Owner's Manual

manual

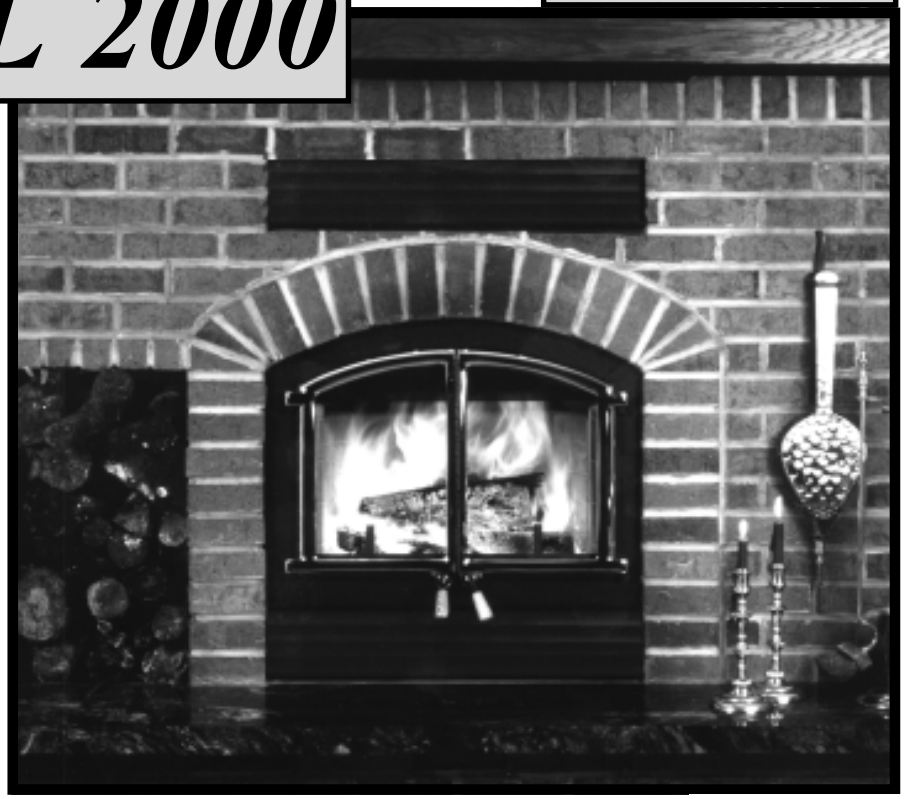
Residential Factory Built Fireplace

Operation

Maintenance

Installation

The OPEL 2000



Keep these instructions for future use.

RSF ENERGY®
Simply The Best!

opel8/99

Dear Customer,

The OPEL 2000 incorporates technology with elegance to give you a beautiful view of the fire without compromising on heating efficiency or environmental quality.

We have designed your new OPEL 2000 to be easy to install, operate and maintain. It is in your best interest to become familiar with it. Study your manual to be sure that the installation is correct, then follow the guidelines for operation and maintenance.

We at RSF ENERGY congratulate you on your choice of the OPEL 2000, and are confident that you have purchased a fireplace that is simply, the best.

Sincerely,
The RSF Energy Team,
June, 1999

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SAFETY FIRST

DO'S AND DON'TS

If this fireplace is not properly installed, a house fire may result. For your safety, follow the installation directions. Contact local building or fire officials about restrictions and installation requirements in your area.

Note: We strongly recommend installers to be WETT or WHERF certified.

To ANYONE using this fireplace:

These DO's and DO NOTs are for your safety.

1. DO read this instruction manual before lighting your first fire.

2. DO burn seasoned wood fuel or processed solid fuel firelogs.

3. To avoid glass breakage, DO NOT slam the fireplace door.

4. DO NOT use gasoline-type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or freshen up a fire in this fireplace. Keep all such liquids well away from the fireplace.

5. **DO NOT overfire the fireplace. If the chimney connetor behind the top louvre glows red, or if you are unable to slow down the burning rate of the fire, you are probably overfiring the fireplace.**

6. DO operate the fireplace with doors fully open or fully closed. If doors are left partly open, gas and flame may be drawn out of the fireplace opening, creating risks of both fire and smoke.

7. DO keep all combustible materials (furniture, shoes, etc.) at least 4 feet away from the front of the fireplace.

8. If the OPEL 2000 is equipped with a catalyst it needs periodic inspection for proper operation. If you have the catalyst installed, DO NOT burn chemical chimney cleaners. They contain contaminants that will render the catalyst inoperative.

9. DO NOT use a fireplace insert or other products not specified for use with this fireplace.

10. **If you use the fireplace with the doors wide open, install a firescreen (FD-FS) to prevent logs and sparks from burning your floor.**

CREOSOTE: Formation and removal

When wood is burned slowly, it produces tar and other organic vapours which combine with expelled moisture to form creosote. The creosote vapours condense in the relatively cool chimney flue of a slow burning fire. When ignited, this creosote makes an extremely hot fire. The chimney should be inspected periodically during the heating season to see if a creosote build-up has occurred. If a significant layer of creosote has accumulated (1/4" or more), it should be removed to reduce the risk of chimney fire.

WARNING: Burn dry wood only!

DO NOT Burn:
- driftwood
- treated wood
- coal
- garbage
- plastic

Do not use construction scraps (e.g. 2x4 or plywood scraps) as your only supply of fuel as you may overheat and seriously damage the fireplace. Do not use more than 3 densified fuel logs (e.g. Presto Logs) at a time. Do not poke or stir the logs while they are burning. Use only firelogs that have been evaluated for fireplace use and refer to firelog warnings and caution markings prior to use.

GENERAL SPECIFICATIONS

THE COMBUSTION CONTROL SYSTEM

Since the doors are sealed, all combustion air must come through a draft control. This control has a bimetal coil to allow more air when the unit is cold, and less air when the unit is hot, guarding against overheating. It can be controlled either manually through the lever below the door handles, or automatically through the optional electric wall thermostat.

For the first few days, it is best to operate the fireplace with the manual control fully on (moved to the right as far as possible). Just control the fire as you would any normal fireplace using two or three large logs at a time for a smaller fire, or more logs for more heat. Once you become familiar with operating the fireplace with the control open, you can start experimenting with lower settings. Remember: when the fireplace is hot, the control will not need as much movement to reduce the fire as when it is cold. The bimetal coil will already have shut the damper part way.

FIRESCREEN (option)

If you want to use the fireplace with the doors completely open, you have to run it with the firescreen (FD-FS) in front of the opening. The firescreen will prevent sparks from falling on the floor. Do not leave the fireplace unattended when using the firescreen.

THERMOSTAT (option)

If you want a constant temperature, day and night, you will be surprised what the wall thermostat option can do for you. Once you have your fire burning, just set the manual control on low (push the draft control lever all the way to the left) and let the automatic thermostat take over. Your room temperature will keep as even as though you were heating with oil, gas, or electricity — except you will find wood heat more comfortable (See Options: Wall Thermostat FD-HC4)

NOTE: This thermostat controls the combustion air rate, not the internal circulating blower. Also, when you are using the automatic thermostat during cold weather, you will find that the fire burns cleaner if the manual setting is on medium or higher. This will keep the thermostat from shutting the fireplace right down during the automatic on - off cycle.

INTERNAL CIRCULATING BLOWER (option)

If you have the optional internal blower installed, adjust the speed of the blower to the output you require. The blower speed control should be installed at a convenient place on the wall. When a fire is burning, the thermal switch installed inside the fireplace will turn on at 110° F, allowing the blower to operate. When the OPEL 2000 cools to 90° F, the switch deactivates the blower. The maximum heat output of the fireplace is greater with the blower running (See Options: Circulating Blower FD-HB5-N).

GRAVITY VENT SYSTEM (option)

If there are areas in your home that you would like to heat either in an upper level or an adjacent room, the gravity vent system can provide this heat without the use of a blower. It is controlled by a gravity vent damper. The handle is located between the top louvres of the fireplace. Simply turn the lever to adjust the air flow through the gravity vent ducting. As the hot air rises, it will be distributed through the insulated ducting to the outlet (See Options: The Gravity Vent System FD-V).

CENTRAL HEAT SYSTEM (option)

You have the option to heat remote rooms in your home with the heat generated by your fireplace. If this option is installed, there will be a wall thermostat installed in the main room you want to heat, away from the room which contains the fireplace. This thermostat controls the blower, which brings air to the other rooms in your home, keeping them at the temperature you desire. When the blower is running, it takes air from the room the OPEL 2000 is in, draws it around the fireplace and distributes it (See Options: Central Heating System FD-HC6/FD-HB6).

NOTE: The blower (FD-HB6) can push warm air either up or down, and can also be zone controlled (See Options: Zone Heating).

HINT: If some evening you would like to enjoy the ambience of the wood flame, but you are a little too warm, turn up the central heating thermostat and open a window by the thermostat. This will keep your room in front of the fire from getting too warm.

CATALYTIC COMBUSTOR (option)

If the OPEL 2000 is equipped with a catalyst, it ignites creosote-forming gases in wood smoke at significantly lower temperatures. As a result, you get less creosote and more heat from your fire at low to medium burn rates. Less fuel goes up your chimney in the form of smoke. In addition to the list on page 3, **DO NOT** burn chemical chimney cleaners, as they can contain contaminants that will render the catalyst inoperative.

The catalytic option comes with a bypass damper which serves two functions:

a) to eliminate smoking into the room when the doors are opened.

b) to allow the fire to start quickly when the fireplace is cold.

Make sure the bypass damper above the right door is pulled all the way out before opening the doors. When starting a fire, the bypass damper should be left open long enough to establish sufficient draft (approximately 30 minutes).

The temperature in the firebox and the gases entering the catalyst must be raised to at least 500° F for catalytic activity to be initiated. When you start the fire, keep a medium to high fire for about 30 minutes to stabilize the catalyst at a sufficient operating temperature. If the fire is allowed to die down too soon after starting,

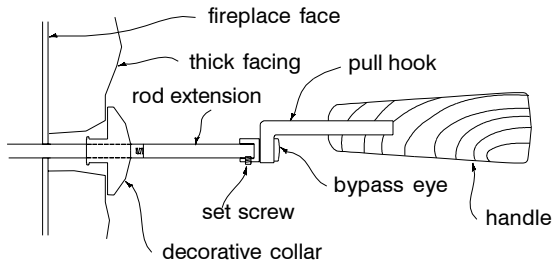


Figure 1: Bypass control with extension rod

the catalyst may stop working. After the 30 minutes of a medium to high burn, however, the catalyst will operate with the heat generated by the burning smoke, even with a low fire.

OPERATION

LIGHTING

Slide the draft control under the doors all the way to the right. Light a fire in the fireplace, starting with paper and kindling only. Then add 2-3" diameter wood. After the fire is established, close the doors to prevent overheating (see the Combustion Control section). Never use any flammable liquids. Once a coal bed is established, add standard cord wood. Leave the draft control open until the fire is well lit, then adjust it to the level you desire.

WARNING: ***Do not use a grate or elevate the fire*****.**

THE FIRST FIRE

Before the first fire, be absolutely sure to wipe off all fingerprints and debris from the gold plating. The plating undergoes a sealing process during this first fire, and the acid from your finger prints will permanently etch the gold plating. You will experience a slow start-up during the first fire. The refractory bricks still contain moisture and take a good hot fire to get rid of the moisture. While there is moisture in the bricks, the bricks will be black with smoke deposits. When the moisture is gone, the bricks will be white. You may also experience a slight odour during the first few fires. This odour results from the curing paint and the burn-off of oil.

REFUELLING

Fuel wood can be of any species. However, ensure that the wood is well seasoned and kept under cover. Sixteen to eighteen inch lengths work the best.

NOTE: The central heat and internal blowers, if installed, should be shut off during refuelling.

The doors should be opened slowly, moving both doors together, to keep smoke from spilling into your room. If you do have smoke spillage, check to see that all kitchen and bathroom fans have been shut off. They can cause a vacuum in the house, which pulls smoke out of the fireplace.

If you have the OPEL 2000 with the catalyst: After refuelling a cool fire or a fire that has burnt down to a cool coal bed, operate the fire at a medium to high burn rate for at least 10 minutes to ensure that the catalyst reaches operating temperature.

MAINTENANCE

CLEANING

The high-heat paint and gold plating can be cleaned with a soft moist cloth. Use a mild detergent and water. **Do not use abrasive cleaners!**

ASHES

Clean the ashes before they become too deep, i.e., before you have a spillage problem when opening the doors.

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial, or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

DOORS

Keep the door latch and hinges lubricated with all-purpose grease at least annually. To adjust the door closer, tighten the Allen screw (as shown in figure 2) to ensure that the door closes tightly. The hinges are adjustable by removing the cap on top, and loosening the nut underneath (picture 1). The hinge pins are manufactured off-center to facilitate easy adjustment. With a flat screwdriver, the pins can be turned so that the doors seal well and fit with each other (picture 2). After adjustment, tighten the nuts, holding the hinge pins in place with the screwdriver, and replace the hinge caps.

If the door seal is damaged to the point where it does not seal tightly, replace the gasket. The gasket replacement kit (part FD-GRK2) is available from your dealer.

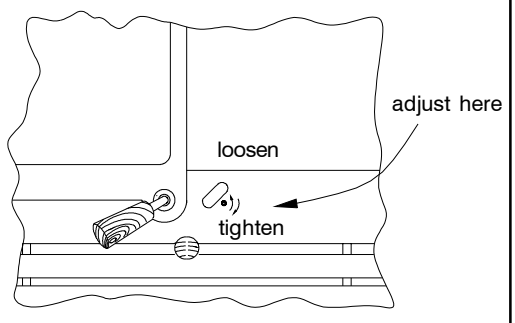
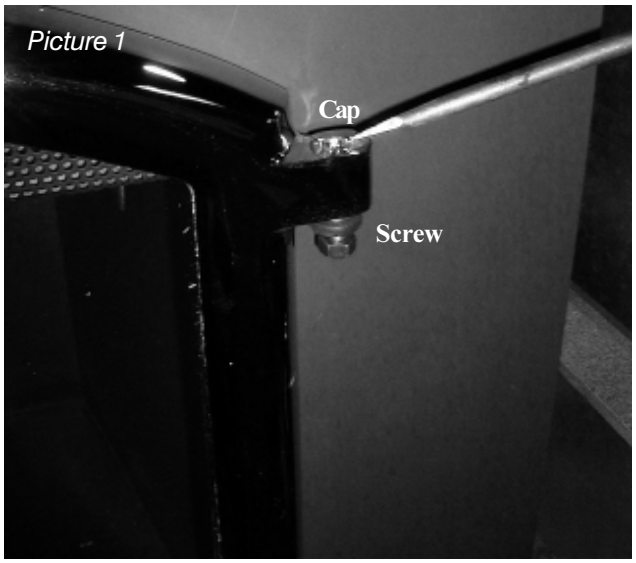
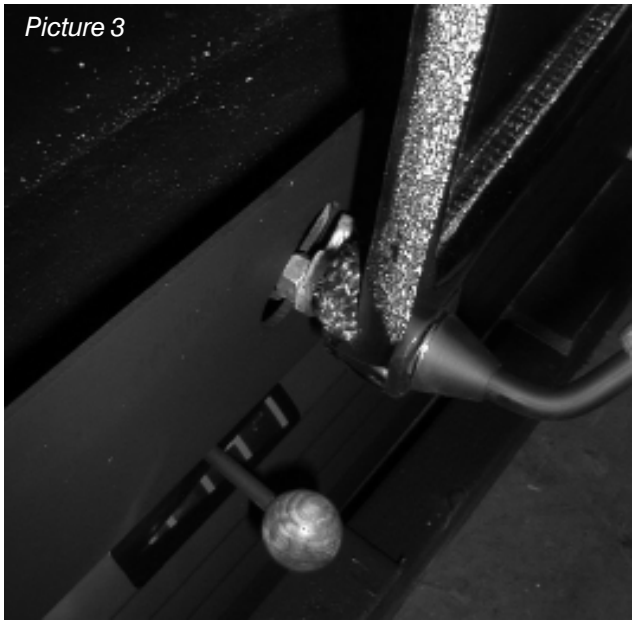


Figure 2: Doors adjustment

It is normal to push on the handle to close the doors (picture 3). To verify that the doors are well sealed, insert a piece of paper between the door and the fireplace (picture 4). On the top part, you should not be able to pull out the paper without tearing it. On the side and bottom part, you should be able to pull out the piece of paper with some resistance (picture 5).

The doors sealing is the most important factor that affect the burning control on the Opel 2000 fireplace. Make sure that they are well sealed.

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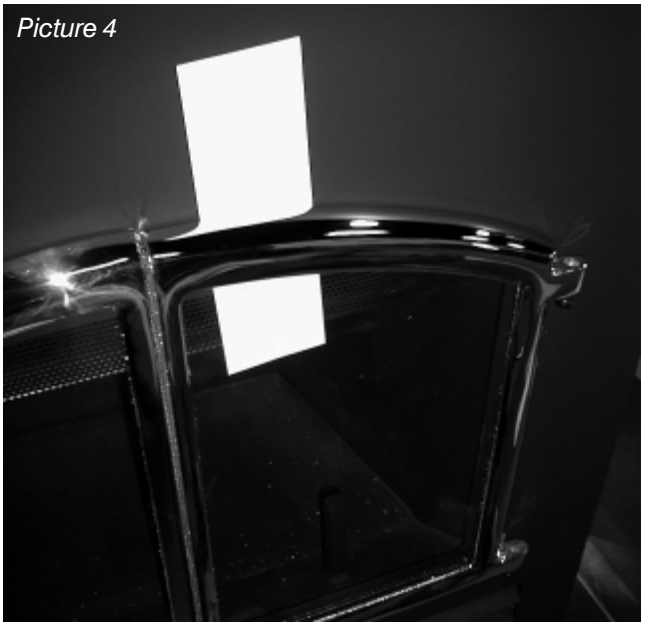
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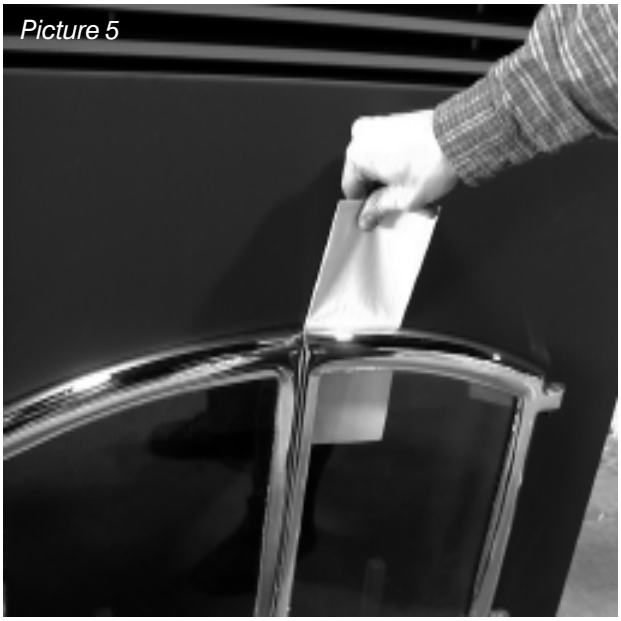

Picture 5

GLASS

In a controlled combustion firebox, temperatures are not always high enough to keep the glass perfectly clean. A good hot fire in the morning usually cleans off most of the deposits that have accumulated during the night. Remember the drier the wood, the cleaner the glass. A word of caution: although heat will not break the glass, a good blow can. Be careful not to hit the glass.

WARNING: **Never clean this glass with an abrasive cleaner.** Use only a cleaner recommended by your dealer. **Never clean the glass while it is hot. You risk getting a serious burn.**

If your glass breaks:

See your dealer for the exact replacement glass. If the gasket is damaged, it must be replaced with the identical kind (R7002). Place the gasket on the door frame between the door and the glass (it is self-sticking).

