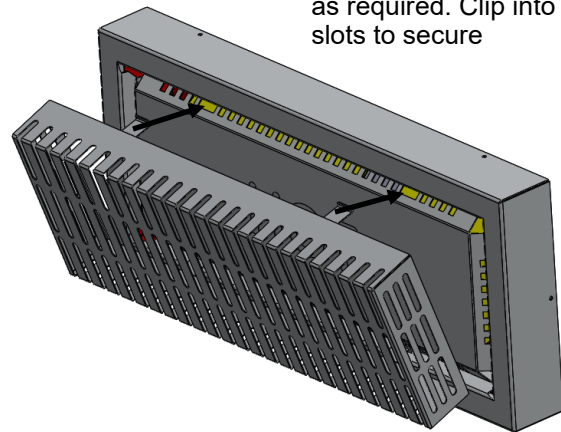
Assemble 3" 'B' vent and secure to unit and termination with self tapping screws

Air inlet

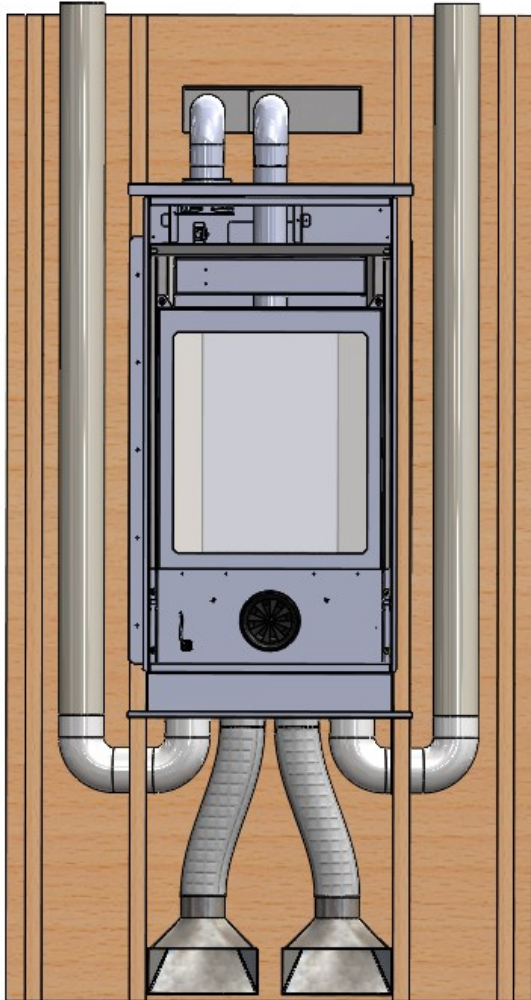
Note: The air inlet may use 3" plastic pipe.

WARNING
Only the HE-B-100 termination can be used for horizontal terminations.

Heat shield may be used as required. Clip into 4 slots to secure



Air Circulating Pipes Installation



The model HE-22 uses 4.00" air circulating pipes to transfer the heat from one to four zones.

- These pipes must be of the insulated type.
- Maximum run to maintain operational minimum requirement is 50ft per outlet.
- Clearance to combustibles is zero.



Note:

To prevent overheating of the HE-22 a minimum of 20sq" must be left open at all times.

Failure to do this may result in damage to components if cycling on limit switch.

GAS CONNECTION

Before connecting the appliance to the gas supply line, double check that the appliance you have purchased is designed for the gas type you are using. The gas type markings are located on the certification label and also on the appliance's gas valve.

Adequate clearance for proper installation and checking of the gas connections must be provided. **All gas connections must be checked for gas leaks.**

Have your gas supplier or a qualified gas fitter run a gas supply line into the fireplace. The line must be properly sized and fitted according to the installation codes. Immediately upstream of the supply connection, the fitter shall provide an accessible manual shut-off valve. When connecting the supply line to the gas valve, the installer shall brace the gas valve to ensure that the gas valve is not moved from its bracket. If the valve is not braced when the supply line is connected, the valve may be moved and cause a "break" in the main burner supply line. Such damage is not covered by the manufacturer's warranty.

CAUTION: The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure-testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa). Failure to do so will damage the appliance's gas valve. Such damage is not covered by the manufacturer's warranty.

Natural Gas Pressure Settings:

The inlet supply or line pressure must be a minimum of 4.5" W.C. (1.2 kPa) and a maximum of 14" W.C. (3.5 kPa).

ELEVATION	INPUT RATING
0-4500 ft (0-1372 M)	15,000 BTU/hr
4500 ft (1372 M) and above.	15,000 BTU/hr less 4% per 1000 ft. (305 M)

Please contact your local distributor for the appropriate orifice size you require.

Propane Pressure Settings:

The inlet supply or line pressure must be a minimum of 11" W.C. (2.8 kPa) and a maximum of 14" W.C. (3.5 kPa).

ELEVATION	INPUT RATING
0-4500 ft. (0-1372 M)	15,000 BTU/hr
4500 ft. (1372 M) and above.	15,000 BTU/hr less 4% per 1000 ft. (305 M)

Please contact your local distributor for the appropriate orifice size you require.

NOTE: THE INPUT RATING SHOULD ALWAYS BE CHECKED WHEN FIRST RUNNING THIS APPLIANCE. To do this, reduce the background flow rate, time the meter, light the fireplace and take another reading after 15 minutes of operation. Check with your gas supplier for the gas BTU content at your elevation. Input is the rate of flow multiplied by the heating value of the gas (cubic feet/hour x BTU per cubic feet). Adjust the manifold pressure so that the unit does not operate above the rated input.

ELECTRICAL CONNECTIONS

the appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CAN/CSA C22.1.

Connection to the unit is made inside supplied electrical box. This connection should be made by qualified persons only and according to local code.

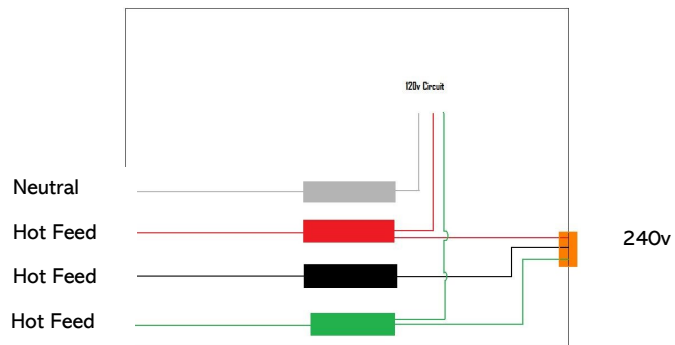
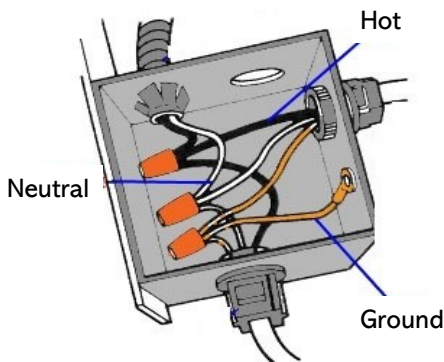
Caution: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.” “Verify proper operation after servicing.

120v Connection

The model HE-22 comes complete with a 120v power lead. This may be replaced as required by local code.

240v Connection

The model HE-22, 240v system is wired as any standard 240v system.



The model HE-22 must be connected to its own dedicated fused circuit breaker for both the 120v and 240v circuit.
 “Qualified electrician only”

SEE ADDENDUM 'A' FOR DETAILS OF THE ELECTRICAL HEATING SECTION

FINAL INSTALLATION CHECK

Each Hybrid Energies Gas Heater is checked and tested at the factory prior to being packaged and shipped to our dealers and finally installed in your home. Hybrid Energies recommends that before leaving this unit with the customer, the installer must ensure that the appliance is firing correctly and that the electrical system is in working order.

This will include:

1. Perform leak tests of supply line, gas control valve, supply line from gas control valve and pilot assembly.
2. Clocking the appliance to ensure the correct firing rate.
3. If required, adjusting the primary air to burner to ensure that the flame does not carbon or soot.
4. Check for proper operation including correct drafting.

Any alteration to the product that causes crayoning or sooting that results in any damage or requires cleaning is not the responsibility of the manufacturer.

INITIAL OPERATION

1. Check that the appliance is properly vented and connected to the gas supply.
2. Check that all external parts, such as door and faceplate are properly attached and fastened.
3. Do not operate this appliance with broken, cracked glass doors or without the door (s) in its correct (and latched) position. Do not abuse the glass by either striking or slamming shut.
4. Check that there are no fingerprints left on glass panels, as high temperature can bake these prints on permanently.

SEE ADDENDUM 'A' FOR DETAILS OF THE ELECTRICAL HEATING SECTION

FIRST FIRE

When operated for the first few times, the appliance will emit some odor and fumes. This is due to the heat from the appliance evaporating the oils and solvents used in fabricating the appliance. Close off the room to the rest of the house and open all windows. Keep the room well ventilated, as smoke alarm may sound. Run the appliance for at least 6 hours at maximum setting to allow paint to cure. Smoke and fumes caused by the curing process may cause discomfort to some individuals.

