SPARK MODERN FIRES
INSTALLATION AND OPERATING INSTRUCTIONS
DIRECT VENT GAS FIREPLACE
WITH ELECTRONIC IGNITION SYSTEM
MODELS: 19N-E, 19P-E

WARNING: This fireplace requires 3 feet of vertical venting before any horizontal runs.

WARNING:
FIRE OR EXPLOSION HAZARD
Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

— Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
— WHAT TO DO IF YOU SMELL GAS
  • Do not try to light any appliance.
  • Do not touch any electrical switch; do not use any phone in your building.
  • Leave the building immediately.
  • Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  • If you cannot reach your gas supplier, call the fire department.
— Installation and service must be performed by a qualified installer, service agency or the gas supplier.

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

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

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

WARNING: Improper installation, adjustment, alteration, services or maintenance can cause injury of property damage. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency or the gas supplier.
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IMPORTANT

This fireplace is designed for a minimum 3 feet of vertical vent pipe rise before any horizontal vent pipe run. See pages 13-24 for Vent Installation details.
This fireplace is a vented product. This fireplace must be properly installed by a qualified service person. The glass panel must be properly seated and sealed. If this unit is not properly installed by a qualified service person with glass panel properly seated and sealed, combustion leakage can occur.

**CARBON MONOXIDE POISONING:** Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, the fireplace may not have been installed properly. Get fresh air at once! Have the fireplace inspected and serviced by a qualified service person. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

Propane/LP gas and natural gas are both odorless. An odor-making agent is added to each of these gases. The odor helps you detect a gas leak. However, the odor added to these gases can fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this fireplace.

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

2. For propane/LP fireplace, do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.

3. If you smell gas
   - shut off gas supply.
   - do not try to light any appliance.
   - do not touch any electrical switch; do not use any phone in your building.
   - immediately call your gas supplier from a neighbor’s phone. Follow the gas supplier’s instructions.

4. Never install the fireplace
   - in a recreational vehicle
   - where curtains, furniture, clothing, or other flammable objects are less than 42” from the front, top, or sides of the fireplace
   - in high traffic areas
   - in windy or drafty areas

5. This fireplace reaches high temperatures. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surfaces to cool before touching.

6. Carefully supervise young children when they are in the room with fireplace.

7. Do not modify fireplace under any circumstances. Any parts removed for servicing must be replaced prior to operating fireplace.

8. Turn fireplace off and let cool before servicing, installing, or repairing. Only a qualified service person should install, service, or repair the fireplace. Have burner system inspected annually by a qualified service person.

9. You must keep control compartments, burners, and circulating air passages clean. More frequent cleaning may be needed due to excessive lint and dust from carpeting, bedding material, pet hair, etc. Turn off the gas valve and pilot light before cleaning fireplace.

10. Have venting system inspected annually by a qualified service person. If needed, have venting system cleaned or repaired. See Cleaning and Maintenance, page 37.

11. Keep the area around your fireplace clear of combustible materials, gasoline, and other flammable vapor and liquids. Do not run fireplace where these are used or stored. Do not place items such as clothing or decorations on or around fireplace.

*Continued on page 4*
12. Do not use this fireplace to cook food or burn paper or other objects.

13. Never place anything on top of fireplace.

14. Do not use any solid fuels (wood, coal, paper, cardboard, etc.) in this fireplace. Use only the gas type indicated on rating plate.

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

16. Do not obstruct the flow of combustion and ventilation air in any way. Provide adequate clearances around air openings into the combustion chamber along with adequate accessibility clearance for servicing and proper operation.

17. The firebox may be installed directly on a non-combustible floor or raised on a platform of an appropriate height. When the firebox is installed directly on combustible material, the firebox shall be installed on 1” thick “M” board with a K factor of 0.84 or 2” thick cement board extending the full width and depth of the enclosure.

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

19. Do not use a blower insert, heat exchanger insert, or any other accessory not approved for use with this fireplace.

20. Do not operate the fireplace with glass panel removed, cracked, or broken.

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

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

23. Handle glass door with care to avoid striking or scratching it on hard objects. WARNING: Do not operate appliance with the glass front removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service person.

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

PRODUCT SPECIFICATIONS

- This appliance has been certified for use with either natural or propane gas. See appropriate data plates.
- This appliance is not for use with solid fuels.
- The appliance is approved for bedroom or bedsitting room installations.
- The installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1.
- This appliance must be properly connected to a venting system.
- The appliance is not approved for closet or recessed installations.
- This appliance is mobile home approved. A manufactured home (USA only) or mobile home OEM installation must conform with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, or, when such a standard is not applicable, the Standard for Manufactured Home Installations, ANSI/NCSBCS A225.1, or Standard for Gas Equipped Recreational Vehicles and Mobile Housing, CSA Z240.4.

FIREPLACE CONTROLS (see Figure 1)

1. Main On/Off Switch
2. Power Outlet to Connect Control System
3. Main Gas Control Valve
4. Ignition Control
5. Variable Speed Control Valve
6. Flue Restrictor
7. Air Intake Restrictor

For complete parts list see pages 38-41.

