

Registration no.



made for fire made for life

SCAN 70 DIRECT VENT GAS INSERT / ZC-FIREPLACE

INSTRUCTIONS FOR INSTALLATION AND USE

WARNING:

If the information in these instructions is not followed exactly, fire or explosion may result causing property damage, personal injury or loss of life

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

- **WHAT TO DO IF YOU SMELL GAS:**
 - **Shut off the gas supply.**
 - **Open windows; do not touch any electrical switches.**
 - **Do not try to light any appliance, extinguish any open flame.**
 - **Do not use the 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, phone the fire department.**

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

SAVE THIS MANUAL FOR FUTURE REFERENCE.

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

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

Tested &
Listed by  Beaverton
Oregon U S A
O M N I - T e s t L a b o r a t o r i e s , I n c .

**April 2005
KROG IVERSEN & CO. A/S 5492 VISSENBJERG DENMARK**

1. Introduction

We welcome you as a new owner of a Scan 70 gas insert / ZC-fireplace. In purchasing a Scan 70 gas insert / ZC-fireplace you have joined the growing ranks of concerned individuals whose selection of energy systems reflects both a concern for the environment and aesthetics. The Scan 70 gas insert / ZC-fireplace is one of the finest home inserts / ZC-fireplaces the world over. This manual will explain the installation, operation and maintenance of the Scan 70 gas insert / ZC-fireplace. Please familiarize yourself with the owner's manual before operating your gas insert / ZC-fireplace and save the manual for future reference. Included are helpful hints and suggestions that will make the operation and maintenance of your new insert / ZC-fireplace an easier and more enjoyable experience. We offer our continued support and guidance to help you achieve the maximum benefit and enjoyment from your Scan 70 gas insert / ZC-fireplace.

Important information:

No other Scan insert / ZC-fireplace has the same registration number as yours. The registration number is fixed to the insert / ZC-fireplace and is located on the instrument panel located on the right side of the gas regulator.

To receive full warranty coverage, you will need to show evidence of the date you purchased your insert. Do not mail your sales receipt to us.

We suggest that you attach your Sales receipt to this page so that you will have all the information you need in one place should the need for service or information occur.

We recommend that you fill in the information below.

Model: Scan 70 gas insert / ZC-fireplace
Registration no.
Purchase date:
Purchased from:
Service Phone no:
Gas supplier phone no:

2. Safety precautions

ATTENTION CONSUMER:

In order to ensure safe and effective installation, only a qualified agency, individual, firm, corporation, or company that is experienced in the installation must install this insert; repair and servicing of this type of insert and is familiar with the building codes and installation techniques appropriate in your area. Contact your insert dealer or local gas supplier for the name of a qualified service person.

INSTALLER:

Please read this manual carefully before you begin the installation procedures. Failure to follow instructions may result in property damage, bodily injury or loss of life. This manual contains important user information. Keep this manual with the insert after installation is complete.

Contact your local building officials to obtain a permit and information on any installation restrictions or inspection requirements in your area.
Notify your insurance company of this insert as well

It is imperative that control compartments, screens, or circulating air passageways of the gas insert is kept clean and free of obstructions.
These areas provide the air necessary for safe operation.

Do not store or use gasoline or other flammable liquids in the vicinity of this insert.

If the flame becomes sooty dark orange in color or extremely tall, do not operate the insert. Call your dealer and arrange for proper servicing.

Do not operate the insert if it is not operating properly in any fashion or if you are uncertain. Call your dealer for a full explanation of your insert and what to expect.

Do not use this insert if any part has been under water. Immediately call a qualified service technician to inspect the insert and to replace any part of the control system and any gas control, which has been under water.

Do not place clothing or other flammable items on or near the insert. Because a thermostat can control this insert there is a possibility of the heater to turning on and igniting any items placed on or near it.

The viewing glass should only be open for conducting service or maintenance.
Any safety screen or guard removed for servicing must be replaced prior to operating the insert.
Do not operate with the glass removed or damaged.

Operate the insert according to the instructions included in this manual.
If the main burner does not start correctly, turn the gas off at the gas control valve and call your insert dealer for service.

This insert is not for use with solid fuel.
Do not place anything inside the firebox (except the included gas logs, baffle plate and fire back plates). If the log set is damaged, replace with an original Scan log set.

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

Instruct everyone in the house how to shut gas off to the insert and at the gas main shut off valve. The gas main shut off valve is usually next to the gas meter or propane tank and requires a wrench to shut off.

**Start the insert using the built-in piezo igniter. Do not use matches or any other external device to light your insert.
Never remove, replace, modify or substitute any part of the insert unless instructions are given in this manual. A trained technician must do all other work. Do not modify or replace orifices**

The pilot flame must contact the thermopile and thermocouple (see page 34) if it does not, turn on the gas control valve to OFF and call your insert dealer.

Do not throw this manual away. This manual has important operating and maintenance instructions that you will need at a later time. Always follow the instructions in this manual.

If the insert is equipped with optional blower, which requires 120-volt power, do not remove the grounding prong from the plug. Do not route the electrical cord in front of, over, or under the insert.

Krog Iversen & CO grants no warranty, implied or stated, for the installation or maintenance of your insert, and assumes no responsibility of any consequential damage(s). Please see page 54 Warranty conditions.

The insert, 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, CSA C22.1

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3. General specifications

3.1. Packing list

- Base unit
- Log set (consist of 4 pieces)
- Hexagon keys, wrenches
- Door with or without front glass
- Coaxial or co-linear venting configuration
- Remote control (optional)

3.2. Features

- Works during power outages (millivolt system)
- High efficiency
- Optional thermostat or remote control with thermostat.
- Built in blower for efficient heat distribution
- Convenient operating controls
- Variable rate heat output
- Low maintenance

3.3. Heating specifications

Approximate heating capacity (in square ft.)*	500-1700 with blower, 500-1200 without.
Maximum input	30000 BTU
Output range in BTU per hour	14700 to 21000
Steady state efficiency**	up to 71%
AFUE (without blower)	up to 70%

* Heating capacity will vary depending on the floor plan, degree of insulation, and the outside temperature.

** Efficiency rating is a product of thermal efficiency rating determined under continuous operation independent of installed system.

3.4. Weight

120 lbs.

3.5. Electrical

Electrical specification for blower: 115 volt 60 Hz (66 watts on high).

3.6. Fuel

This insert / ZC-fireplace is shipped in natural gas (NG) configuration but may be converted to propane (LP) using a LP conversion kit. The sticker on top of the gas control valve will verify the correct fuel.









3.7. Installation (for qualified installer only)

THIS INSERT / ZC-FIREPLACE MUST BE INSTALLED AND MAINTAINED BY A QUALIFIED SERVICE AGENCY.

The installation and repair of this insert / ZC-fireplace must be done by a qualified service agency. Failure could result in an unsafe or hazardous installation, which may result in a fire, explosion, property damage, personal injury or loss of life.

This insert / ZC-fireplace should be inspected before use and at least annually. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners and circulating air passageways of the insert / ZC-fireplace be kept clean.

3.8. Installation warnings

-  Failure to follow all of the requirements may result in property damage, bodily injury, or even death.
-  This insert / ZC-fireplace must be installed by a qualified installer who has gone through a training program for the installation of direct vent gas inserts / ZC-fireplaces.
-  This insert / ZC-fireplace must be installed in accordance with all local codes, if any; If not, in USA. Follow ANSI Z223.1 and NFPA 54 (88). In Canada follow CAN/CGA B-149.
-  Manufactured or mobile home installation must conform with: USA, Manufactured home construction and safety standard, title 24 CFR, part 3280 or when such a standard is not applicable ANSI/NCBCS A 225.1; In Canada, CSA Z 240.4. This insert / ZC-fireplace may be installed in manufactured housing only after the home is site located.
-  This insert / ZC-fireplace is designed to operate on natural gas or propane (LP).
-  All exhaust gases must be vented outside the structure of the living-area. Combustion air is drawn from outside the living-area structure.
-  Notify your insurance company before hooking up this insert / ZC-fireplace.
-  The requirements listed below are divided into sections. All requirements must be met simultaneously. The order of installation is not rigid – the qualified installer should follow the procedure best suited for the installation.

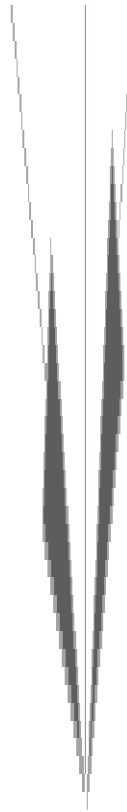
3.9. Dimer

Installation i

Width: 30"

Hight: 22 $\frac{1}{2}$ "

Depth: 14 $\frac{7}{8}$ "



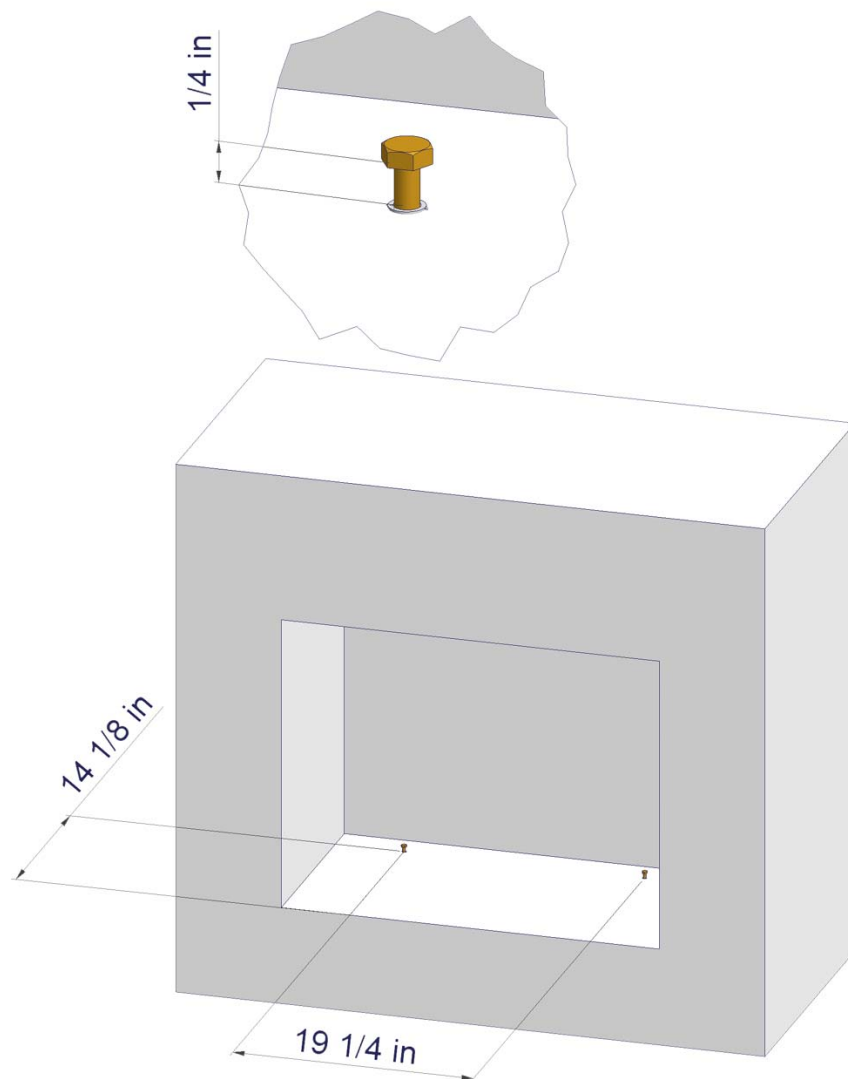
3.10. Securing the insert / ZC fireplace to the construction.

Due to the shift in center of gravity when the door is opened, it is necessary to secure the insert / ZC-fireplace to the construction.

To secure the insert / ZC-fireplace, drill two holes as shown in Figure 1.

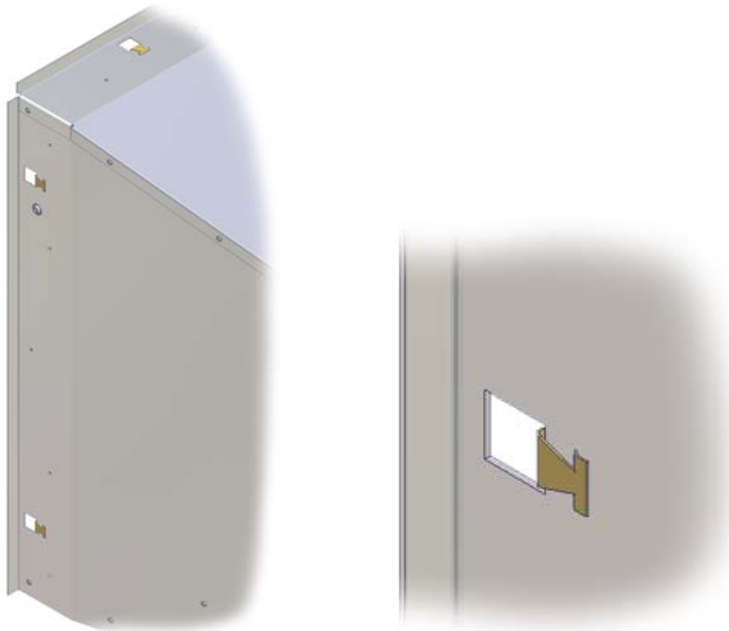
- On a stone or masonry construction use a 5/16 drill. Use the screws and plugs delivered. Screw in the screws to 1/4" above the surface.
- On wood or other soft materials, use a 5/32 drill. Use the only the screws delivered. Screw in the screws to 1/2" above the surface.

Figure 1



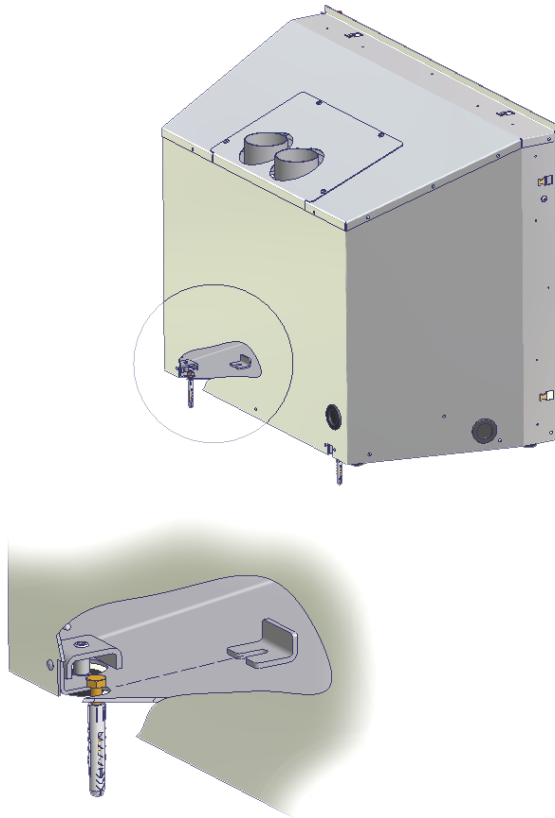
Before the units is put into place, the six springs supporting the trim must be mounted as shown in Figure 2.

Figure 2



When the unit is in place, slide the two forks, shown in the detail view in Figure 3, under the screw heads and tighten the screws. This will prevent the insert to tilt forward when the door is opened.

Figure 3



3.11. Additional items required

See page 15 for installation as insert into a non combustable structure or page 22 for installation as ZC-fireplace in a combustable structure.

3.12. High altitude

If the insert / ZC-fireplace is to be installed in more than 2000 ft. above sea level it maybe necessary to change the orifice size in accordance with the table below.

To change the orifice in NG configuration to high altitude, take a standard LP orifice and drill it up in accordance with the table below.

To change the orifice in LP configuration to high altitude, it is necessary to have a special orifice part no. 3601067 and drill it up in accordance with the table below.

Hint: To start with, it's a good practice to drill the orifice opening at least two sizes smaller than called for.

Gas type	Feet	Orifice	Drill size
NG	2000 - 4500	2.60 mm	38
NG	4500 - 5500	2.55 mm	39
NG	5500 - 6500	2.50 mm	40
NG	6500 - 8500	2.45 mm	41
NG	8500 - 10000	2.35 mm	42
LP	2500 – 7500	1.50 mm	53
LP	7500 - 10000	1.40 mm	54

NOTE: In Canada you can install the insert / ZC-fireplace up to 4500 ft. without changing the orifice.

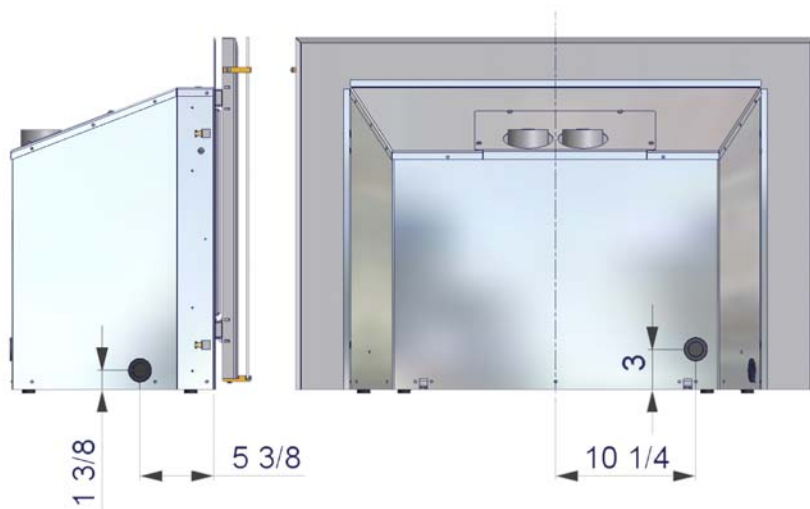
3.13. Gas line installation

The gas line must be installed in accordance with all local codes, if any: If not; follow current ANSI Z223.1 or NFPA 54 in USA and current CGA B 149 in Canada.