1. Remove the door from the fireplace by lifting it off the hinges.

2. Remove the clips holding the glass.

3. Clean out any bits of glass and dirt from the gasket.

4. Place the new glass into the opening and replace the clips being careful not to over-tighten the screws.

5. Check the glass by trying to move it back and forth. It should feel snug, but move slightly without too much effort.

GOLD PLATING

If you have gold doors or gold louvers, you will be happy to know that they will not tarnish however, they are not scratch resistant. They require a totally abrasive free cleaner. **Use only mild soap and warm water to clean the gold when the surface is cool.** The use of any household cleaner, such as Windex, abrasive cleaners, or any form of acid, may permanently etch or remove some of the gold plating. Before every fire, be absolutely sure to wipe off all fingerprints from the gold plating. Acid from debris or your fingerprints may permanently etch the gold plating.

CHIMNEY CLEANING

Check the chimney for creosote build-up every week until experience shows how often cleaning is necessary. A build-up of 1/4 inch or more should be cleaned mechanically before more creosote accumulates. Use a wire brush that fits correctly into the chimney. The baffle in the firebox must be removed to gain access to the flue from below.

Baffle removal:

1. Remove the secondary air tube and the refractory liners.

2. Slide the baffle towards the front of the fireplace and rotate it so that you can lower it to the bottom of the fireplace opening.

3. Remove the baffle through the door opening.

Follow the reverse procedure to re-install it.

PAINT

You may touch up the face of the **OPEL 2000** with STOVE BRIGHT Flat Black high temperature paint. The correct paint is available from your dealer. When you paint the face of the fireplace, remove the gold items (i.e., doors and louvers), and cover the area surrounding the fireplace with newspaper. Follow the directions outlined on the spray can. **DO NOT** attempt to paint while the fireplace is still warm. Keep the spray can away from any source of heat or open flame. Ensure that there is adequate ventilation in the room from the time you start painting until the paint is dry.

CATALYTIC COMBUSTOR (option)

The catalyst is warranted by the catalyst manufacturer, please insure that you keep the warranty card. If the catalyst fails, it should be replaced with Applied Ceramics Model 3621202-52-C. The dimensions of the catalyst are 3.875" x 12.25" x 2".

It is important to periodically monitor the operation of the catalyst to ensure that it is functioning properly and to determine when it needs to be replaced. A non-functioning catalyst will result in a loss of heating efficiency, and an increase in creosote and emissions.

Catalysts should be visually inspected at least three times during the heating season to determine if physical degradation has occurred. Actual removal of the catalyst is not recommended unless a more detailed inspection is needed because of a noticeable decrease in performance.

You can get an indication of whether the catalyst is working by comparing the amount of smoke leaving the chimney when the smoke is going through the chimney after light-off has been achieved, to the amount of smoke leaving the chimney when the bypass damper is open:

1. Light the fire in accordance with the instructions under lighting. After the fireplace is warm, set the manual control (and the thermostat, if this option is installed) to low.

2. With the bypass damper closed, the smoke is routed through the catalyst. Go outside and observe the emissions leaving the chimney.

3. Open the bypass damper and again observe the emissions leaving the chimney.

Significantly more smoke should be seen when the exhaust is not routed through the catalyst, i.e., with the bypass damper open. Be careful not to confuse smoke with steam from wet wood.

The catalytic combustor is self-cleaning, and requires very little maintenance. Any loose ash should be removed with a paintbrush. If the catalyst is plugged with creosote, you may try burning it off by leaving the bypass damper in a partially open position and pushing the draft control all the way to the right. You may also burn off the excess creosote with a propane torch.

WARNING: Do not use sharp or hard tools to clean the catalytic combustor as this will damage it.

Catalyst removal and replacement

1. Remove the screws holding the brackets, one on each side of the catalyst.

2. Carefully ease out the catalyst, using a knife blade if it is tight.

3. Replace the catalyst the same way it was removed. If the gasket is loose, re-cement it to the outside using a silicone adhesive. A damaged gasket should be replaced with 3M “Interam” 1/16” x 2” x 36”.

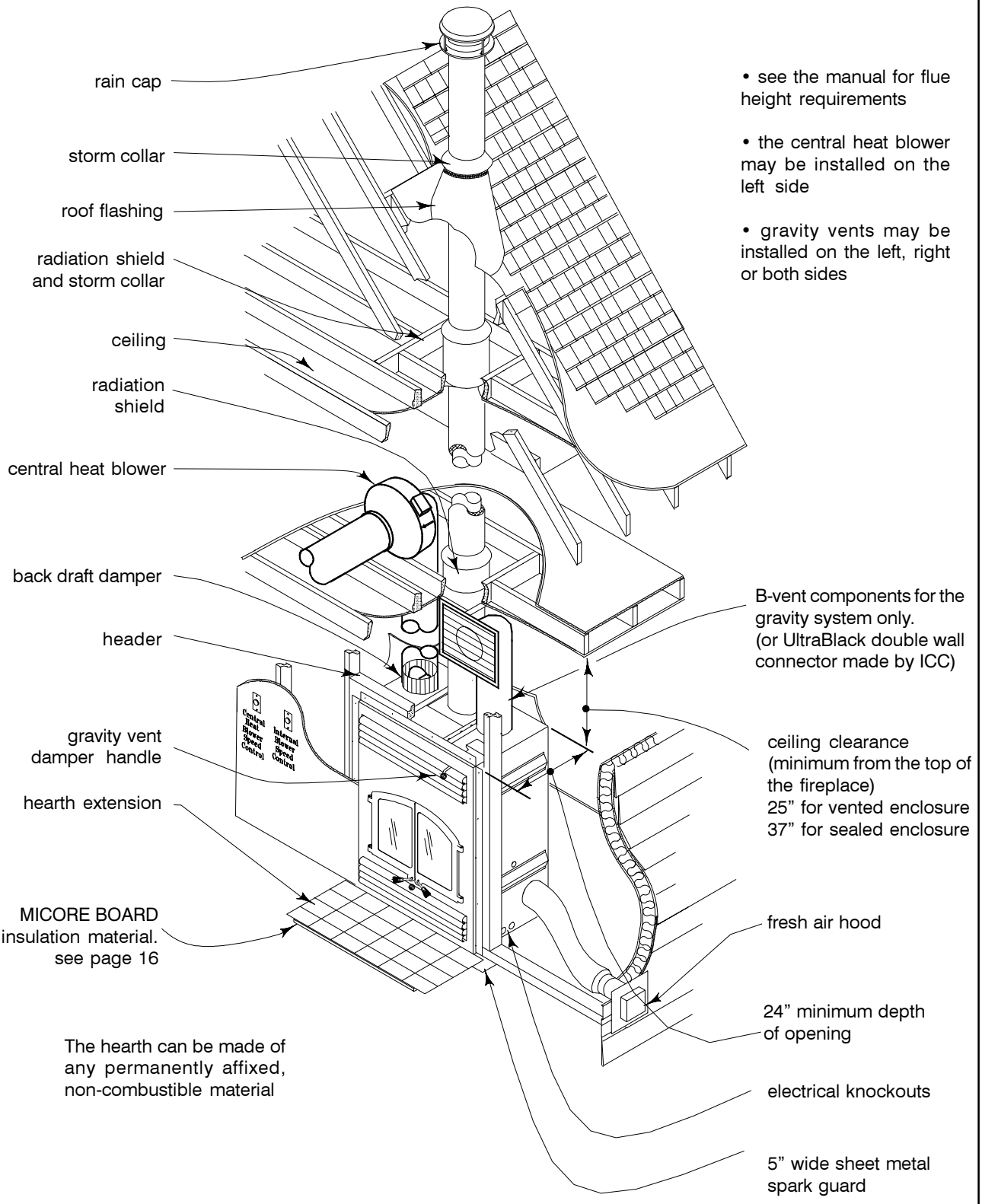


Figure 3: General assembly

INSTALLATION

Check local codes concerning restrictions and installation requirements in your area.

WARNING*: Remove the doors before installation and place them in a safe area to reduce the possibility of:*

a) Vandalism
b) Sub - trade tool abrasion, chipping, or breaking of glass.
c) Gold finish damage because of muriatic acid, plaster, cement, paint and harmful sprays or liquids.

NAILING STIPS

Three (3) nailing strips are included with the OPEL 2000. Those nailing strips must be installed on the fireplace before its installation. The three strips (two for each side and one for the top) are screwed on the unit (see figure 13). Use the screws supplied with the fireplace. Make sure that the nailing strips are fastened before framing in the fireplace.

LOCATION

Your OPEL 2000 fireplace may be installed in many different ways (see figure 4) without any special floor reinforcement.

WARNING: *If this fireplace is not properly installed, a house fire may result. For your safety, follow the installation directions and clearances.*

1. Note the location of roof and floor joists. Choose a location that does not require cutting them.

2. Do not build shelves or cupboards in the area above the fireplace. This space must be kept empty.

3. If at all possible, run the chimney up the inside of the house. If it must be run up outside, it should be enclosed in an insulated enclosure (see Installation: Chase Enclosure). **Remember, a cold chimney causes poor draft!**

CEILING CLEARANCE

Ceiling clearance is the distance from the top of the fireplace to the ceiling.

If the space between the top of the fireplace and the ceiling joists is less than 37 inches, the enclosure around the fireplace MUST be vented. Place a minimum 3" X 10" vent grille into holes cut within one foot of both the floor and ceiling levels, to allow room air to circulate through the fireplace enclosure and reduce heat build-up. These vent grilles may be placed vertically or horizontally. Under no circumstances is the distance between the ceiling and the top of the unit to be less than 25 inches (see figure 3).

OUTSIDE AIR DUCT

After the fireplace is correctly positioned, connect the combustion air inlet to the outside (see figure 5).

1. Find a convenient location for the combustion air duct and register. The location of the register may be above or below floor level.

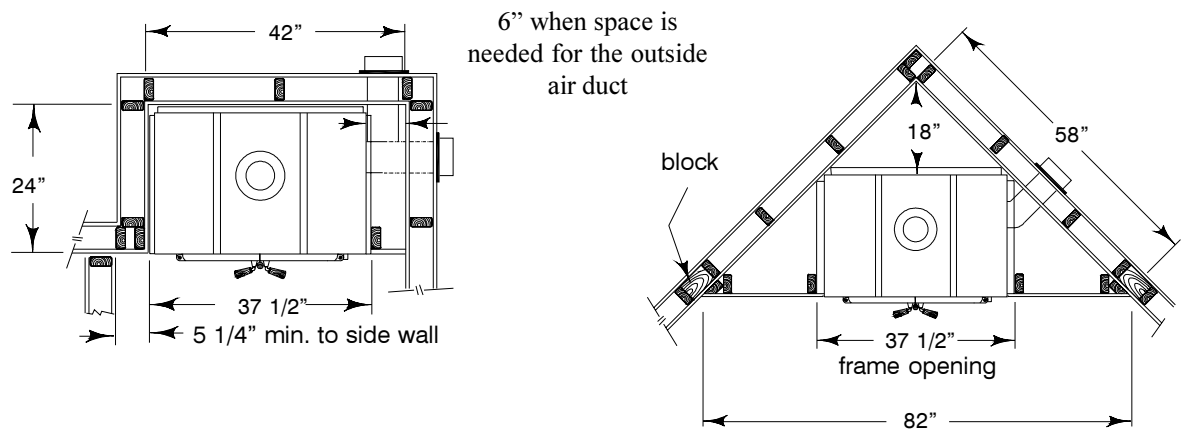


Figure 4: Location dimensions

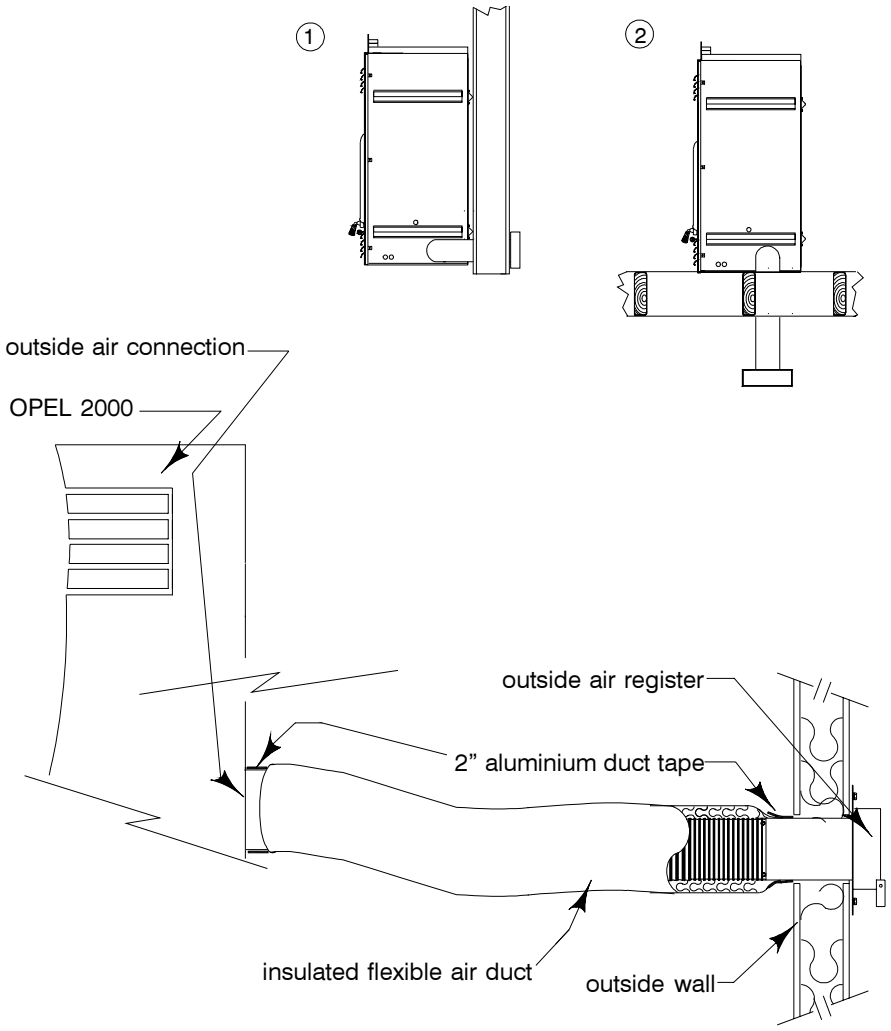


Figure 5: Outside air connection and installation options

2. Make a 5 1/4" hole in the outside wall of the house. Mount the register in the hole from the outside with the inlet facing down.

3. Place the insulated flexible duct over the register tube and outside air connector sleeve. At both ends, carefully pull back the insulation and plastic cover, exposing the flexible duct. Then at each end, attach the duct with metal screws to the inlet and tube. Carefully push the insulation and cover back over the duct. Tape the plastic cover in place with the 2" aluminum duct.

CAUTION: *When running duct around corners, be sure to prevent crimping that would restrict the combustion airflow.*

Use a 5" diameter insulated duct rated at over 200° F. Our testing has shown that as long as the 5" diameter insulated duct is utilized properly, there is no restriction on the length of the run. It is recommended that the duct does not exceed 12 ft. vertical height rise above the base of the unit. The air inlet should never be less than 5 ft. below the top of the chimney flue.

Outside air door

The Opel 2000 is designed to use outside air instead of inside air for combustion but you may choose to use inside air for combustion air.To do so, open the sliding door on the bottom inside right of the fireplace (behind the bottom louver. Note that the fireplace uses outside air when the handle is closer to the back of the fireplace and inside air when its closer to the front. We recommend the use outside air for combustion.

CHIMNEY

This fireplace is certified for use with 7" ICC Model EXCEL chimney. The chimney system height from the **top** of the fireplace must be a minimum of 12 ft. and a maximum of 28 ft.

The minimum height of 12 ft. must be increased by approximately 1 ft. for every 2000 ft. elevation above sea level. Every 30° or 45° elbow also increases the minimum height by 1 ft. For example, if you are living 6000 ft. above sea level, your chimney must terminate at least 15 ft. from the top of the fireplace (12 ft. + 3 ft. for the 6000 ft.). See Table #1 for more precise recommended flue heights.

CHIMNEY INSTALLATION

*NOTE: The clearance between the chimney and combustible material must be **2" or more. DO NOT** fill this area with insulation.*

1. Cut and frame the required holes in the floor, ceiling and roof where the chimney will pass through. Use a plumb bob. **The framing size is 13 1/4" square.**

2. From below, install a radiation shield in each floor through which the chimney passes. At the attic level, install a radiation shield and a storm collar as shown in figure 6).

3. Place the first chimney length on the fireplace. Secure the chimney length to the fireplace with the three screws provided.

The chimney must extend at least 3 ft. above its point of contact with the roof and at least 2 ft. higher than any wall, roof, or building within 10 ft. of it.

If the chimney is higher than 5 ft. above the roof, it must be secured using a roof brace.

4. Put the roof flashing into place. Seal the joint between the roof and the flashing with roofing tar. For sloping roofs, place the flashing under the upper shingles and on top of the lower shingles. Nail the flashing to the roof using roofing nails.

If the chimney is enclosed to the roof:
- USA: use a vented flashing.
- CANADA: use a vented flashing or a roof radiation shield (ERRS) and a regular flashing.

5. Place the storm collar over the chimney and flashing. Seal it around the chimney with silicone sealer (DO NOT use roofing tar).

6. Fit the rain cap on the chimney. Secure it tightly in place.

7. Wash the roof flashing with solvent (or vinegar if the flashing is galvanized), then paint it with exterior paint.

8. Read the EXCEL Chimney installation manual concerning requirements for supports, bracing, anchors, etc.

MASONRY CHIMNEY

Warning: When contemplating using an existing chimney, it must first be thoroughly inspected by an authority having jurisdiction to determine the following:

1. It is a well constructed, lined masonry chimney, fully in accordance with Local Building Codes and the National Building Code of Canada (NBCC) 9.21 or NFPA 211.

TABLE #1

MINIMUM RECOMMENDED FLUE HEIGHTS IN FEET
FROM THE TOP OF THE FIREPLACE

NUMBER OF ELBOWS

Elevation(ft)	0	2 x 15°	4 x 15°	2 x 30°	4 x 30°	2 x 45°	4 x 45°
0-1000	12'	13'	14'	15'	18'	16'	20'
1000-2000	12'6"	13'6"	14'6"	15'6"	19'	16'6"	20'
2000-3000	13'	14'	15'	16'	19'6"	17'	21'6"
3000-4000	13'6"	14'6"	15'6"	17'	20'	18'	22'6"
4000-5000	14'	15'	16'	17'6"	21'	18'6"	23'
5000-6000	14'6"	15'6"	17'	18'	21'6"	19'	24'
6000-7000	15'	16'	17'6"	18'6"	22'	20'	24'6"
7000-8000	15'6"	16'6"	18'	19'	23'	20'6"	25'6"
8000-9000	16'	17'	18'6"	20'	24'	21'	26'6"
9000-10000	16'6"	17'6"	19'	20'6"	24'6"	22'	27'

2. It has been thoroughly cleaned of any soot or creosote residue and inspected to determine that it is in good condition.

3. There is no attic insulation of any type in contact with the chimney and no insulation stuffed in around the chimney at any point, for any reason.

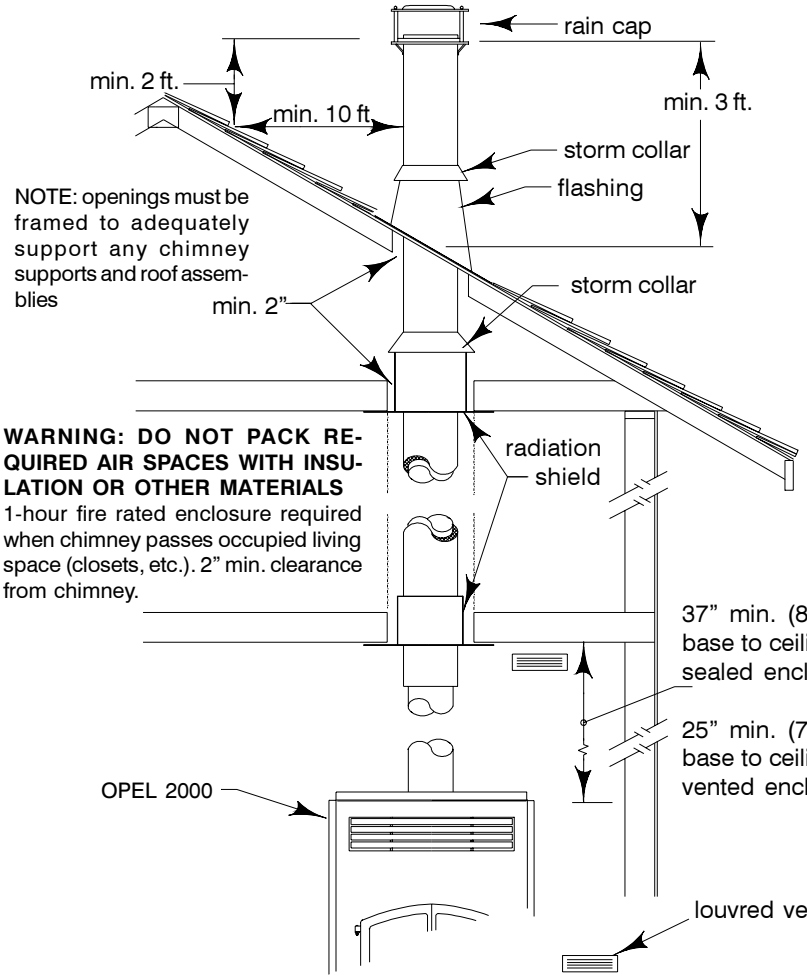


Figure 6: Chimney Installation

4. There is, as per NBCC 21.9.5 or NFPA 211, the necessary air space clearance at all points around the chimney from floor to roof flashing. If the chimney is enclosed in drywall, openings will probably be required in order to verify clearances at all points.