LIGHTING INSTRUCTIONS - CAUTION

WARNING : If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life. Do not operate the appliance with the glass front removed, cracked or broken. Replacement of broken glass should be done by a licensed or qualified service person.

WARNING : This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air.

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.

1. **BEFORE LIGHTING**, smell all around the appliance area for gas. Be sure to smell next to the floor, because some gasses are heavier than air and will settle on the floor.
2. **IF YOU SMELL GAS**, follow the instructions as listed directly above or as shown on the front cover of this manual.
3. 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 which has been under water.
4. This appliance is equipped with an ignition device which automatically lights the pilot and main burner. The pilot and burner light automatically with the hand held remote or the optional room thermostat.

SEE ADDENDUM 'A' FOR DETAILS OF THE ELECTRICAL HEATING SECTION

LIGHTING INSTRUCTIONS / INSTRUCTIONS D'ALLUMAGE

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

ATTENTION: Si vous ne suivez pas ces instructions à la lettre, un feu d'une explosion entraînant des dommages matériels, des blessures ou la perte de la vie.

FOR YOUR SAFETY READ BEFORE LIGHTING Pour votre sécurité Veuillez lire avant d'allumer


- A. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
- B. BEFORE LIGHTING 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.
- C. 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 which has been under water.
- STOP! Read the safety information above on this label.**
1. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand
 2. Set the remote switch and thermostat to **"OFF"**
 3. Wait five minutes to clear out any gas. Smell for gas, including near floor. If you smell gas, STOP! Follow "B" safety information above.
 4. Adjust room thermostat to call for heat.
 5. Adjust remote control to call for heat.
- If the pilot and burner will not stay lit after several tries, turn the remote to the "OFF" and check the lighting instructions in the manual or call your service technician or gas supplier.**
- A. Cet appareil possède une veilleuse qui doit être éclairée par une bougie d'allumage. En allumant le pilote suivez ces instructions à la lettre.
- B. AVANT D'ALLUMER odeur tout autour de l'appareil pour le gaz. Assurez-vous de sentir à côté du plancher, car certains gaz sont plus lourds que l'air et se déposent sur le sol.
- QUE FAIRE SI VOUS UNE ODEUR DE GAZ**
- Ne pas tenter d'allumer l'appareil.
 - Ne touchez à aucun interrupteur électrique; ne pas utiliser le téléphone dans votre immeuble.
 - Appelez immédiatement votre fournisseur de gaz de téléphone d'un voisin. Suivez les instructions du fournisseur de gaz • Si vous ne pouvez pas joindre votre fournisseur de gaz, appelez les pompiers.
- C. Ne pas utiliser cet appareil si une partie a été sous l'eau. Appeler immédiatement un technicien qualifié pour inspecter l'appareil et remplacer toute pièce du système de contrôle et de commande du gaz qui a été sous l'eau.
- STOP! Lire les consignes de sécurité ci-dessus sur cette étiquette.**
1. Cet appareil est équipé d'un dispositif d'allumage qui allume automatiquement le pilote. Ne pas tenter d'allumer le pilote à la main
 2. Réglez le commutateur à distance sur "OFF"
 3. Tournez sur la puissance électrique de l'appareil.
 4. Ouvrez la vanne d'isolement de gaz
 5. Tournez à distance à la position «ON».
- Si le pilote et le brûleur ne reste pas allumée après several, tourner la télécommande sur le "OFF" et vérifiez les instructions dans le manuel d'éclairage ou appelez votre technicien ou votre fournisseur de gaz.

TO TURN OFF GAS TO APPLIANCE INSTRUCTIONS

1. Set the remote switch to **"OFF"**.
2. If service is to be performed.
3. Close the gas isolation valve

1. Réglez le commutateur à distance sur "OFF".
2. Coupez l'alimentation électrique de l'appareil si le service doit être exécuté.
3. Fermez la vanne d'isolement de gaz

! DANGER



HOT GLASS WILL CAUSE BURNS.

DO NOT TOUCH GLASS UNTIL COOLED.

NEVER ALLOW CHILDREN TO TOUCH GLASS.

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and must be installed for the protection of children and other at-risk individuals.

CAUTION: Hot while in operation. Do not touch. Severe burns may result. Keep children, clothing, furniture, gasoline, and other liquids having flammable vapors away

SEE ADDENDUM 'A' FOR DETAILS OF THE ELECTRICAL HEATING SECTION

SPECIFICATIONS / RATING PLATE

NG / NATURAL

Efficiency P.4.1 rating—81.7 %

DO NOT REMOVE THIS LABEL
NE PAS ENLEVER CETTE ÉTIQUETTE

de série / serial

HE: 00000

LP / PROPANE

MODEL / MODÈLE: HE-22

LISTED VENTED GAS FIREPLACE HEATER and GAS-FIRED APPLIANCES FOR USE AT HIGH ALTITUDES. RADIATEUR VENTILE, CIRCU-LATEUR DU TYPE VENTILATEUR. Tested to / Testée selon les normes : ANSI Z21.88-2019 / CSA 2.33-2019, CSA 2.17-2017, CAN/CSA P.4.1-15. VENTED GAS FIREPLACE HEATER-NOT FOR USE WITH SOLID FUEL. This vented gas fireplace heater is not for use with air filters. Certified for use in both CANADA and USA. / Certifié pour utilisation dans le Canada et les ÉTATS-UNIS

Electrical listings: CSA-C22.2 No. 46-13 (R2018) "Electric air-heaters" - UL 2021 "Fixed and Location-Dedicated Electric Room Heaters"

	NG	LPG
Input rating / Entrée assignée	10,000—15,000BTU(2.9—4.kw)	12,700—15,000BTU (3.7—4.4kw)
Manifold pressure / Pression d'admission	3.5" W.C. (0.9 kPa)	10" W.C. (2.5 kPa)
Orifice size - Dimension de l'orifice	48# DMS (mm)	61# DMS
Minimum supply pressure for purpose of input adjustment / Pression minimale d'alimentation pour le but d'ajustement de contribution	5 in. W.C. (1.24 kPa)	11.0 in. W.C. (2.8 kPa)
Control valve / La soupape contrôlée:	SIT Proflame 2	SIT Proflame 2
Altitude / Elevation	0 - 4500 ft (0 - 1372 m)	0 - 4500 ft (0 - 1372 m)
Electrical rating / Tension électrique	120 VAC, 60 Hz, 0.64A	120 VAC, 60 Hz, 0.64A
Electrical rating / Tension électrique	240ac, 60 Hz, 20amp 3Kw	240ac, 60 Hz, 20amp 3Kw
Keep burner and control compartment clean. See Instructions accompanying the heater. Maintenir propres le brûleur et le compartiment de commande. Voir les instructions relatives à l'installation et au fonctionnement qui accompagnent le radiateur. Optional fuel conversion kit : HE-P-22 Clearances are measured from the edge of the firebox door unless otherwise noted.	Minimum clearances to Combustibles / Distances: Minimales entre l'appareil et les combustibles: Ceiling / Plafond: 0" (0 mm) Floor / Plancher: 12"(305 mm) Adjacent Side Wall/Pari latérale adjacent: 0" (0 mm) Mantle: 2" (51 mm) See Owner's Manual for additional clearances	

For use with front barriers Part No HE-0060. Follow installation instructions for replacement instructions

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency, or the gas supplier.

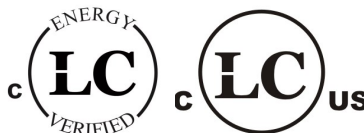
CAUTION: Do not operate the appliance with glass removed, cracked, or broken. Replacement of the panel(s) should be done by a licensed or qualified service person.

This appliance must be installed in accordance with local codes, if any; if none, follow the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or Natural Gas and Propane Installation Codes, CSA B149,1. Electrical connections and grounding must be in accordance with local codes, if any; if none, follow the current CAN/CSA C22.1 in Canada and ANSI/NFPA 70 in the US. This appliance is certified for installation in a bedroom or a bed sitting room. This appliance is only for use with the gas indicated on the rating plate and may be installed in an aftermarket, permanently located, manufactured (mobile) home where not prohibited by local codes. See owner's manual for details. This appliance is not convertible with other gases, unless a certified kit is used.

FOR USE WITH GLASS DOORS CERTIFIED WITH THIS APPLIANCE ONLY.

Il faut que cet appareil soit installé selon les codes locaux, s'il y en a; sinon, suivre le CAN/CGA-B149 actuel au Canada et ANSI Z223.1 aux É.-U. Il faut que le raccordement électrique et la mise à la masse soient en conformité avec les codes locaux, s'il y en a; sinon, suivre le CAN/CSA C22.1 actuel au Canada et ANSI/NFPA 70 aux É.-U. Cet appareil est certifié pour l'installation dans une chambre à coucher ou une pièce qui sert de chambre.