The insert / ZC-fireplace and gas control valve must be disconnected from the gas supply piping during any pressure testing of that system at test pressures exceed ½ psig (3.45 kPa). For pressures equal to or less than ½ psig (3.45 kPa), isolate the gas supply piping by closing the manual shutoff valve.

This insert / ZC-fireplace is designed for natural gas but can be converted to propane. Check the sticker on top of the gas control valve to verify the correct fuel is being used. See page 57.

- Leak test all gas line joints and the gas control valve prior to and after starting the insert / ZC-fireplace.
- The gas inlet accepts a 3/8" F.P.T. fitting.
- The location of the gas inlet is shown below.
- A manual shutoff valve is required for installation (it must be located within 3 ft. of the insert / ZC-fireplace).



3.14. Gas inlet pressure

With the insert / ZC-fireplace off the inlet pressure must meet the requirements listed in the table below.

If the pressure is not sufficient, make sure the piping used is large enough and the total gas load for residence does not exceed the amount supplied.

The supply regulator (the regulator that attaches directly to residence inlet or to the propane tank) should supply gas at the suggested input pressure listed below. Contact the local gas supplier if the regulator is at improper pressure.

Standard input pressure	
Natural gas	7" W.C. (1.74 kPa)
Propane	11" W.C. (2.73 kPa)

4. Installation as insert

Installation into a non combustible construction. Existing or new build.

Options:

- Vertical direct vent system (co-linear).
- Residential
- Straight or corner placement.
- Bedroom approved.

4.1. Insert placement requirements

- The Insert must be installed on a level surface capable of supporting the insert and vent system.
- Due to the high temperature of the insert, it should be located out of traffic and away from furniture and draperies. The insert must be placed so no combustibles are within, or can swing within 36" of the front of the insert (e.g. drapers, doors).

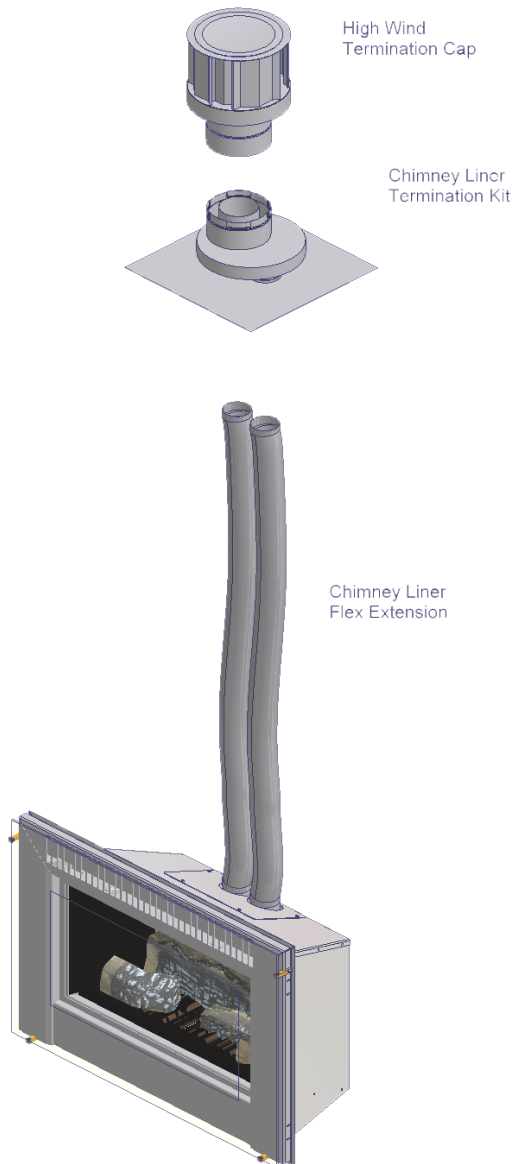
NOTE: We do not recommend the use of wallpaper next to this insert. Over time, radiant heat may cause the wallpaper to shrink, or may adversely affect the binders in the wallpaper adhesive.

4.2. Flex vent manifold assembly

For qualified installers only

- The gas appliance and vent system must be vented directly to the outside of the building, and never be attached to a chimney serving a separate solid fuel or gas-burning appliance. Each direct vent gas appliance must use its own separate vent system.
- Make sure the exhaust pipe on the heater connects to the exhaust portion of the cap. The illustration in Figure 4 shows how the flex liners should be attached.
- The exhaust vent must reline the entire length of the chimney and terminate above the chimney top.
- Be careful not to crimp or rupture the liner when bending it into chimney offsets.
- When installed, the vent must meet all of the vent manufacturer's requirements
- Make sure to order the following:
 - Simpson Dura-Vent Chimney Liner Flex Extension (part #2280).
 - Simpson Dura-Vent Chimney Liner Termination Kit (part #923GK).
 - Simpson Dura-Vent High Wind Termination Cap (part #991).

Figure 4



Before the manifold can be mounted, it is necessary to remove the baffle plate and damper plate.

Figure 5

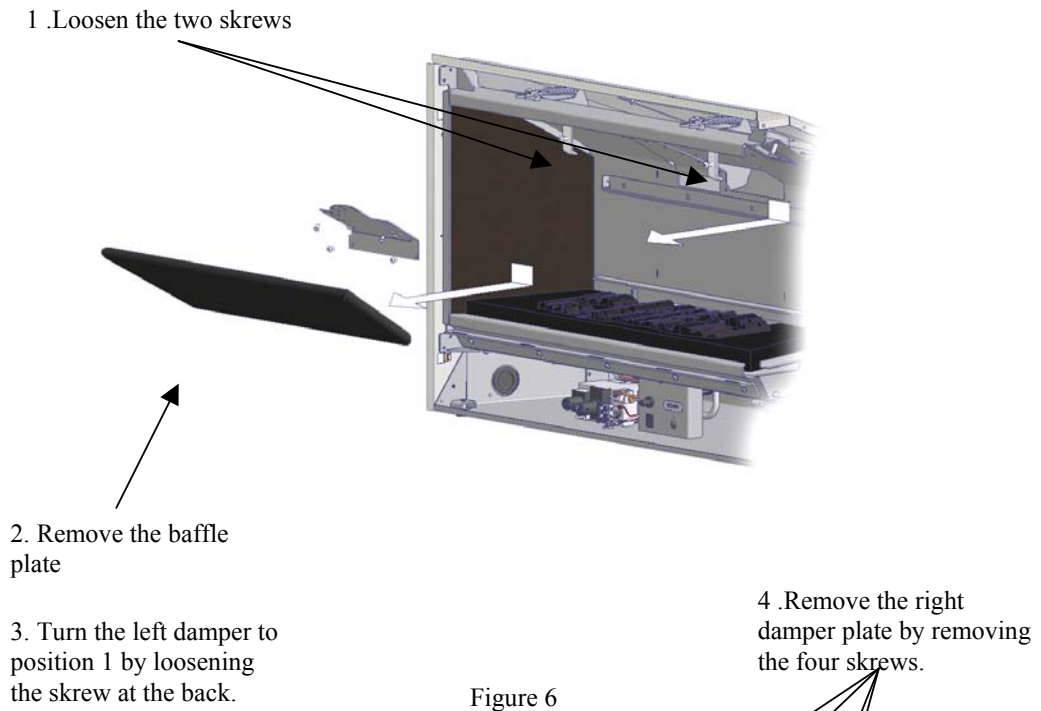
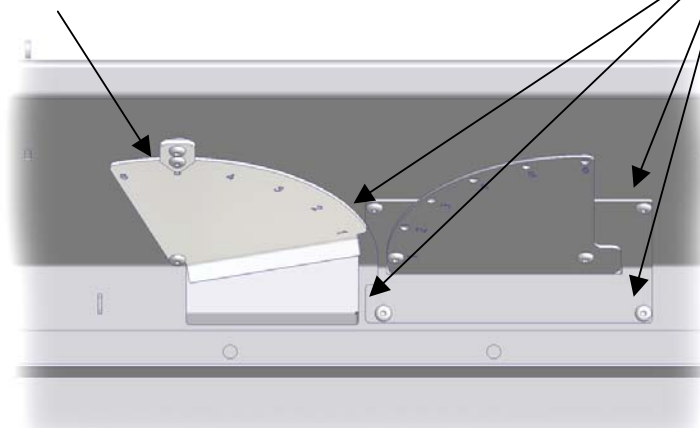
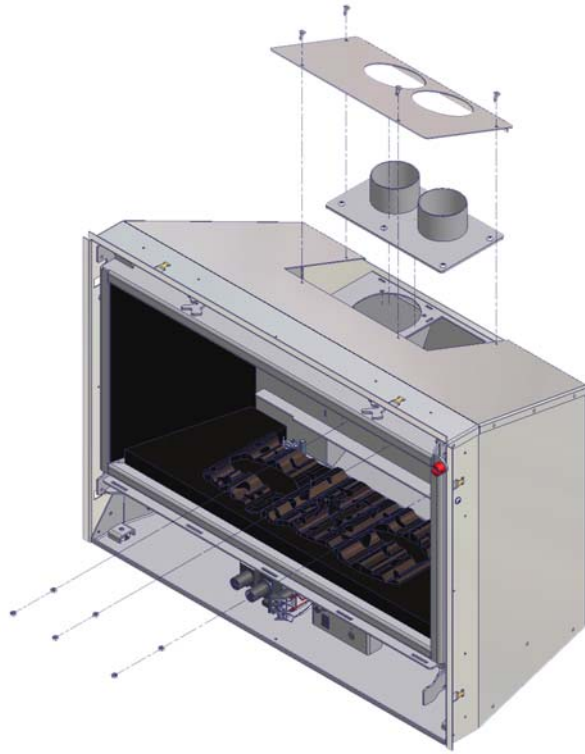


Figure 6



Place the co-linear manifold on top of the insert. Make sure the six pins goes through the holes. Tighten the six nuts, from the inside, to secure that the manifold is firmly fixed and airtight. Fix the cover with four screws.



Mount the baffle plate and damper plate in opposite order than shown in Figure 5 and Figure 6.

Figure 7

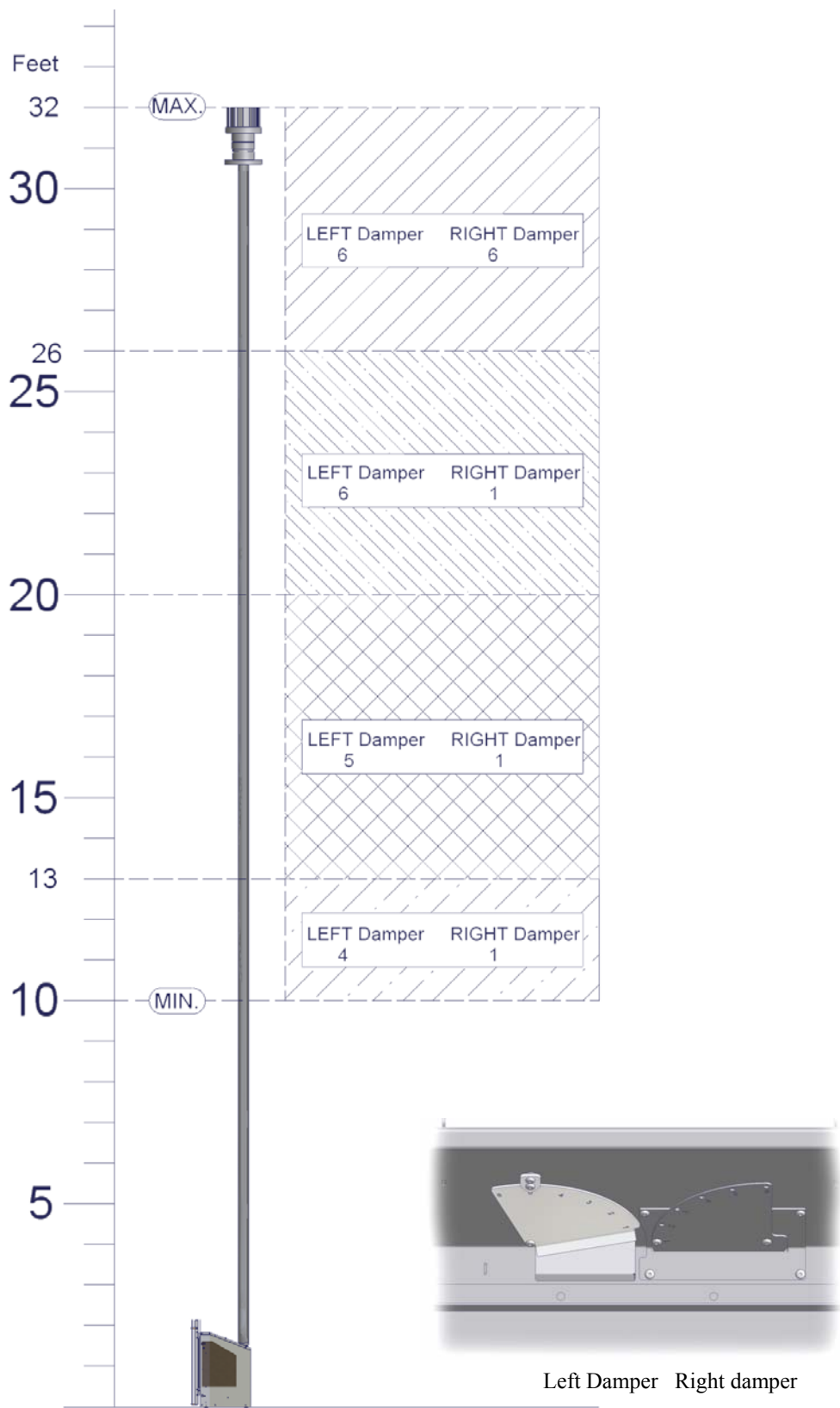


4.3. Vent damper adjustment

There is a damper system built into the insert / ZC-fireplace in order to control the flow rate of exhaust gases. This ensures proper flames for the wide variety of vent configurations. Depending upon the vent configuration, you may be required to adjust the damper within the insert / ZC-fireplace, and it should be done before connecting the venting system to the insert / ZC-fireplace.

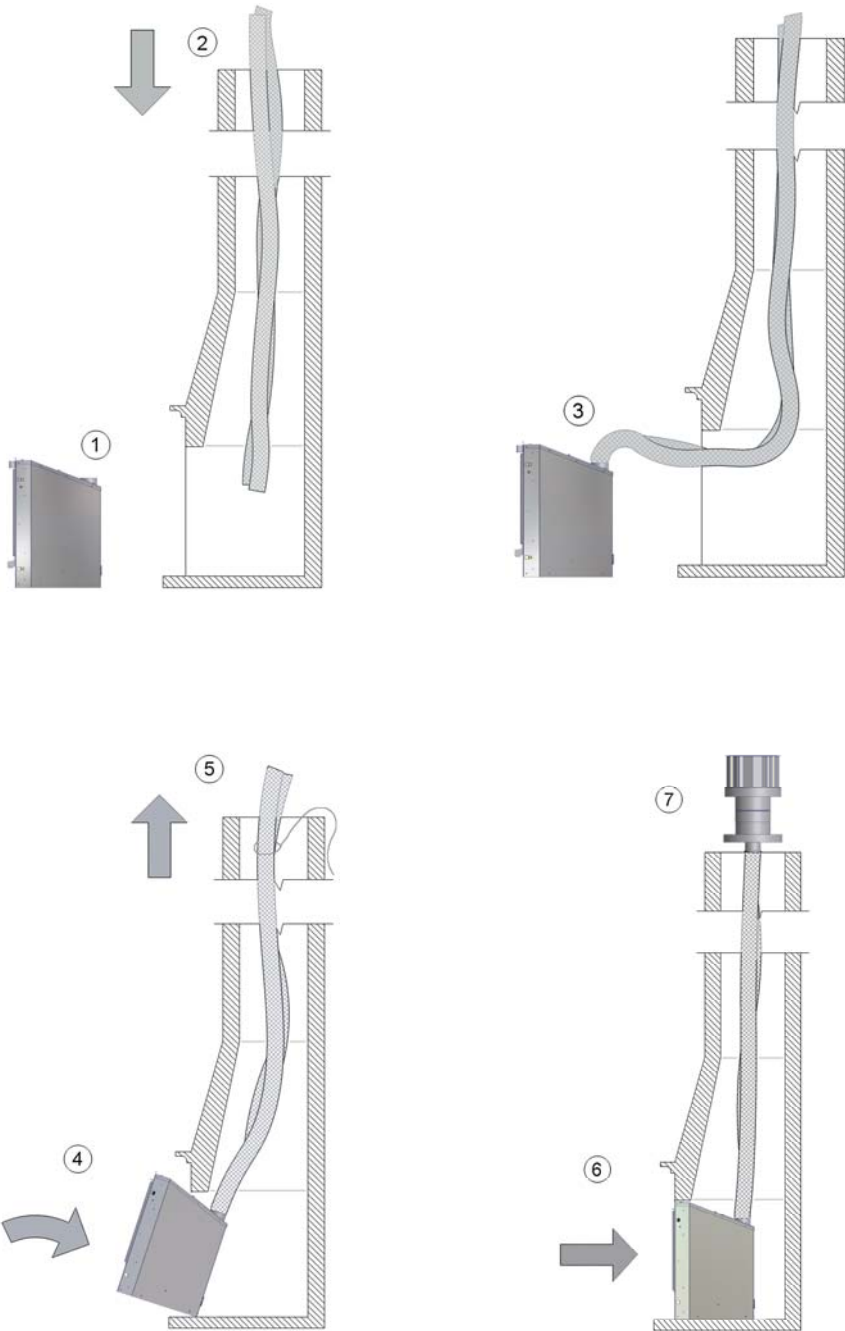
Consult the vent run specifications on page 30 to 35 to determine which adjustment is needed for the actual vent configuration.