5. Chimney will be used only for the fireplace and may not be used to vent a furnace, water heater or any other appliance.

6. If major repairs are required to meet the above conditions, a new chimney should be constructed.

New chimney installation:

To ensure adequate draft and to facilitate cleaning, the fireplace must be connected to the chimney using 7" diameter EXCEL chimney with an elbow, as shown in figure 9. An ICC 7" rigid stainless steel liner and a 45° stainless steel elbow are attached to the chimney and secured in place using a liner adapter (#FD-M). If you use a 6 x 10 clay liner you will need to ovalize the stainless steel liner to fit into the clay liner. It is recommended that you position your fireplace before building the chimney. The factory built chimney sections can easily be installed as the layers of brick are being placed.

Note: *If the ceiling is high enough some vertical chimney can be installed before the 45° or 30° elbow is installed.*

Existing chimney installation:

If it is difficult to install rigid stainless on an existing chimney, a listed stainless steel flex liner can be used. Special care is to be taken when installing the flexible liner. A positive connection is assured with the masonry adaptor (part FD-M) available from your dealer. The stainless steel flex liner connects to the masonry adaptor with a flexible/rigid adaptor (part LAF) and is secured with the 3 stainless steel rivets provided. The masonry adaptor is then secured to the Excel chimney with the 3 screws provided. The stainless steel liner fits inside the clay liner all the way to the top of the masonry chimney. It is not meant to replace the clay liner. After mortaring in place, the connection should not be visible. Care must be taken when cleaning to ensure that the stainless steel flex liner is not dislodged.

As depicted in Figure 7, the EXCEL chimney is to be a minimum of 18" from the connection point at the elbow to the masonry adaptor. The uppermost part of the metal chimney where it enters the masonry chimney must be a minimum of 12 inches from the ceiling.

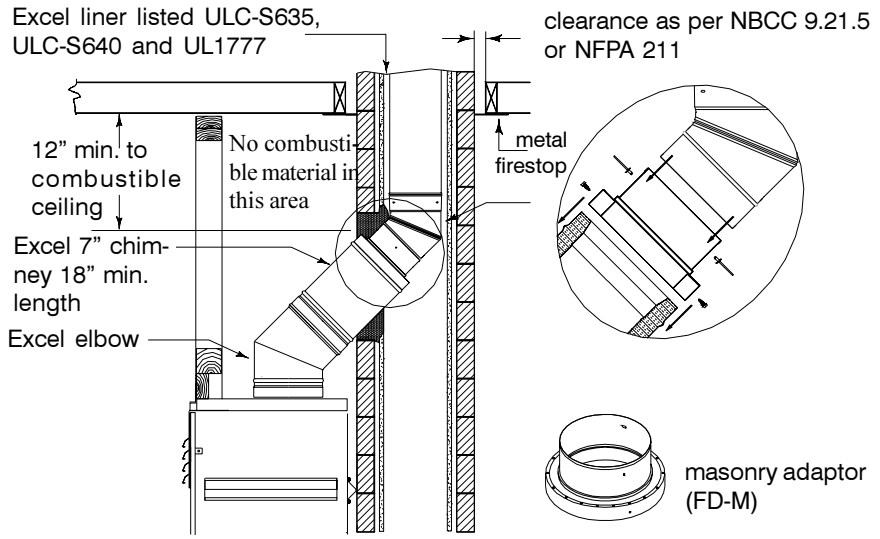


Figure 7: Connection to masonry chimney

to the first fire-stop. If the climate in your area is very cold, insulate the chase to the top to keep the flue warmer, to increase the draft, and reduce creosote buildup.

NOTE: In USA if the chase is enclosed or flashed to the roof as shown in Figure 9, then the flashing must be vented.

If required by local codes, make certain that the walls have been properly insulated, vapor sealed and sheathed with a fire rated gypsum board (see figure 9).

REMEMBER: Check local codes concerning installation requirements and restrictions in your area.

1. Sight-in and mark the outline of where the factory-built chimney will penetrate the masonry chimney.

2. Using a large (3/4" - 2") masonry drill bit, drill a hole exactly in the center of the oval outline. With a masonry hammer and drill, slowly enlarge the hole to the size required. Remember to work from the center out. Be especially careful with the clay liner behind the brick because three sides of it **must** stay in place.

3. Bring the stainless steel liner down from the top of the chimney. If you are using a rigid liner you will need enough room to secure an elbow to it with at least two screws. For chimneys with less than 10" X 10" inside you may find it easier to install a flex liner and secure the end with a special adapter (part #LAF) available from your dealer.

4. Move the fireplace forward enough to install the length of EXCEL chimney then move the fireplace back into position as you connect the masonry adaptor to the EXCEL chimney.

CHASE ENCLOSURE

If the chimney runs up the outside of the house, it must be enclosed in a chase structure. It is best to locate the chase away from any overhead obstructions and meet all clearances from such objects. The chase should be constructed in such a way that it is an extension of the home. It should be well insulated between the footings and the floor of the home to prevent heat loss. If the climate in your area is mild, insulate the chase at least

RADIATION SHIELD

A radiation shield must be placed where the chimney passes through each floor level overhead. This will assist in retarding any spread of fire and act to contain the fire within the area below the fire-stop.

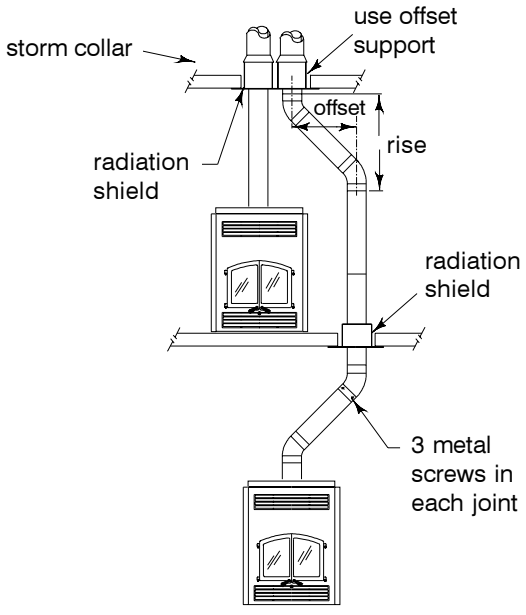


Figure 8: Offset chimney installation

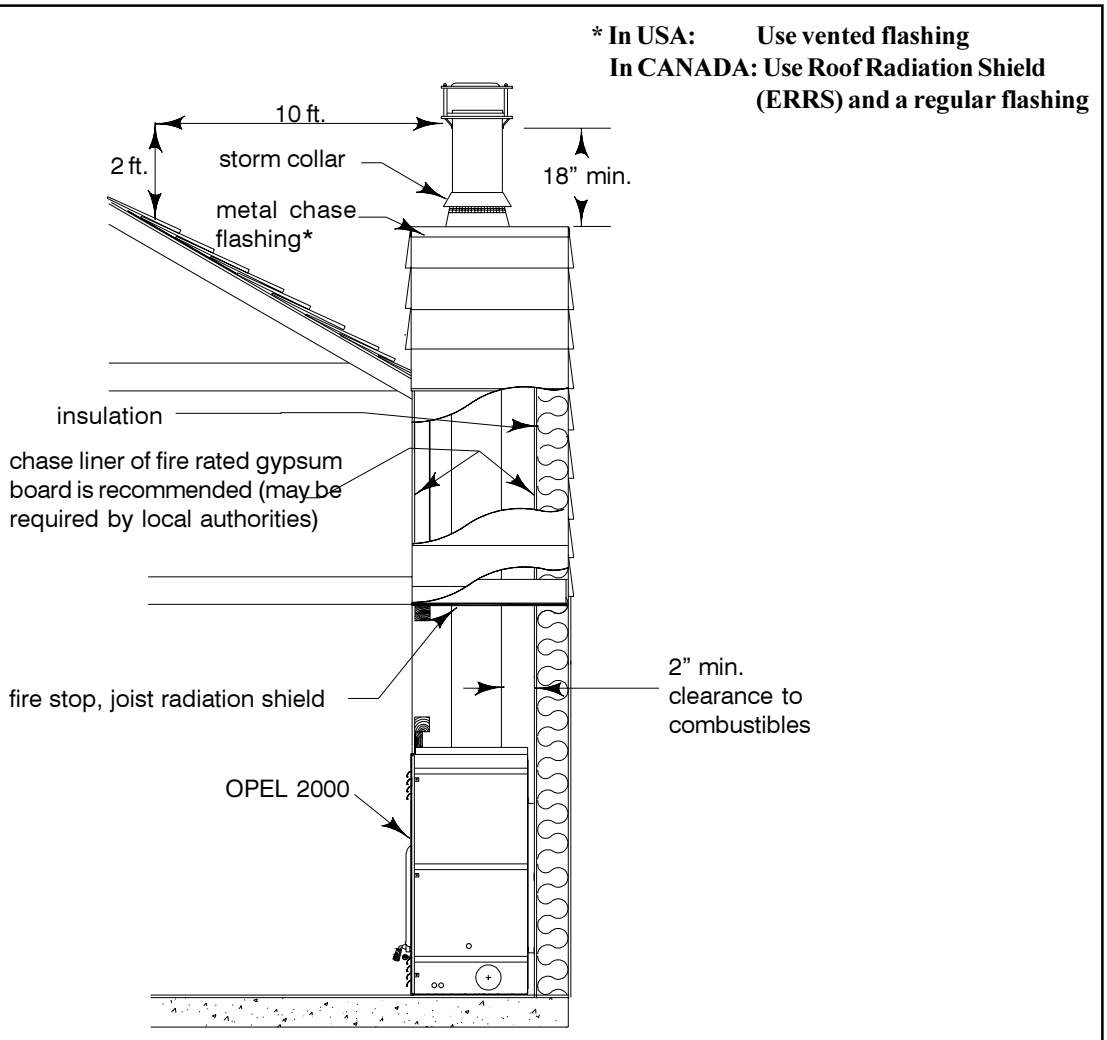


Figure 9: Chimney installation with chase enclosure

OFFSET CHIMNEY

Maximum offset angle: 45°
Maximum number of elbows: 4, resulting in two (2) offsets.

An elbow may be installed directly on top of the fireplace if required.

Use the offset option if you need to clear a joist or pass around a cupboard.

Install the fireplace and chimney as described earlier. When you require an elbow, proceed as follows:

1. Install the required elbow. Turn it in the desired direction, and fasten it to the other section with the 3 metal screws provided at the joint.

2. Install enough lengths to obtain the desired offset. Secure each joint with 3 metal screws.

3. Use another elbow to return the chimney to the vertical direction.

4. Install a roof support, or an offset support at each offset to support the weight of the flue (elbows are not designed to support a flue above an offset).

FRAMING IN

The enclosure walls can be framed with any suitable materials (2x4 or 2x6 studs, plywood, gypsum board, etc.). Because of the high heat output potential of the OPEL 2000, combustible material must NOT go closer to the fireplace than the standoffs, top, back and sides.

If you like, framing can be set back to allow the facing to be flush with the front of the fireplace.

SPARK GUARD

Install a 5" piece of sheet metal centered under the joint between the fireplace and the hearth extension. This will make certain that sparks cannot lodge in the crack and start a fire. If you are preparing a raised installation, then a "Z" shaped spark guard must be installed. The height of the Z-shaped hearth guard must equal

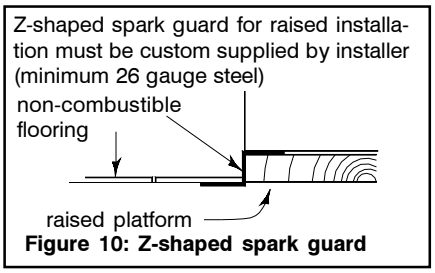


Figure 10: Z-shaped spark guard

the distance between the floor and the base of the unit. The minimum depth the spark guard must extend beneath the OPEL 2000 is 2 1/2 inches. The spark guard must run the full length of the fireplace. (**Z-SHAPED GUARD NOT SUPPLIED)**

MANTEL

A masonry or other non-combustible mantel may be placed directly above the top louvers. If a wood or other combustible mantel is desired, then it must be at least 28" inches above the top of the door opening (see figure 14).

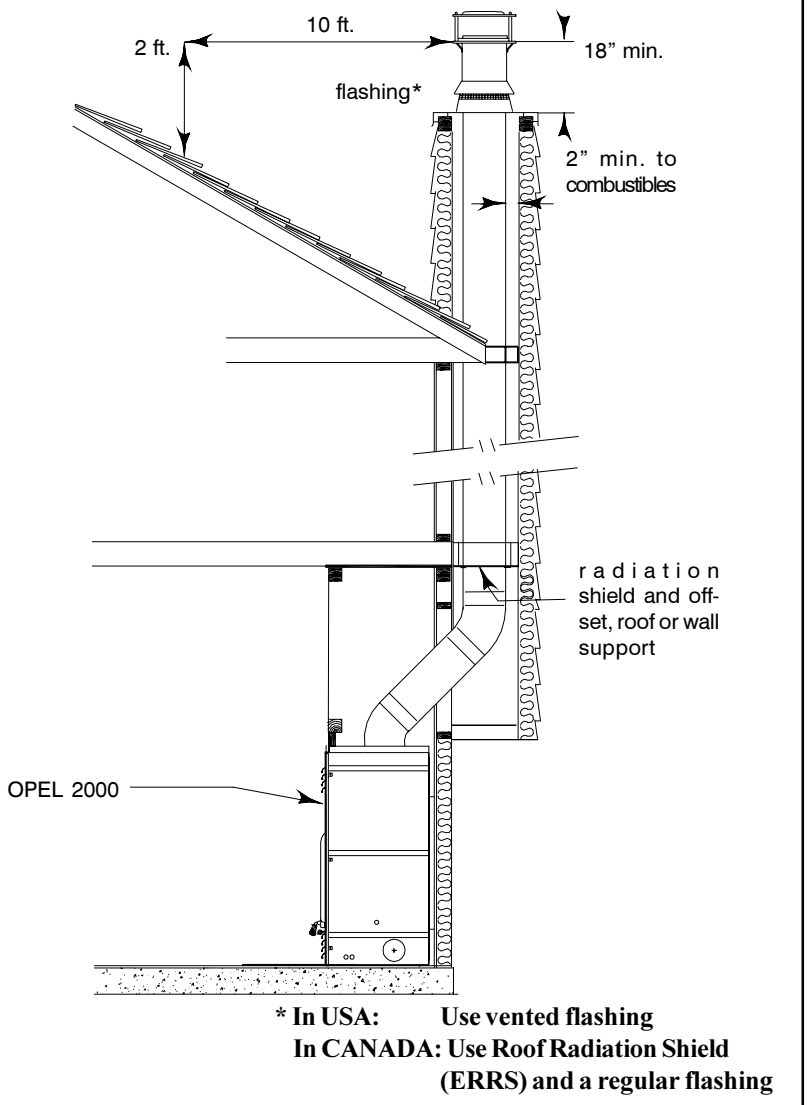


Figure 11: Offset chimney through a wall

HEARTH EXTENSION

The area immediately in front of the fireplace must be protected by a non-combustible material such as brick, tile, stone, or slate. The protection must extend at least 16" in front and 8" on both sides of the fireplace opening. There is no minimum thickness required for the hearth extension.

MICORE BOARD

This piece needs to be installed in the USA only.

The OPEL 2000 must use a 3/4" Micore 160 board or equivalent with an R value of 1.2 or greater. - unless it is raised at least 4 inches above the base of the hearth. The Micore board is not as wide as the hearth requirements. Cut 3/4" plywood and put it on both sides to meet the dimensions of your desired hearth.

If the fireplace is raised 4" or more, the area in front of the fireplace just needs to be covered with a non-combustible material such as metal, brick, stone or slate, it does not require the micore board. There is no minimum thickness required for this non-combustible hearth extension. The 5" wide spark guard must be installed underneath either the hearth extension or the Micore board.

Note: if the OPEL 2000 is installed on a concrete floor, the Micore board and spark guard are not required.