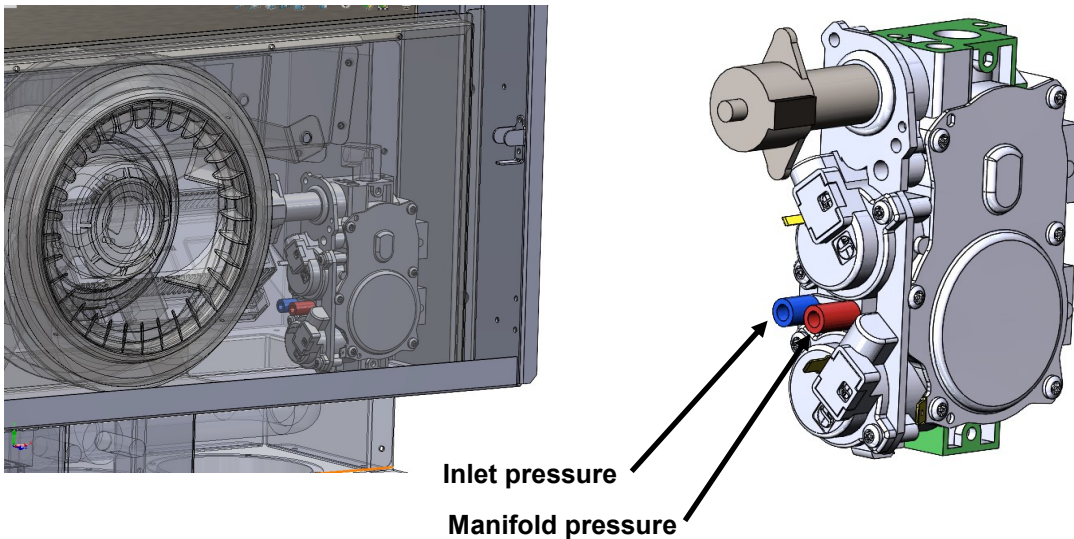
Made in Canada by / Fabrique au Canada par:
 Hybrid Energies A.T. Inc, Mission, B.C.
 HE-00001 July 2020



Labtest report 19724

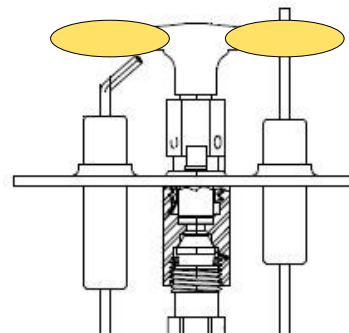
CHECKING INLET AND OUTLET GAS PRESSURE

1. Remove the front glass and circulating fan housing.
2. The pressure test taps are located on the valve. The taps are located in the gas valve front face. The inlet is marked 'IN' and the outlet is marked 'OUT'.
3. Loosen the set screw inside the tap with a screwdriver.
4. Connect a 1/4" (6 mm) rubber tube to the tap post and a manometer.
5. Verify that the readings obtained are within specs (as shown on the appliance rating plate)
6. Be sure to tighten the set screw inside the tap after you have finished taking pressure readings.
7. Check for leaks.

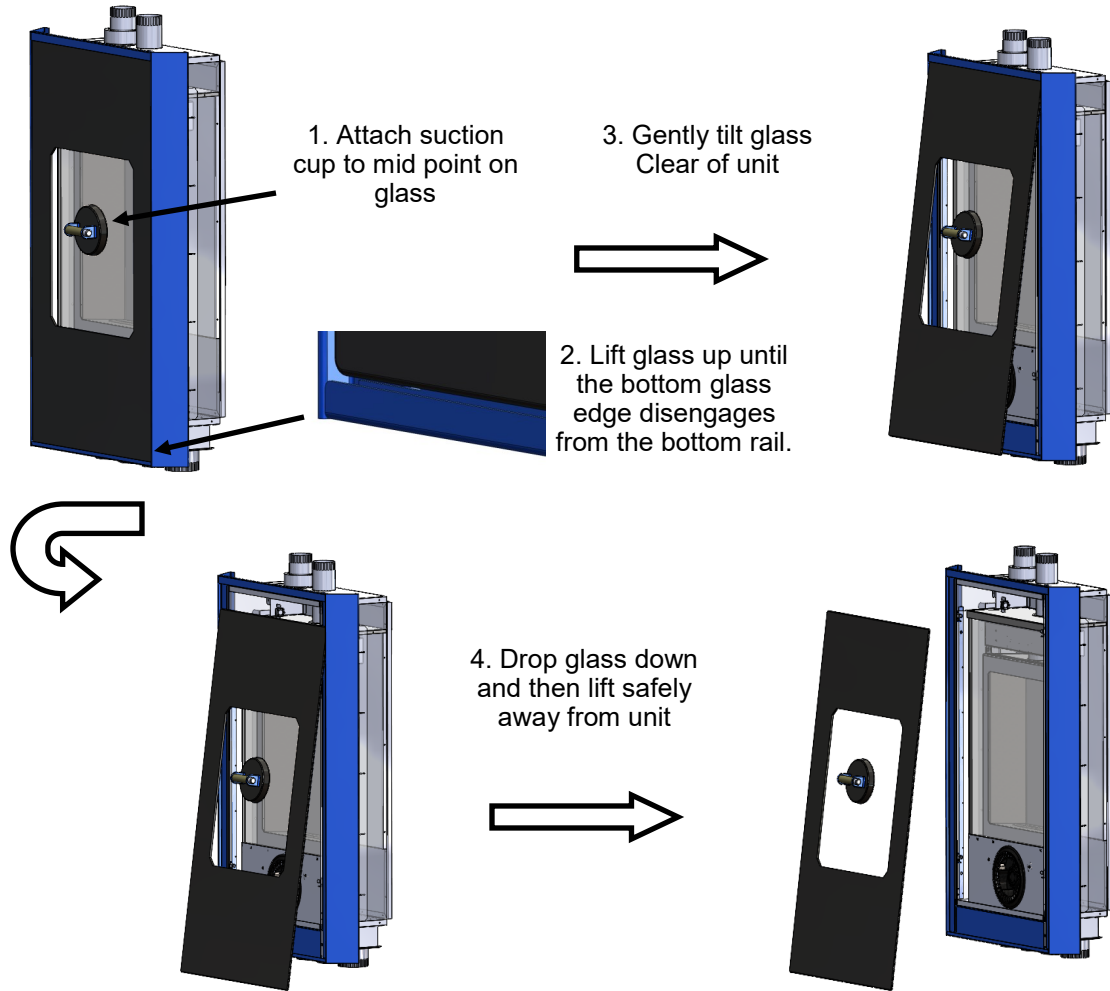


CHECKING AND ADJUSTING PILOT

The flame should not have yellow tips but should engulf the sensor. It can be adjusted by turning the screw marked "pilot" on the control valve.