4.4. Approved venting configurations for vertical terminations



4.5. Flex vent installation

1. Place the insert in front of the fireplace.
2. Route the flex vents through the chimney from above. (Leave an extra 3 ft. at the top).
3. Pull out the flex vents and attach them to the co-linear manifold. (Seal with silicone and use insulation clamps to secure the flex vent). See Figure 7.
4. Slide the insert into place. (If the space is limited over the manifold, tilt the insert as shown).
5. While working on 4, have a partner pull on the excess flex vent. Use a rope to temporarily attach the flex vent to the top of the chimney. (Leave extra slack).
6. When the insert is in place, remove the slack from the flex vent.
7. Attach the vent termination.



5. Installation as ZC-fireplace

5.1. options

- Horizontal or vertical direct vent system
- Residential or mobile home
- Straight or corner placement
- Bedroom approved

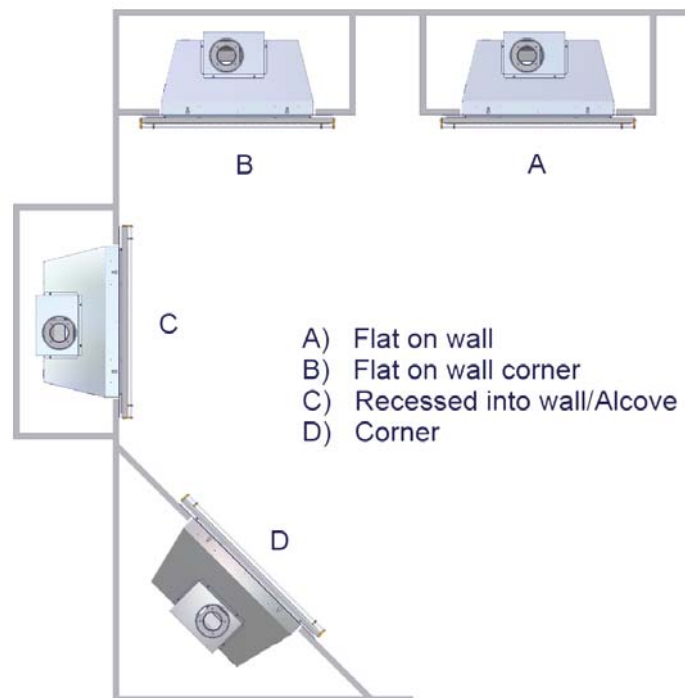
5.2. Placement requirements for your ZC-fireplace

The ZC-fireplace must be installed on a flat, level and continuous surface, or raised up on a platform, to enhance its visual impact, capable of supporting the ZC-fireplace and vent. Due to the high temperature of the ZC-fireplace, it should be located out of traffic and away from furniture and draperies. The ZC-fireplace must be placed so no combustibles are within, or can swing within 36" of the front of the ZC-fireplace (e.g. drapers, doors).

- The ZC-fireplace must not be placed so the vent is below or above the door, along the side of the ZC-fireplace, or along the back of the heater can be blocked.
- This ZC-fireplace may be placed in a bedroom, but please be aware of the large amount of heat this ZC-fireplace produces when determining a location.
- Provide adequate clearances for servicing.
- We recommend that you plan your installation on paper using exact measurements for clearances and floor protection before actually installing the appliance. Have an authorized inspector, dealer, or installer review your plans before installation
- The ZC-fireplace can be installed in a recessed position or framed out into the room in A, B, C, D. See Diagram 1.

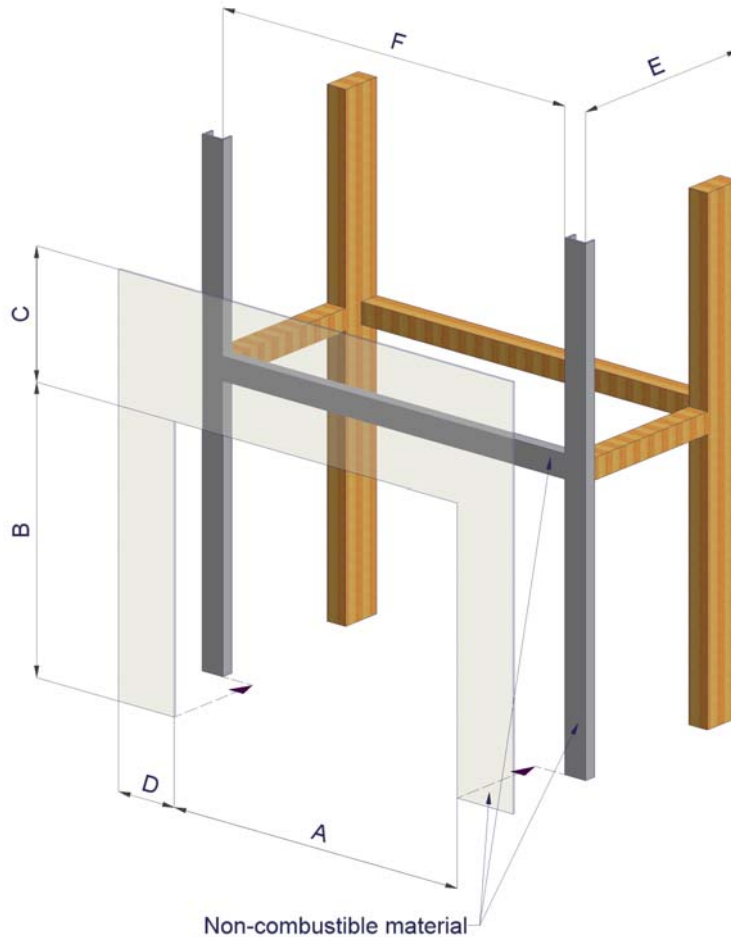
NOTE: We do not recommend the use of wallpaper next to this ZC-fireplace. Over time, radiant heat may cause the wallpaper to shrink, or may adversely affect the binders in the wallpaper adhesive.

Diagram 1



5.3. Installation overview

Diagram 2



A	37" (940mm) min.
B	26" (660mm) min.
C	16" (407mm) min.
D	6" (153mm) min.
E	19 7/8" (504mm) min.
F	30 1/2" (775mm) min.

Framing and facing material

The framing requires steel stud on each side of the recess in the front up to a height of 16" above the fireplace recess and steel header above the recess, up to 16" between the side studs, and facing has to be noncombustible material.

Determine the total thickness of facing material (e.g. drywall plus ceramic tiles) to allow the finished surface to be flush with the surface of the unit. Total facing thickness can vary.

Frame in the enclosure for the unit with framing material. The framed opening is 37x26".

For exterior walls, insulate the enclosure to the same degree as the rest of the house; apply vapour barrier and drywall, as per local installation codes. (Do not insulate the fireplace itself).

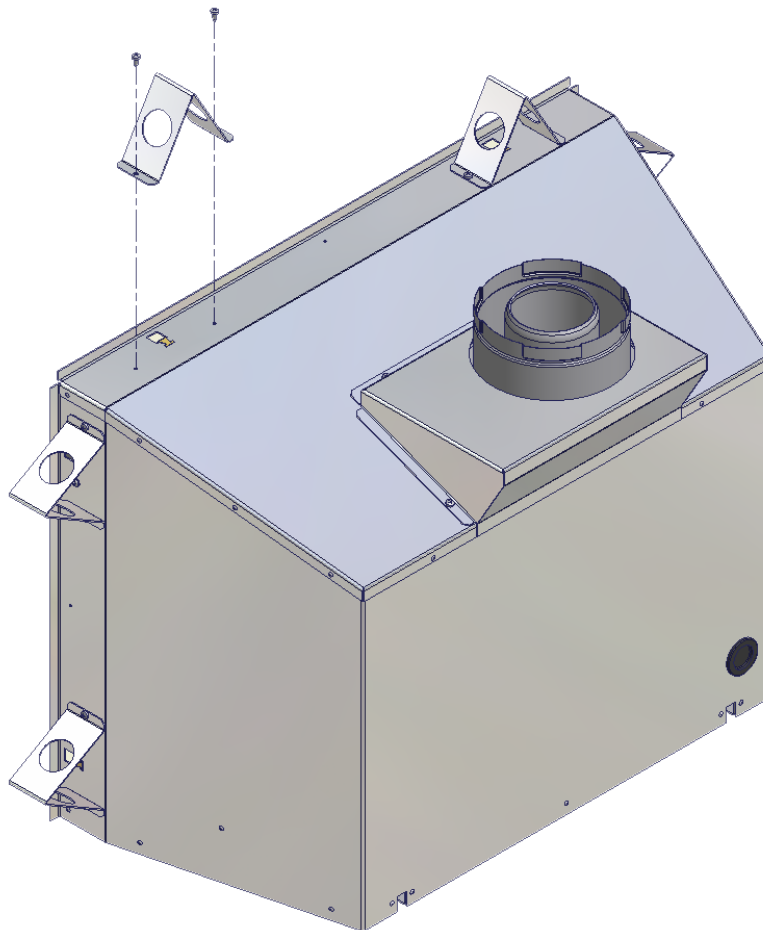
5.4. Installation hints

- If converting to LP, convert the ZC-fireplace prior to installation.
- Install the logs last because they are fragile.
- Fumes and smoke from the paint curing and oil burning off the steel may occur the first time you start this ZC-fireplace. This is normal. We recommend you open windows to vent the room.

5.5. ZC-fireplace clearances

- Cover door to sidewall = 3"
- Cover door to mantel = 21"
- Zero clearance enclosure to unit front = 3 ½"
- Zero clearance enclosure to unit back = 5"
- Unit bottom to floor = 3/8"
- Top of unit to zero clearance enclosure ceiling = 56"

Be sure to mount the six standoffs as shown below. This assures the correct clearances to top and sides.



5.6. Mobile home requirements

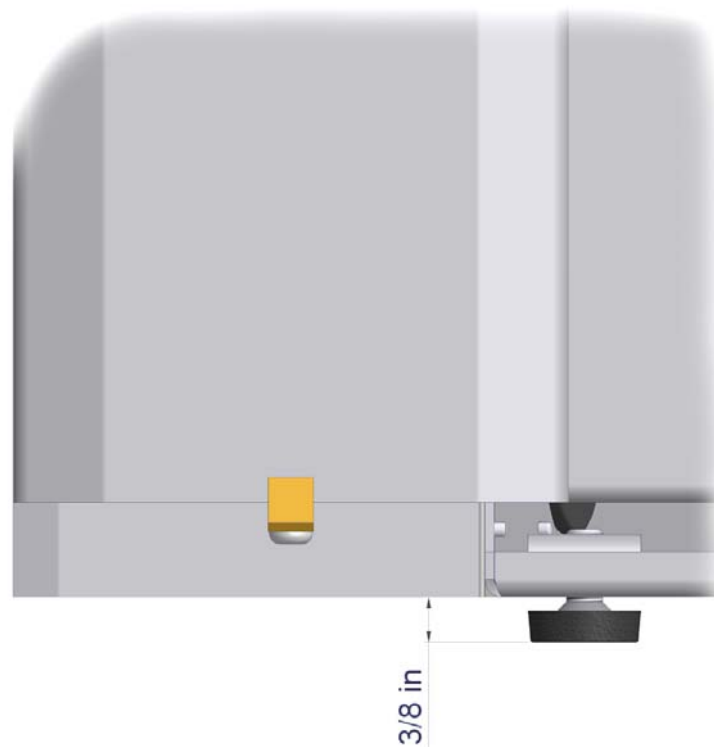
When the ZC-fireplace is installed in a mobile home it must be bolted to the floor.

The ZC-fireplace, 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, CSA C22.1.

5.7. Floor protection requirements

When the ZC-fireplace is installed directly on carpeting, vinyl or other combustibile material other than wood flooring or a high pressure laminate wood floor, the ZC-fireplace must be installed on a metal or wood protection panel extending the full width and depth of the ZC-fireplace (minimum 30x22¹/₈""). Furthermore the four adjustable feet's must be screwed out to 3/8" from the bottom of the ZC-fireplace. See Figure 8.

Figure 8



5.8. Direct vent manifold assembly

For qualified installers only

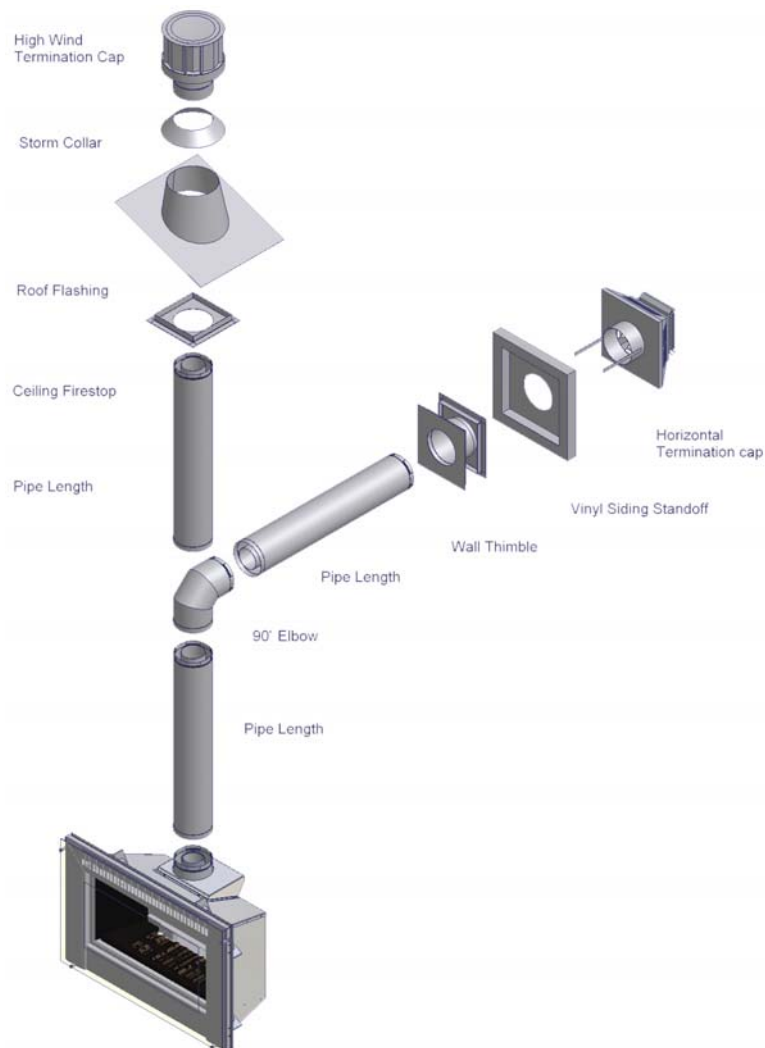
The Simpson Dura-vent System offers a complete line of component parts for installation of both horizontal and vertical installations. Many items are offered in decorative black, as well as galvanized finish.

The minimum components required for a basic horizontal termination are:

- Horizontal Termination Cap (part # 985).
- 90° Elbow (part # 990)
- Wall Thimble (part # 942)
- Pipes in fixed or adjustable lengths.

The minimum components required for a basic vertical termination are:

- High Wind Termination Cap (part # 991).
- Storm Collar (part # 953).
- Roof Flashing (part # 943 or 943S).
- Ceiling Firestop (part # 963).
- Pipes in fixed or adjustable lengths.



Before the manifold can be mounted, it is necessary to remove the baffle plate and damper plate.