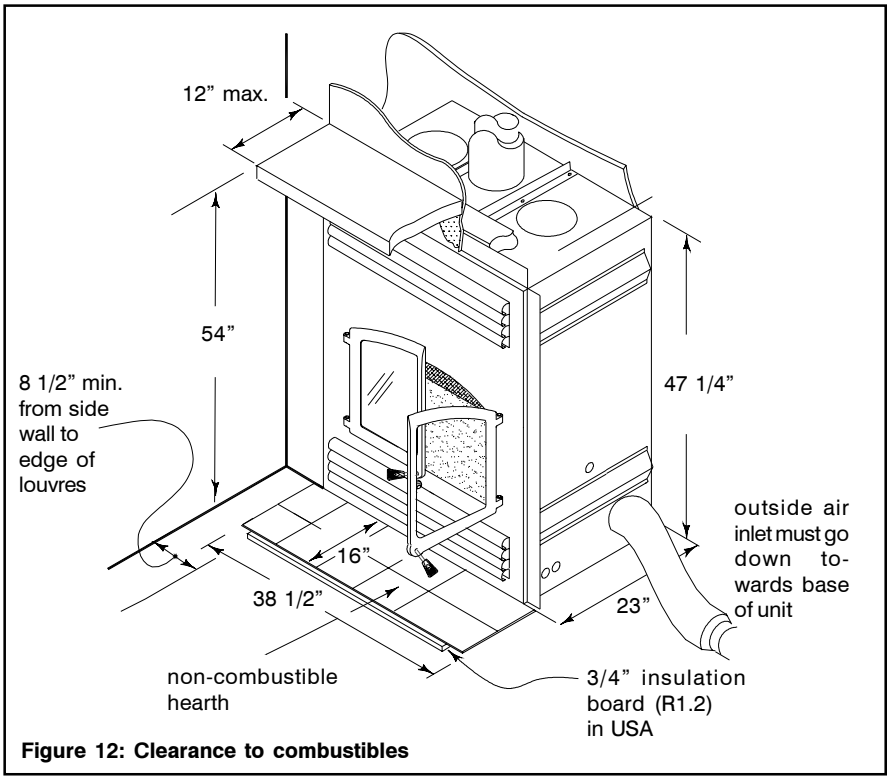


Figure 12: Clearance to combustibles

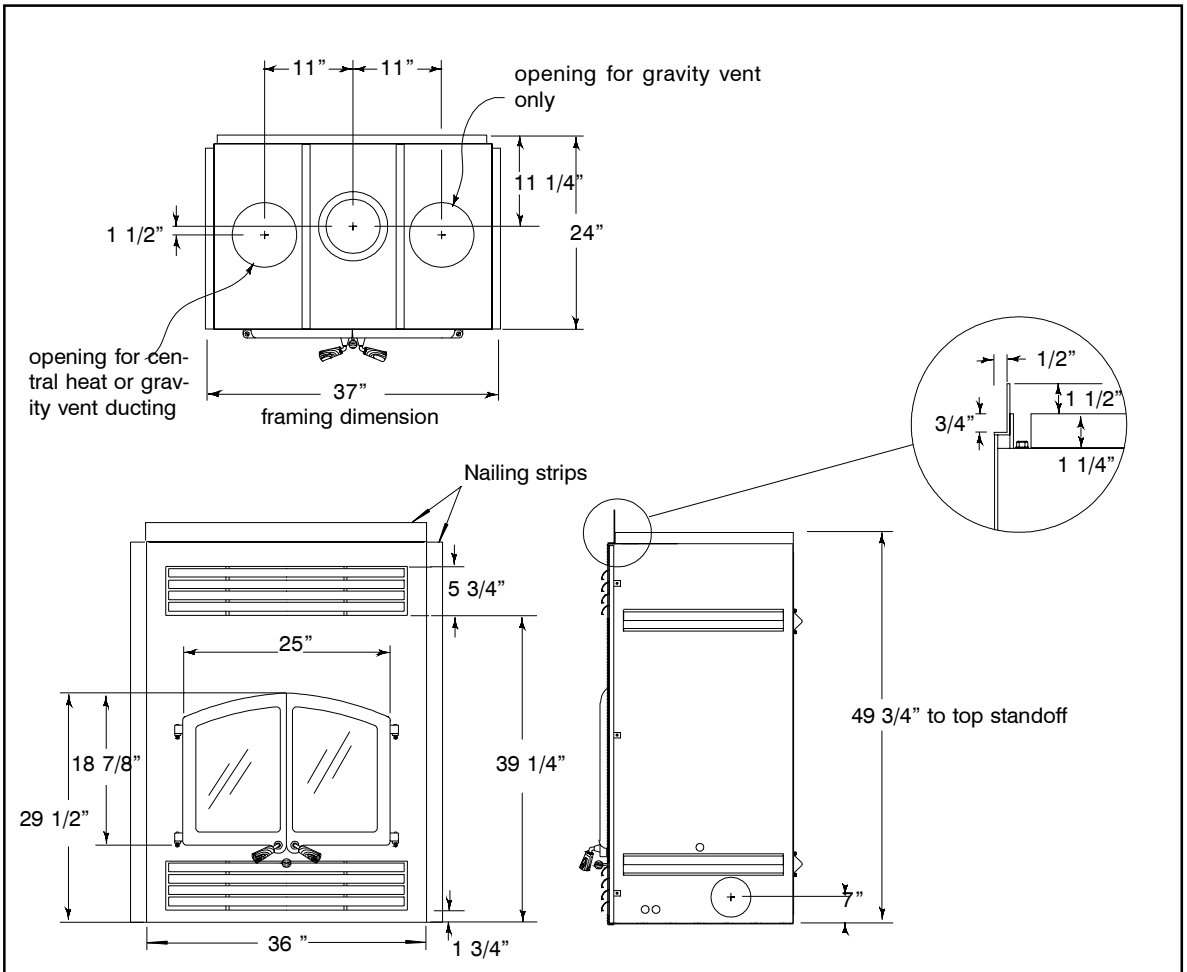


Figure 13: Unit dimensions

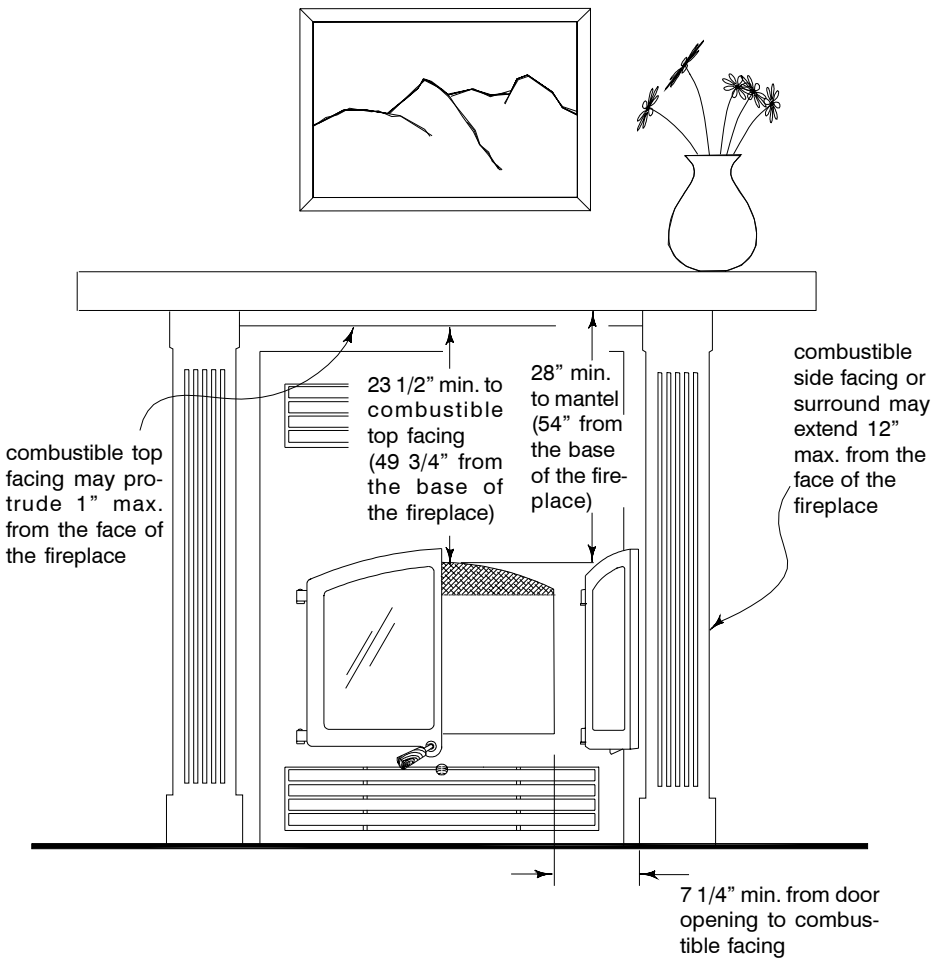


Figure 14: Clearance to combustibles

OPEL 2000 OPTIONS

Just a few comments about your OPEL 2000 options. The size and shape of your home and how you intend to use your fireplace will determine the options you require.

For a basic, high-efficiency fireplace, you won't need any options or electricity.

Automatic temperature control can be accomplished by adding the thermostat option (part FD-HC4). The thermostat automatically controls the amount of combustion air to the fire, leaving your home at an even preset temperature. If you seriously plan to heat your home with the fireplace, the thermostat option will increase comfort, end the fuss of continued manual adjustment, and reduce wood consumption.

For more heat output and increased air circulation, you can add the internal blower (part FD-HB5). For larger homes in colder climates, this is an important option if you plan to use the fireplace as a serious source of heat.

NOTE: It will be difficult to install the internal blower if wiring is not run during framing. If there is any chance that this option will be installed in the future, power should be run to the fireplace and wire must be run to a switch box at a convenient place on the wall for mounting the blower control.

If you have rooms directly above or adjacent to the room with the fireplace that you would like to heat, you may consider the gravity vent option (part FD-V). The gravity vent distributes hot air to these rooms and requires no blower to assist its operation. However, with the internal blower (FD-HB5-N) installed, there will be some increase in warm air movement to rooms serviced by the gravity vent.

If you desire even heat throughout your home strictly from your fireplace, or if you want to move heat to a remote area of your home, it is recommended that you incorporate the central heat option (parts FD-HB6, FD-HC6 and FD-HC6-1). A thermostatically controlled blower takes heat from the fireplace, and distributes the warm air throughout your home - even a couple of stories up or down.

WALL THERMOSTAT (FD-HC4)

This optional kit allows you to control the temperature by a remote mounted electric wall thermostat.

NOTE: It is strongly recommended that this kit be installed during framing so that the wiring can be easily hidden.

1. Remove both top and bottom louvers. They are held in place by springs underneath, so push down from the top, then rotate and pull forward.

2. The damper motor and transformer are mounted on a bracket in the bottom right hand corner of the fireplace (see figure 15).

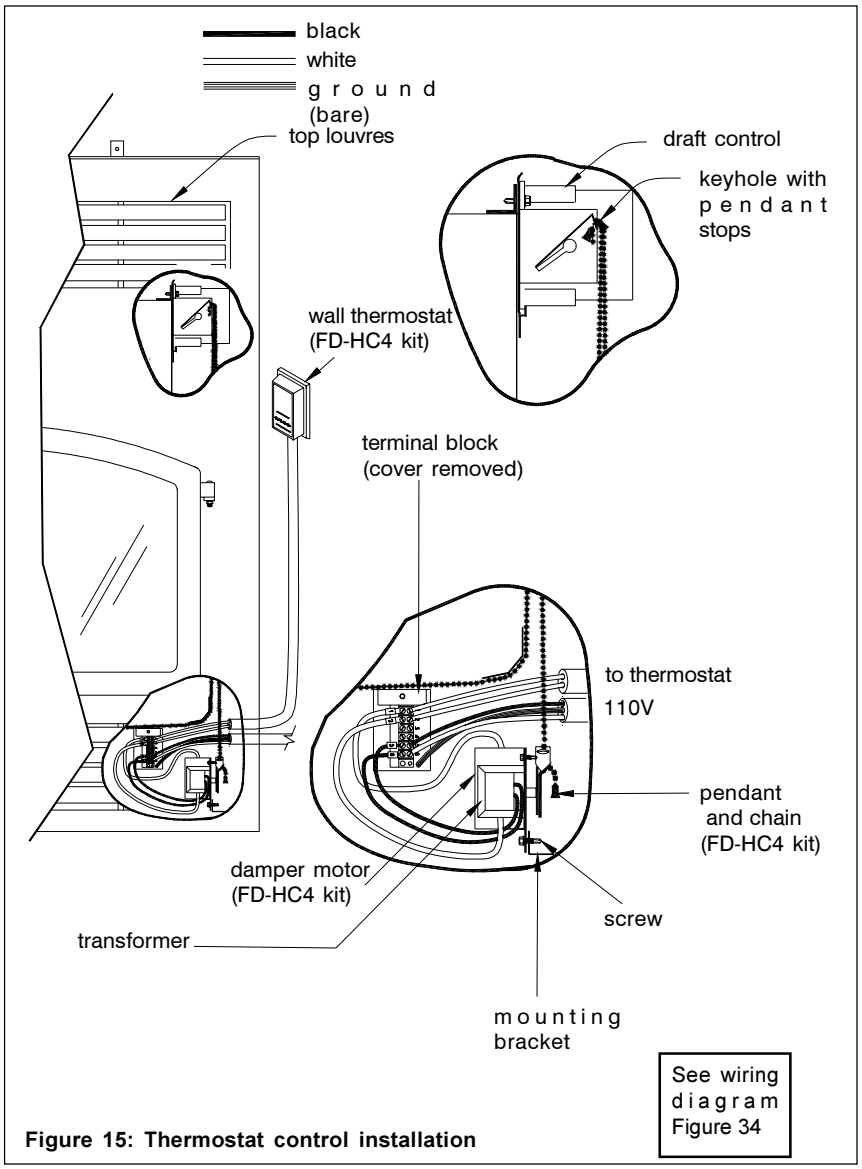


Figure 15: Thermostat control installation

3. BEFORE fastening the controls with the 2 screws provided, thread the supplied chain through the spare keyhole in the draft control and attach a pendant to the end, just like the chain that is beside it. Let the chain down on the same side of the heat shield as the existing chain, and attach it to the lever on the damper motor with another pendant. Push the pendant snug into the hole in the lever. Then mount the controls to the bracket.

4. Adjust the chain on the draft control lever until it is just snug but the damper is still closed. When the damper motor is energized, the damper should open all the way. Lock the chain onto the keyhole with another pendant just like the chain beside it.

5. Wire the thermostat as shown in figure 15, making sure the wall control is sufficiently away from the direct radiation of the fireplace. Make certain that it is at least 10 ft. away from the fireplace, but in the same room.

CIRCULATING BLOWER (FD-HB5-N)

NOTE: It is important that the wiring for the blower kit is installed during framing so that the wiring can be easily hidden.

1. Remove the bottom louver. It is held in place by springs underneath. Therefore, push down from the top, then rotate and pull forward.

2. Hold the blower with the outlet facing up from the back. Fit the blower through the louver opening.

3. Slide the blower into place between the two brackets

4. Mount the thermal switch as shown in figure 17. The front face of the fireplace is bent into a flange just above the lower opening. It has holes to hold the bottom louver rods. The thermal switch mounts just to the left of the

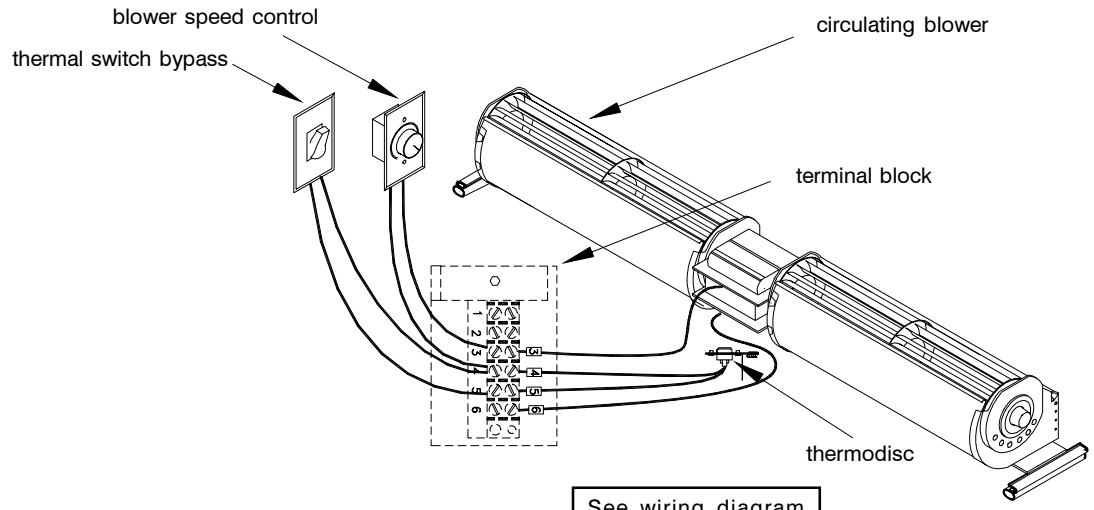


Figure 16: Circulating blower

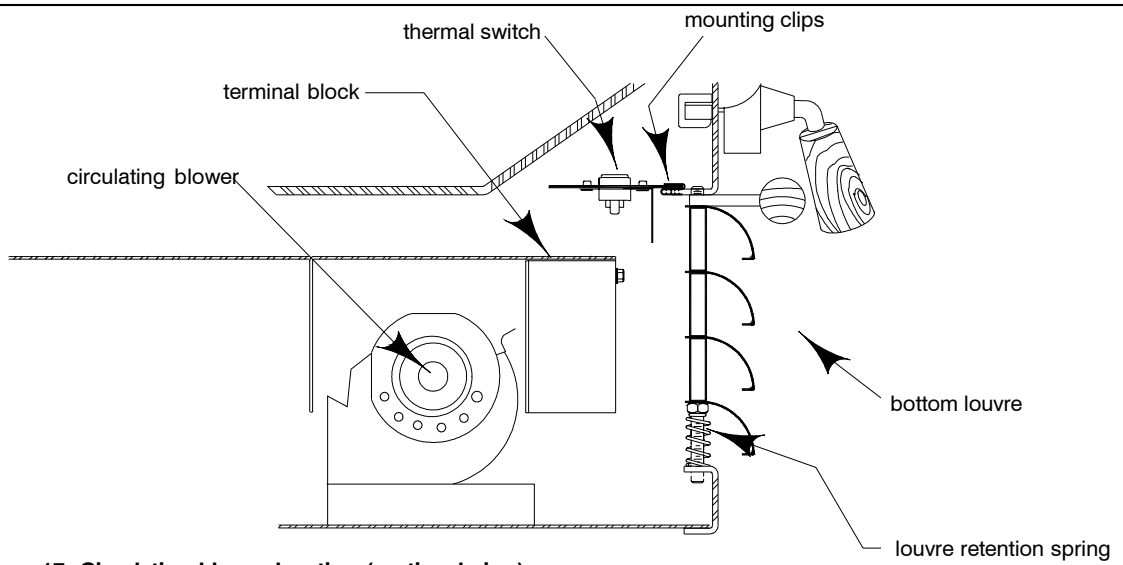


Figure 17: Circulating blower location (sectional view)

right holes. Push the clips on to the flange as far as they will go..

NOTE: One thermal switch is all that is required to operate the internal blower, the central heat blower, or both.

5. Locate the provided speed control in a switch box at a convenient location on the wall and connect it with conventional 90° C 14-gauge wire (see figure 16).

CATALYTIC COMBUSTOR (FD-CCO)

(See also the instruction sheet included with the catalytic combustor kit.)

The (FD-CCO) Catalyst Kit of the OPEL 2000 includes:

-Cotter pin
-Template
-Bypass rod
-Bypass damper
-Catalytic bypass frame(with rope seal)
-Catalytic converter
-Tapping screws (10) and washers (2)
- Retaining brackets (4)
- Fiberglass rope seal
-Control eye,handle and extension

Preparation of the fireplace

1. Remove doors and all refractory liners.

2. Lay unit on its back for easier access.

3. Remove the screen above the door opening by removing the 4 screws in behind (picture1). If the unit has been fired already, oil the screws before removing them or they may break.

4. Remove secondary air pipe by removing the screw at the left side (picture 2).

5. Remove the baffle. (See instructions on page 8, baffle removal section)

6. Break off the baffle support brackets by bending the brackets up and down with vice grips. (picture 3).

Installation of the catalytic combustor

1. Hook the template provided into the top louver opening, flush with the right side.

Figure 18A: Catalytic kit installation

2. Use a punch to make a mark through the small hole on the front of the template(figure 4) , then remove template and discard. Make a pilot hole at the punch-mark, then drill a 33/64" hole (picture 5) .

3. Take the bypass rod and, from inside the fireplace, push the long end through the hole you just drilled. On the outside, pull the bar out as far as it will go (picture 6).

4. With a cotter pin, connect the bypass rod to the bypass damper (picture 7). The bent lip side faces the back of the unit with the connecting bracket facing up.

5. Install the new catalytic holder. It only goes in one way as shown in (picture 8). The bottom of the catalytic holder must be at 18 ¾" from the bottom of the firebox(picture 9).

6. Install the retaining brackets as shown using the self tapping screws provided (picture 10).

7. Install a set of brackets close to the face of the unit on the angle portion of the catalyst holder. Make sure that the holes for the secondary air tube remain open.(picture 11).

8. Carefully put the catalyst in place (picture 12) and hold in place with the 1/4" screws and washers provided.

9. Replace the primary air screen and the secondary air tube.

10. You can now stand up the OPEL 2000 again, then put back the refrectory liners and the doors.

After the facing is installed

1. Attach the control eye to the bypass rod by tightening the setscrew with a 1/8" Allen wrench (picure 13).

2. If the bypass rod is too short due to thick brick facing, attach the extension. Measure the required length from the threaded end and cut off excess before installing the control eye.