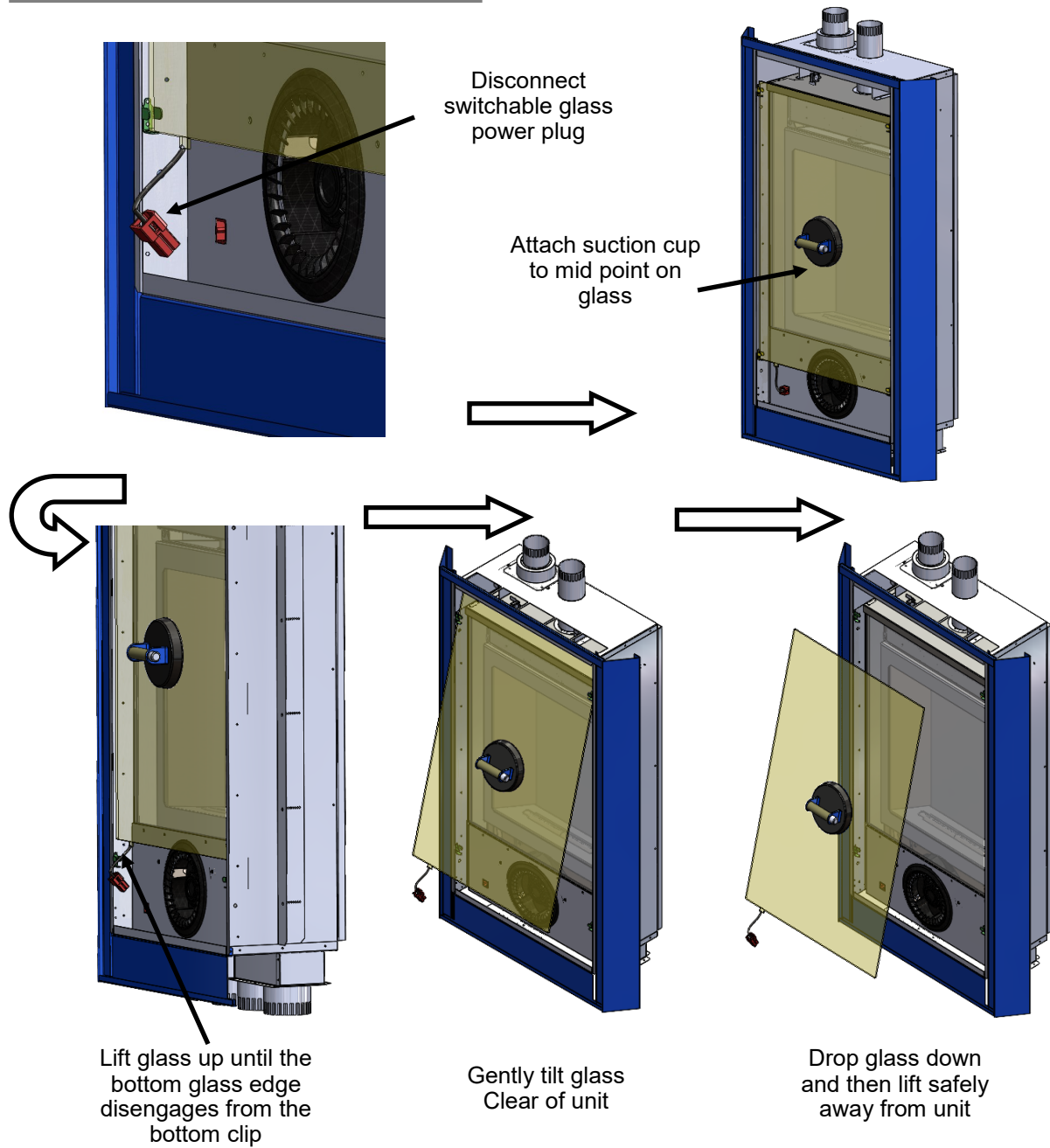


FRONT GLASS REMOVAL



- CAUTION**
- Never handle hot glass.
 - Make sure suction cup is engaged.
 - Edge of glass is fragile do not strike.
 - Place glass in safe place on soft material.

SWITCHABLE GLASS REMOVAL



CAUTION

- Never handle hot glass.
- Make sure suction cup is engaged.
- Edge of glass is fragile do not strike.
- Place glass in safe place on soft material.

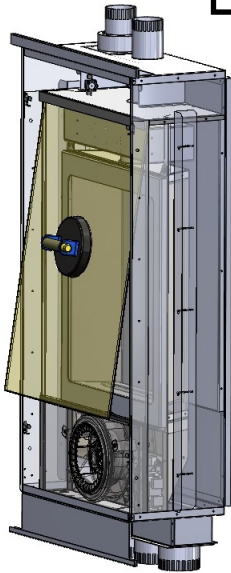
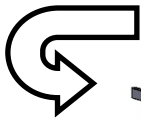
MID GLASS REMOVAL



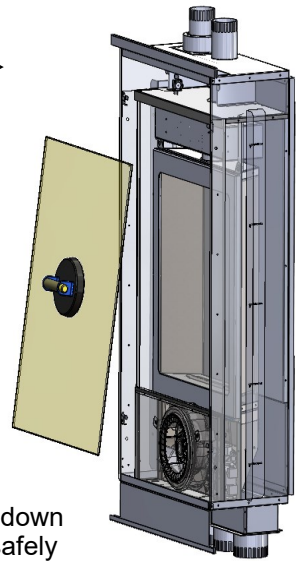
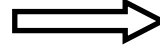
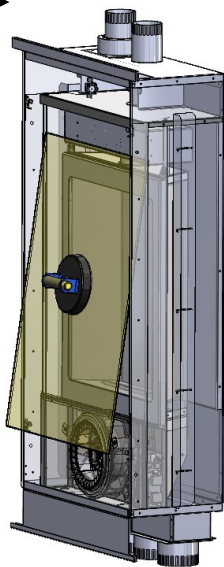
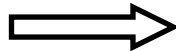
2. Lift glass up until the bottom glass edge disengages from the bottom rail.



1. Attach suction cup to mid point on glass



3. Gently tilt glass
Clear of unit

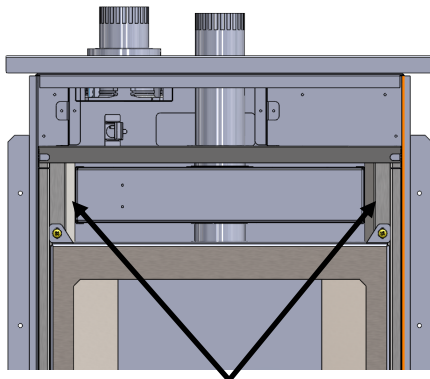


4. Drop glass down and then lift safely away from unit

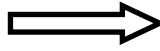
CAUTION

- Never handle hot glass.
- Make sure suction cup is engaged.
- Edge of glass is fragile do not strike.
- Place glass in safe place on soft material.

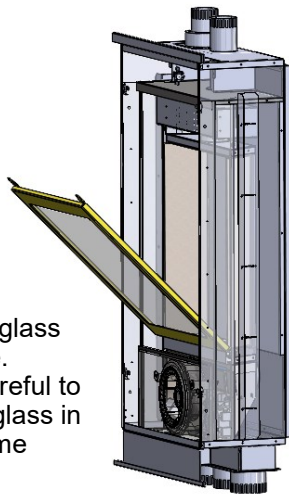
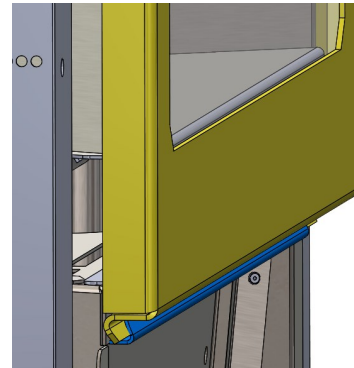
FIREBOX DOOR REMOVAL



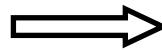
Remove the top door screws



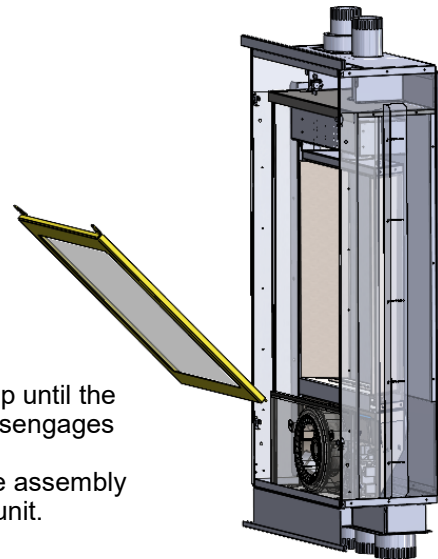
The door assembly locates into a bottom track.



Gently tilt glass frame.
Note: Be careful to secure the glass in the frame



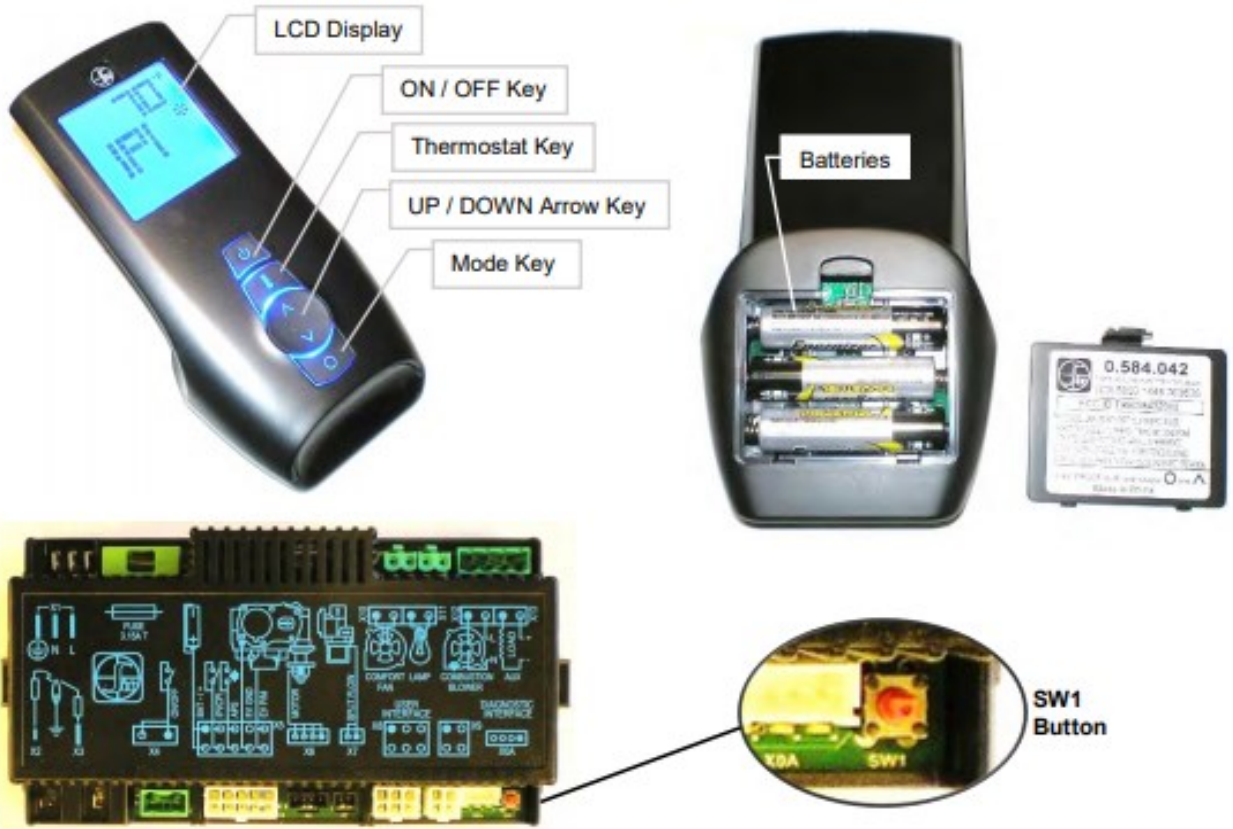
Lift the frame up until the bottom edge disengages from the track.
Carefully lift the assembly clear from the unit.