Figure 1 - Fireplace controls

CODE APPROVAL

Direct Vent type appliances draw all combustion air from outside of the dwelling through the vent pipe. The installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1

CGA 2.17-M91 (R2009), CSA P.4.1-09 (R2014)
**PRE-INSTALLATION INFORMATION**

**INSTALLING ABOVE 2000 FEET**
- In the USA, the appliance must be derated 4% for every 1,000 ft above 2,000 ft elevations (at the factory).
- In Canada, these appliances are certified for altitudes of 0 – 4,500 ft.

**ORIFICE SIZES, PRESSURES AND BTUs**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Gas Type</th>
<th>Orifice Size As Shipped</th>
<th>Input Rate, Btu/hr</th>
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</thead>
<tbody>
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<td></td>
<td>Max</td>
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<tr>
<td><strong>NATURAL GAS</strong></td>
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<tr>
<td>Maximum Supply Pressure</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Minimum Supply Pressure</td>
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<td></td>
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<tr>
<td><strong>PROPAANE GAS</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Manifold Press: (W.C.)</td>
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<td></td>
</tr>
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</table>

<table>
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<th>Gas Type</th>
<th>Orifice Size As Shipped</th>
<th>Input Rate, Btu/hr</th>
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<tbody>
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<td></td>
<td>Max</td>
</tr>
<tr>
<td>19N-E</td>
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<td>64,500</td>
</tr>
<tr>
<td>19P-E</td>
<td>Propane</td>
<td>2x #51</td>
<td>64,500</td>
</tr>
</tbody>
</table>

**BEFORE YOU START**

Read this homeowner’s manual thoroughly and follow all instructions carefully. Inspect all contents for shipping damage and immediately inform Spark Modern if any damage is found. Do not install any unit with damaged, incomplete, or substitute parts. Check your packing list to verify that all listed parts have been received. You should have the following:

- Fireplace (Firebox and Burner System)
- Floor media (optional)
- Stones (optional)

**ITEMS REQUIRED FOR INSTALLATION**

**Tools:**
- Phillips Screwdriver
- Hammer
- Saw and/or saber saw
- Level
- Measuring Tape
- Electric Drill and Bits
- Pliers
- Square
- Pipe Wrench

**Building Supplies:**
- Framing Materials
- Wall Finishing Materials
- Caulking Material (Noncombustible)
- Fireplace Surround Material (Noncombustible)
- Piping Complying with Local Codes
- Tee Joint
- Pipe Sealant Approved for use with Propane/LPG (Resistant to Sulfur Compounds)
FIREPLACE FRAMING

Firebox framing can be built before or after the appliance is set in place. Construct firebox framing following Figure 3 and the chart below for your specific installation requirements. See Figure 4 on Page 8 for firebox dimensions. The framing headers may rest on the top of the firebox standoff.

The firebox may be installed directly on a non-combustible floor or raised on a platform of an appropriate height. When the firebox is installed directly on combustible material, the firebox shall be installed on 1” (25 mm) thick "M" board with a K factor of 0.84 or 2” (51 mm) thick cement board extending the full width and depth of the enclosure.

**WARNING**
Do not fill spaces around firebox with insulation or other materials. This could cause a fire.

**IMPORTANT:** The following must be taken into consideration if you decide to cover over the fireplace face:

1. The covering material must be non combustible, maximum 3/4” (19 mm) thick.

2. Minimum outside dimensions of the material over the facing are 82.25” x 38” (2089 x 965 mm) (see Figure 2).

3. The inner opening in covering material must be minimum 72.75” (1848 mm) wide, 16.875” (429 mm) tall and centered over the fireplace opening to allow for glass door removal.

4. The cover should maintain an air gap of at least 1/8” (3 mm) between covering material and fireplace to allow for metal fireplace front to expand and contract during operation.

5. **PLEASE NOTE:** Natural stone products may react to heat by discoloring or cracking. Spark Modern Fires is not responsible for any damages due to covering materials used.

6. **This appliance is not for use with glass doors or front fascia not supplied by Spark Modern Fires.**

**Figure 2 - Minimum dimensions for the covering material**

**Figure 3 - Framing Dimensions**
FIREPLACE LOCATION

Plan for the installation of your appliance. This includes determining where the unit is to be installed, the vent configuration to be used, framing and finishing details. Consult your local building code agency to ensure compliance with local codes, including permits and inspections.

The following factors should be taken into consideration:

- Clearance to side-wall, ceiling, woodwork, and windows. Minimum clearances to combustibles must be maintained.
- This fireplace may be installed along a wall, across a corner, or use an exterior chase.
- Location should be out of high traffic areas and away from furniture and draperies due to heat from appliance.
- Never obstruct the front opening of the fireplace.
- Do not install in the vicinity where gasoline or other flammable liquids may be stored.
- Vent pipe routing. See Venting section found in this manual for allowable venting configurations.
- These units can be installed in a bedroom or bathroom. See National Fuel Gas Code ANSI Z233.1/NFPA 54 (current edition), the Uniform Mechanical Code — (current edition), and Local Building Codes for specific installation requirements.
The fireplace must be secured to the floor and/or to framing studs as shown in Figure 5. Use two (2) wood screws or masonry/concrete screws to secure fireplace to the floor. Use four (4) screws to attach fireplace to framing. The side brackets are adjustable from 1/2" to 5/8" to accommodate different thickness of material.