Figure 9

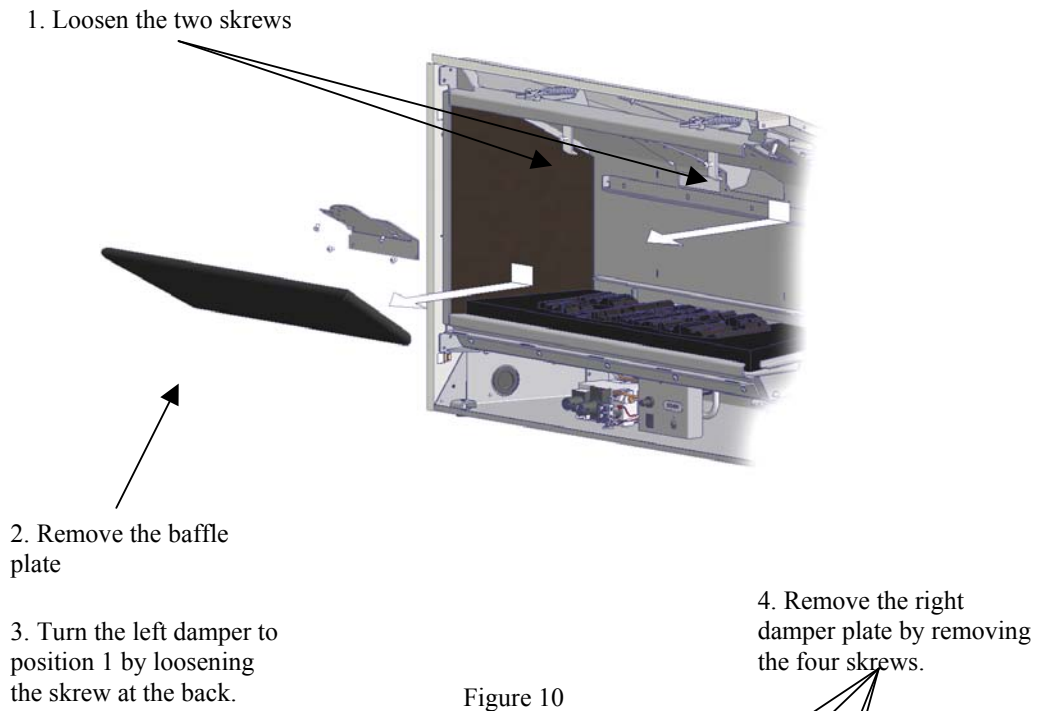
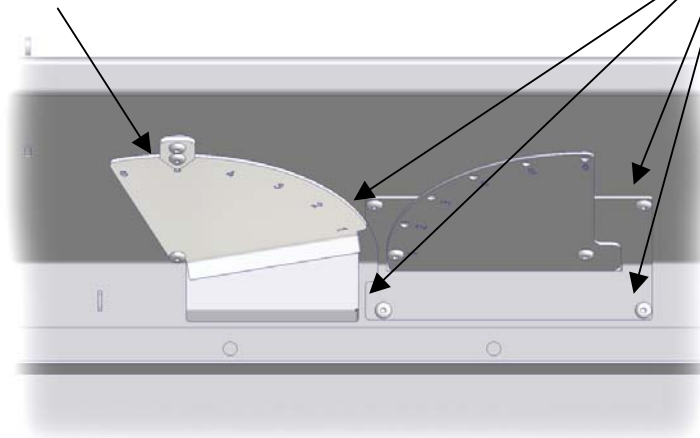
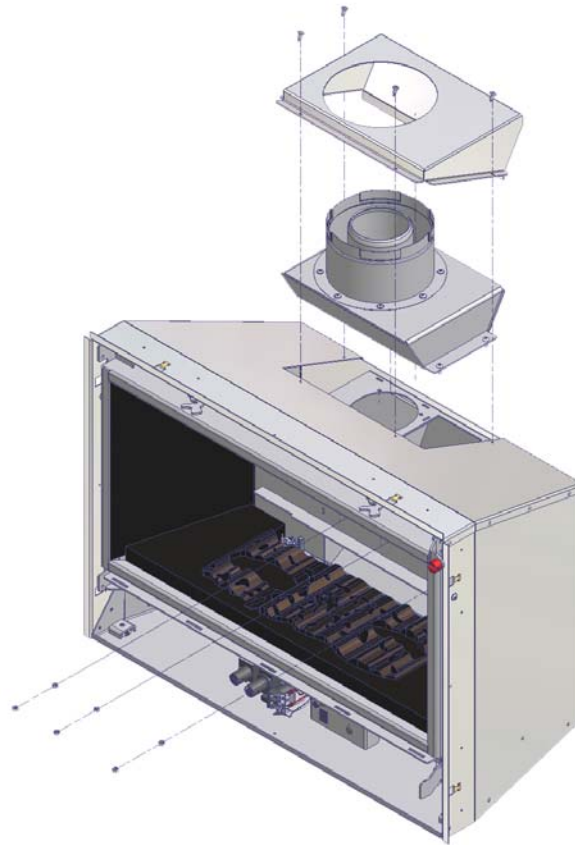


Figure 10



Place the coaxial manifold on top of the insert. Make sure the six pins goes through the holes. Tighten the six nuts, from the inside, to secure that the manifold is firmly fixed and airtight. Fix the cover with four screws.



Mount the baffle plate and damper plate in opposite order than shown in Figure 9 and Figure 10.

5.9. Vent requirements



Always maintain the required 1" clearance (air space) to combustible materials to prevent a fire hazard. Do not fill air spaces with insulation.



The gas ZC-fireplace and vent system must be vented directly to the outside of the building and never be attached to a chimney serving a separate solid fuel or gas-burning appliance. Each direct vent gas appliance must use its own vent system.

This ZC-fireplace is equipped only for altitudes: 0-2000 ft. (0-610 m) in USA, In Canada 0-4500 ft. (0-1370 m).

When the vent passes through a wall, a wall thimble is required. When the vent passes through a ceiling, a support box or fire stop is required. When the vent passes through the roof, a roof flashing and storm collar are required. Follow the instructions provided with the vent system, (From Duravent®) for installing of these items.

For the vent system use Simpson Duravent model GS direct vent system **only**.

For the nearest supplier call 800 835 4429.

Follow the installation instructions included with the vent system.

Apply high-temperature silicone to the inner and outer pipe before assembling the sections (on the male, upper section). This seals the inner pipe from the outer pipe. Slide the sections together and turn ¼ turn until the sections lock in place. Install three metal screws through each joint to lock the outer section in place (See the instructions included with the vent for further details).

NOTE: You may screw the first section of the vent to the insert / ZC-fireplace without silicone.

Horizontal sections require a ¼" rise every 12" of travel.

Outer vent diameter = 6 5/8", inner vent diameter = 4".

Horizontal sections require non-combustible support every 36" (e.g. use plumbing tape).

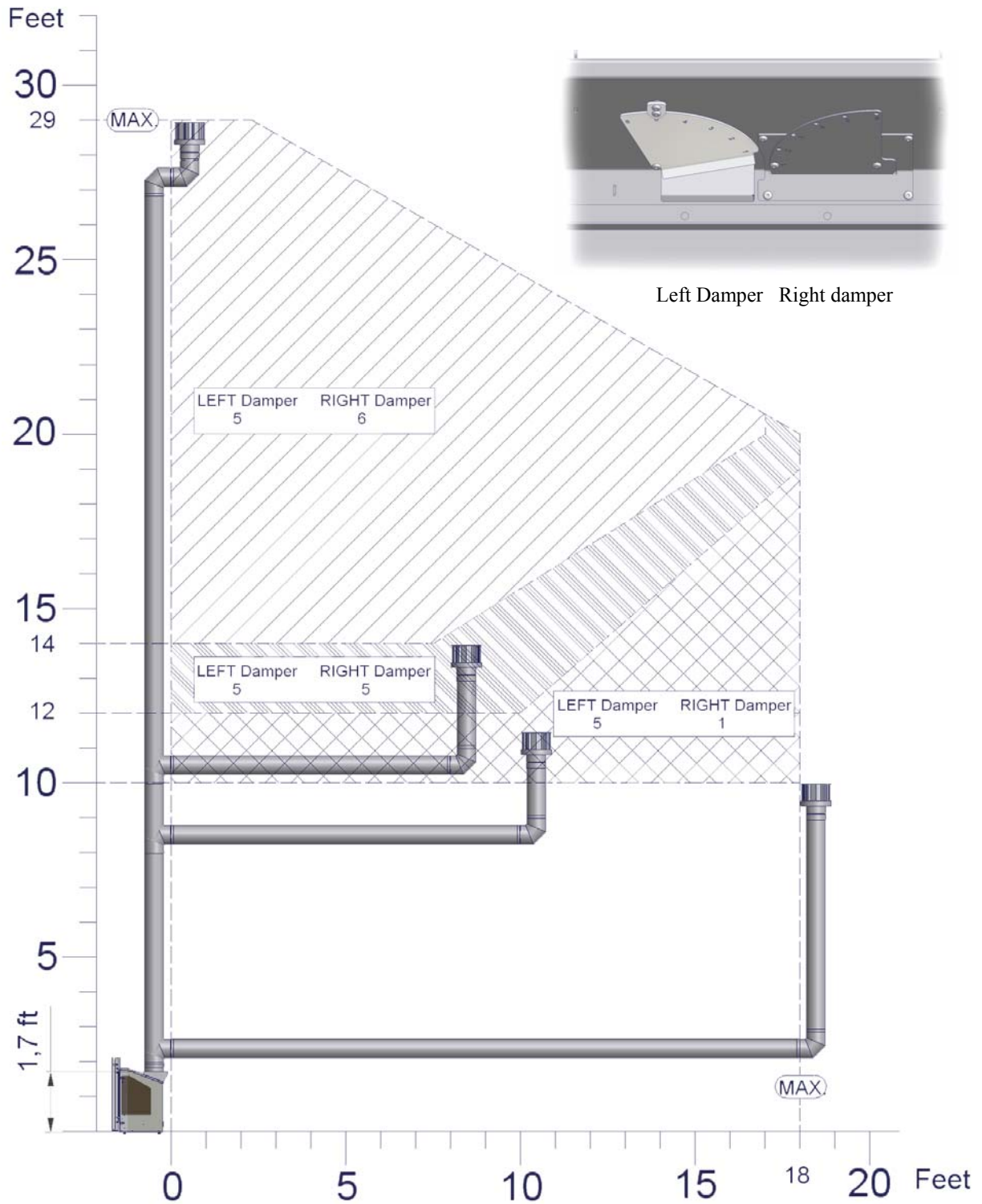
5.10. Vent damper adjustment

There is a damper system built into the insert / ZC-fireplace in order to control the flow rate of exhaust gases. This ensures proper flames for the wide variety of vent configurations. Depending upon the vent configuration, you may be required to adjust the damper within the insert / ZC-fireplace, and it should be done before connecting the venting system to the insert / ZC-fireplace.

Consult the vent run specifications on page 30 to 35 to determine which adjustment is needed for the actual vent configuration.

5.11. Approved venting configurations for vertical terminations with two 90° elbows

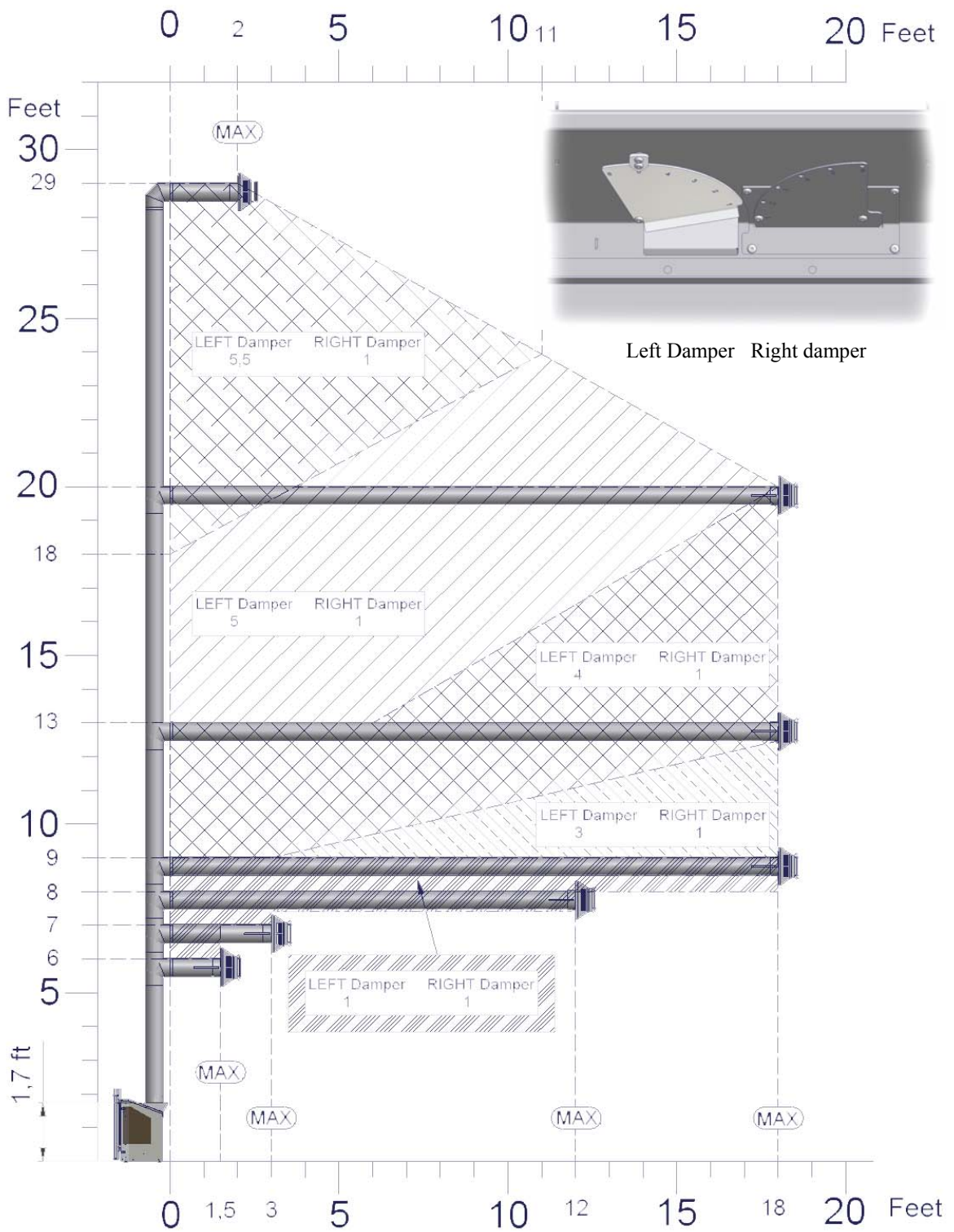
The termination must fall within the shaded area shown in the chart. Use the indicated damper adjustment.



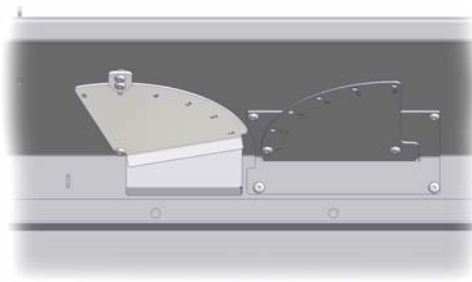
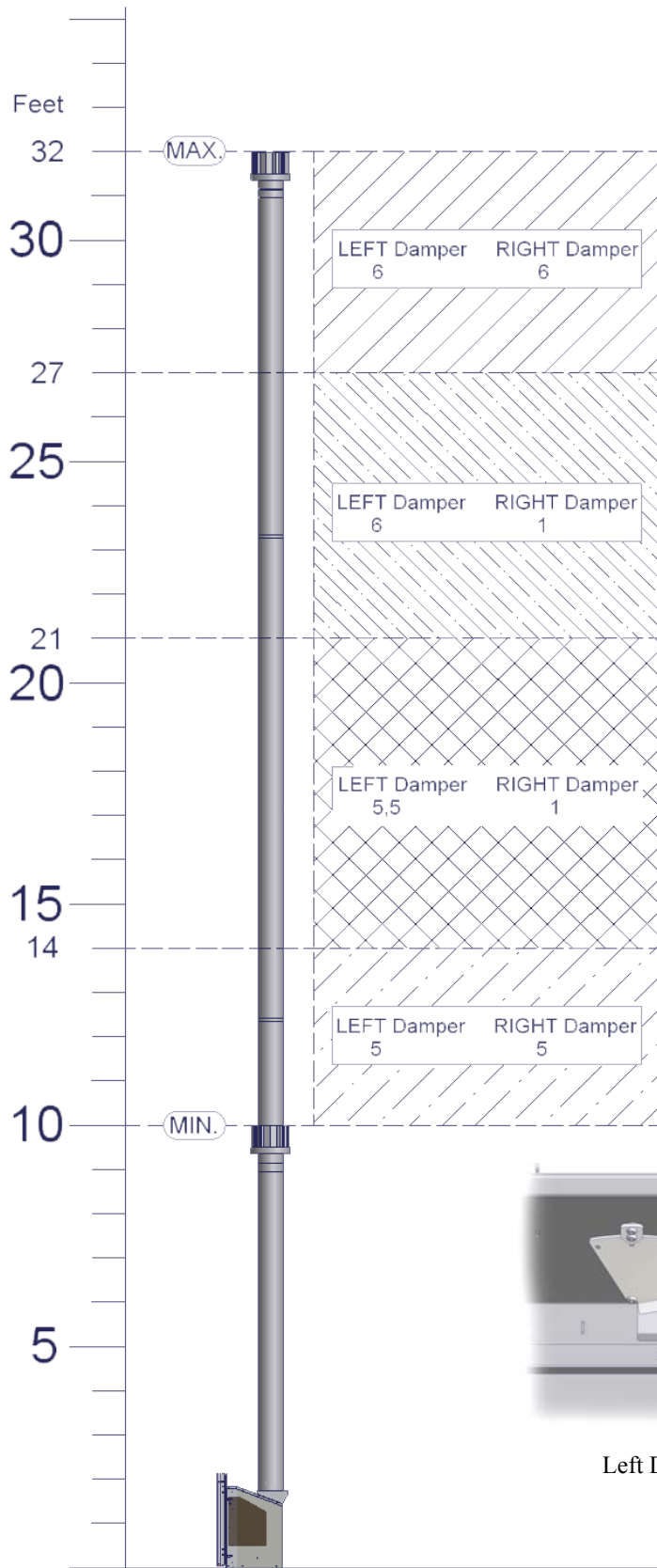
5.12. Approved venting configurations with a horizontal termination and one 90° elbow

If using a snorkel termination (14" or 36") add the snorkel height to the vertical height (snorkel terminations are used primarily for basement installations).

The termination must fall within the shaded area shown in the chart. Use the indicated damper adjustment.



5.13. Approved venting configurations for vertical terminations



Left Damper Right damper



ALWAYS MAINTAIN REQUIRED CLEARANCES (TO NEARBY COMBUSTIBLES TO PREVENT FIRE HAZARD. DO NOT FILL AIR SPACES WITH INSULATION. ALL VENTING COMPONENTS MUST MAINTAIN 1" (25 MM) CLEARANCE TO COMBUSTIBLE MATERIALS.

THE GAS INSERT AND VENT SYSTEM MUST BE VENTED DIRECTLY TO THE OUTSIDE OF THE BUILDING AND NEVER BE ATTACHED TO A CHIMNEY SERVING A SEPARATE SOLID FUEL OR GAS-BURNING APPLIANCE, EACH DIRECT VENT APPLIANCE MUST USE ITS OWN SEPARATE VENT SYSTEM. COMMON VENTS ARE PROHIBITED.