3. Insert the handle into the control eye .

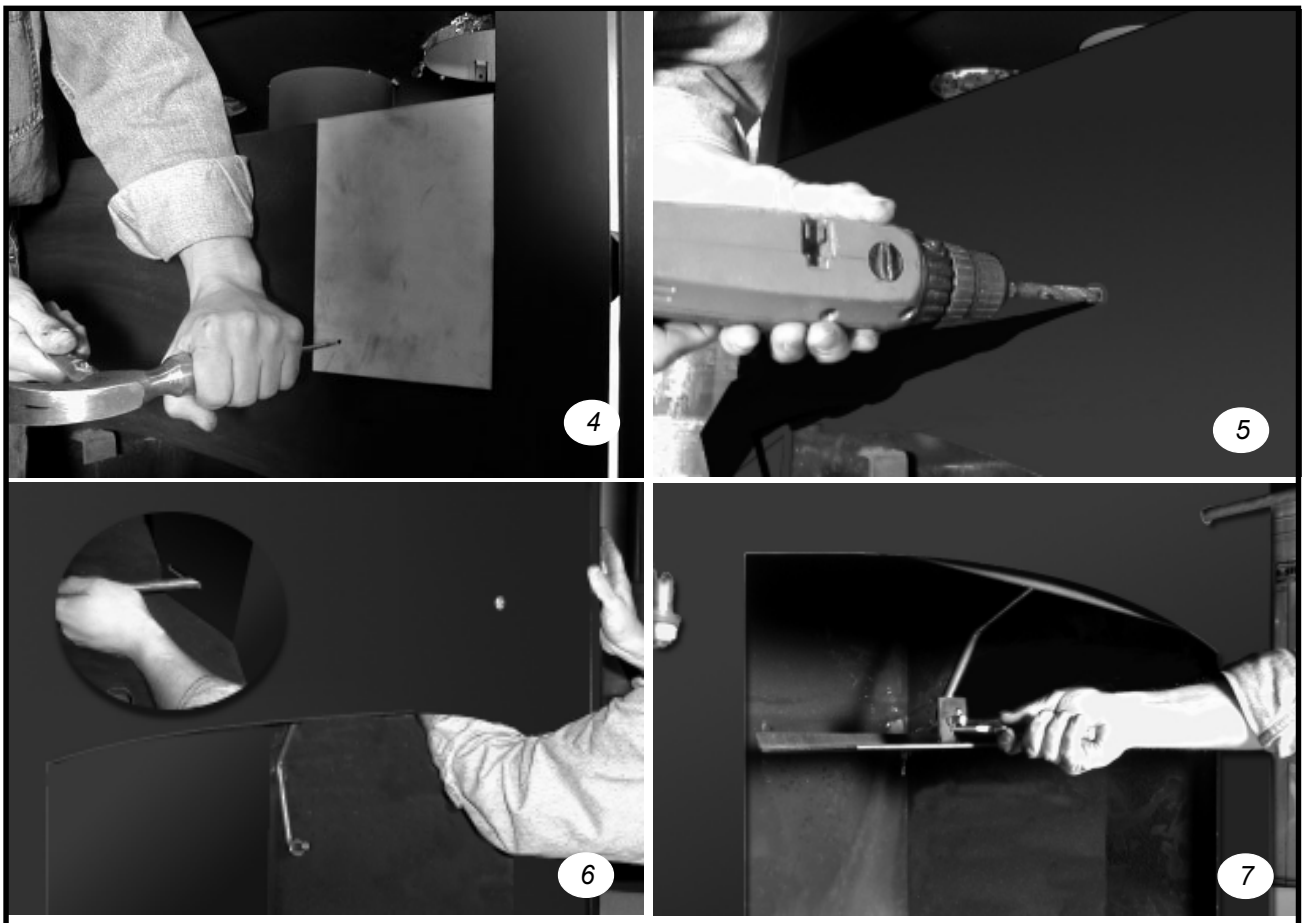


Figure 18B: Catalytic kit installation

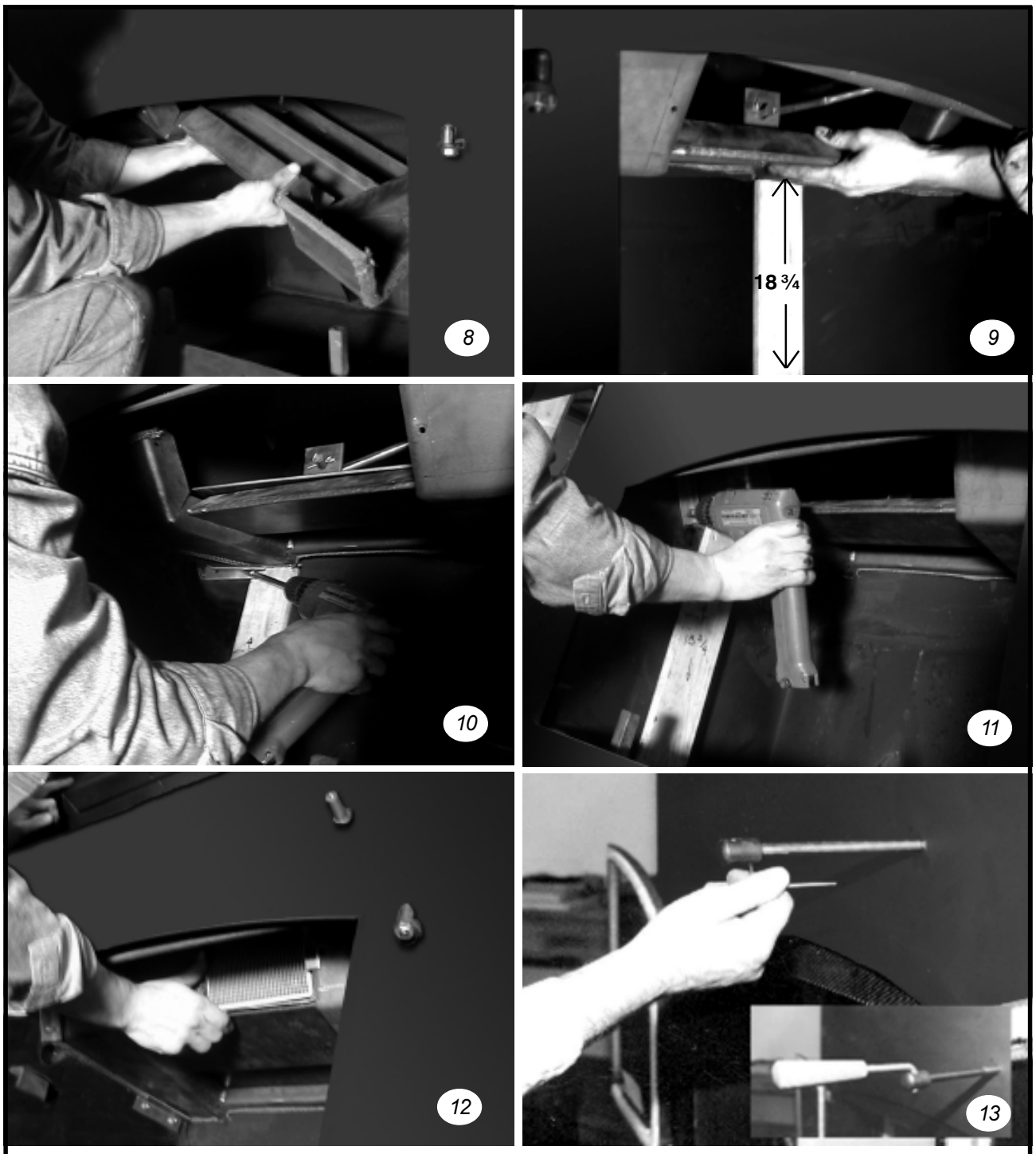


Figure 18C: Catalytic kit installation

GOLD LOUVERS (FD-L)

The standard black louvers above and below the doors can be replaced with a gold plated louvers if you wish(part FD-L). You may order these from your dealer.

Note: There are 2 positions for the louvers: flush with the front or protruding from the front.

Dismantling and assembling louvers

1. The louvers are held in place by springs underneath. Therefore, push down from the top and pull out.

2. Take the assembly apart by removing the top nuts

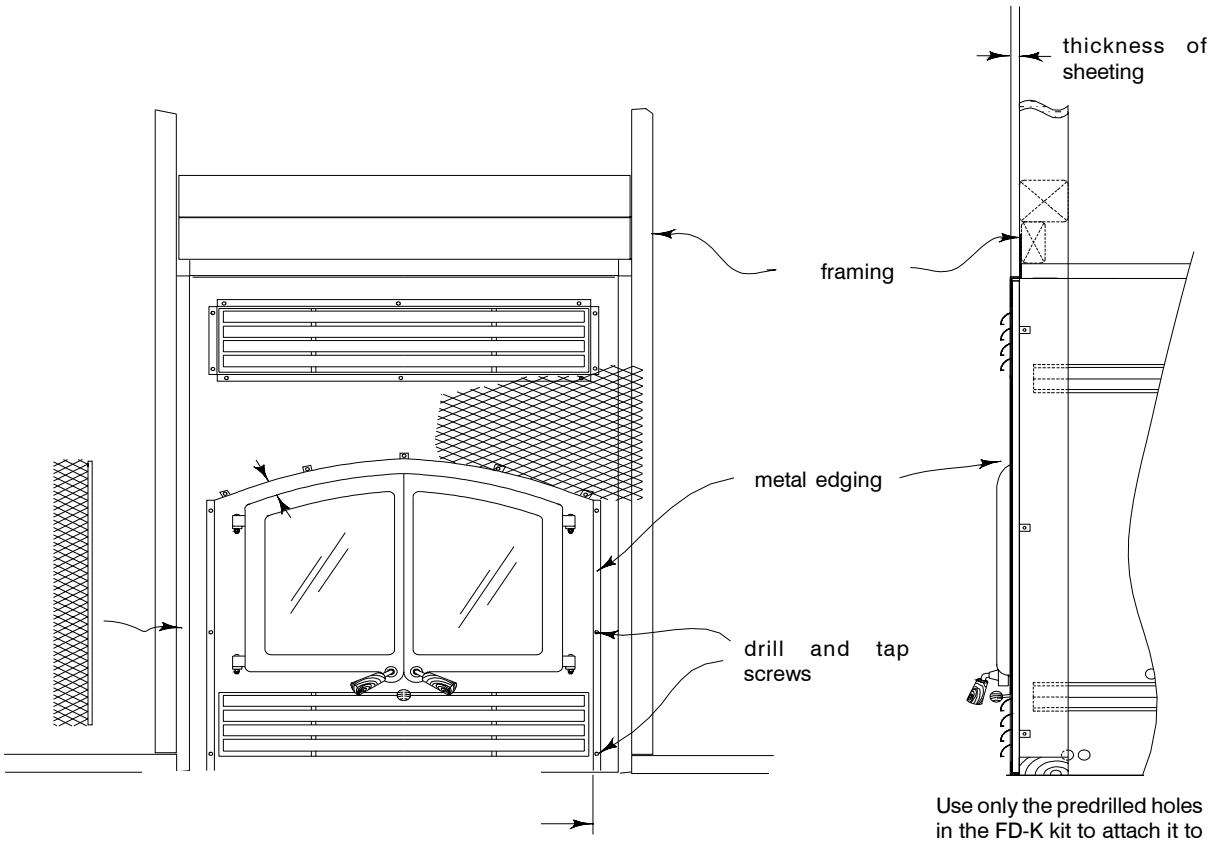


Figure 19: Installation of rock retainer kit

from the rods. Note that there are two washers underneath the top nuts on the bottom louvers. These washers are placed to provide space for the air control lever. Make sure they go back when you reassemble the louvers.

3. Assemble the new louvers the same way the old ones came apart, reusing the original rods and spacers. Leave about 1/4" of the rod protruding above the top nut. Make sure you replace the washers under the top nuts of the bottom louvers.

4. Put the reassembled louvers back into the fireplace by inserting the rods into the lower holes, and rotating the louvers into place.

NOTE: Although the gold plating will not tarnish, care must be taken not to scratch the surface.

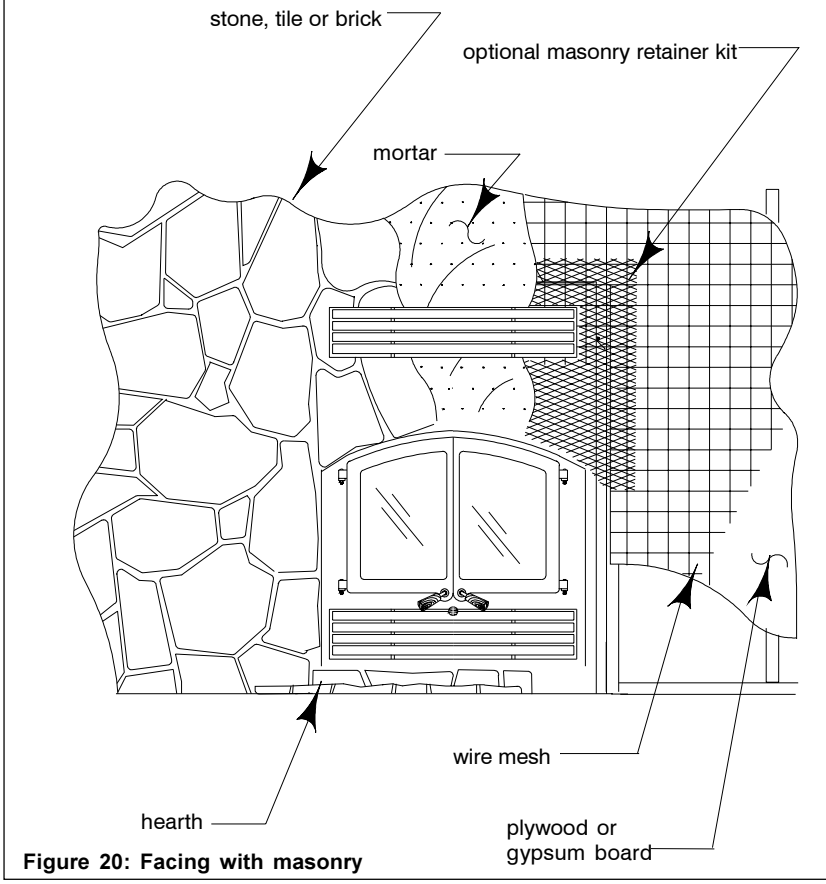


Figure 20: Facing with masonry

ROCK RETAINER KIT (FD-K)

Facing

Facing material may only be non-combustible such as metal, brick, rock, concrete board, or ceramic tile. Gypsum board is NOT an acceptable facing material.

WARNING: *DO NOT restrict airflow through the inlet and outlet louvers of the stove. If two (2) gravity vent kits are installed with the dampers removed, only then may the upper louver area be blocked.*

If you desire to fully face the fireplace with thin masonry, it is recommended that you purchase the rock retainer kit (part FD-K with the upper louvers in place, or the FD-K-1 with the upper opening blocked) to help keep the facing in place. It is NOT recommended for brick or other self-supporting materials. Follow these steps:

NOTE: Remove the fireplace doors and louvers, and store them in a safe place until the masonry work is finished. Acid from the cleaning operation will permanently damage the gold plating.

Installation

1. Install the expanded metal on the top half of the fireplace using drill and tap screws at locations shown (see figure 19). If there is a bypass rod above the door, allow for it to come through. For thick rock, the rod extension (part R6414) may be required.

2. Install the metal edging on each side of the doors, making sure that the edges fit nicely with the arch edge above. There are right and left side expanded metal pieces. The expanded metal is correctly installed when the expanded metal is facing upwards, to catch the mortar. A wider steel lintel bar may be required for heavy rock.

3. Cover the rest of the area with wire mesh, or metal lath, flush with the heavy expanded metal. Make sure nails or staples used for fastening mesh penetrate the studs at least 1".

4. Mortar must be "thin set" or "thin bed" type, inherently polymer modified. Do not add water to the mixture (this applies to the grout as well). If the mortar is not modified, you should add a synthetic latex additive. Mix to a firm, moist consistency.

5. Using a plasterer or mason's trowel, apply a scratch coat that covers the wire mesh. Let the mortar set before adding another coat. This will take several hours. Afterwards, apply a thinner coat and the facing. Do not spread plaster over more than a workable area so that the mortar will not set before the facing is applied.

6. If additional mortar is required, use a grout bag to fill in the joints. Take extra care to avoid smearing on the surface of the facing.

Note: If you wish to cover the top louver using an FDK-1 you must provide access to the air control located inside the right side of the top louver opening. The FDK-1 has a removable panel which permits acces to the air control. The masonry which covers this panel should be installed in such a way that it can be removed if necessary.

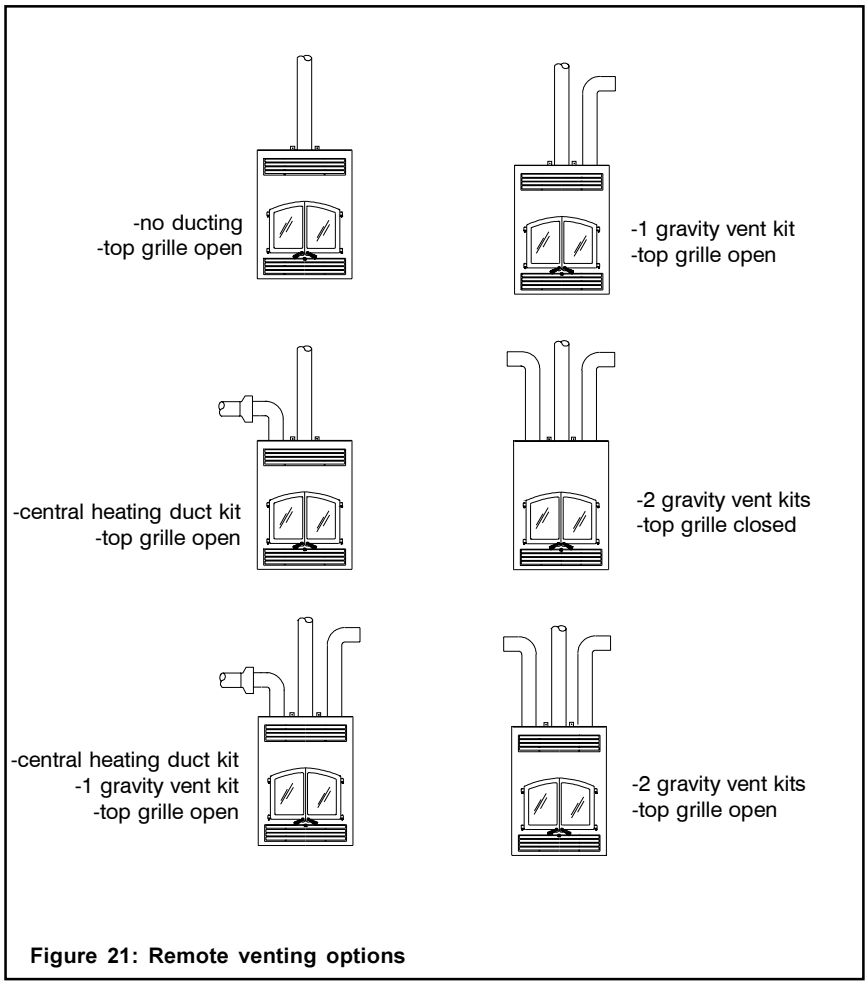


Figure 21: Remote venting options

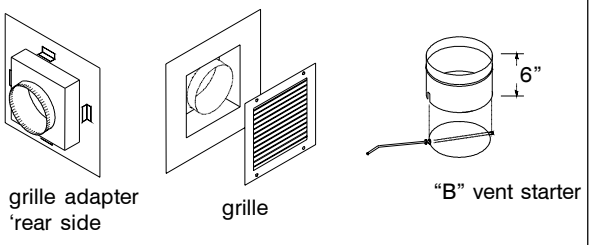


Figure 22: Gravity vent kit (FD-V)

REMOTE VENTING

The gravity vent system can distribute air to an upper level or a room next door without an extra blower. If you use two gravity vent kits you may block off the upper louver area with the desired facing. The central heat option allows heat to be sent up to 50 ft. away. Figure 21 illustrates various certified ways of incorporating the two systems.

THE GRAVITY VENT SYSTEM (FD-V)

The FD-V Kit includes:

- A grille
- A grille adaptor
- A B-vent starter section
- A shut-off damper (do not use with upper louvers blocked)

IMPORTANT: No substitution of any of these parts is allowed. These genuine RSF ENERGY parts have the correct clearances. These clearances must be maintained for your safety.

The FD-V system incorporates standard 8" B-vent components for installation. Single wall pipe is not allowed due to the high temperature of the air in a gravity vent system. Any listed brand of 8" B-vent pipe may be used and is not a part of the FD-V. The maximum pipe length is 15 ft. from the top of the fireplace to the outlet. The B-vent components can be replaced by UltraBlack double wall black connector made by ICC only.

NOTE: If two gravity vent lines are installed, then two FD-V kits must be ordered.