- CAUTION**
- Never handle hot glass.
 - Make sure suction cup is engaged.
 - Edge of glass is fragile do not strike.
 - Place glass in safe place on soft material.

INSTALLER: PLEASE MAKE SURE THAT CUSTOMER HAS THE INSTRUCTION BOOKLET SUPPLIED WITH THE SIT REMOTE ALONG WITH THE SUPPLEMENT FOR SWITCHING THE ELECTRIC ELEMENT ON/OFF

Proflame 2 Remote Control



Pairing Remote Control:

- Install the 3 AAA type batteries in the battery bay, located on the base of the Remote Control. Note polarity of the batteries and insert them as indicated.
- Connect the AC power supply to the IFC.
- Press the SW1 button on the IFC module so the IFC will “beep” and a red LED is illuminated to indicate that the IFC is ready to synchronize with a Remote Control within 10 seconds. With the batteries already installed in the Remote Control, push the ON button. The receiver will “beep” four times to indicate the Remote Control’s command is accepted.

The system is now initialized.

Resetting Proflame II Module for Manual Use

Should the transmitter get misplaced, broken or not wanted the PF2 Module can be reset to a manual system. A manual on/off switch or thermostat may be installed at the X4 connector (this connection is Jumped at the factory) no power is required.

The following sequence must be followed to reset the PF2 Module:

- Press the Red **SW1** button until you hear three beeps.

- Within 10 seconds press the **SW1** button again until you hear it beep.
- The PF2 module may now be turned on/off manually (x4 connector) by a switch (not supplied), the pilot will remain on CPI (continuous pilot ignition) mode, all other functions of main burner, fan and lights will be on the high setting.

Fan Startup and Shutdown Timings:

Fan setting is started with a delay of 5 minutes from the fireplace ignition and stopped with a delay of 12 minutes from the fireplace switching off.

Low battery power detection

When the Remote Control’s batteries are low, a Battery Icon will appear on the LCD display before all power is lost. When the batteries are replaced this icon will disappear.

Battery backup

The PF2 module is powered by line voltage (AC) with provision of battery backup in case of main power loss. Fans and lighting features will not function with the PF2 module is powered by battery backup. It is recommended that the 4 x AA batteries are changed before each heating season.

Cold Climates – CPI Setting - Proflame 2 Remote Control

Use the **CPI setting** during cold weather, otherwise the fireplace may have a hard time starting up and establishing a flame. The **CPI** (Continuous Pilot Ignition) setting will keep the firebox and fireplace exhaust vent warm during cold weather. When the firebox and exhaust vent are warm, exhaust gasses will readily flow out of the firebox.

If the firebox and venting are too cold, there is resistance due to the heavy cushion of cold air, and combustion gasses may not rise into the exhaust vent, thus causing the fireplace to cycle or **Lockout** (if this happens see **Lockout Reset Procedures** below).

NOTE: The pilot system for this appliance may be equipped with a **Seven Day Timer**, in which case the pilot flame will be extinguished if the main burner has not been turned ON for seven days. This Seven Day Cycle is reset every time the main burner is cycled ON / OFF and the pilot remains lit. If more than seven days has passed since the main burner has been cycled ON / OFF and the pilot is also out, follow the procedures described in this manual to light the pilot.



To switch from IPI to CPI Mode:

1. Turn the fireplace OFF using the **ON / OFF Key**.



2. Press the **Mode Key**. Display will appear as below.



3. Press UP on the **UP / DOWN Arrow Key**. Display will show **CPI**.

The module in the fireplace will beep once to confirm command.



TO RETURN TO IPI (INTERMITTENT PILOT) MODE:

Repeat steps one and two, and then press DOWN on the **UP / DOWN Arrow Key**.

The module in the fireplace will beep once to confirm command.

Lockout Reset Procedures – Proflame 2

If the fireplace has cycled too many times in a short period of time, it will shut down and become unresponsive to any new command.

The LED light on the Proflame 2 module in the fireplace will be flashing red.

This condition is a **Lockout** state.

Lockout Reset Procedure:

1. Disconnect power from the Proflame 2 module in the fireplace for 10 seconds. This includes removing the backup batteries.
2. Once the 10 second interval has passed, reconnect power and reinstall backup batteries. The pilot should now try to light.
3. If the fireplace does not come on, call your fireplace technician.

Proflame 2 Remote Control

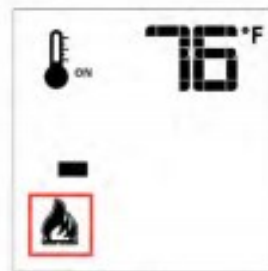
Remote-Flame Control

The proflame has six (6) flame levels. With the system on, and the flame level at the maximum in the appliance, pressing the Down Arrow Key once will reduce the flame height by one step until the flame is turned off.

The Up Arrow Key will increase the flame height each time it is pressed. If the Up Arrow Key is pressed while the system is on but the flame is off, the flame will come on in the high position. (Fig. 7 & 8) A single "beep" will confirm reception of the command.



Fig. 7: Flame Off



Flame Level 1



Fig. 8: Flame level 5



Flame Level Maximum

Room Thermostat (Transmitter Operation)

The Remote Control can operate as a room thermostat. The thermostat can be set to a desired temperature to control the comfort level in a room.

To activate this function, press the Thermostat Key (Fig. 1). The LCD display on the Transmitter will change to show that the room thermostat is "ON" and the set temperature is now displayed (Fig. 9). To adjust the set temperature, press the Up or Down Arrow Keys until the desired set temperature is displayed on the LCD screen of the Transmitter.

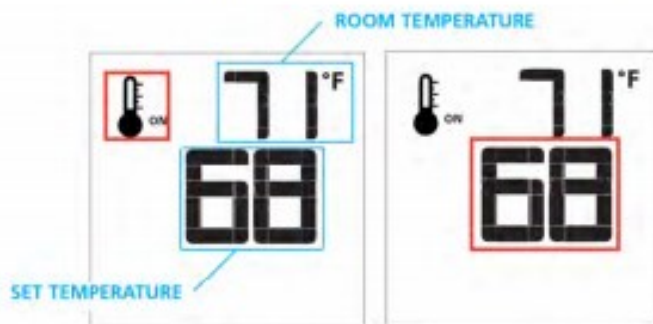


Fig. 9

Fig. 10

Smart Thermostat (Transmitter Operation)

The Smart Thermostat function adjusts the flame height in accordance to the difference between the set point temperature and the actual room temperatures. As the room temperature gets closer to the set point the Smart Function will modulate the flame down.

To activate this function, press the Thermostat Key (Fig. 1) until the word "SMART" appears to the right of the temperature bulb graphic (Fig. 11).

To adjust the set temperature, press the Up or Down Arrow Keys until the desired set temperature is displayed on the LCD screen of the Transmitter (Fig. 12).

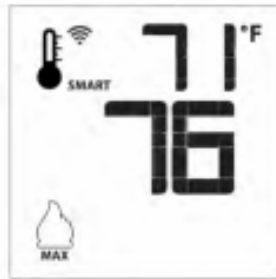


Fig. 11: Smart flame function



Fig. 12

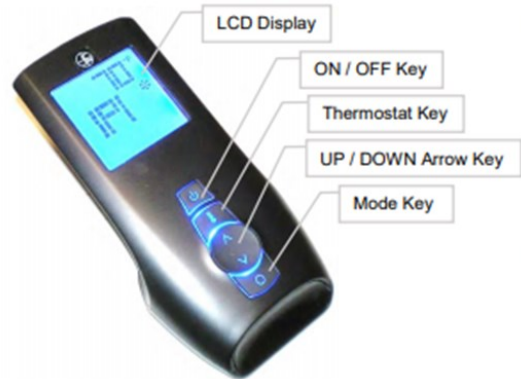
Note:
When Smart Thermostat is activated, manual flame height adjustment is disabled.