REFER TO THE MANUFACTURER'S INSTRUCTIONS INCLUDED WITH THE VENTING SYSTEM FOR COMPLETE INSTALLATION PROCEDURES.



The horizontal termination must not be recessed into the exterior wall or siding.

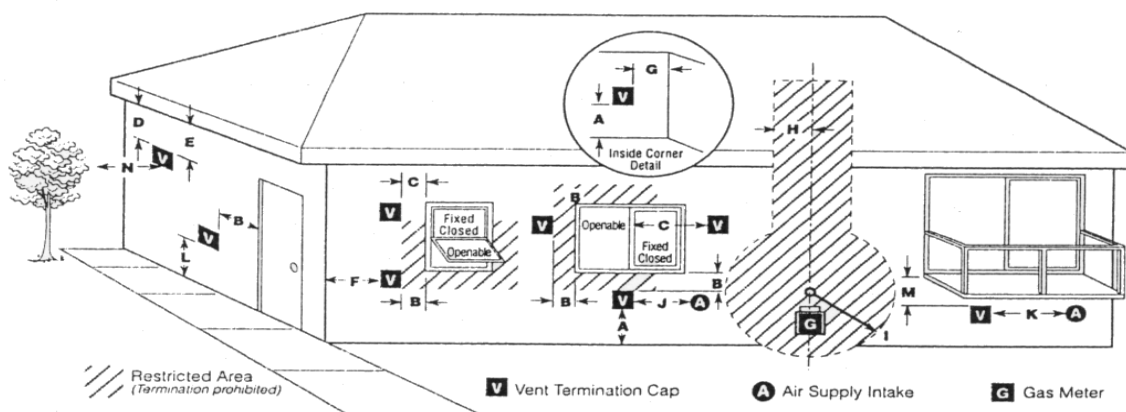
Horizontal vent runs must rise 1/4" per foot toward the vent termination.

Clearances around the vent termination must be maintained.

For installations using Simpson Duravent pipe, parallel installations with minimum wall clearance have restricted access for connecting the Horizontal vent cap straps to the vent pipe. See the manufacturer's instructions for recommended installation procedures.

5.14. Vent termination clearances

- The location of the vent terminal must meet clearance specifications as shown in fig below. Also follow these guidelines when determining the vent terminal location:
- Do not locate the terminal where people come into accidental contact with it while the insert / ZC-fireplace is operating.
- There must not be any obstructions such as bushes, fences, decks, garden sheds, or utility buildings within 24" of the terminal cap.
- Do not locate the terminal where it might be damaged by such things as car doors, lawn mowers, or snow blowers. The terminal should be located away from areas where it could become blocked by snow or ice build-up. Be sure to check the vent termination area after snow falls and clear it to prevent accidental blockage of the vent system. When using a snow blower, be careful to direct snow away from the terminal area.



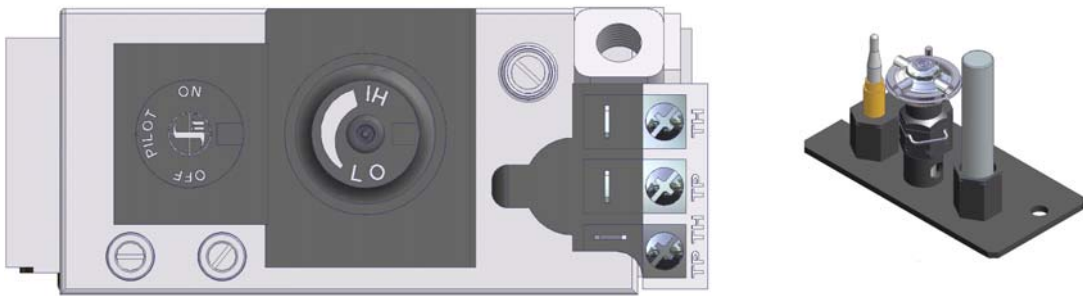
- A: Clearance above grade, veranda, porch, deck, or balcony: *12" min.
- B: Clearance to window or door that may be opened: *12" min. to top and sides *24" min. below.
- C: Clearance to permanently closed window – 12" min. recommended to prevent condensation on window above.
- D: Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2' from the centerline of the terminal – 18" min.
- E: Clearance to unventilated soffit – 12" min.
- F: Clearance to outside corner – 6" to combustible, 2" to noncombustible.
- G: Clearance to inside corner – 6" to combustible, 2" to noncombustible.
- H: May not be installed above a meter/regulator assembly within 3 ft. horizontally from the centerline of the regulator.
- I: Clearance to service regulator outlet - *6' min.
- J: Clearance to non-mechanical air supply inlet for the building or to the combustion air inlet to any other fireplace - *12" min.
- K: Clearance to a mechanical air supply inlet - 6' min.
- L: **Clearance above paved sidewalk or paved driveway located on public property - *7 ft. min. (for U.S. installations follow the current National Fuel Gas Code ANSI Z223.1).
- M: Clearance under veranda, porch, deck, or balcony – 18" min. (see Note A).
- N: Clearances to trees, bushes, - 24" min.
- * For U.S. installations follow the current National Fuel Gas Code ANSI Z223.1
- ** A vent shall not terminate directly above a sidewalk or paved driveway, which is located between two single-family dwellings and serve both dwellings.

Note A: Only permitted if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

Note B: As specified in CGA/CGA B 149 (1 or 2), installation Codes (1991). Note: Local codes or regulations may require different clearances.

6. Finalizing the installation

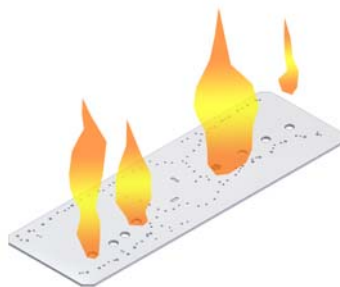
- Make sure the gas control valve is “OFF” and the insert / ZC-fireplace is cool prior to conducting service.
- Remove the face glass panels and the firebox glass panel. See page 42.
- Install the log set. See page 44. We recommend you purge the gas line at this time (With the glass removed). This allows gas to be detected once it enters the firebox, ensuring gas does not build up.
- Turn on the gas. Leak test all gas joints prior to starting the insert / ZC-fireplace. Start the pilot. Replace and secure the glass panels. See page 42.
- The main burner. Leak test all joints again.
- Check the pilot flame to make sure that it reaches both the thermocouple and thermopile. Adjust the pilot flame if necessary. See page 52.



If the vent configuration is installed incorrectly the vent may cause the flames inside the firebox to lift or “ghost” – a dangerous situation. Inspect the flames after installation to ensure proper performance. If the vent configuration is correct, yet the flames are lifting or ghosting, shut off the gas to the insert / ZC-fireplace and contact the dealer for information on remedying the problem.



The flames should burn right off the top of the burner ports.



If the flames are lifting, then the vent configuration is probably not correct, contact your insert dealer.



If the flames are ghosting, then the vent configuration is probably not correct, contact your insert dealer

Turn the flame adjust knob to its highest position – the flames should not be dark in the ends. Check the flame on low position. The flames should burn out of each burner hole. If the insert / ZC-fireplace does not work correctly, contact your insert / ZC-fireplace dealer for service.

Give this manual to the homeowner and fully explain the operation of this insert / ZC-fireplace.

6.1. Outer door assembly

The door is delivered unassembled and with an outer glass panel as option. The door can be hinged left or right as shown in Figure 11. Follow instructions on the next page to assemble and to mount the door.

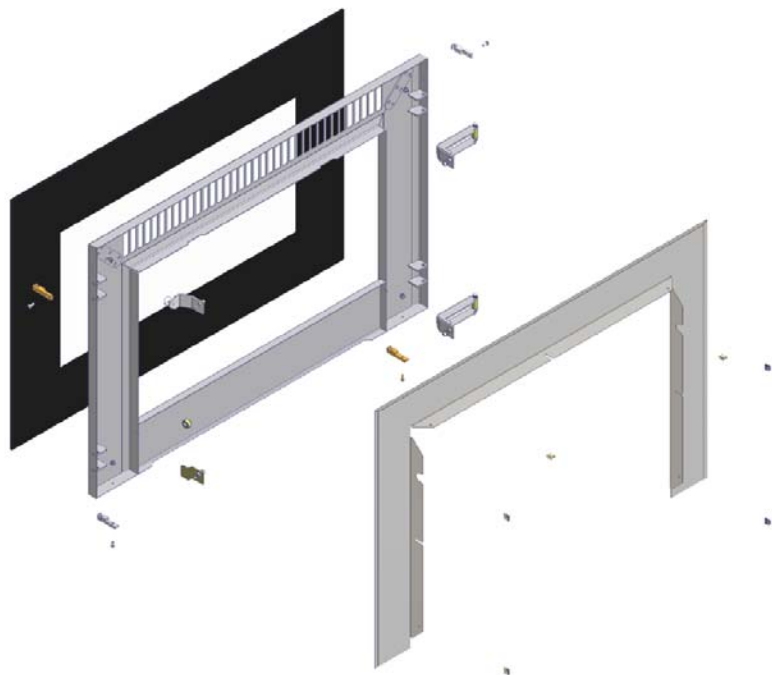
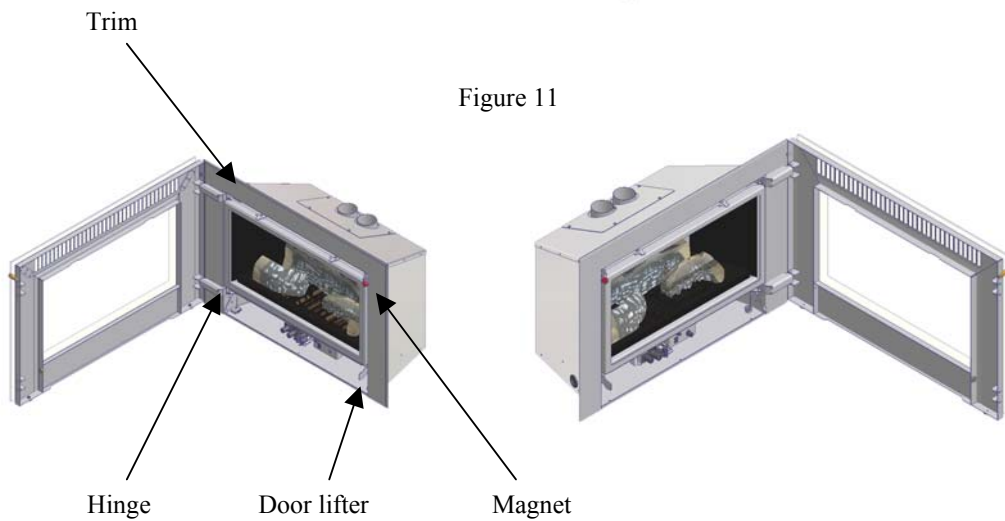


Figure 11



1. When the unit is in place, mount the trim by pushing it into the springs. The springs are located on both sides and the top of the unit. See Figure 2. It is possible to mount the trim with screws for a firmer grip.
2. Mount the door lifter. Use two bolts, three washers and a nut as shown in Figure 12. The door lifter can later be adjusted, to level the door when it is closed. The door lifter can be mounted on the left or right side of the unit, as shown in Figure 11.
3. Mount the magnet. Use two bolts and two washers. as shown in Figure 13. The magnet must be mounted on the same side as the door lifter.

Figure 12

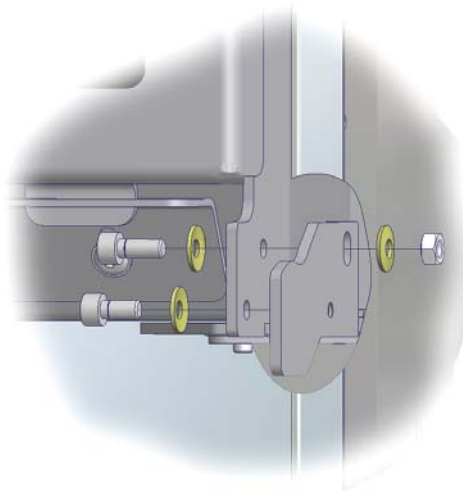
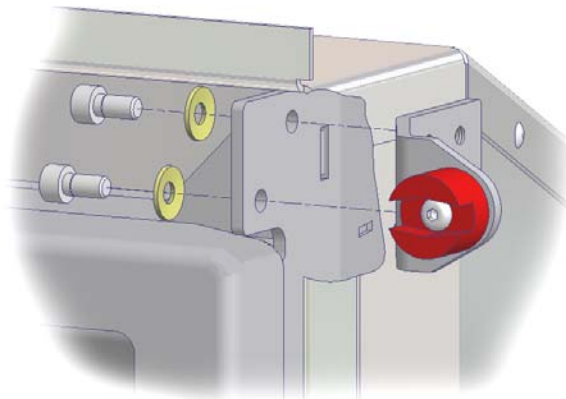


Figure 13



4. Mount the two hinges. One at the top and one at the bottom of the unit. Use two bolts and two washers as shown below in Figure 14.
5. Mount four bushings on the door. Be sure that they are pushed all the way in. See Figure 15.
6. Place the door on the hinges and use the pins to secure it.
7. Tighten the screws.

Figure 14

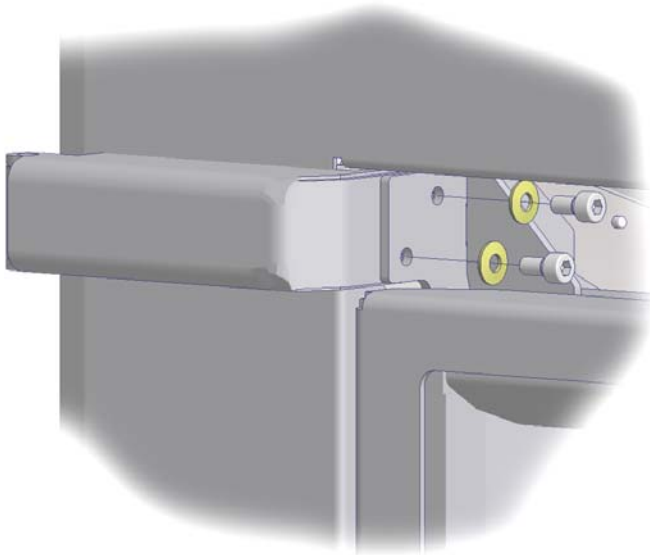
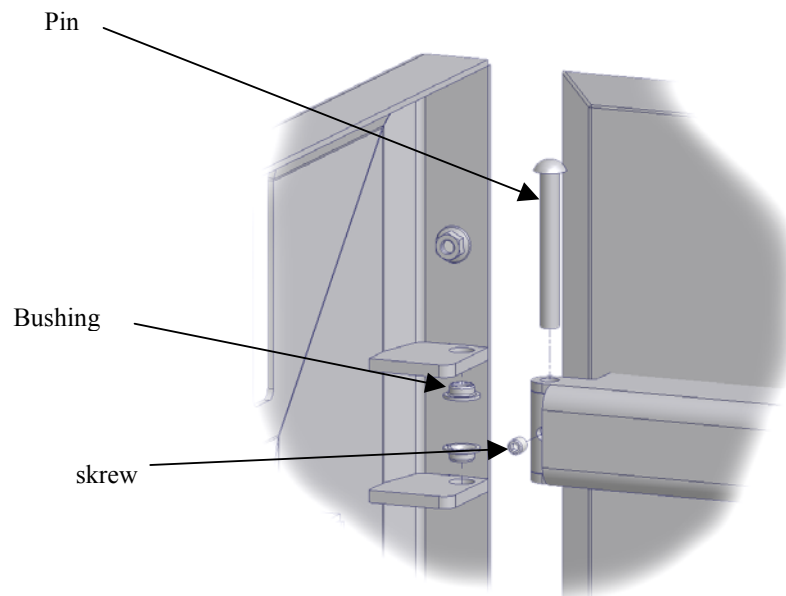


Figure 15



8. Mount the roller on the door, Use a bolt, two washers and a nut as shown in Figure 16.
9. If you have purchased the optional glass panel for the door, you must mount the four support brackets as shown in Figure 17.