Figure 23 indicates the minimum clearances and framing dimensions. Passing through a combustible wall or

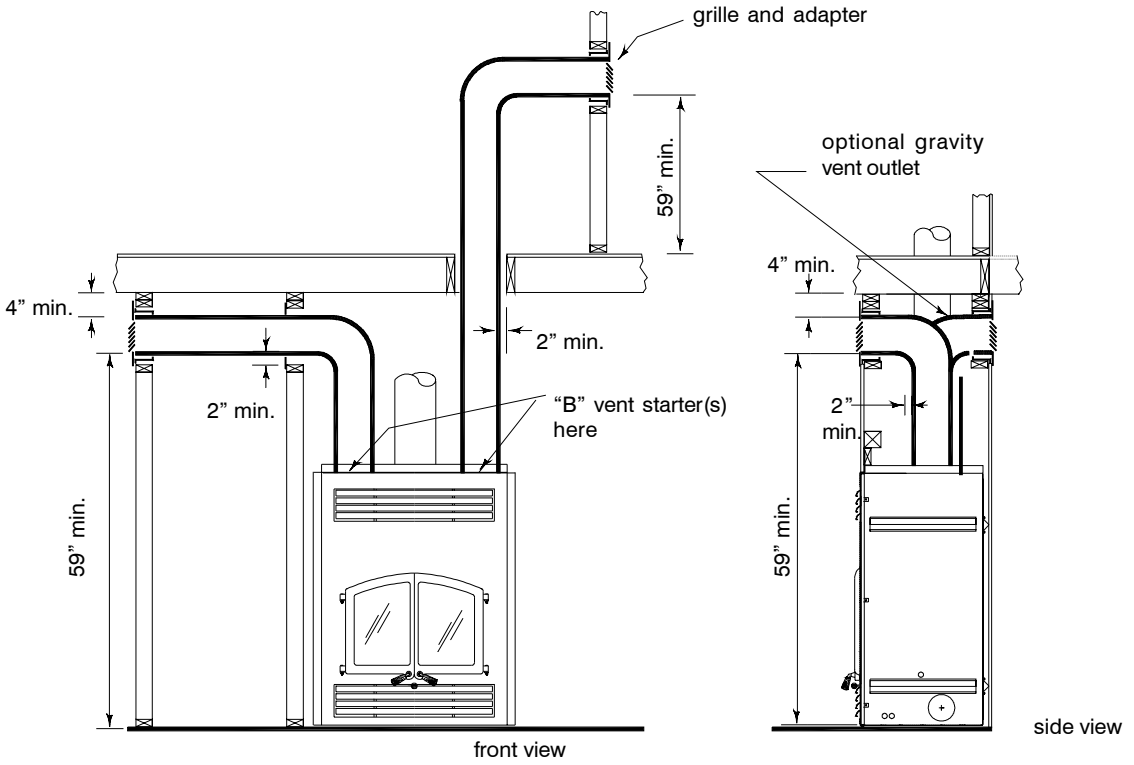


Figure 23: Gravity vent clearances

ceiling requires a minimum clearance of 2" from combustibles.

WARNING: *Every measurement and clearance on the illustrations must be followed to assure safety of the installation.*

Installation

CAUTION: *Do not replace the grille from the FD-V with shutters. Do not allow heat to be trapped in the gravity vent system.*

1. Plan the gravity vent run first. Be aware that the maximum actual pipe length between the top of the fireplace and the outlet is 15 feet. There is no maximum number of elbows in a run, but the run must never go in a downward direction as this can trap heat in the gravity vent system.

2. The grille adapter is designed to be installed underneath the gypsum board in the wall. Frame a 13" x 13" hole to accept the gravity vent grille adapter in the desired location. Fit the gravity vent grille adapter into the framed hole and fasten it into place with nails or screws. If you are installing the outlet in an already finished area, you must remove the gypsum board and frame a 13" x 13" hole in the existing framing, in order to meet the required clearances.

3. Remove the outer cover to the left, right, or both sides of the flue outlet, on the OPEL 2000.

4. Cut the insulation to the size of the opening and remove the cover plate underneath (it is taped in place).

5. Install the B-vent starter section. The slot in the B-vent starter section should be facing the front and the hole should be facing the back. Bend up the four tabs at the base of the starter section to hold it in place.

6. Install the shut-off damper at the base of the starter section. The shut-off damper enables the manual control of hot air flowing through the gravity vent pipe. With the top louver removed, and the angular portion of the rod in hand, insert the damper rod into the hole in the starter section. Next, make sure that the washer and spring on the control arm are both on the outside of the starter section and that the rod has fit snugly into the slot. A definite tension should exist between the shut-off damper rod and the starter section. Replace the louvers. The damper rod should protrude above the top of the louvers.

Warning: If you are blocking off the upper louvers of the OPEL 2000, do not install the shut-off dampers.

7. Install the B-vent pipe between the B-vent starter and the grille adapter. Fasten each joint with 3 screws (if the B-vent pipe manufacturer allows this in its instruction manual). Insert the B-vent pipe in the grille adapter and fasten it with three screws. The B-vent pipe needs only to be inserted into the adapter enough to be able to screw it in place. This allows you about 3 1/2" of play.

8. Once the wall facing around the gravity vent grille adapter has been completed, install the grille with the supplied screws. The gravity vent is now ready for operation.

THE CENTRAL HEAT SYSTEM

Required Components:

1) Part FD-HC6 : A blower control center, a thermostat and a thermal switch.

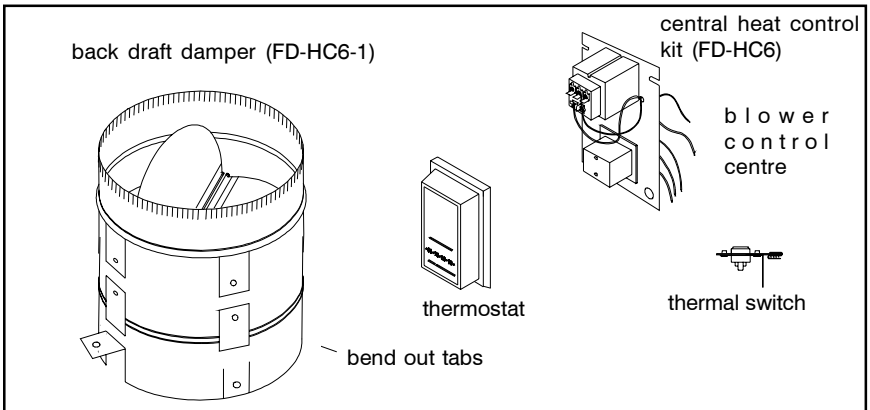


Figure 24: Central heating kits: FD-HC6-1 and FD-HC6

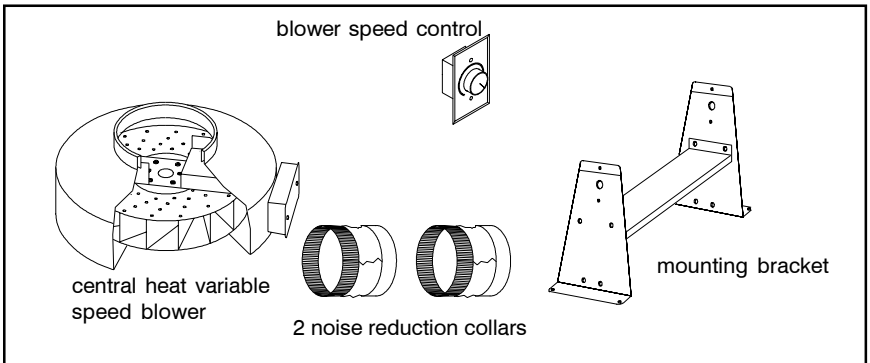


Figure 25: Central heat blower kit: FD-HB6

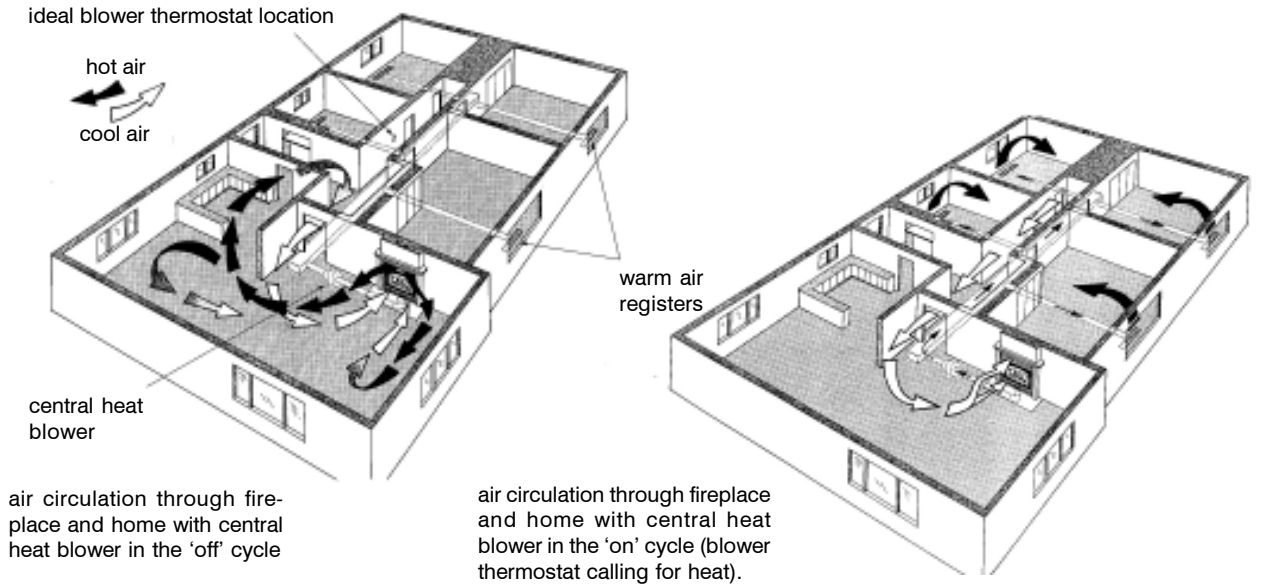


Figure 26: Central heat ducting options (single floor)

2) Part FD-HC6-1: A back draft damper

3) Part FD-HB6 : A maximum 636 C.F.M. Blower with a variable speed motor, 2 noise reduction collars, a blower speed control, and a mounting bracket.

NOTE: Both part numbers must be used together for this system. Use of any substitutes will de-certify the system.

The 8" back-draft damper prevents hot air from travelling into the 'C' vent (single wall) ducting unless the Central Heat Blower (FD-HB6) is operating. When the thermostat calls for heat, the blower turns on and opens the one-way valve. At the same time, the room air is drawn through the upper and lower louvers, which mixes and reduces the overall temperature of the forced air that travels through the ducting.

WARNING: *If you are ducting out of the top of the fireplace and the back-draft damper is not installed, the central heat ducting may become too hot for the surrounding combustible materials. Any substitute for the FD-HC6-1 kit will void all warranty coverage by RSF ENERGY.*

Installation

1. Remove the cover left side only.

2. Cut the insulation to the size of the opening and remove the cover plate underneath (it is taped in place).

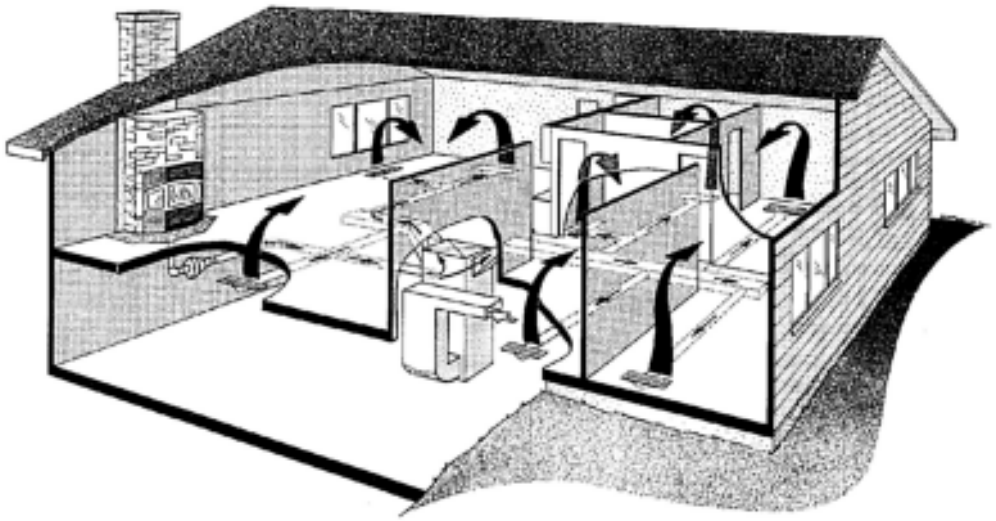
3. Install the back draft damper crimped side up, making sure it is pushed all the way down. Bend out the 4 middle tabs to fasten the damper to the top of the fireplace. From the louver opening bend out two of the lower tabs to prevent the damper from being pulled out.

4. Before proceeding with the installation of the blower, make sure that the electrical service to the blower is in the "OFF" position. All wiring should be in accordance with local ordinances and the National Electric Code.

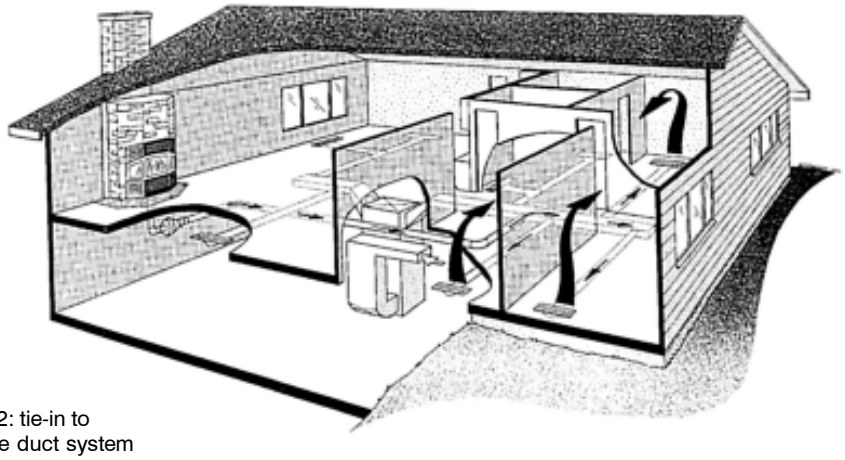
NOTE: The blower can basically be installed anywhere in the home, however some thought should go into the planning to ensure that the blower noise does not affect rooms you would like kept quiet. If the central heating system ductwork is passing through an area in your home that you do not wish to be heated, then the ducting should be insulated. Length of runs should be as short as possible to conserve space and minimize cost. Maximum duct length should not exceed 50 feet from the fireplace to the furthest outlet. There is a loss of about 15% performance at 50 feet. Note: The blower automatically shuts off if the air temperature reaches 180° F inside the ducting.

5. Locate the blower in a convenient location. The blower may be installed vertically or horizontally. The horizontal installation can utilize either the supplied mounting bracket or, if you want to install the blower farther away from the ceiling, you can use plumber's strapping. A vertical installation must include the mounting bracket.

Note: If you have an existing hot air system, you may safely 'tie in' to this hot air system. However, no hot air



example 1: tie-in to heat
plenum for circulation throughout all rooms



example 2: tie-in to
part of the duct system

Figure 27: 2 examples of air circulation when tying-in to existing ductwork

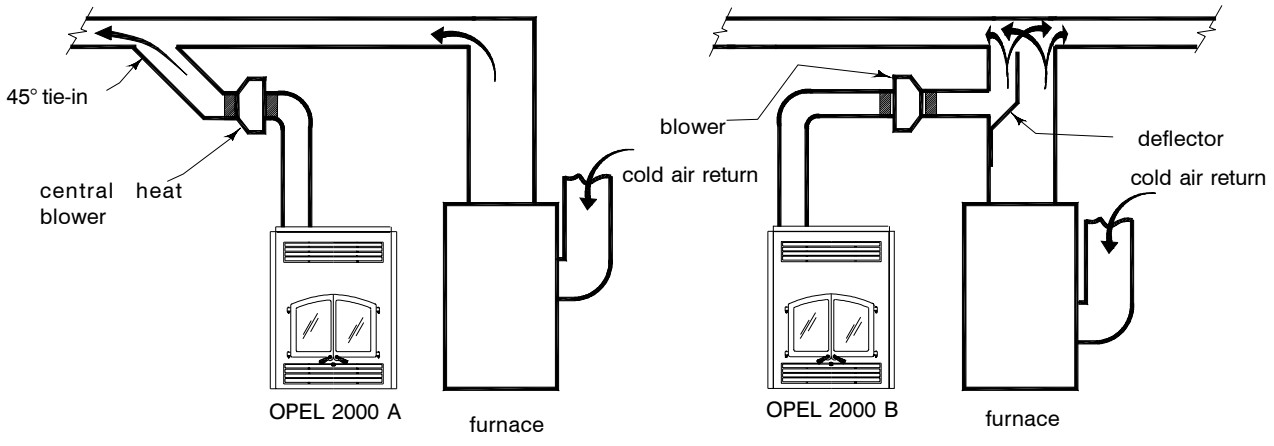


Figure 28: Example tie-ins to A) central heat duct and B) central heat plenum

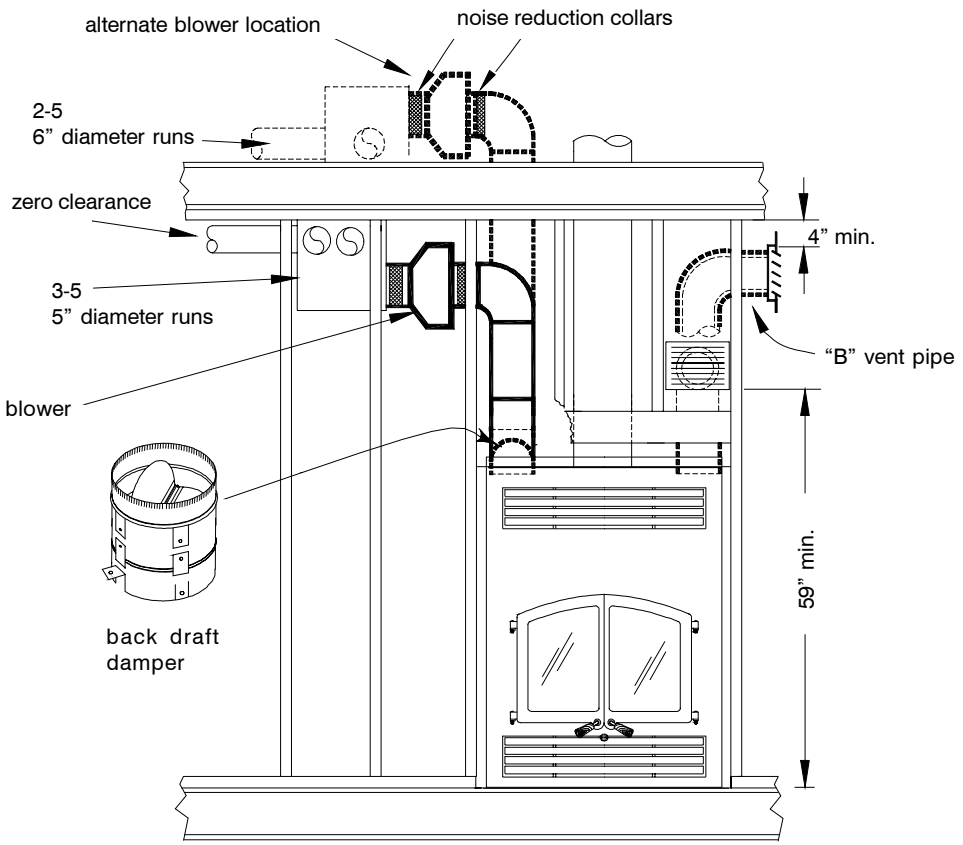


Figure 29: Central heat location options

duct is to be connected to the return air of another central heating system.

6. Connect the INLET of the blower to the ducting coming from the fireplace, using 8” diameter metal ducting (rigid or flex). Any other size will not work properly. Use only metal ducting between the fireplace and the blower. You may use plastic ducting after the blower, provided the temperature rating of the ducting is at least 250° F. Do not use plastic ducting in a chase.

Note: The central heat ducting may be run at a 0” clearance to combustibles.

7. To install the blower (for the FD-HB6 only): attach the noise reduction collars to either side of the blower using 1/2” self-tapping screws.