1" thick "M" board 0.84K factor or 2" thick cement board required underneath if the fireplace is placed on any combustible surface.

Figure 5 - Securing Fireplace to Floor and Framing Studs
CLEARANCES TO COMBUSTIBLES

WARNING

Follow these instructions carefully to ensure safe installation.
Failure to follow instructions exactly can create a fire hazard.

*) IMPORTANT:
Floor must be non-combustible. Otherwise a minimum 1" (25 mm) thick "M" board of 0.84 K Factor or 2" (51 mm) thick cement board must be placed under the fireplace.

<table>
<thead>
<tr>
<th>Clearance to Combustibles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sides</td>
</tr>
<tr>
<td>Floor</td>
</tr>
<tr>
<td>Back</td>
</tr>
<tr>
<td>Standoff</td>
</tr>
<tr>
<td>Front</td>
</tr>
</tbody>
</table>

90" (2286 mm) minimum
14" (356 mm) minimum
6" (152 mm) minimum from both side walls
12" (305 mm) maximum depth

The fireplace face may be completely covered with any non-combustible material. Allow clearance for removal of front air panel and glass door.

Figure 6 - Clearances

MANTEL CLEARANCES

NOTE: The combustible area above the facing must not protrude more than 3/4" (19 mm) from the facing. If it does, it is considered a mantel and must meet the mantel requirements listed in this manual.
INSTALLATION INFORMATION

FINISHING MATERIAL

NOTE: Any remote wiring to the appliance must be done prior to final finishing to avoid costly reconstruction.

WARNING Never obstruct or modify the air inlet or outlet. This may create a fire hazard.

Only noncombustible materials (i.e. brick, tile, slate, steel, or other materials with a UL fire rating of Zero) may be used to cover the black surface of the appliance. Any material must be fastened to surrounding framing, NOT to the face of the fireplace. If joints between the finished wall and the fireplace surround are sealed, a 300°F minimum sealant material (General Electric RTV103 or equivalent) must be used.

VENT INSTALLATION

WARNING Read all instructions completely and thoroughly before attempting installation. Failure to do so could result in serious injury, property damage or loss of life. Operation of improperly installed and maintained venting system could result in serious injury, property damage or loss of life.

State of Massachusetts: The installation must be done by a licensed plumber or gas fitter in the Commonwealth of Massachusetts.

NOTICE Failure to follow these instructions will void the warranty.

INSTALLATION PRECAUTIONS

Consult local building codes before beginning the installation. The installer must make sure to select the proper vent system for installation. Before installing vent kit, the installer must read this fireplace manual and vent kit instructions.

Only a qualified installer/service person should install venting system. The installer must follow these safety rules:

- Wear gloves and safety glasses for protection.
- Use extreme caution when using ladders or when on rooftops.
- Be aware of electrical wiring locations in walls and ceilings.

The following actions will void the warranty on your fireplace:

- Installation of any damaged venting component.
- Unauthorized modification of the venting system.
- Installation of any component part not manufactured or approved by Spark Modern Fires
- Installation other than permitted by these instructions.
**WARNING**
This fireplace must be vented to the outside. The venting system must NEVER be attached to a chimney serving a separate solid fuel burning appliance. Each gas appliance must use a separate vent system. Do not use common vent systems.

Horizontal sections of this vent system require a minimum clearance of 4" (102 mm) from the top of the pipe and 1" (25 mm) minimum to the sides and bottom. Vertical sections of this system require a minimum of 1" (25 mm) clearance to combustible materials on all sides of the pipe.

**Figure 7 - Combustible Clearances for Vent Pipe**

A Minimum of 4" (102 mm) Clearance to the Top is Required Along Horizontal Length of Pipe until Flue Pipe Goes Through Nearest Wall. Clearance Is Acceptable at the Outside Wall.
VENT INSTALLATION

INSTALLATION PLANNING

There are two basic types of direct-vent installation:

- Horizontal Termination
- Vertical Termination

It is important to select the proper length of vent pipe for the type of termination you choose. It is also important to note the wall thickness.

FOR HORIZONTAL TERMINATION

Select the amount of vertical rise desired. All horizontal run of venting must have 1/4” rise for every 12” of run towards the termination.

You may use up to three 90° elbows in this vent configuration. See *Horizontal Termination Configurations* on pages 19 and 20.

FOR VERTICAL TERMINATION

Measure the distance from the fireplace floor to the ceiling. Add the ceiling thickness, the vertical rise in an attic or second story, and allow for sufficient vent height above the roof line.

**NOTE:** You may use two 45° elbows in place of a 90° elbow. You must follow rise to run ratios when using 45° elbows. The appliance is approved for use with three 90° elbows maximum or a combination of 90° and 45° elbows up to a maximum of 270°.

For two-story applications, firestops are required at each floor level. If an offset is needed in the attic, additional pipe and elbows will be required.