Figure 16

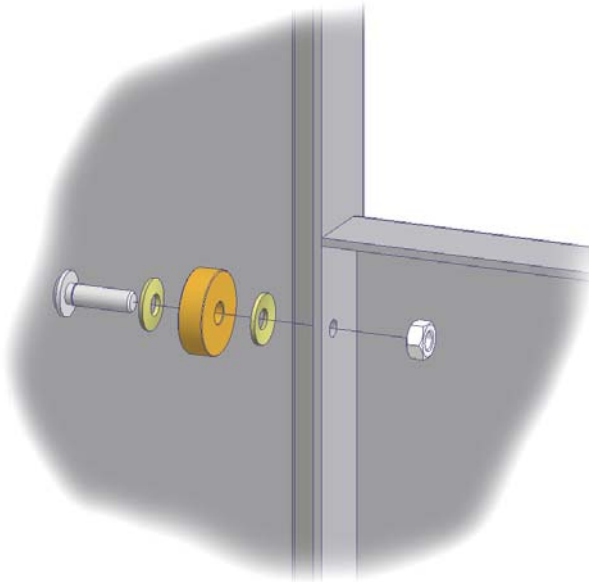
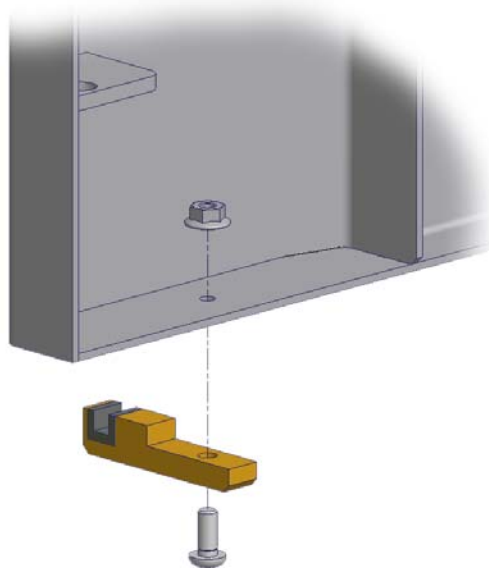


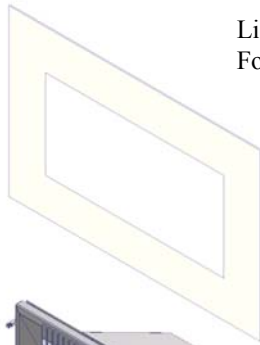
Figure 17



6.2. Removal of glass panels



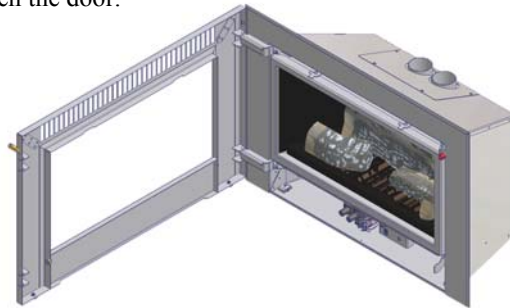
Make sure the gas control valve is "OFF" and the insert / ZC-fireplace is cool prior to conducting service.



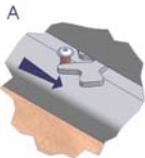
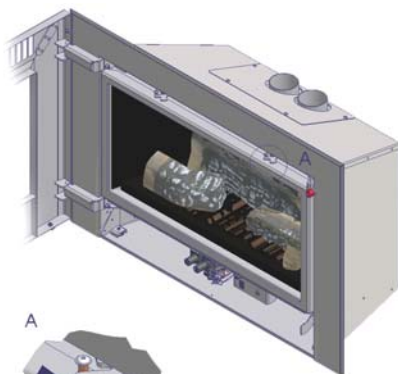
Lift up the glass.
For safety use both hands.



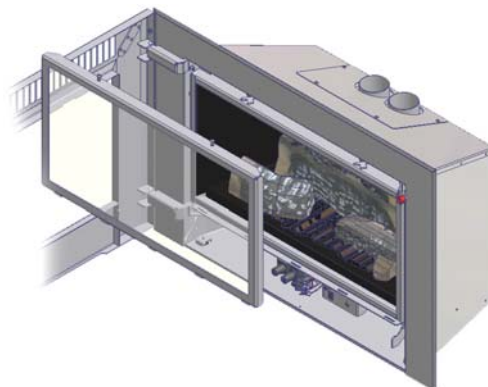
Open the door.



Push the two locks to the right to
unlock the glass panel.



Remove the glass panel by pulling and lifting.
Be carefull not to drop the glass from its
frame.



6.3. Firebrick and baffle plate removal

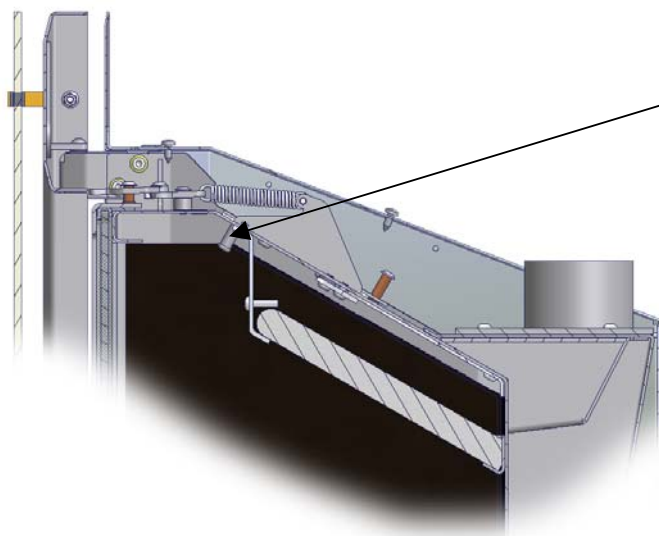
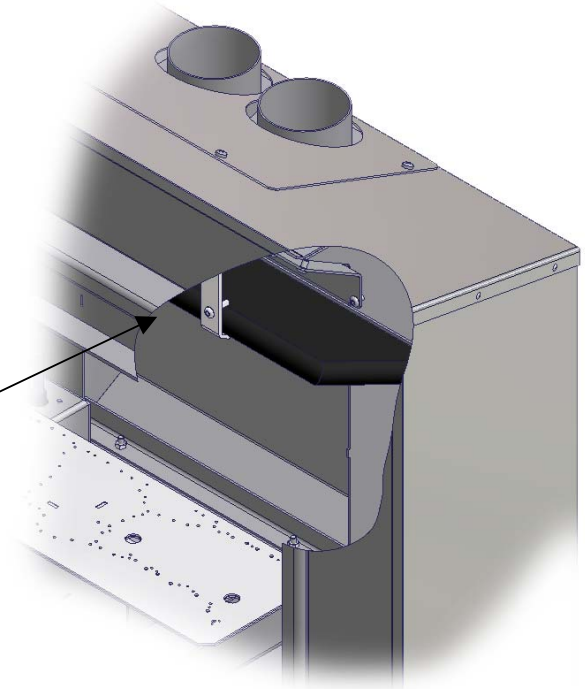


Make sure the gas control valve is "OFF" and the insert / ZC-fireplace is cool prior to conducting service.



Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this insert / ZC-fireplace may result in property damage or personal injury.

To remove the baffleplate, you have to loose the two screws. One in the left and one in the right side.



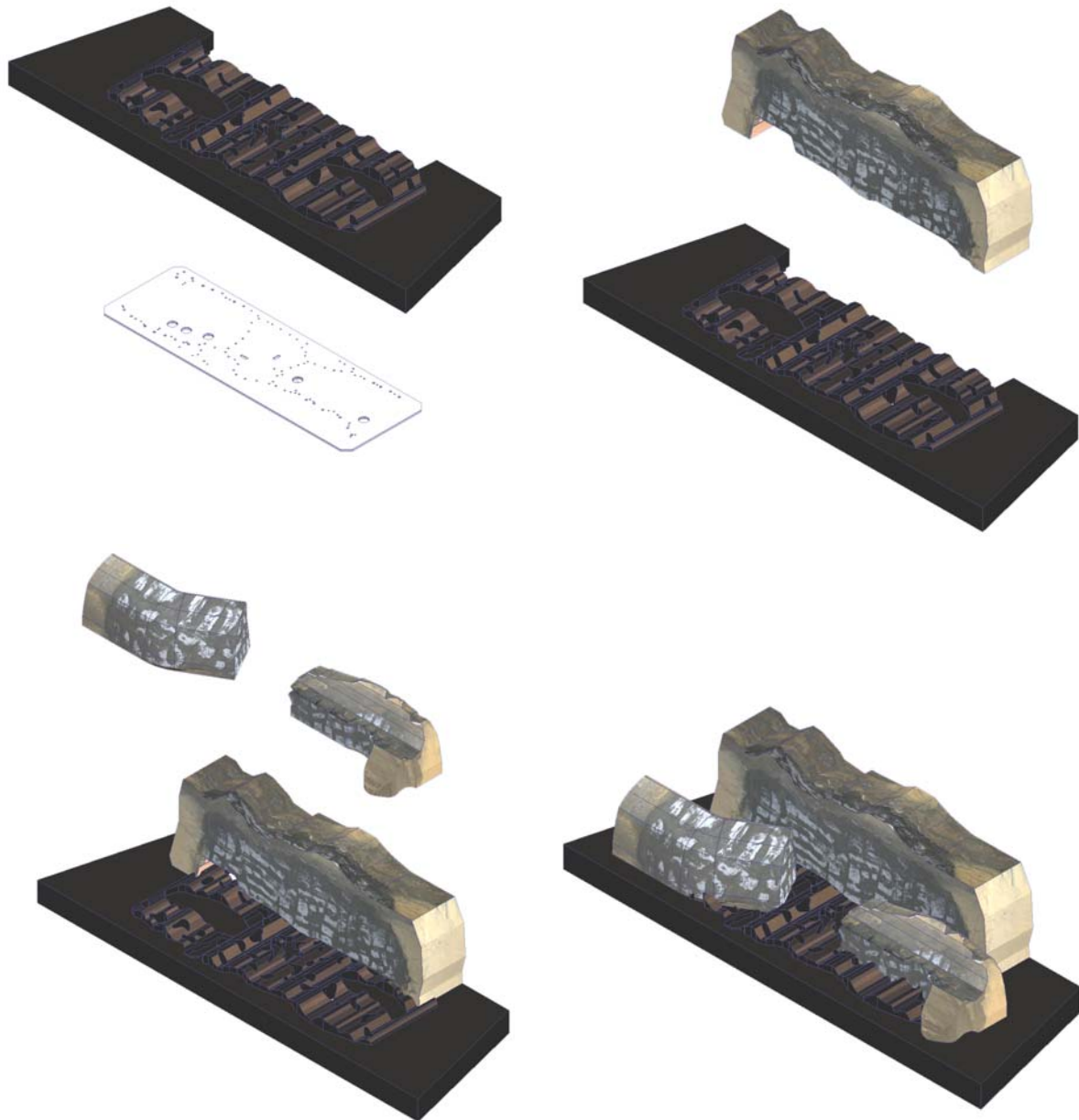
The firebrick plate is fixed by a skrew and bush. To remove the baffleplate, you have to loosen the skrew.

6.3.1. Log installation

- ⚠ Make sure the gas control valve is "OFF" and the insert / ZC-fireplace is cool prior to conducting service.
- ⚠ Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this insert / ZC-fireplace may result in property damage or personal injury.

NOTE: The burner must be correctly positioned

Observe the two guidance pins for these logs.



7. Operation

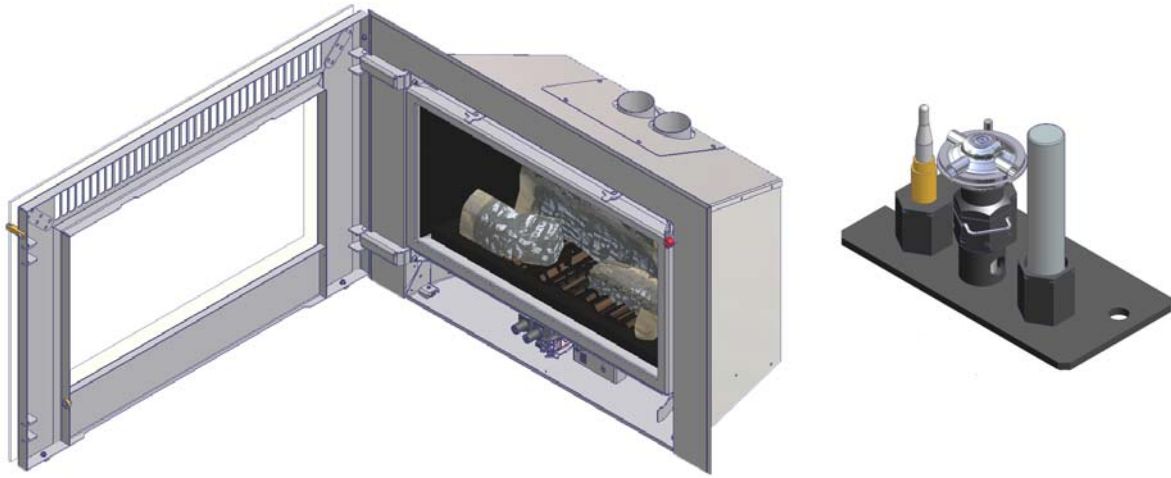
7.1. Before you begin

Warning: Read the entire manual before you use your insert / ZC-fireplace (especially page 3 “Safety Precautions”). Failure to follow the instructions may result in property damage, bodily harm, or even death.

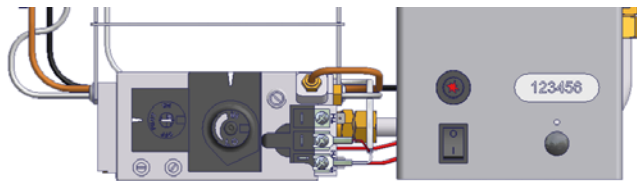
Warning: Do not operate the insert / ZC-fireplace with any of the glass panels removed, cracked or broken. A licensed or qualified person should do the glass replacement.

Warning: Do not abuse the door such as striking at them.

Controls location:



An instruction card for operation of the insert is attached to the inside of the insert / ZC-fireplace.



- On/off switch:** This control is used to turn the flame on and off.
- Optional blower control:** This knob turns on and controls the speed of the internal convection blower that pushes heated air into the room.
- Gas control knob:** This knob controls gas to the insert / ZC-fireplace pilot. There are three positions; ON, OFF, and pilot. The indicator line is to the left of the knob.
- Flame adjust knob:** This knob controls the flame height from low (“LO”) to high (“HI”). The indicator line is above the knob.
- Pilot igniter:** The pilot igniter is used only to start the pilot. When pressed, it sends an electrical charge to the pilot assembly. This creates a blue spark directly next to the pilot, igniting the pilot flame.
- Remote control:** If using a remote control with thermostat, the on/off switch must be “OFF”. Turning the on/off switch “ON” will keep the insert / ZC-fireplace on always.

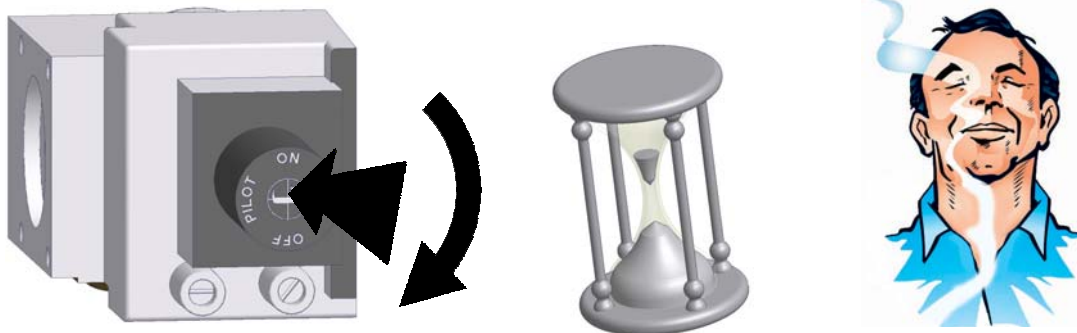
7.2. For your safety read before lighting

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

1. This insert / ZC-fireplace is equipped with an ignition device, which must be operated by hand when lighting the pilot. Follow these instructions exactly.
2. BEFORE LIGHTING, Smell all around the insert / ZC-fireplace area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
3. WHAT TO DO IF YOU SMELL GAS:
 - Do not try to light the insert / ZC-fireplace.
 - Do not touch any electric 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.
4. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.
5. Do not use this insert / ZC-fireplace if any part has been under water. Immediately call a qualified service technician to inspect the insert / ZC-fireplace and to replace any part of the control system and any gas control, which has been under water.
6. Do not block any control compartments, screens or circulating air passageways. These areas provide air necessary for safe operation.

7.3. Lighting instructions

1. STOP! Read the safety information on page 46 before proceeding.
2. Set the thermostat to lowest setting (If applicable).
3. For an insert / ZC-fireplace that utilizes an external electrical supply: Turn off all electric power to the insert / ZC-fireplace. (Room air blower if applicable).
4. Push the gas control knob in slightly and turn it clockwise to the “OFF” position. NOTE: The knob will not turn from “ON” to “OFF” unless the knob is depressed slightly. Do not force.
5. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor, if you smell gas, STOP! Follow paragraph 3 in the safety information on page 46.
6. Turn gas control knob counterclockwise to the “PILOT” position.
7. Press the knob in and hold.
8. Immediately press the igniter button repeatedly until the pilot is lit. WARNING: If the pilot does not light after 30 seconds, release the knob and call your insert / ZC-fireplace dealer for service. See fig 10 on previous page for pilot burner location.
9. Keep the gas control knob depressed for 30 seconds once the pilot is lit.
10. Release the gas control knob. If the pilot goes out. Repeat step 7, 8 and 9. If the knob does not pop up when released, stop and immediately call your insert / ZC-fireplace dealer or gas supplier for service. If the pilot will not stay lit after several tries, turn the gas control knob to “OFF” and call your insert / ZC-fireplace dealer or gas supplier for service.
11. Turn the gas control knob counterclockwise to “ON”.
12. Turn on the electric power to the insert / ZC-fireplace. Blower (room air blower) on the insert / ZC-fireplace.
13. Set the thermostat to desired setting (if applicable) or use the ON/OFF rocker switch or remote control to operate the main burner.



7.4. To turn of gas to insert / ZC-fireplace

1. Set the thermostat to lowest setting (if applicable).
2. Turn off the blower (room air blower) on the insert / ZC-fireplace.
3. Turn off the electric power to the insert / ZC-fireplace if service is to be performed.
4. Push the gas control knob in slightly and turn it clockwise to the “OFF” position.

7.5. Starting the insert / ZC-fireplace for the first time

Fumes from the painted surfaces curing:

Burn the insert / ZC-fireplace at a medium setting for approximately one hour the first time. This will cure the painted surfaces. Fumes from the paint curing and oil burning off the steel may occur. This is normal. We recommend you open a window to vent the room.