This appliance is equipped with an electric heating element. It can be turned on and off using the Proflame system. To activate this function use the mode key to select AUX. Use the Up/Down keys to select heating element on/off. When this function is selected it turns on the electric element automatically turns off the gas burner.

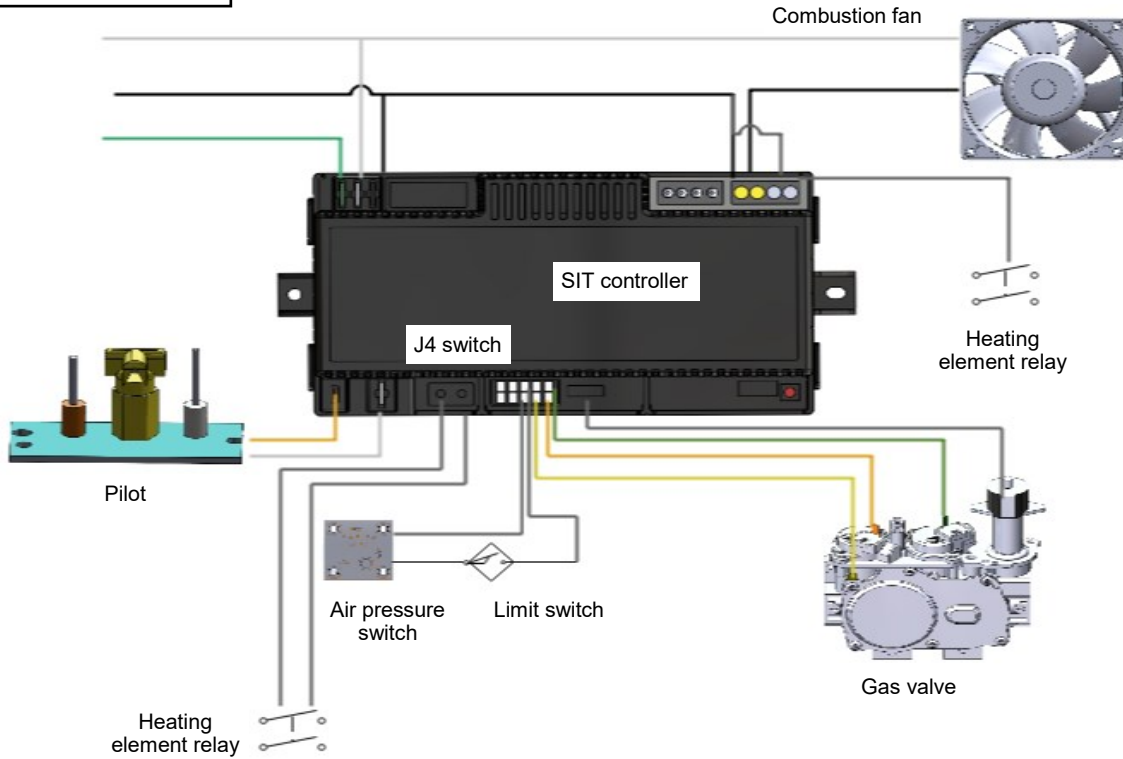
Note: This means only gas burner or electric element may be on, not both together.



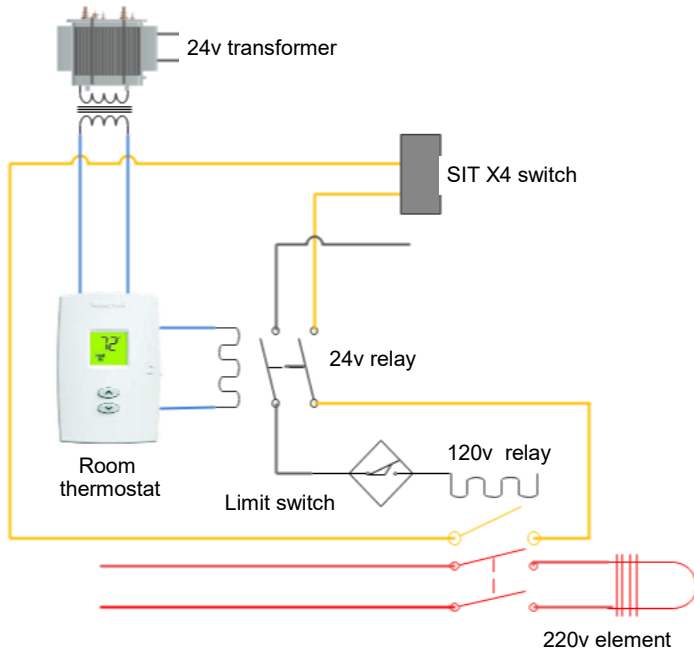
Aux (electric on/off)