You may use a chase with a vent termination with exposed pipe on the exterior of the house. See *Installing Vent System in a Chase* below. If pipe is enclosed in chase, it is not exposed.

It is very important that the venting system maintain its balance between the combustion air intake and the flue gas exhaust. Certain limitations apply to vent configurations and must be strictly followed.

INSTALLING A VENT SYSTEM IN AN OUTSIDE CHASE

A chase is a vertical boxlike structure built to enclose venting that runs along the outside of a building. A chase is required for such venting.

**WARNING**

Never run the vent pipe level or downward. This may cause excessive temperatures which could cause a fire.

**NOTICE**

Treatment of firestops and construction of the chase may vary from building type to building type. These instructions are not substitutes for the requirements of local building codes. You must follow all local building codes.

**NOTICE**

When installing in a chase, you should insulate the chase as you would the outside walls of your home. This is especially important in cold climates. Insulation should be considered a combustible material. Maintain proper clearances to all combustible materials.

Install a Simpson Duravent (or equivalent) Wall thimble, part number 58DVA-WT (not supplied with kit), where the pipe passes through a wall to retain any insulation in the wall and to maintain proper clearances. If the wall being penetrated is constructed of noncombustible material only (i.e., Masonry block or concrete), the wall thimble is not required; and a hole with zero clearance is acceptable (8” hole).
**VENT INSTALLATION**

**FOR HORIZONTAL TERMINATION**

![Diagram of vent installation](image)

**Figure 8 - Horizontal Vent Termination Location**

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**MINIMUM DISTANCES**

A = Clearance above the grade, a veranda, porch, deck, or balcony [*12” (305mm) minimum].

B = Clearance to window or door that may be opened [*12” (305mm) minimum].

C = Clearance to permanently closed window [*minimum 12” (305mm) recommended to prevent condensation on window].

D = Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of two (2) feet (610mm) from the centerline of the terminal [18” (457mm) minimum].

E = Clearance to unventilated soffits [12” (305mm) minimum]. Clearance to vinyl soffit [30” (762mm)].

F = Clearance to an outside corner. [*36” (915mm) minimum].

G = Clearance to an inside corner. [*18” (457mm) minimum].

H = *Not to be installed above a gas meter/regulator assembly within three (3) feet (914mm) horizontally from the centerline of the regulator.

I = Clearance to service regulator vent outlet [*3’ (914mm) minimum].

J = Clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance [*12” (305mm) minimum].

K = Clearance to a mechanical air supply inlet [*6’ (1829mm) minimum].

L = Clearance above a paved sidewalk or paved driveway located on public property [*7’ (2133mm) minimum].

M = Clearance under veranda, porch, deck, or balcony [*12” (305mm) minimum***].

N = Clearance above a roof shall extend a minimum of 24” (610mm) above the highest point when it passes through the roof surface and any other obstruction within a horizontal distance of 18” (457mm).

* As specified in CAN/CGA B149 Installation Codes. Note: Local codes or regulations may require different clearances.

** A vent must not terminate directly above a sidewalk or paved driveway, which is located between two single-family dwellings and serves both dwellings.

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

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**WARNING**

Always maintain minimum clearances around vent systems. The minimum clearances to combustibles for horizontal vent pipe are 4” at the top and 1” at the sides and bottom of the vent system until the pipe penetrates the nearest vertical wall. A 1” minimum clearance all around the pipe must be maintained. Do not pack the open air spaces with insulation or other materials. This could cause high temperatures and may present a fire hazard.
For minimum venting, it is recommended that the Flue restrictor be set at Position #3 (Open) and the Air Intake Restrictor be set to Position #3.

For venting configurations referenced on the chart below, various combinations of the 3 different settings for the Air Restrictor and Flue Restrictor may be required. As the Flue and Air restrictors are adjusted, look to confirm the flame and pilot flame light off correctly and do not show any signs of lifting or ghosting.

For venting runs approaching the maximum venting allowed, Position #1 on both the Flue and Air Restrictors may be required.

**Figure 9 - Alcove location**

**C** = Maximum depth of 48" (1219 mm) for alcove location

**D** = Minimum width for back wall of alcove location is 120" (3050 mm)

**E** = Clearance from corner in alcove location is 36" (912 mm)

**HOW TO USE THE VENT GRAPH**

The Vent Graph should be read in conjunction with the following vent installation instructions to determine the relationship between the vertical and horizontal dimensions of the vent system.

1. Determine the height of the center of the horizontal vent pipe exiting through the outer wall. Using this dimension on the Sidewall Vent Graph below, locate the point intersecting with the slanted graph line.

2. From the point of this intersection, draw a vertical line to the bottom of the graph.

3. Select the indicated dimension, and position the fireplace in accordance with same.

   *Example: If the vertical dimension from the floor of the fireplace is 11' (3.4 m) the horizontal run to the face of the outer wall must not exceed 11' (3.4 m).*

   *Example: If the vertical dimension from the floor of the unit is 7' (2.14 m), the horizontal run to the face of the outer wall must not exceed 4' (1.22 m).*

Sidewall Vent Graph showing the relationship between vertical and horizontal dimensions for a Direct Vent flue system

**Figure 10 - Allowable Venting Chart**
REAR WALL VENT INSTALLATION

When installed as a rear vent unit this appliance may be vented directly to a termination located on the rear wall behind the appliance with 3’ (0.9 m) of vertical rise minimum.