8. Ductwork can then be run to the desired rooms. Up to six 5" or five 6" diameter runs can be installed from this system.

Note: Runs must be balanced as air travels along the path of least resistance. Balance the airflow by diameter and length of runs. Longer runs should have larger diameters. Houses vary in size and layout, so duct systems must be specifically designed for each home. The diagrams on this sheet are examples only. The cross sectional area of the distribution system must total at least 50 square inches. If you have more than 50 square inches, some of the system may be shut off, but there must always be 50 square inches of ducting open at all times. For example, if 5" pipe is used for distribution, the cross section of each is 20 square inches. The minimum allowable ducting would be three runs of 5" pipe. Figures 27 & 28 illustrate two examples of “tying-in” to existing ductwork. Directing air in the right direction will reduce reverse flow when the existing furnace blower is off. Some reverse flow will not cause any problems

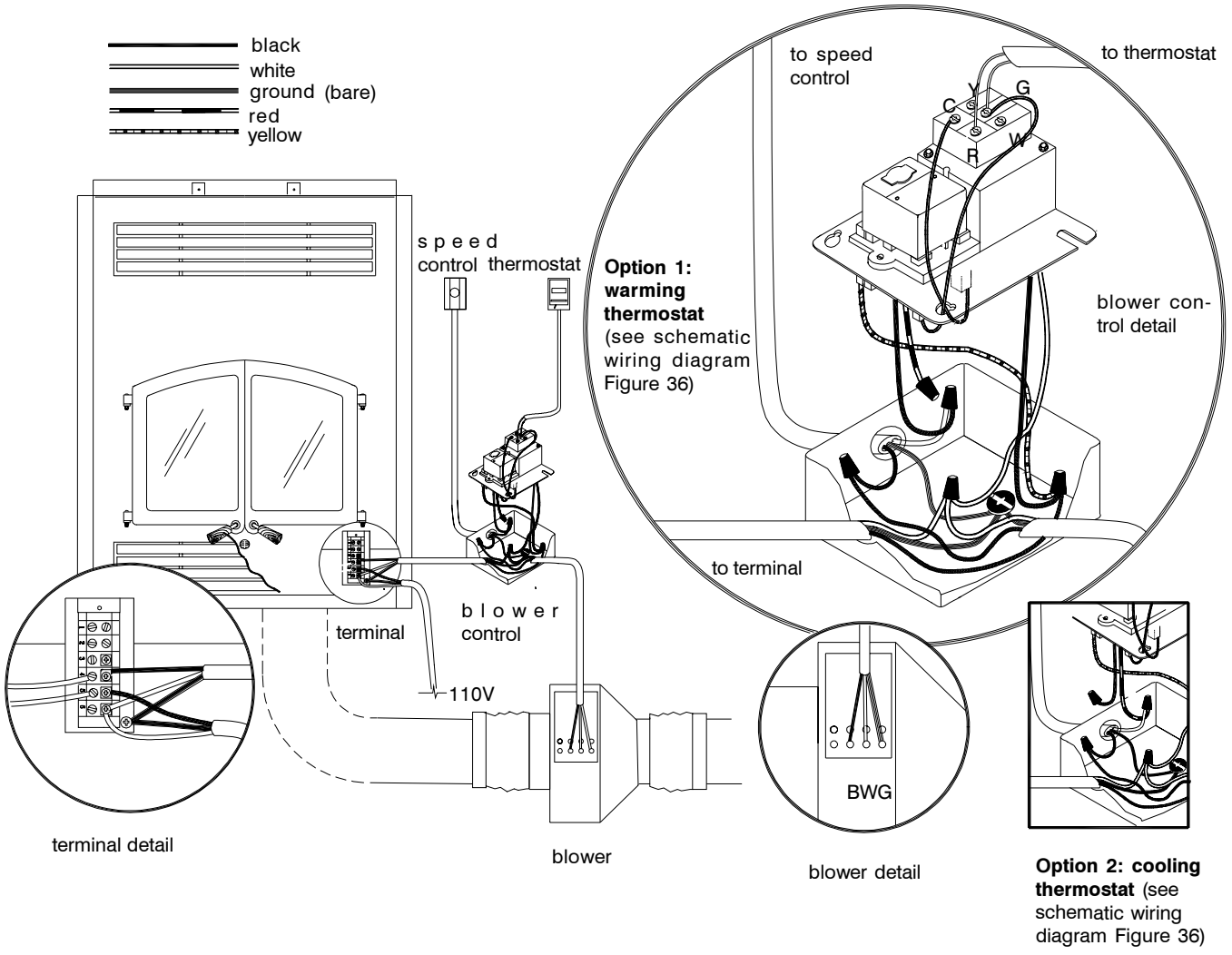


Figure 30: Central heat system wiring diagram

CAUTION: **Tie-ins into existing ductwork must be down stream from the existing furnace.**

Note: When the central heating blower is in operation, it removes air from the room containing the fireplace. If this room can be closed off from the rest of the house (e.g. with a door), a grille with at least a 100 square inch open area must be installed to allow the air to return to the fireplace. Otherwise periodic smoking from the fireplace will result.

10. Wire the blower to a 115-volt, 15-amp breaker through the thermostat provided. The variable speed switch provided should be installed in a convenient location near the fireplace so the blower can be shut off during refueling. The blower control center should be placed in an accessible location near the blower. It should be mounted in a 4 x 4 electrician's box. You have two options of how you can connect the central heat blower to the blower control assembly.

a) If you would like the blower to turn on when the thermostat calls for heat, first locate the thermostat in the principal room heated by the duct system. Do not install it in the room where the fireplace is installed. There are yellow black and red wires coming out of the relay as shown in the wiring diagram. Connect the wire from #4 of the terminal block to the black wire and put the wire connector on the red wire for protection. See Figures 36 and 37 for schematic wiring diagrams.

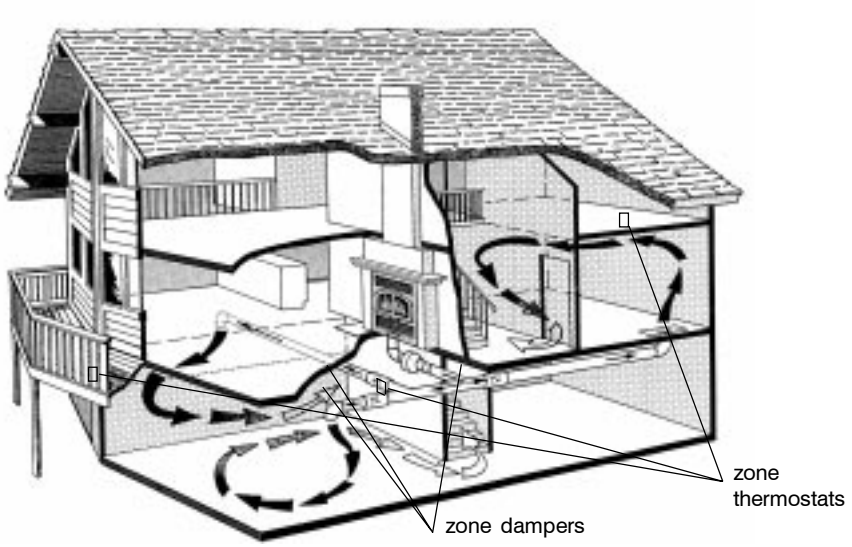


Figure 31: Zone heating - example 3 zone

b) If the fireplace is in a small room and/or you would like the central heat blower to remove air from this room when it becomes too hot, locate the thermostat in the room with the fireplace. Connect the wire from #4 of the terminal block to the red wire and put the wire connector on the black wire for protection. See Figures 36 and 37 for schematic wiring diagrams.

Figure 29 shows some ways of ducting the hot air from the blower. You are not restricted in the size of pipe, as long as the total cross sectional area of all runs combined is not less than 50 square inches. The diagram shows alternate blower locations. Only one external blower can be installed.

1. If the blower fails to operate, check the following:

a) Consult the wiring diagram to assure proper connections.

b) To assure proper contact, check the motor lead wiring, incoming supply wiring and capacitor connections.

c) If possible, use a meter to test for continuity between the fan leads. Please note that the capacitor will show no reading if it is tested with a meter.

2. If the blower still fails to operate, consult your local RSF ENERGY authorized dealer for repair/replacement instructions.

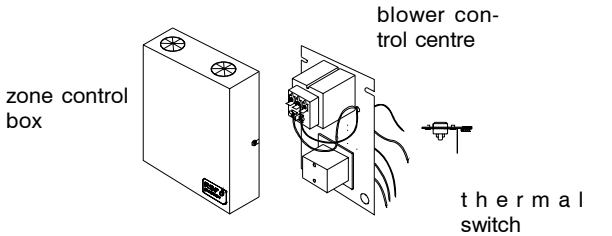


Figure 32: Zone control kit (FD-HCZ1)

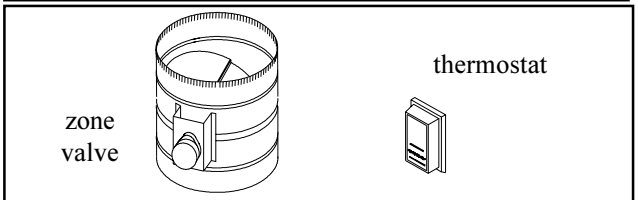


Figure 33: Zone heating kit (FD-HCZ2)

ZONE HEATING (FD-HCZ1 AND FD-HCZ2)

For more regional heat control, the OPEL 2000 is ideally suited for zone heating. Figure 31 shows an example of a three-zone system. The thermostat simultaneously opens the desired valve and starts the blower when heat is required. The zone control system consists of:

1-FD-HCZ-1: - 1 control box
(figure 32) - 1 blower transformer relay
- 1 thermal switch

NOTE: The FD-HCZ-1 replaces the FD-HC6 if you are installing the zone system.

1 to 3 FD-HCZ-2 : - 1 zone valve (normally closed)
- 1 thermostat

The system is wired similarly to the central heat system (figures 36 and 37) with the addition of the blower control and the blower center (See figure 38). The whole system runs on 24V AC. Make sure that the thermostats are matched with the correct zone valve.

NOTE: THE OPEL 2000 MUST BE INSTALLED IN ACCORDANCE WITH ALL LOCAL CODES, IF ANY; IF NOT, FOLLOW THE CURRENT CSA C22.1 IN CANADA OR NFPA 70 IN THE USA. INSTALL AND USE AS PER THE MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS.