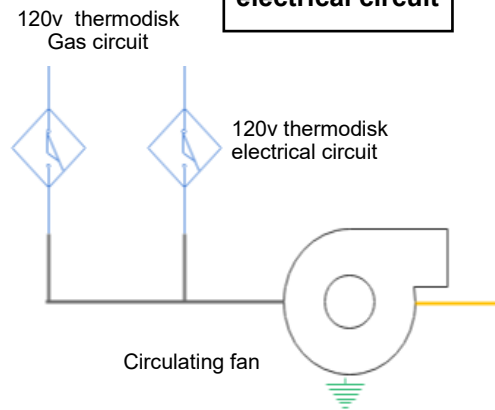
Gas electrical circuit



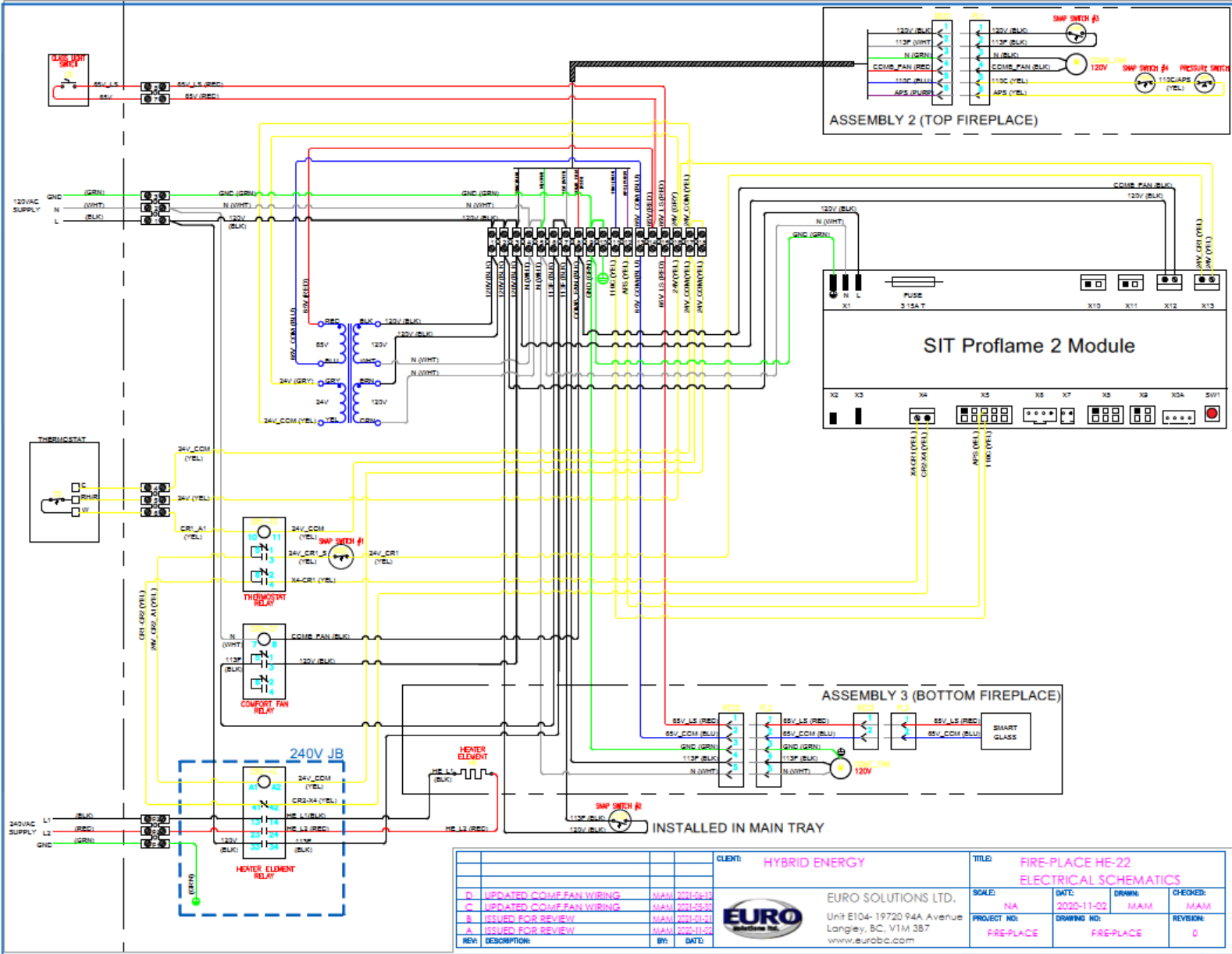
Heating element and thermostat circuit



Circulating fan electrical circuit



Electrical circuit diagram



CLIENT: HYBRID ENERGY			TITLE: FIRE-PLACE HE-22 ELECTRICAL SCHEMATICS			
EURO SOLUTIONS LTD. Unit E104-19720 94A Avenue Langley, BC, V1M 3B7 www.eurobc.com			SCALE: NA	DATE: 2020-11-02	DRAWN: MAM	CHECKED: MAM
PROJECT NO: FIRE-PLACE			DRAWING NO: FIRE-PLACE			
REV: DESCRIPTION D UPDATED COMF FAN WIRING C UPDATED COMF FAN WIRING B ISSUED FOR REVIEW A ISSUED FOR REVIEW			BY: DATE MAM 2021-06-13 MAM 2021-05-20 MAM 2021-01-21 MAM 2021-11-02			
			REVISION: 0			

MAINTENANCE**CAUTION:**

Do not conduct maintenance on the appliance while it is operating or while it is still hot.

CLEANING THE APPLIANCE

The exterior painted surfaces, glass and plated trims may be cleaned with a soft, non-abrasive cloth and water or a suitable, mild, non-abrasive cleaner.

Regularly:

- Frequent cleaning of the glass is required. Hybrid Energies recommends using a good quality “gas fireplace” glass cleaner that is available at any hearth retail location. **DO NOT CLEAN WHILE HOT.**
- Clean and remove any lint accumulations or debris from the grills and in any combustion and convection air passage ways.
- Keep the appliance area free from combustible materials, such as paper, wood, clothing, gasoline and flammable solids, liquids and vapors.
- Visually check the height and color of the burner and pilot flames.

Every 2 to 3 months:

- Remove the glass firebox door and clean the inside of the glass with a good quality “gas fireplace” glass cleaner. **DO NOT CLEAN WHILE HOT.**

Once a year, have a qualified service technician:

- Completely inspect the appliance and the venting system. If the vent pipe or seal is found to be defective, replace and or reseal
- Clean and remove any lint accumulations or debris in the firebox, on the burners, on the pilot, at the primary air opening, and in any combustion and convection air passageways.
- Check the safety system of the gas valve and the appliance.

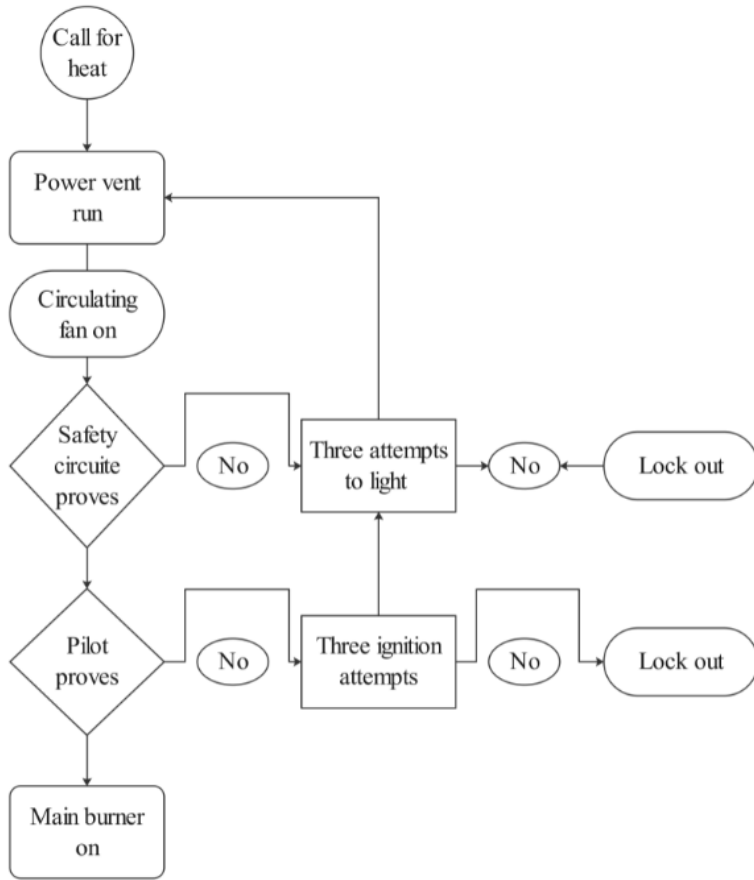
WARNING: All parts removed or disturbed, including guards and grills, must be properly replaced after maintenance. Service and repair must be conducted by a qualified service person. If these instructions are not followed, a fire or explosion may result, causing property damage, personal injury or loss of life.

SERVICING UNDER WARRANTY

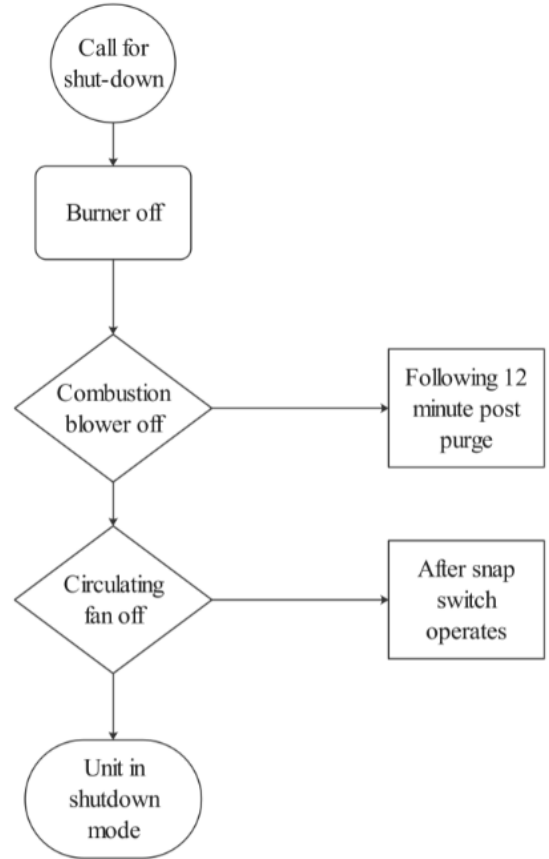
Before servicing, read the terms and conditions of the Hybrid Energies warranty at the back of the manual. Contact the authorized Hybrid Energies dealer where you purchased the appliance from and provide them with details of the problem, along with the initial installation information (from the front of this manual).

WARNING: Servicing of this appliance **must be conducted by a qualified service technician**. Improper servicing, adjustment or alteration of this appliance may cause property damage, personal injury or loss of life. All servicing should be conducted with the appliance cold. All replacement parts must be authorized by Hybrid Energies for suitability.

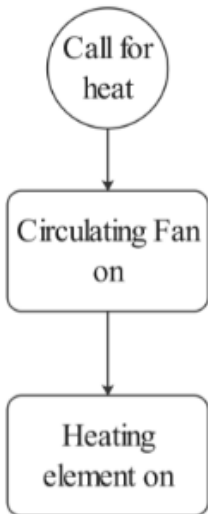
Gas on Cycle



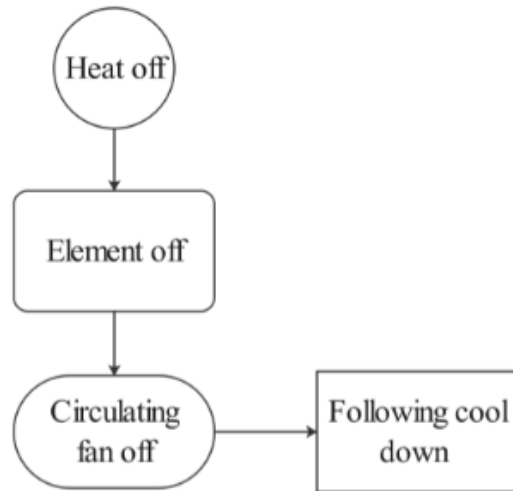
Gas off cycle



Heating element on cycle



Heating element off cycle



FAULT FINDING CHARTS

Gas System

PROBLEM	POSSIBLE CAUSE	ACTION REQUIRED
Unit Does not fire	Check thermostat, remote, breaker are calling for heat	Switch on all sources call for heat.
Combustion fan does not start	Faulty SIT controller, pressure switch or limit switch.	Check pressure switch is in start position (contact Normally open). Check limit switch closed. Check power to power vent motor.
Combustion fan starts but no fire.	Faulty pressure switch or blocked combustion air inlet and or blocked combustion vent.	Check pressure switch closes on fan start. Check air line to pressure switch not blocked.
Pressure switch makes but no fire.	Faulty SIT controller or pilot not igniting.	Replace controller. Check pilot for spark. Faulty pilot ignitor or blocked pilot.
Pilot ignites but burner fails to ignite.	Faulty SIT board or pilot sensor.	Check board (replace if required). Check pilot probes clean and flame picture good.
Unit fires but air circulation fan does not start.	Faulty air circulating fan	Check 120v power to thermodisk and through to circulating fan.
Unit fires but shuts down after no circulating fan	Check limit switch not tripped and fault as above for faulty fan.	Reset limit switch and check system for reason for tripping.