- The maximum horizontal distance between the rear of the appliance and the outside of termination is 20” (508 m). See Figure 11.

- NOTE: A 3 foot (0.9 meter) minimum vertical pipe is required for this configuration.

1. Locate and cut the vent opening in the wall. For combustible walls first frame in opening. See Figure 11.

**Combustible Walls:** Cut a 11”H x 11” W (280mm x 280 mm) hole through the exterior wall and frame as shown. See Figure 12.

**Noncombustible Walls:** Hole opening should be 9” (230mm) in diameter.

2. Rigid vent pipes and fittings have special twist-lock connections. Assemble the desired combination of pipe and elbows to the appliance adaptor with pipe seams oriented towards the wall or floor.

**Twist-lock Procedure:** The female ends of the pipes and fittings have three locking lugs (indentations). These lugs will slide straight into matching slots on the male end of adjacent pipes and fittings. Push the pipe sections together and twist one section clockwise approximately one-quarter turn until the sections are fully locked. See Figure 13.

3. Attach vent pipe assembly to the fireplace. Set fireplace in front of its permanent location to insure minimum clearances. Mark the wall for a 11”H x 11”W (280mm x 280 mm) square hole (for noncombustible material such as masonry block or concrete, a 9” [230mm] diameter hole is acceptable). See Figure 12. The center of the hole should line up with the center line of the horizontal rigid vent pipe end. Be sure to allow for minimum rise. Cut a 11”x11” (280mm x 280mm) square hole through combustible exterior wall (9” [230mm] diameter hole if noncombustible). Frame as necessary. Allow 1/4” (6 mm) minimum rise per foot. See Figure 12.
VENT INSTALLATION

REAR WALL VENT INSTALLATION (continued)

4. Apply a bead of non-hardening mastic around the outside edge of vent cap. Position the vent cap in the center of hole on the exterior wall with the word “UP” on the vent cap facing up. Insure proper clearance of 1” to combustibles is maintained. Attach the vent cap with four wood screws supplied. See Figure 14.

WARNING

Do not recess vent termination into any wall. This will cause a fire hazard.

NOTE: Replace the wood screws with appropriate fasteners for stucco, brick, concrete, or other types of siding.

For vinyl siding, stucco, or wood exterior use vinyl siding stand-offs between vent cap and exterior wall. The vinyl siding standoff prevents excessive heat from melting the vinyl siding material. Bolt the vent cap to the standoff. Apply non-hardening mastic around outside edge of the standoff instead of the vent cap assembly. Use wood screws provided to attach the standoff. See Figure 15.

5. Slide the wall thimble over the vent pipe before connecting the horizontal run to the vent cap. See Figure 16.

6. Carefully move the fireplace with vent assembly attached toward the wall and insert the vent pipe into the horizontal termination. The pipe overlap should be a minimum of 1 1/4”. Apply silicone to the outer pipe connection. Fasten all vent connections with screws provided.

7. Slide the wall thimble against the interior wall surface and attach with screws. See Figure 16.

Figure 14 - Installing Horizontal Vent Cap

Figure 15 - Installing Vinyl Siding Standoff

Figure 16 - Connecting Vent Cap with Horizontal Vent Pipe
HORIZONTAL TERMINATION CONFIGURATIONS — RIGID VENTING

Since it is very important that the venting system maintain its balance between the combustion air intake and the flue gas exhaust, certain limitations as to vent configurations apply and must be strictly adhered to.

The Vent Graph, showing the relationship between vertical and horizontal side wall venting, will help to determine the various dimensions allowable. See page 16.

Minimum clearance between vent pipes and combustible materials is 4” (102 mm) on top and 1” (25 mm) from bottom and sides unless otherwise noted.

When vent termination exits through foundations less than 20” (508 mm) below siding outcrop, the vent pipe must flush up with the siding.

It is best to locate the fireplace in such a way that minimizes the number of offsets and horizontal vent length.

The horizontal vent run refers to the total length of vent pipe from the flue collar of the fireplace (or the top of the Transition Elbow) to the face of the outer wall.

FOR STATE OF MASSACHUSETTS:

The Commonwealth of Massachusetts requires the installation and USE of Carbon Monoxide detectors in the rooms of ALL direct vent units which utilize a SIDE WALL VENTING TERMINATION

- The maximum number of 90° elbows per side wall installation is three (3), the maximum horizontal run is 20” (508 mm) (Figures 18, 19).

![Figure 18 - Maximum Three (3) 90 Elbows Per Installation](image1)

![Figure 19 - Maximum Horizontal Run with 3 foot rise](image2)
VENT INSTALLATION

HORIZONTAL TERMINATION CONFIGURATION — RIGID VENTING (Continued)

- If a 90° elbow is used in the horizontal vent run (level height maintained) the horizontal vent length is reduced by 36” (914 mm) (Fig. 21 A and B) This does not apply if the 90° elbows are used to increase or redirect a vertical rise. See Figure 19.