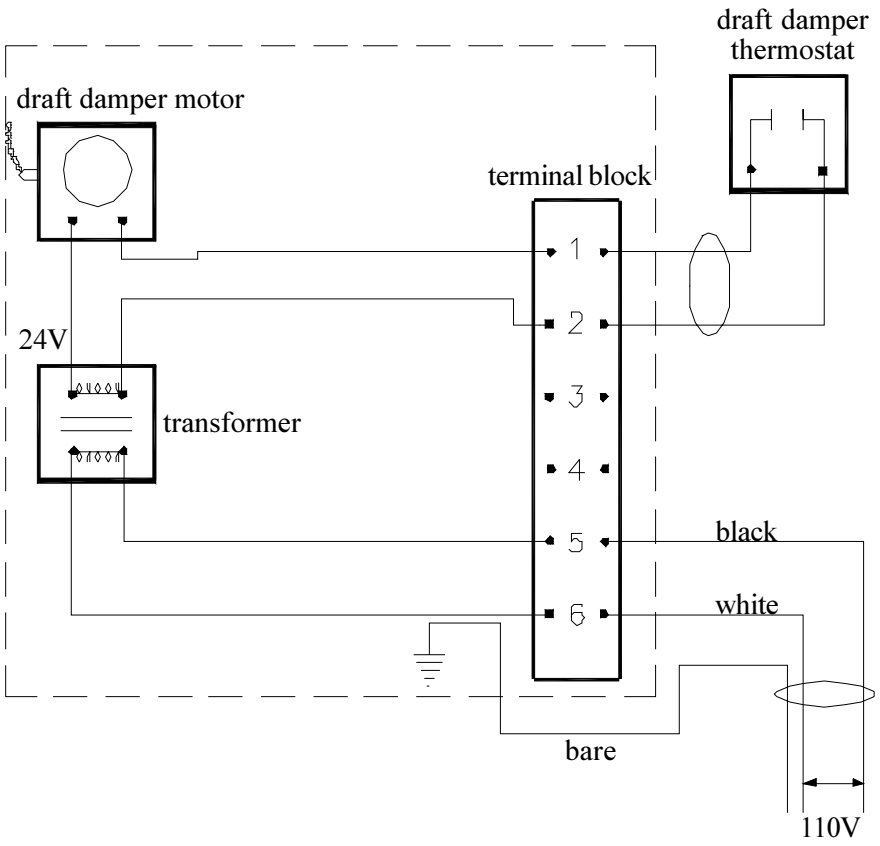


Figure 34: Wiring for the thermostat

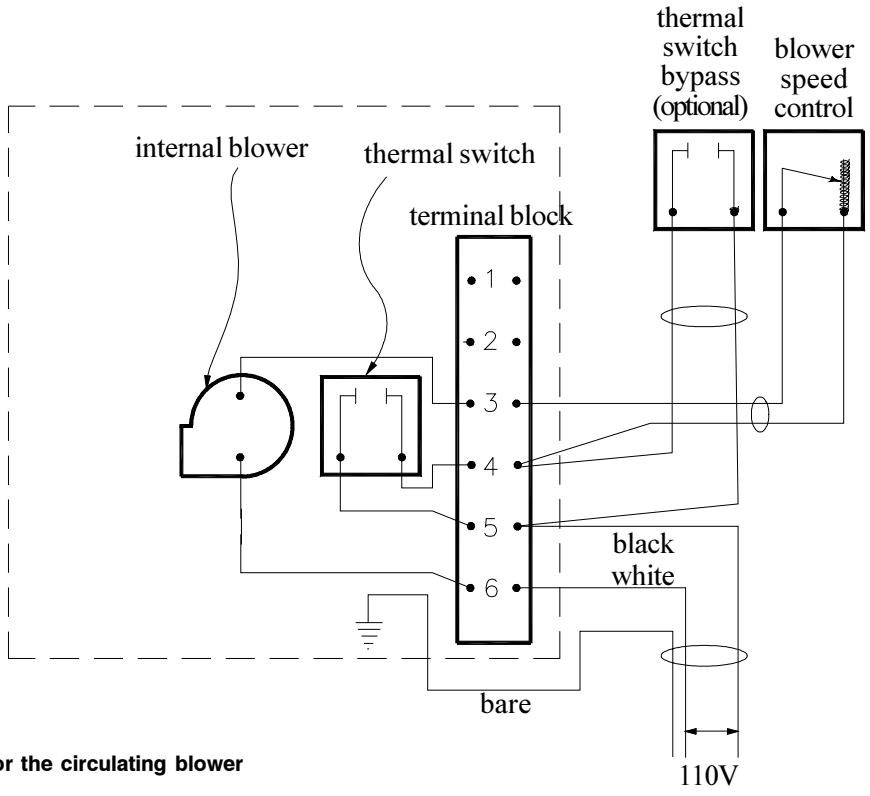


Figure 35: Wiring for the circulating blower

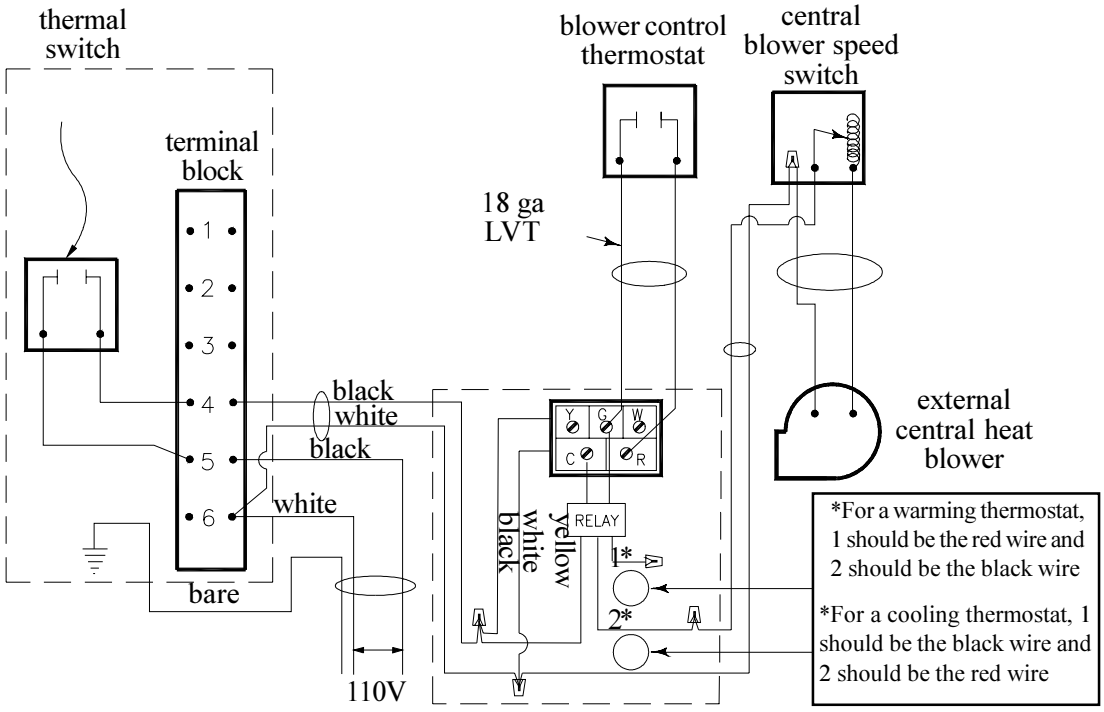


Figure 36: Wiring for the central heat system

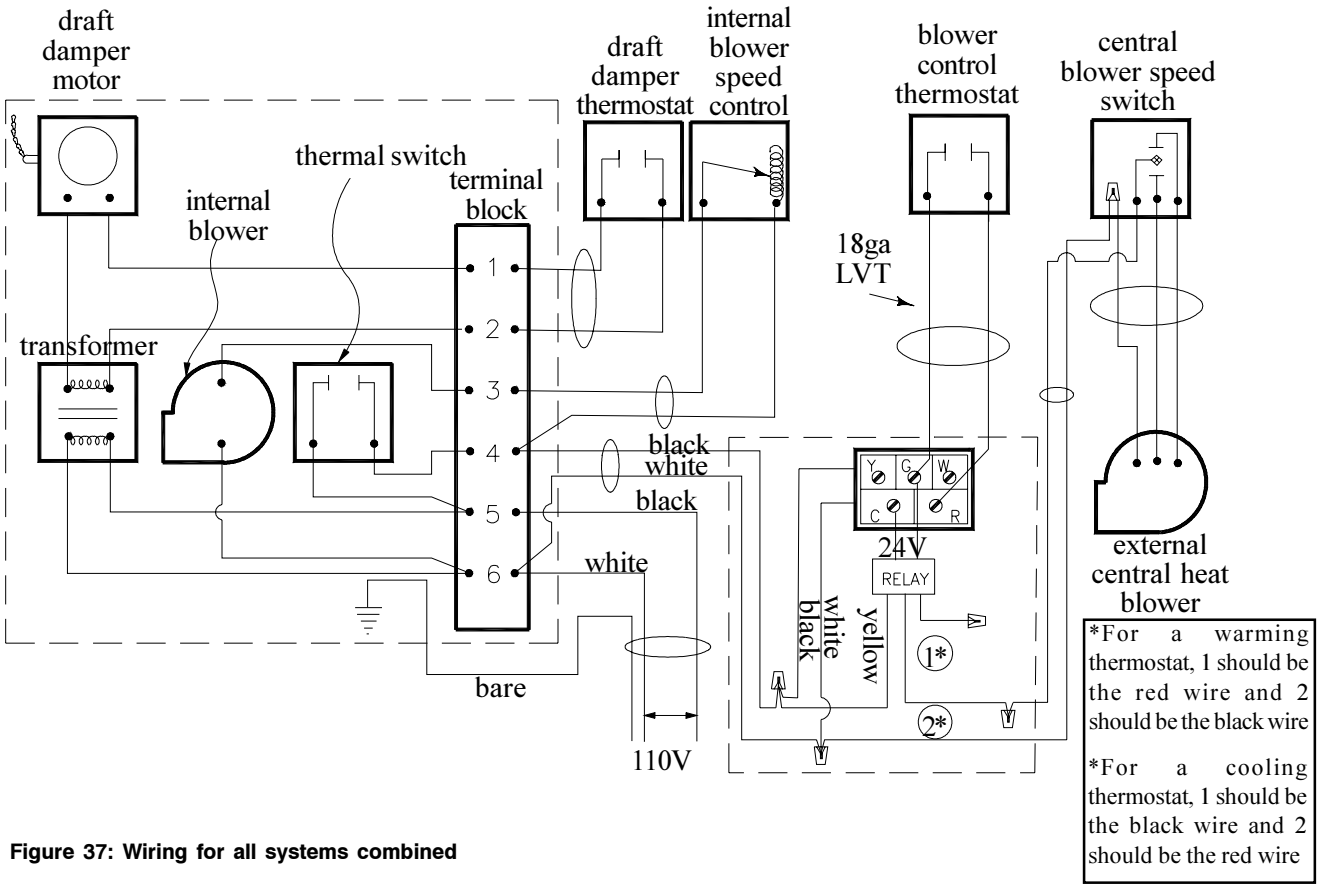


Figure 37: Wiring for all systems combined

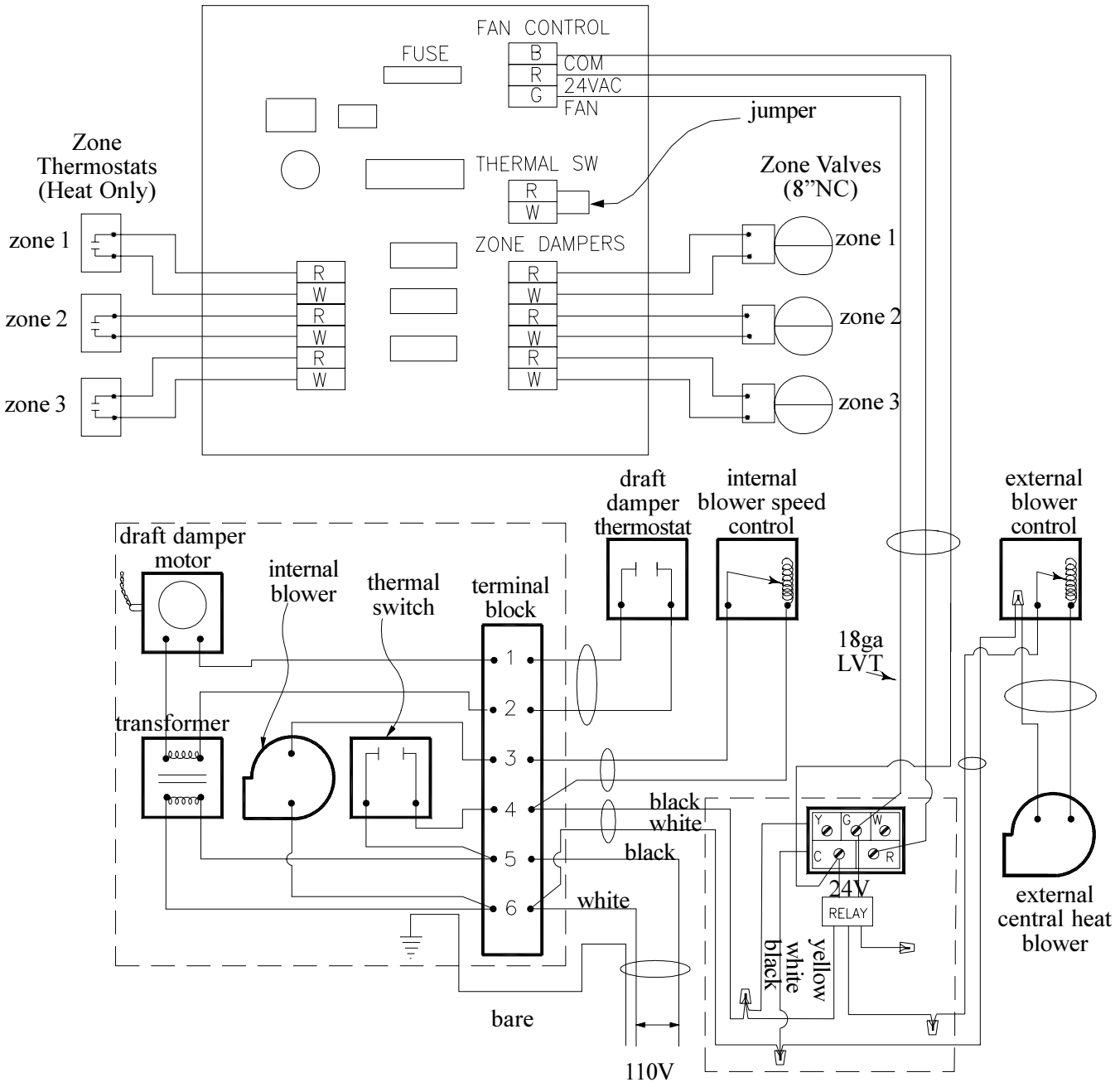
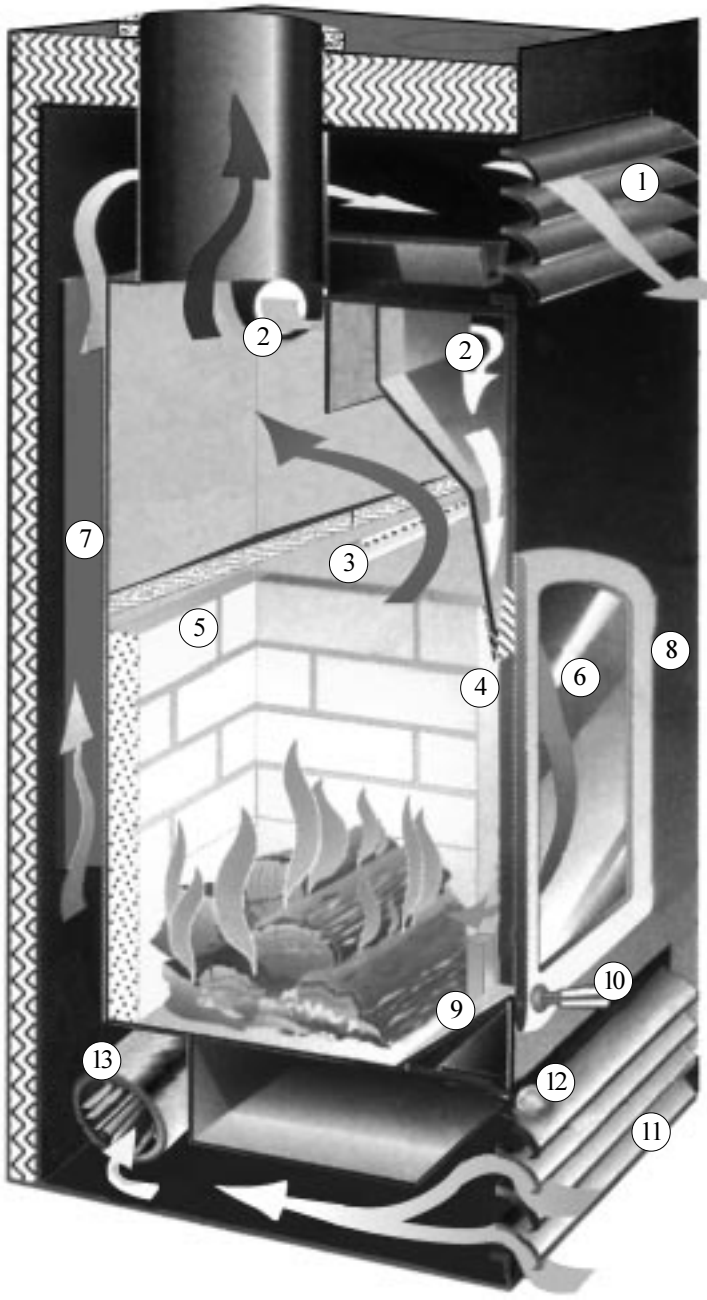


Figure 38: Wiring for all systems with a zone heat system

REPLACEMENT PARTS (SUGGESTED)

PART

1.4.1.P	Draft control lever
1.7.1.P	Draft control assembly
1.9.2.P	Door handle (left)
1.9.3.P	Door handle (right)
1.10.1.P	Louver assembly
1.12.1.DNPR	Terminal bracket assembly
1.12.2.P	Log retainer
1.12.3.DNPR	Thermal switch
2.7.P	Smoke baffle support bracket
7.2.DNPR	Draft control gasket
7.8.P	Secondary air pipe
7.9.P	Air distributor screen
8.1.P	Smoke Baffle
9.6.P	Door closer pawl
9.7.P	Door glass retainer
9.9.P	Radiant shield for door center
10.1.NPR	Louver fins
12.2.DNP	Terminal cover
R2008	Damper motor
R2010	Wall thermostat transformer
R2031A	Wall thermostat
R2076	Zone heat controller
R2077	Control center for central heat
R2121	Blower speed control
R2220	Central heat blower
R2229	Internal blower
R4103	Refractory rear side left
R4104	Refractory rear side right
R4105	Refractory front side left
R4106	Refractory front side right
R4107	Refractory back (2 required)
R6000	1" diameter control knob
R6012	Door handle grip
R6110	Control chain
R6121	Control chain end
R6149	Louver spacer
R6223L	Cast iron door (left)
R6223LP	Cast iron door (left gold)
R6223R	Cast iron door (right)
R6223RP	Cast iron door (right gold)
R6257	Ceramic glass
R6271	Plug button for door hinge
R6307	Tension spring for draft control
R6309	Retention spring for louvers
R6410	Door hinge pin
R6416	Louver rod
R6426	Door handle spacer
R6905	Interam seal for catalyst
R7002	Glass gasket 1/8 x 3/8
R7005	Door gasket (5/8)
R7009	Door gasket (1/4)
R8306	Instruction manual
R6903	Catalytic combustor



OPEL 2000 cross section view

1. Removable top louvers
2. Primary air
3. Secondary air tube
4. Air wash grid
5. High heat refractory lining
6. Ceramic glass
7. Convection chamber
8. Adjustable hinge pins
9. Andiron
10. Adjustable latch
11. Removable bottom louvers
12. Combustion air control knob
13. 210 CFM blower, included rheostat (option)

FIREPLACE OPTIONS

FD-CCO	Opel catalytic kit
FD-FS	Fire screen
FD-GRK2	Gasket replacement kit
FD-HB5-N	Blower
FD-HB6	Blower - central heat
FD-HC4	Thermostat kit
FD-HC6	Central heat control
FD-HC6-1	Back draft damper
FD-HZ-1	Zone heat control
FD-HZ-2	Zone damper (elect)
FD-K	Rock retainer kit
FD-K-1	Rock retainer kit w/o opening
FD-L	Gold louver kit
FD-M	Brick chimney adaptor

Limited Warranty
OPEL 2000 - 30 Year Limited Warranty

30 YEAR LIMITED WARRANTY

All **RSF Energy** fireplace models are warranted against defects in material and workmanship for a period of 30 years, subject to the following conditions:

During the first year **RSF Energy** will repair or replace, at our option, any parts which upon examination by an authorized **RSF Energy** representative are found to be defective, except the parts listed in the EXCLUSIONS portion of this warranty. **RSF Energy** will also pay reasonable labor costs for the repair work.

During the second through fifth years **RSF Energy** will repair or replace, at our option, any parts which upon examination by an authorized **RSF Energy** representative are found to be defective, except the parts listed in the EXCLUSIONS portion of this warranty. **RSF Energy** shall not be responsible for any labor costs associated with this repair work.

During the sixth through thirtieth years **RSF Energy** will provide replacement parts, if available, at 50% of the published retail price, except for the parts listed in the EXCLUSIONS portion of this warranty. **RSF Energy** shall not be responsible for any labor costs associated with this repair work.

EXCLUSIONS

- Electrical components are warranted for one year only.
- Glass and gold plating.
- Damage due to normal wear and tear, such as paint discoloration, worn gaskets, eroded or cracked refractory components.
- Repairs or replacements necessitated by vandalism, neglect, abuse, over-firing, improper fuel or fuel loads, or failure to adequately service the unit, as stated in the instruction manual.
- Repairs or replacements (particularly charges for travel and labor) not authorized by **RSF Energy** in advance.

LIMITATIONS

All items found to be defective will be replaced or repaired upon return of the defective part to an authorized **RSF Energy** dealer. **RSF Energy** will not be responsible for freight costs related to shipping replacement parts.

Any complete fireplace, or part thereof, that is replaced or serviced under this warranty will be warranted for a period not exceeding the remaining term of the original warranty.

This warranty is not transferable.

This warranty does not apply to damage to the appliance while in transit.

This warranty does not apply if the installation does not conform to the installation requirements in the instruction manual.

RSF Energy is free of liability for any damages caused by the appliance, as well as material and labor charges incurred in the removal or re-installation of any **RSF Energy** fireplace under this warranty. Incidental or consequential damages are not covered by this warranty.

The remedies set forth herein are exclusive, and the liability of the seller shall not exceed the price of the fireplace or part thereof upon which the liability is based.

This warranty is expressly in lieu of all other warranties expressed or implied, including the warranties of merchantability and fitness for use and all other obligations or liabilities on the part of **RSF Energy**.

WARNOCK HERSEY

LISTED

LISTED FACTORY BUILT FIREPLACE
MODEL: OPEL 2000C
TESTED TO: UL-127 / ULC-S610 /
ULC S627 REPORT NO. 5315 (JULY 90)

DO NOT REMOVE THIS LABEL / NE PAS ENLEVER CET ETIQUETTE

WH- 00000

SER.NO. / NO. DE SERIE

FOYER PREFABRIQUE
MODELE: 0PEL 2000C
MIS A L'ESSAI SELON LES NORMES
UL-127/ULC-S610/ULC-S627
RAPPORT # 5315 (JUIL. 90)

WARNOCK HERSEY

HOMOLOGUE

INSTALL AND USE ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INTALLATION AND OPERATING INSTRUCTIONS. ***DO NOT OBSTRUCT*** COMBUSTION AIR INLET.

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIELS	
SIDEWALL	12 IN. / 305 MM FROM DOOR OPENING
MANTLE	25 IN. / 635 MM FROM DOOR OPENING
TOP FACING	23.5 IN. / 600 MM FROM DOOR OPENING
SIDE FACING	6.5 IN. / 165 MM FROM DOOR OPENING
UNIT TOP, BACK, SIDES AND BOTTOM	0 IN. / 0 MM TO SPACERS

COMBUSTIBLE MATERIALS ARE NOT PERMITTED ON FACE OF UNIT. COMBUSTIBLE FLOOR MUST BE PROTECTED BY A NON-COMBUSTIBLE MATERIAL EXTENDING 16 IN. / 405MM TO THE FRONT AND 8IN. / 205MM TO THE SIDES OF THE FIREPLACE DOOR OPENING.
COMPONENTS REQUIRED FOR INSTALLATION:
USE 5 IN. / 130MM DIAMETER FLEXIBLE DUCT AND COMBUSTION AIR INLET ASSEMBLY.
ICC INC MODEL EXCEL 2100.3/HT (7 IN. / 180 MM or 8 IN. / 205 MM) CHIMNEY SYSTEM.
OPTIONAL COMPONENTS: PART NO:
FDV: B-VENT HEAT DUCT SYSTEM
FDHB6: CENTRAL HEATING FAN
FDHC6: CENTRAL HEATING VALVE AND THERMOSTAT
FDHB5: FAN ASSEMBLY 115V, 60HZ, 1A
FDHC4: THERMOSTAT
FDFS: FIRE SCREEN
FDM: MASONRY ADAPTER
FDCCO: CATALYTIC COMBUSTOR

BURNING OF METAL FOILS, COAL, PLASTIC AND GARBAGE, SULPHUR AND DIESEL OIL WILL MAKE THE CATALYST IN THE COMBUSTOR INACTIVE. THE COMBUSTOR IS FRAGILE - HANDLE CAREFULLY. THE PERFORMANCE OF THE CATALYTIC DEVICE OR ITS DURABILITY HAS NOT BEEN EVALUATED AS A PART OF CERTIFICATION. REPLACE GLASS ONLY WITH 5MM CERAMIC GLASS. OPERATE ONLY WITH FIREBRICK IN PLACE. FOR USE WITH SOLID WOOD FUEL ONLY.

INSTALLER ET UTILISER SELON LES INSTRUCTIONS D'INSTALLATION ET DE FONCTIONNEMENT DU MANUFACTURIER. ***NE PAS OBSTRUER*** L'ENTREE D'AIR DE COMBUSTION.

DEGAGEMENTS MINIMUM AUX MATIERES COMBUSTIBLES	
MUR DE COTE	12 PO. / 305 MM DE L'OUVERTURE DE LA PORTE
MANTEAU	25 PO. / 635 MM DE L'OUVERTURE DE LA PORTE
FACADE - DESSUS	23.5 PO. / 600 MM DE L'OUVERTURE DE LA PORTE
FACADE - COTE	6.5 PO. / 165 MM DE L'OUVERTURE DE LA PORTE
DESSUS, ARRIERE , COTES ET BASE DE L'APPAREIL	0 PO. / 0 MM DES CALES

LES MATERIAUX COMBUSTIBLES NE SONT PAS PERMIS SUR LA FACADE DE L'APPAREIL.
UN PLANCHER COMBUSTIBLE DOIT ETRE PROTEGE PAR UN MATERIAU NON-COMBUSTIBLE S'ETENDANT AU MOINS 16" (405 MM) AU DEVANT ET 8" (205MM) SUR LES COTES DE L'OUVERTURE DE LA PORTE DU FOYER.
PIECES REQUISES POUR L'INSTALLATION: TUYAU FLEXIBLE DE 5" (130 MM) DIA. ET PRISE D' ENTREE D'AIR.
UTILISER UNE CHEMIN□E **EXCEL 2100.3/HT DE ICC**(7"/180MM OU 8"/205MM DE DIAM˙TRE).
COMPOSANTES OPTIONNELLES:
NO. DE PIECE:
FDV- SYSTEME DE RECUPERATION DE CHALEUR PAR EVENT TYPE B
FDHB6 - VENTILATEUR CHAUFFAGE CENTRAL
FDHC6 - VALVE ET THERMOSTAT CHAUFFAGE CENTRAL
FDHB5 - SOUFFLERIE INTERNE 115V , 60 HZ , 1A
FDHC4 - THERMOSTAT
FDFS - ECRAN PARE - ETINCELLES
FDM - ADAPTEUR DE MACONNERIE
FDCCO - COMBUSTEUR CATALYTIQUE
LA COMBUSTION DE PAPIER D'ALUMINIUM, DE CHARBON, DE PLASTIQUE, DE REBUS, DE SOUFFRE ET D'HUILE REND LE CATALYSEUR INACTIF. MANIER AVEC PRUDENCE CAR LE CATALYSEUR EST FRAGILE. LA PERFORMANCE ET LA DURABILITE DU CATALYSEUR N'ONT PAS ETE EVALUEES LORS DE LA CERTIFICATION. LE REMPLACEMENT D'UNE VITRE DOIT SE FAIRE AVEC UNE VITRE CERAMIQUE DE 5MM D'EPAISSEUR SEULEMENT. OPERER SEULEMENT AVEC LES PIERRES REFRACTAIRES EN PLACE. POUR UTILISATION AVEC DU BOIS SEULEMENT.

WITH CATALYST IN PLACE:
U.S. ENVIRONMENTAL PROTECTION AGENCY CERTIFIED TO COMPLY WITH JULY 1990 PARTICULATE EMISSION STANDARDS.

DATE MANUFACTURED / DATE DE FABRICATION

27/07/97

MANUFACTURED BY / FAIT PAR **ICC** , 801 ST-NICHOLAS, ST-JEROME
QUEBEC, CANADA, J7Y 4C7

AVEC CATALYSEUR EN PLACE:
CERTIFIE PAR EPA (USA)
SELON LA NORME SUR LES
EMISSIONS DE PARTICULES (JUILLET 90)

RSF ENERGY

MADE IN CANADA / FAIT AU CANADA