Electrical System

PROBLEM	POSSIBLE CAUSE	ACTION REQUIRED
Element does not come on.	Check thermostat, remote, breaker are calling for heat. Faulty element.	Switch on all sources call for heat. Replace faulty element.
Circulating fan does not start	Faulty fan.	Replace fan.
Circulating fan does not shut off	Check room temperature not high. Check thermodisk thermostat not locked on closed position.	Replace thermodisk.
Poor circulation to warm air ducts.	Block or closed warm air ducts. Circulating fan not operating correctly	Replace circulating fan. Clean ducts and check open.

Replacement Parts

The following replacement parts are available from your authorized Hybrid Energies dealer:

Description	Part Number
Gas Valve	HE-0010
SIT Controller	HE-0015
SIT Wiring Harness	HE-0017
Pilot Assembly	HE-0020
24v Transformer	HE-0025
Valve Tray—Relay Switch	HE-0030
Combustion Blower	HE-0040
Pressure Switch	HE-0042
Hi Limit—Gas System	HE-0044
Fan Switch—Gas System	HE-0045
Electrical Element	HE-0046
Hi Limit Electric Heater	HE-0047
Fan Switch Electrical Heater	HE-0048
Firebox Door Assembly	HE-0050
Mid Glass Assembly	HE-0052
Switchable Glass Assembly	HE-0054
Front Glass Assembly	HE-0060
Decorative Plaque	HE-0070
Propane Conversion Kit	HE-P-16

Glazing components shall only be replaced as a complete unit as supplied by the manufacturer
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FREQUENTLY ASKED QUESTIONS

Listed below are some frequently asked questions regarding Hybrid Energies Gas Fireplaces. If you have questions that are not listed below, or are not answered in this manual, please contact your Authorized Hybrid Energies Dealer.

Q. My glass has a condensation “fog” when the appliance is first lit.

A. Condensation is normal and will disappear in a few minutes after the glass is heated.

Q. I have a white “film” on my glass. What is the best way to clean the inside of the glass.

A. Frequent cleaning of your glass is recommended. Hybrid Energies recommends using a good quality “gas fireplace” glass cleaner that is available at all authorized dealers. Do not use abrasive materials, and do not clean the glass or the appliance when the unit is hot.

Q. How do I care for my plated trims.

A. Hybrid Energies recommends a cleaning with a damp cloth. **DO NOT** use chemical cleaners as they may harm the finish, and void your warranty. **NOTE:** If the top louvers, or top overlay starts to discolor, check the door gasket seal and replace if necessary.

Q. I hear a “ticking”, “cracking” or “pinging” sound when my fireplace is running, and after it is turned off.

A. The different gauges of steel used to manufacture your fireplace will expand and contract at different rates when your fireplace is on, and will continued as your fireplace completes its heating function. You will likely hear these same sounds more on start up and shut down. This is normal for steel fireplaces.

Q. When my appliance is OFF and my pilot light is lit, I hear a “whisper” sound.

A. The lit pilot can make a small noise. Sometimes in extreme wind conditions you may be able to hear air entering into the firebox chamber.

Q. I hear a “click” when my main burner turns ON or OFF.

A. Your Gas Control Valve will make a clicking sound when it opens to allow gas to flow to the main burner. This is a normal part of the operating system.

Q. Can I burn wood and other materials in my gas fireplace.

A. No! Burning anything other than natural or LP gas in a gas fireplace or stove will create a potential fire hazard and present a danger to your home and its occupants. Only burn the gas fuel for which the unit was originally designed.

Q. Can I shut my pilot off in the summer?

A. You will save energy by turning off the pilot light if you are not using your appliance for the hot summer months. Remember to relight it before you want to use the appliance for the first time in the fall. Refer to your owners manual for lighting instructions.

HYBRID ENERGIES A.T. INC

This Limited Warranty is made by **HYBRID ENERGIES** A.T. Inc, hereinafter referred to as “Hybrid Energies”. Hybrid Energies warrants to the original purchaser of an Hybrid Energies gas burning heater (s) that the product will be free of defects in materials and workmanship under normal use and service, for a “lifetime”.

INCLUSIONS: “LIFETIME LIMITED WARRANTY“ (time disclaimer or original purchaser)

- All heat exchangers, combustion chamber, burner tubes and pans.
- Ceramic Glass against thermal breakage.(ie: flaking)
- NOTE: Discoloration and some minor movement of certain parts are normal and are not a defect and therefore, not covered under warranty.

The above will be covered “parts & labor” to the original purchaser for FIVE years and “parts” only thereafter from original date of purchase.

INCLUSIONS: “FIVE YEAR LIMITED WARRANTY”

- Five year limited warranty on the Burner System. Warranty will cover any defective burner if defect is deemed as original by the manufacturer.

The above will be covered “parts & labor” to the original purchaser for TWO years and “parts” only thereafter from original date of purchase.

INCLUSIONS: “ONE YEAR LIMITED WARRANTY”

- All outer trims and accessories against tarnishing.
- All outer trim accessories against tarnishing and paint defects.
- Rocker switches, spill switches and wiring to them.
- Gas control valves, pilot assemblies including telectrodes, and igniters.

The above will be covered “parts & labor” to the original purchaser for ONE year from date of purchase.

EXCLUSIONS:

- Tempered Glass is under warranty for two years to the original purchaser from date of purchase.
- Travel time or mileage to original purchasers residence. **Hybrid Energies** suggests that you pre-arrange travel expenses with your Authorized Hybrid Energies Dealer.

WHAT TO DO IN THE EVENT OF A PROBLEM:

- Thoroughly read your manual.
- If you cannot solve the problem, contact your Hybrid Energies Dealer or representative.
- When calling for help please have the following information:

Model of your Fireplace	Serial Number	Place of Purchase
Date of Purchase	Problem Description	

- NOTE: Warranty may be void if work is carried out by an unqualified person (s). Only original Hybrid Energies parts may be used. Please consult your Hybrid Energies dealer or representative if in doubt about a replacement part (s).

OBTAINING WARRANTY SERVICE:

To obtain warranty service, the original purchaser shall return the defective part (s) to the original authorized Hybrid Energies selling dealer transportation prepaid, along with the serial number of the appliance and proof of purchase. Any defective part, in our judgment, will be repaired or replaced at Hybrid Energies’s discretion. The dealer must obtain approval from Hybrid Energies before any repairs are made.

WARRANTY LIMITATION:

THIS LIMITED WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED AS TO QUALITY, MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

The appliance is only warranted for the use as intended by the installation and operating instruction and local building codes. The warranty will not cover damage due to accident, misuse, abuse, alteration, improper installation or “Acts Of God”.

This limited warranty is void unless the appliance is installed by a qualified installer, in accordance with the instructions furnished with the appliance. Some Provinces or States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to the original purchaser. Any damage resulting from defects in this product, is limited to the replacement of the defective part (s) and does not include incidental and consequential exposures sustained in connection with the product. This includes facing (s), mantle (s), cabinet (s), tile (s) or any other finishes resulting from removal of any gas appliance. This warranty is limited to residential use only and gives the consumer specific rights. These rights may vary from State to State or Province to Province.



WARRANTY REGISTRATION

HYBRID ENERGIES TECHNOLOGIES

FOLD DOWN AT LINE

FOLD DOWN AT LINE & TAPE CLOSED

Model # : _____ Serial #: _____ Date Installed: _____ / _____ / _____

Name: _____ Address: _____
mm dd yyyy

City: _____ State/Prov: _____ ZIP: _____ Phone: (_____) _____

Dealer's Name & Address: _____

City: _____ State/Prov: _____ ZIP: _____ Phone: (_____) _____

Installer's Name & Address: _____

City: _____ State/Prov: _____ ZIP: _____ Phone: (_____) _____

Why did you choose this product? _____

Thank you for purchasing our product and filling out this warranty card.

CUT ALONG LINE

CUT ALONG LINE

CUT ALONG LINE