Example: According to the vent graph (page 16) the maximum horizontal vent length in a system with a 10’ vertical rise is 8’ (2.44 m) and if a 90° elbow is required in the horizontal vent it must be reduced to 5’ (1.52 m).

In Figures 20 and 21, Dimension A plus B must not be greater than 5’ (1.52 m).

- The maximum number of 45° elbows permitted per side wall installation is two (2). These elbows can be installed in either the vertical or horizontal run.

- For each 45° elbow installed in the horizontal run, the length of the horizontal run MUST be reduced by 18” (45cm). This does not apply if the 45° elbows are installed on the vertical part of the vent system.

- The maximum number of elbow degrees in a system is 270°. See Figure 22.

![Figure 20 - Horizontal Run Reduction](image)

<table>
<thead>
<tr>
<th>Example:</th>
<th>Elbow 1 = 90°</th>
<th>Elbow 2 = 45°</th>
<th>Elbow 3 = 45°</th>
<th>Elbow 4 = 90°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Angular Variation = 270°</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Figure 21 - Maximum Vent Run with Elbows](image)

90° Elbow = 3’ (0.9 m)

A + B = 5’ (1.5 m) Maximum

![Figure 22 - Maximum Elbow Usage](image)

1 + 2 + 3 + 4 = 270°
BELOW GRADE INSTALLATIONS — RIGID VENTING

When it is not possible to meet the required vent terminal clearances of 12” (305 mm) above grade level, a snorkel kit is recommended. It allows installation depth down to 7” (178mm) below grade level. The 7” (178mm) is measured from the center of the horizontal vent pipe as it penetrates through the wall.

Ensure that sidewall venting clearances are observed. If venting system is installed below ground, we recommend a window well with adequate and proper drainage to be installed around the termination area.

If installing a snorkel, a minimum 24” (610 mm) vertical rise is necessary. The maximum horizontal run with the 24” (610 mm) vertical pipe is 36” (914 mm). This measurement is taken from the collar of the fireplace (or transition elbow) to the face of the exterior wall. See the Sidewall Venting Graph for extended horizontal run if the vertical exceeds 24” (610 mm).

1. Establish vent hole through the wall. See Figure 12, page 17.
2. Remove soil to a depth of approximately 16” (406 mm) below base of snorkel. Install drain pipe. Install window well (not supplied). Refill hole with 12” (305 mm) of coarse gravel leaving a clearance of approximately 4” (102 mm) below snorkel. See Figure 23.
3. Install vent system.
4. Ensure a watertight seal is made around the vent pipe coming through the wall.
5. Apply high temperature sealant caulking (supplied) around the 4” (102 mm) and 7” (178 mm) snorkel collars.
6. Slide the snorkel into the vent pipes and secure to the wall.
7. Level the soil so as to maintain a 4” (102 mm) clearance below snorkel. See Figure 23.

**IMPORTANT:** For below grade installations a 12” minimum clearance above grade for the termination vent must be maintained for all terminations including the snorkel vent application for

If the foundation is recessed, use recess brackets (not supplied) for securing lower portion of the snorkel. Fasten brackets to wall first, then secure to snorkel with self drilling #8x1/2 sheet metal screws. It will be necessary to extend vent pipes out as far as the protruding wall face. See Figure 24.
VENT INSTALLATION

VERTICAL THROUGH-THE-ROOF APPLICATIONS

This Gas Fireplace has been approved for,

- Vertical installations up to 50’ (15.2 m) in height. Up to a 10’ (3m) horizontal vent run can be installed within the vent system using a maximum of two 90° elbows. See Figure 25.

![Figure 25- Support Straps for Horizontal Runs](image)

- Up to two 45° elbows may be used within the horizontal run. For each 45° elbow used on the horizontal plane, the maximum horizontal length must be reduced by 18” (450 mm).

**Example:** Maximum horizontal length

- No elbows = 10’ (3 m)
- 1x45° elbows = 8.5’ (2.6 m)
- 2x45° elbows = 7’ (2.1 m)

- A minimum of an 8’ (2.5 m) vertical rise is required.

- Two sets of 45° elbows offsets may be used within the vertical sections. From 0 to a maximum of 8’ (2.5 m) of vent pipe can be used between elbows. See Figure 26.

- 19 Series fireplaces allow for offsets. This application will require that you first determine the roof pitch and use the appropriate starter kit.

- The maximum angular variation allowed in the system is 270°. See Figure 26.

- The minimum height of the vent above the highest point of penetration through the roof is 2’ (610 mm).

![Figure 26 - Maximum Elbow Usage](image)
VENT INSTALLATION

INSTALLATION FOR VERTICAL TERMINATION
1. Determine the route your vertical venting will take. If ceiling joist, roof rafters or other framing will obstruct the venting system, consider an offset. See Figure 27 to avoid cutting load bearing members.

NOTE: Pay special attention to these installation instructions for required clearances (air space) to combustibles when passing through ceilings, walls, roofs, enclosures, attic rafters, etc. Do not pack air spaces with insulation. Also note maximum vertical rise of the venting system and any maximum horizontal offset limitations. Offsets must fall within the parameters shows in Figure 10, page 16.