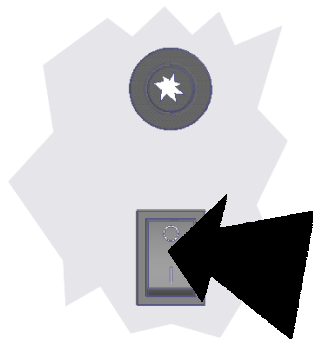
Condensation:

Water may appear on the glass each time you start the insert / ZC-fireplace – this is normal.

Blue flames:

The flames will be blue when first started, after fifteen minutes the flames will turn to a more realistic yellow and orange color.

Turning the insert / ZC-fireplace on and off after the pilot has been started.



Use this switch to turn the main burner on and off manually



See the instructions included with the remote for details on operation

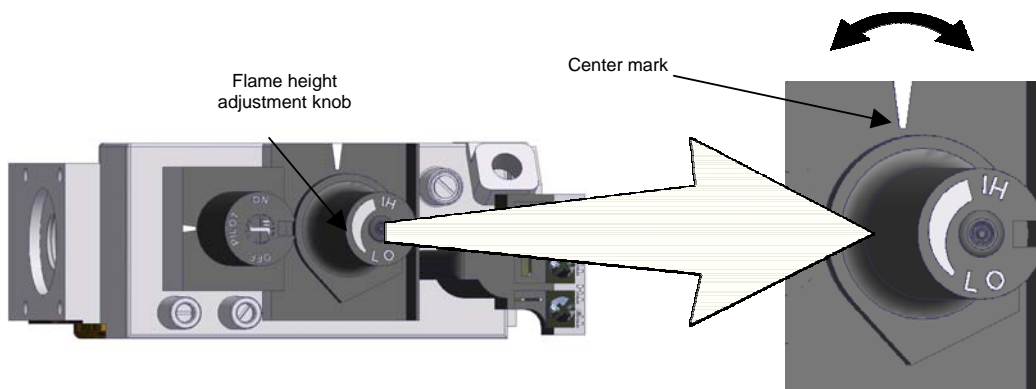
See the instructions included with the remote for changing the battery

Warning: Do not place combustible items on top or directly in front of the insert / ZC-fireplace, even temporarily. The operation thermostat may start the heater causing a combustible item to ignite.

Note: If the insert / ZC-fireplace turns on and off frequently while using the thermostat function in the remote control you may want to adjust the flame height down until it produces just enough heat needed.

7.6. Adjusting the flame height

Your insert / ZC-fireplace has an adjustable flame to tailor the look and heat output to your specific needs. It is adjusted by turning the middle dial on the gas control valve.



Turn counter-clockwise to adjust the flame higher, clockwise to lower

7.7. Adjusting the blower speed (optional)

The blower helps transfer the heat from the insert / ZC-fireplace to the room. It will not turn on until the insert / ZC-fireplace is up to temperature (approximately 15 minutes after starting). See the illustration below for instructions.

OFF

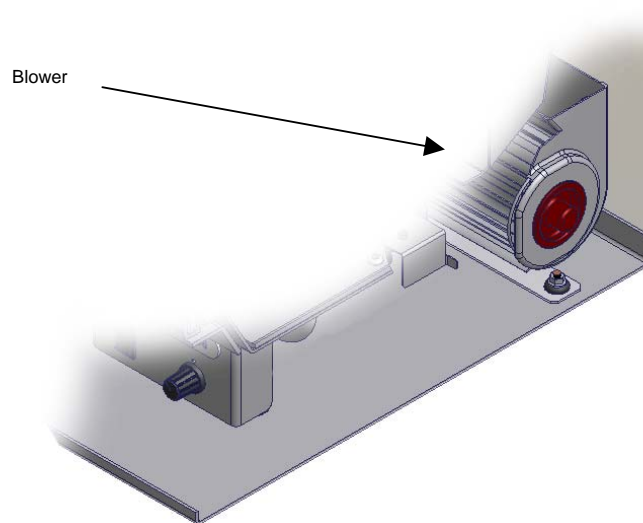
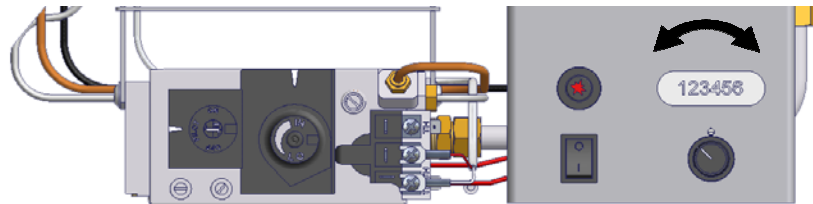
Turn the dial all the way counter-clockwise until it clicks off.

Low

The high position is all the way counter-clockwise, without clicking off.

High

Turn the dial all the way clockwise.

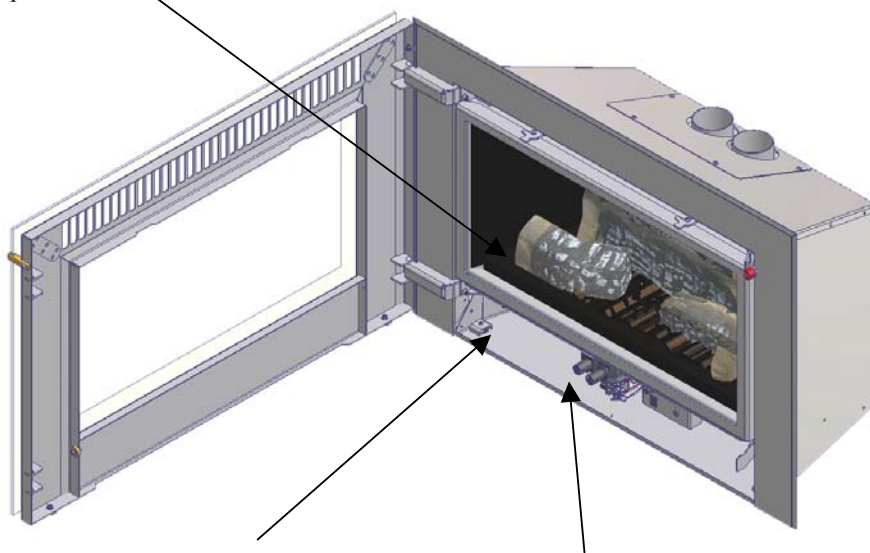


7.8. Normal operating sounds

Pilot flame

The pilot flame, which remains on, makes a very slight "whisper"

The insert / ZC-fireplace may creak with change of temperature. THIS IS NORMAL



Blower

You will hear the sound of air movement that increases as the speed is increased.

Gas control valve

As the gas control valve is turned on and off you will hear a dull clicking sound. This is the valve opening up and shutting down.

8. Maintenance (for qualified service personnel only)

8.1. Maintaining your insert / ZC-fireplace's appearance

Painted surfaces: Painted surfaces should be cleaned with a duster. If scratches occur, lightly sand the area with fine sandpaper. Clean the area and, with the insert / ZC-fireplace at ambient temperature, apply one or two thin coats of insert / ZC-fireplace paint to the area (Mask the area to avoid over spray). Allow the insert / ZC-fireplace to dry then turn the insert / ZC-fireplace on to cure the paint (1 hour on medium).

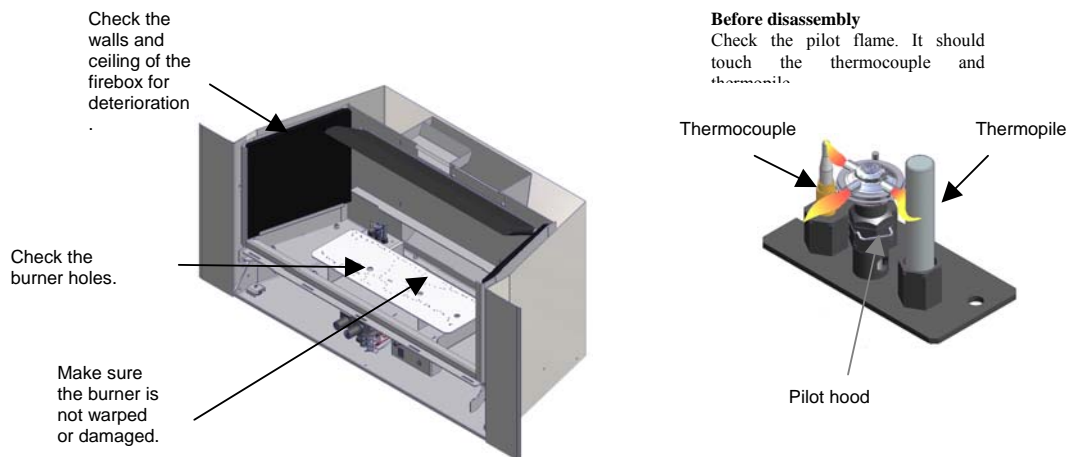
Glass: Clean the glass with soap and water (do not use abrasive cleaners). To dismount the glass panels please refer to page 42.

8.2. Annual service procedure

Caution: Use only SCAN original spare parts for maintenance or repair of the insert / ZC-fireplace.

Failure to inspect and maintain the insert / ZC-fireplace may lead to improper combustion and a potentially dangerous situation. A qualified technician must carry out the following procedures.

1. Check the pilot flame. It should touch approximately 3/8" of the top of the thermopile and touch the top of the thermocouple (See illustration below). If it does not, contact your dealer for service.
2. Shut off gas to the insert / ZC-fireplace by turning the gas control knob to "OFF". Let the insert / ZC-fireplace cool for 15 minutes. Remove the face glass panel and the firebox glass panel..
3. Remove the log set (NOTE: The logs are very fragile, see page 43. If severely deteriorated, replace. Check the logs for sooting. A small amount of soot along the bottom of the logs is normal. If excessive sooting is found, the insert / ZC-fireplace will require adjustment. Contact your insert / ZC-fireplace dealer for service.
4. Inspect the firebox for the following:
 - Check the burner for cracked, plugged, or deteriorated holes. Clean if necessary.
 - Check the firebox and area around the pilot to make sure there is no warping or damage.
 - If any problem is found, discontinue use and contact your insert / ZC-fireplace dealer for service.



5. Replace the log set. Replace the firebox glass panel (If the glass is damaged, replace it). Make sure the gasket along the perimeter of the glass contacts the face of the firebox and forms an airtight seal. If it does not, realign or replace the gasket to ensure an airtight seal. Replace the face.
6. Inspect the area behind the access door. Clean if necessary. Check the gas control valve and all of the gas lines. If any damage is found, discontinue use and contact your dealer for service.
7. Follow the instructions for starting the pilot and turn on the main burner. The flame should be orange / yellow and not sooty. If the pilot or main burner doesn't burn correctly, contact your insert / ZC-fireplace dealer for service.
8. Inspect the vent section. Damaged sections should be replaced. Remove any debris or vegetation near the vent termination. Contact your insert / ZC-fireplace dealer if any sooting or deterioration is found near the vent termination. If vent is disassembled it should be resealed upon assembly.

8.3. Troubleshooting table

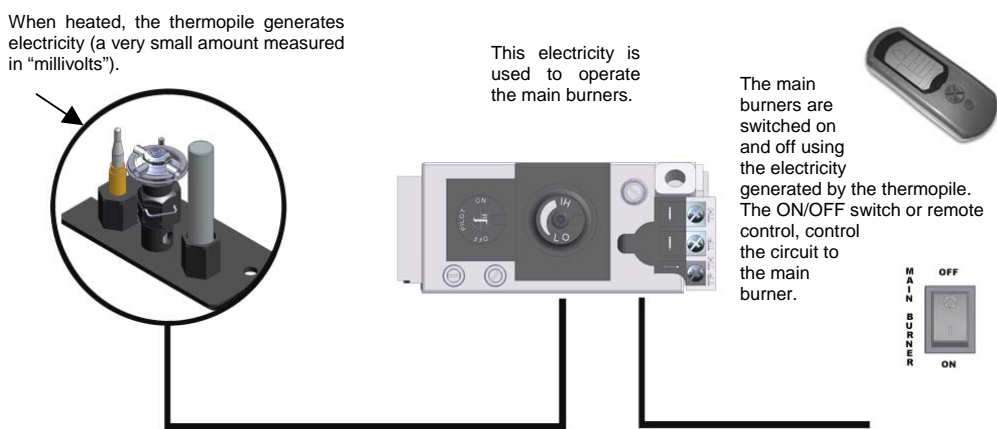
Problem	Possible cause	Do not call for service until you have
Pilot will not light	A gas shut off valve is turned off The gas control knob is not turned to "PILOT" The valve control knob is not pushed in The igniter was not pressed repeatedly No propane in tank	Check all gas shut off valves See "Starting the pilot light" step C See "Starting the pilot light" step C See "Starting the pilot light" step C Check tank level
Main burner will not start	The pilot has gone out The gas control valve is turned to "pilot" or "off" The ON/OFF switch is turned to "OFF" The remote control is not working correctly The thermostat is set too low	See "Starting the pilot light" step C See "Starting the pilot light" step C Turn the ON/OFF to "ON" See the remote control instructions Set thermostat to higher temperature
Remote control does not work	The pilot light has gone out The gas control valve is turned to "PILOT" or "OFF" ON/OFF switch is turned to "ON" (insert / ZC-fireplace stays on) The remote is too far away from the insert / ZC-fireplace The remote control receiver is turned "OFF" or "ON" One of the two remote control batteries is dead One of the four receiver batteries is dead	See "Starting the pilot light" See "Starting the pilot light" Turn the ON/OFF switch to "OFF" Use the remote closer to the insert / ZC-fireplace See the remote control instructions See the remote control instructions See the remote control instructions
Thermostat does not work	The pilot light has gone out The gas control valve is turned to "PILOT" or "OFF" ON/OFF switch is turned to "ON" (insert / ZC-fireplace stays on) thermostat is set too low	See "Starting the pilot light" See "Starting the pilot light" Turn the ON/OFF switch to "OFF" Set thermostat to higher temperature
Optional blower does not work	The insert / ZC-fireplace is not getting electricity The insert / ZC-fireplace is not up to temperature The thermostat switch does not work	Check the connection to the power supply See "Operating your insert / ZC-fireplace" Call your dealer for service
Flames are too blue	The insert / ZC-fireplace has just been started	This is normal- See "starting the insert / ZC-fireplace for the first time"
Flames are too short	The flame height may be turned too low	Turn the flame height to "HI" setting "Adjusting the flame height"
Thin layer of soot covers the glass	The logs are placed incorrectly Malfunction of gas components	See "Log set installation and removal" Contact your dealer for service

8.4. How this insert / ZC-fireplace works

This insert / ZC-fireplace was designed with safety as the primary concern. Many of the components inside this insert / ZC-fireplace are for safety purposes. Therefore, only certified gas service technicians should service this insert / ZC-fireplace.

What turns the main burner on and off:

This insert / ZC-fireplace uses a millivolt system to control its operation (a millivolt is a very small amount of electricity). The thermopile and thermocouple generate electricity when heated by the pilot flame. This electricity is used to operate the gas valve. Without enough electricity, the gas valve will not turn on. That is why when starting the pilot the gas control knob has to be pressed in long enough for the thermocouple to heat up and generate enough electricity. The thermopile provides power for the ON/OFF switch, remote control, or thermostat (See the illustration below). Because the thermopile generates the electricity needed to turn the insert / ZC-fireplace on and off, this insert / ZC-fireplace can be operated when the power is out (although the blower will not run).



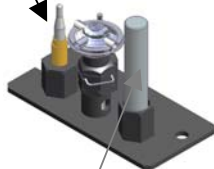
What prevents gas build-up:

This insert / ZC-fireplace utilizes a high technology gas valve in conjunction with a pilot flame to ensure no gas builds up inside the firebox.

The thermocouple (next to the pilot) senses when the flame is lit. If the pilot goes out, this thermocouple no longer generates electricity causing the gas valve to automatically shut off all gas to the insert / ZC-fireplace, preventing the pilot from spilling gas into the firebox.

Thermocouple

The thermocouple generates a small amount of electricity. If the pilot flame goes out, the gas valve automatically shuts off all gas.



Pilot flame

The pilot flame is a time-proven component that eliminates the possibility of gas buildup inside the firebox.



Gas valve

This high-technology valve automatically shuts off all gas if it does not receive a signal from the thermocouple. If any component is damaged or sensing a malfunction, or if the wiring is damaged, it will shut off all gas.

External shut off valve

This valve is placed on the gas line to shut off gas to the insert during maintenance procedures.



Ceramic glass

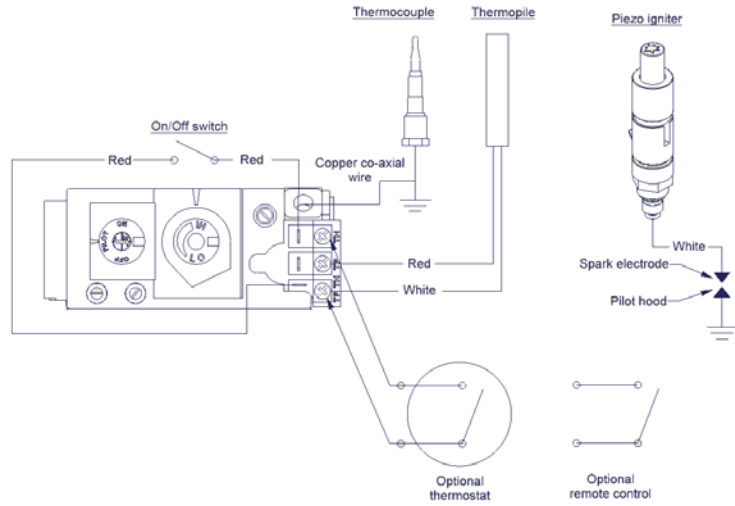
The glass in your insert is the most durable glass available. It has been tested to be extremely resistant to breakage from temperature changes.