2. Set fireplace in desired location. Drop a line plumb down from the ceiling to the position of the flue exit. Mark the center point where the vent will penetrate the ceiling. Drill a small locating hole a this point.

Drop a plumb line from the inside of the roof to the ceiling locating hole in the ceiling. Mark the center point where the vent will penetrate the roof. Drill a small locating hole at this point.

FLAT CEILING INSTALLATION
1. Cut a 11” (280mm) square hole in the ceiling using the locating hole as a center point. The opening should be framed to 11"x11" (280mm x 280mm) inside dimensions as shown in Figure 12, page 17 using framing lumber the same size as the ceiling joist. If the area above the ceiling is an insulated ceiling or a room, nail firestop from the top side. This prevents loose insulation from falling into the required clearance space. See Figure 28. Otherwise, install firestop below the framed hole. The firestop should be installed with no less than three nails per side. See Figure 29.

2. Assemble the desired lengths of pipe and elbows necessary to reach from the burner system flue up through the firestop. Be sure pipe and elbow connections are fully twist-locked. See Figure 13, page 17.

3. Cut a hole in the roof using the locating hole as a center point. (Cover any exposed open vent pipes before cutting hole in roof). The 11"x11" (280mm x 280mm) hole must be measured on the horizontal. Actual length may be larger depending on the pitch of the roof. There must be a 1” minimum clearance from the vent pipe to combustible materials. (Insulation should be considered a combustible material) Frame the opening as shown in Figure 12 on page 17.

Continued on next page
VENT INSTALLATION

4. Connect a section of pipe and extend up through the hole.

NOTE: If an offset is needed to avoid obstructions, you must support the vent pipe every three (3) feet. Use wall straps for this purpose. See Figure 25, page 22. Whenever possible, use 45° elbows instead of 90° elbows. The 45° elbow offers less restriction to the flow of the flue gases and intake air.

5. Place the flashing over the pipe section(s) extending through the roof. Secure the base of the flashing to the roof and framing with roofing nails. Be sure roofing material overlaps the top edge of the flashing. There must be a 1” clearance from the vent pipe to combustible materials.

6. Continue to add pipe sections until the height of the vent cap meets the minimum building code requirements.

NOTE: You must increase vent height for steep roof pitches. Nearby trees, adjoining roof lines, steep pitched roofs, and other similar factors may cause poor draft or down-drafting in high winds. Increasing the vent height may solve this problem.

NOTE: If the vent pipe passes through any occupied areas above the first floor, including storage spaces and closets, you must enclose pipe. You may frame and sheetrock the enclosure with standard construction material. Make sure to meet the minimum allowable clearances to combustibles. Do not fill any of the required clearance spaces with insulation.

CATHEDRAL CEILING INSTALLATION

IMPORTANT: Review all information on previous page before planning this installation. Cathedral ceiling installations can be very tricky.

1. Remove shingles or other roof covering as necessary to cut the rectangular hole for the support box. Mark the outline of the cathedral ceiling support box on the roof sheathing using the locating hole as a center point.

2. Cut the hole 1/8” larger than the support box outline. See Figure 30.

3. Lower the support box through the hole in the roof until the bottom of the box extends at least 2” (50 mm) below the ceiling. See Figure 30. Align the support box vertically and horizontally using a level. Temporarily tack the support box in place through the inside walls and into the roof sheathing.

4. Using tin snips, cut the support box from the top corners down to the roofline and fold the resulting flaps over the roof sheeting. See Figure 31. Apply a bead of non-hardening mastic around the top edges of the support box to make a seal between the box and the roof. Nail in place with roofing nails. Remove any combustible material that might be inside the support box.

5. Complete the cathedral ceiling installation by following the same procedures outlines in steps 2 through 6 for Flat Ceiling Installation, page 23 and above.

Figure 30 - Cathedral Ceiling Support Box Installation

Figure 31 - Installed Cathedral Ceiling Support Box
CHECK GAS TYPE

Use proper gas type for the fireplace you are installing. If you have conflicting gas type, do not install fireplace. See dealer where you purchased the fireplace for proper fireplace for your gas type or conversion kit.

INSTALLING GAS PIPING TO FIREPLACE / BURNER SYSTEM LOCATION

WARNING
A qualified installer or service person must connect appliance to gas supply. Follow all local codes.

CAUTION
For propane/LP units, never connect fireplace directly to the propane/LP supply. This burner system requires an external regulator (not supplied). Install the external regulator between the burner system and propane/LP supply.

INSTALLATION ITEMS NEEDED

Before installing fireplace and burner system, make sure you have the items listed below.

- External regulator (supplied by installer)
- Equipment shutoff valve* 
- Tee joint
- approved flexible gas line with gas connector (if allowed by local codes — not provided)
- Piping (check local codes) 
- Test gauge connection*
- Pipe wrench
- Sealant (resistant to propane/LP gas)
- Sediment trap (recommended)

* A CSA design-certified equipment shutoff valve with 1/8” NPT tap is an acceptable alternative to test gauge connection. Purchase the CSA design-certified equipment shutoff valve from your dealer.