8.5. Milivolt wiring diagram

For gas control valve and help equipment:

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

Diagram 3



8.6. Replacement part list

Caution: Use only SCAN original replacement parts. Do not use substitute materials.

Description	Part #
Burner	3670050
Regulator valve, natural gas	3601051
Regulator valve, propane	3601052
Conversion kit for conversion from LP to NG	3601011
Conversion kit for conversion from NG to LP	3601010
Orifice LPG	3601053
Orifice NG	3601054
Orifice for drilling up for high altitude	3601067
Glass for inner door	57570011
Glass for outer door	57570012
Gasket for pilot burner block	3601055
Upper baffle plate	3670058
Base plate	3670060 06
Log set complete	3670059
Log right	3670060 02
Log left	3670060 03
Log back	3670060 01
Fire brick plate, right	3670057 01
Fire brick plate, left	3670057 02
Piezo igniter	3601061
Thermopile	3601062
Thermocouple	3601063
Ignition wire	3601064
Manual	3670069
Blower	3670020
Rheostat for blower	3601065
Snap state for blower	3601066

9. Optional equipment (for qualified installer only)

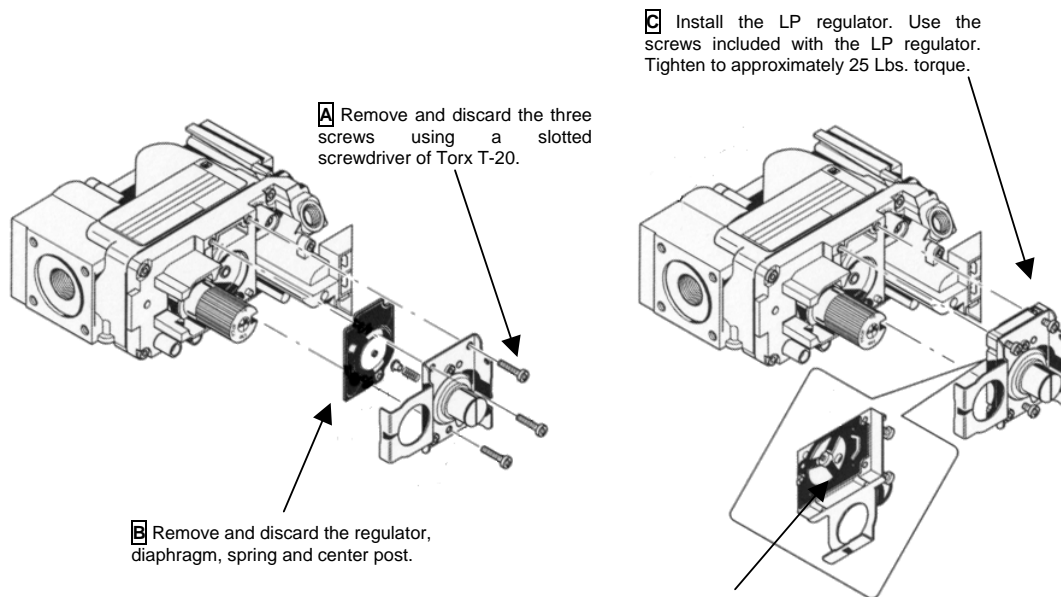
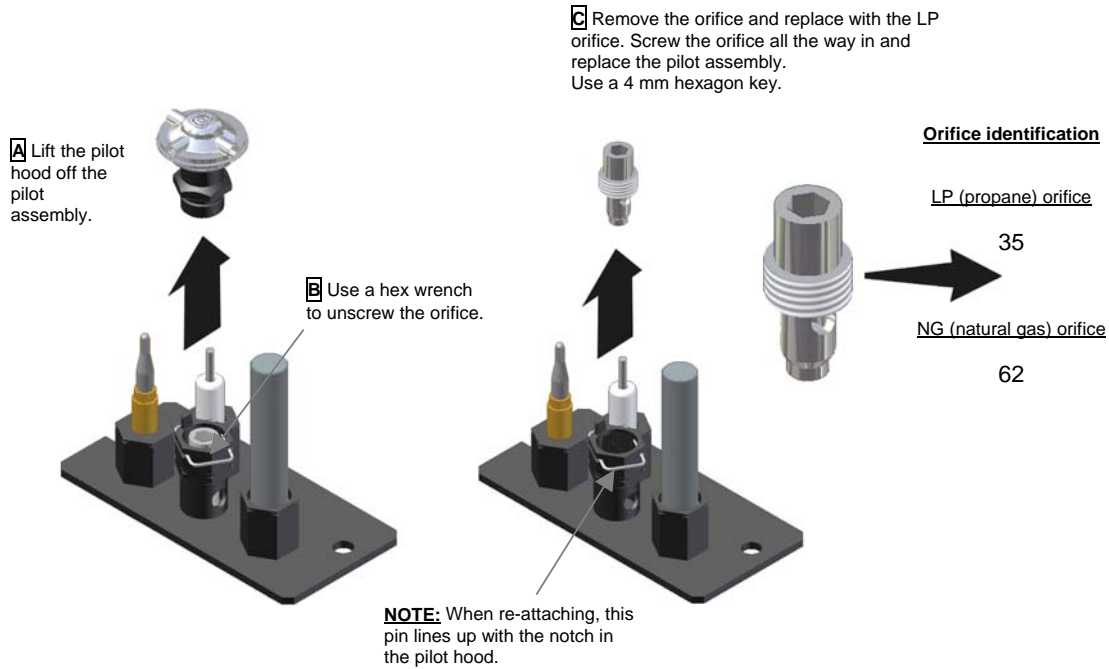
9.1. Conversion from NG to LP (for qualified installer only)

9.2. Conversion from LP to NG (for qualified installer only)

Caution: Use only Krog Iversen (SCAN) original spare parts for conversion

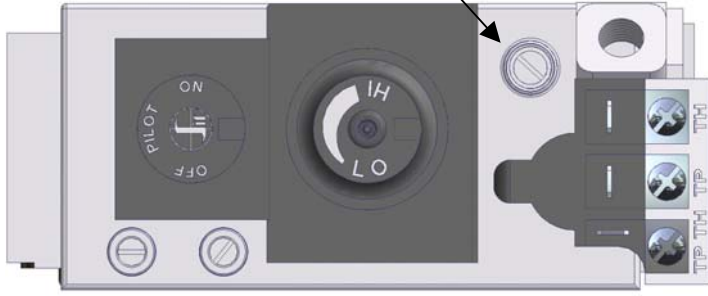
Install the conversion kit prior to installing the gas line to ensure proper gas use.

The procedure for converting is the same in both occasions but there is a conversion kit for each way.

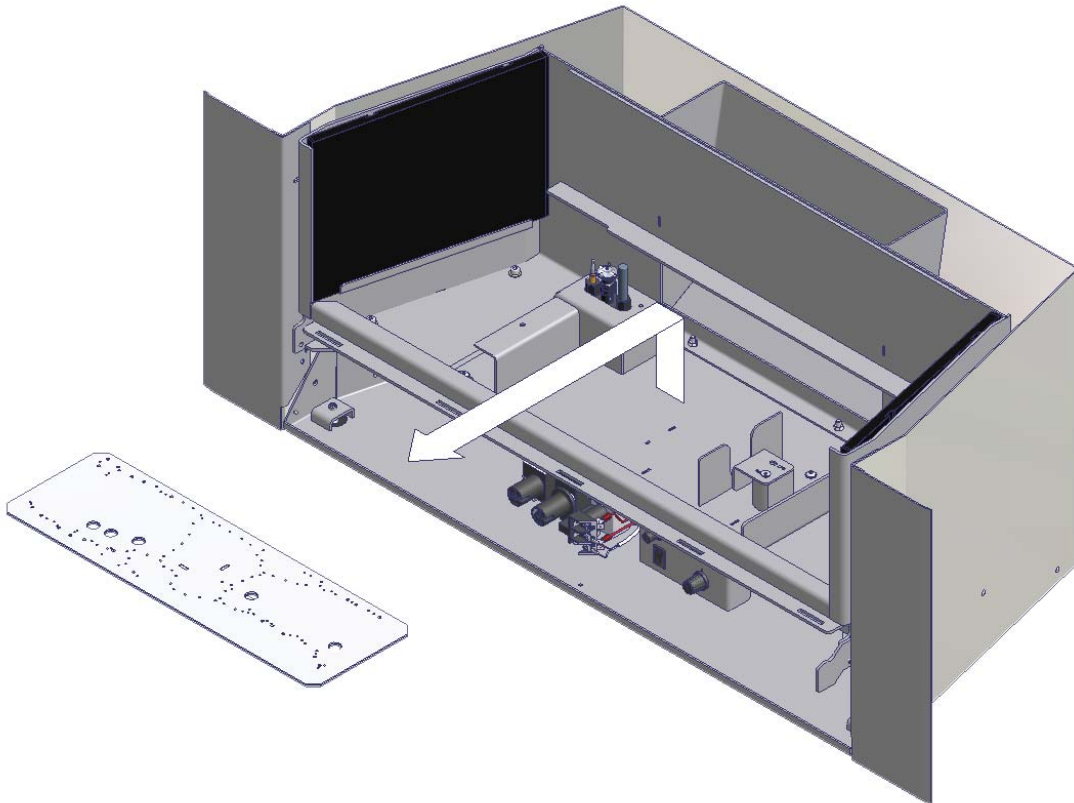


See the instruction included with the conversion kit for further details about the installation

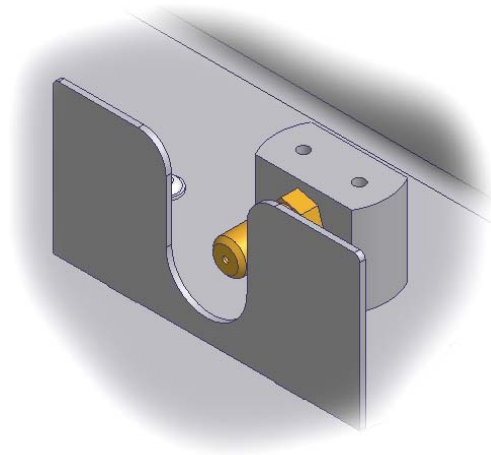
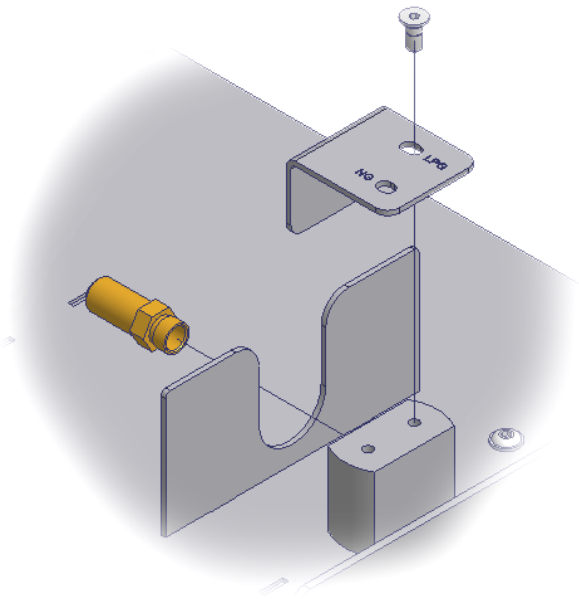
To adjust the pilot flame, turn this screw (NOTE: if totally unscrewed gas will come out of this port). Clockwise lowers the flame while counter-clockwise raises it.



The pilot flame must contact the thermocouple and thermopile (see the illustration below). Adjust the pilot up or down as necessary.



NG configuration

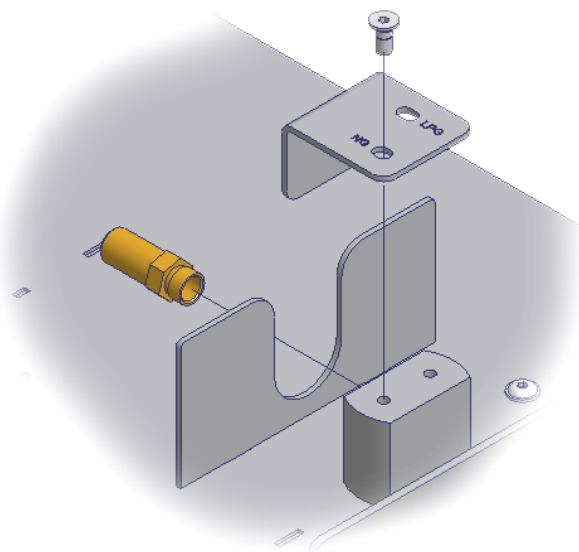


NG orifice
has "2.70"
stamped on it.

Use a 3 mm hexagon key and
a 13 mm open end wrench.



LPG configuration



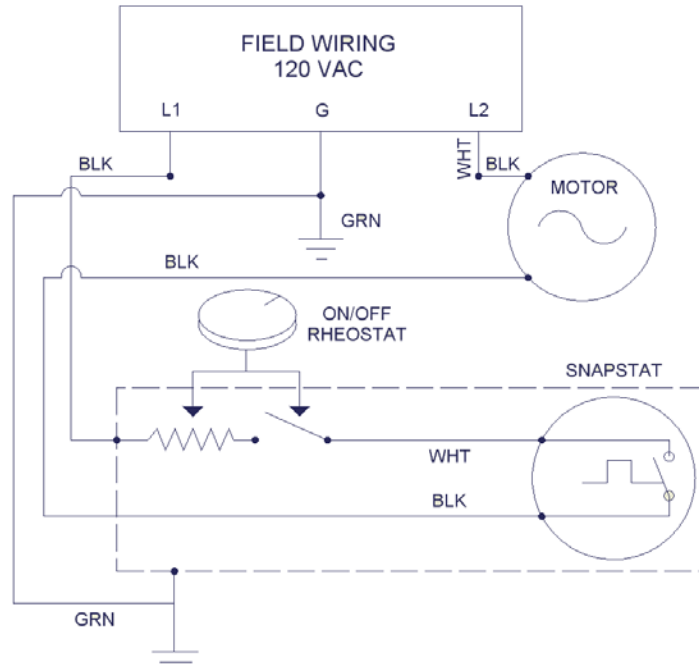
LPG orifice
has "1.65"
stamped on it.



Use a 3 mm hexagon key
and a 13 mm open end wrench.

9.3. Wiring diagram for blower 120 Volt

Diagram 4



9.4. Remote control

WARNING: Turn the gas control valve to off and make sure the appliance has fully cooled prior to conducting service.

NOTE: Do not connect 120 VAC to the gas control valve or wiring of this unit.

For operating the insert / ZC-fireplace with the remote control see the owners manual for the remote control, which was included with the remote control.

NOTE: There is a thermostat build in the remote control.

Use a 7 mm open-end wrench to fasten the nuts.



10. Warranty conditions for SCAN gas burning products

All Scan 70 gas inserts / ZC-fireplaces are subject to a strict quality control before they are shipped to the customer and end user. However, should an error occur, we back all SCAN gas burning inserts / ZC-fireplaces with an extensive five years limited warranty.

The warranty covers all parts that may require replacement, from a failure that was caused in the judgment of SCAN, to be a defect in material or workmanship.

This warranty is given to the first retail purchaser (other than for the purposes of resale) only and is not transferable. This warranty does not cover damage resulting from other than defects in material or workmanship or damage caused by unreasonable use including the failure to provide reasonable and necessary maintenance. In addition, this warranty does not cover repairs performed due to neglect, abuse, or use of the insert / ZC-fireplace other than in the application for which it is designed.

Specifically this warranty does not cover:

- Wearing parts, such as firebricks and gaskets (except damages that are visible at the time of delivery).
- Electrical assembly, gas control assembly, burner assembly and ceramic logs (other than defects that occur within the first year).
- Glass (except damages that are visible at the time of delivery or damages that occur during the first fire).
- Transport costs.
- Dismounting/mounting.

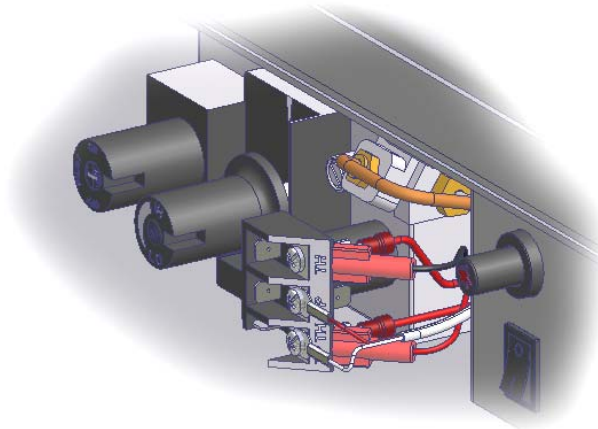
The warranty is invalid if the serial number for your SCAN insert / ZC-fireplace is removed or defaced or if service for defects covered under this warranty is performed by other than an authorized SCAN dealer or SCAN factory recommended service person.

This warranty is void if installation or service is performed by someone other than an authorized installer, service agency or gas supplier, or if installation is not in conformity with installation instructions and/or local fire and building regulations.

This warranty applies only to SCAN inserts / ZC-fireplaces sold within the United States of America and Canada.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES, ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR OTHERWISE, APPLICABLE TO THIS PRODUCT, SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. SCAN SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON LOST GOODS OR OTHERWISE.

See the manual following the remote control for setting of the receiver unit.



11. Safety label