For propane/LP connections only, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11 and 13 inches of water. If you do not reduce incoming gas pressure, burner system regulator damage could occur. Install external regulator with the vent pointing down as shown in Figure 32. Pointing the vent down protects it from freezing rain or sleet.

CAUTION

Use only new black iron or steel pipe. Internally tinned copper or copper tubing can be used per National Fuel Code, section 2.6.3, providing gas meets hydrogen sulfide limits, and where permitted by local codes. Gas piping system must be sized to provide minimum inlet pressure (listed on data plate) at the maximum flow rate (BTU/hr). Undue pressure loss will occur if the pipe is too small.

When using copper or flex connectors use only fittings approved for gas connections. The gas control inlet is 3/8” NPT.

Figure 32 - External Regulator with Vent Pointing Down (Propane/LP Only)
FIREPLACE INSTALLATION

**WARNING**
Only persons licensed to work with gas piping may make the necessary gas connections to this appliance.

**CAUTION**
A manual shutoff valve must be installed upstream of the appliance. Union tee and plugged \( \frac{1}{8} \)" NPT pressure tapping point should be installed upstream of the appliance. See Figure 33.

**NOTE:** The gas line connection may be made using \( \frac{1}{2} \)" rigid tubing or an approved flex connector. Since some municipalities have additional local codes it is always best to consult your local authorities and the current edition of the National Fuel Gas Code ANSI.Z223.1, NFPA54. In Canada CAN/CGA-B149 (1 or 2) Installation Code.

A listed manual shutoff valve must be installed upstream of the appliance. Union tee and plugged \( \frac{1}{8} \)" NPT pressure tapping point should be installed upstream of the appliance. See Figure 33.

**IMPORTANT:** Install main gas valve (equipment shutoff valve) in an accessible location. The main gas valve is for turning on or shutting off the gas to the fireplace.

Check your building codes for any special requirements for locating equipment shutoff valve to fireplaces.

Apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged burner system valves.

We recommend that you install a sediment trap/drip leg in supply line as shown in Figure 33. Locate sediment trap/drip leg where it is within reach for cleaning. Install in piping system between fuel supply and burner system. Locate sediment trap/drip leg where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into the burner system gas controls. If sediment trap/drip leg is not installed or is installed wrong, burner system may not run properly.

**CAUTION**
Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.

---

**Figure 33 - Gas Connection**

- ** CSA Design-Certified Equipment Shutoff Valve with \( \frac{1}{8} \)" NPT Tap**
- ** Approved Flexible Gas Line**
- ** Sediment Trap/Drip Leg**
- ** Tee Joint**
- ** Pipe Nipple**
- ** Cap**

- ** Natural Gas**
  - From Gas Meter
  - (5" W.C. to 10.5" W.C. Pressure)

- ** Propane/LP**
  - From External Regulator
  - (11" W.C. to 13" W.C. Pressure)**
1. Check gas type. The gas supply must be the same as stated on the appliance's rating decal. If the gas supply is different from the fireplace, STOP! Do not install the appliance. Contact your dealer immediately.

2. To ease installation, a 30" (mm) flex line with manual shut-off valve has been provided with on this appliance. Install and attach 1/2" gas line onto shut-off valve.

3. After completing gas line connection, purge air from gas line and test all gas joints from the gas meter to the fireplace for leaks. Use a solution of 50/50 water and soap or a gas sniffer.

4. To check gas pressures at valve, turn captured screw counter clockwise 2 or 3 turns and then place tubing to pressure gauge over test point. Turn unit to high. See Figure 34. After taking pressure reading, be sure and turn captured screw clockwise firmly to reseal. Do not over torque. Check test points for gas leaks.

**WARNING**

Do not use open flame to check for gas leaks.

---

The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi (3.5 kPa).

The appliance must be isolated from the gas supply piping system by closing its equipment shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.5 kPa).

---

**BLOWER/FAN LOCATION**

**FAN ASSEMBLY DIAGRAMS**
ELECTRICAL INSTALLATION

ELECTRICAL WIRING

This fireplace requires 110V AC electrical supply for normal operation in order to power up the Ignition Control Module that is required to operate the Remote Control. However, during a power outage situation, its electronic system (Ignition Control) can temporarily be powered with a 9V DC battery. The convection blowers will not function in a power outage.

WARNING

Electrical connections should only be performed by a qualified, licensed electrician. Main power must be off when connecting to main electrical power supply or performing service. All wiring shall be in compliance with all local, city, and state codes. The appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code ANSI/ NFPA 70 (latest edition) and Canadian Electrical Code, CSA C22.1.

CAUTION

Label all wires before disconnecting when servicing controls. Wiring errors can cause improper and dangerous operation.

Verify operation after servicing.

FIREPLACE SAFETY BARRIER

The safety barrier provided with the Model 19 is a fine wire mesh mounted within a steel frame. The Screen assembly hangs on the glass frame and is secured at its base by 3 spring tension draw latches.
GLASS REMOVAL

NOTE: Avoid contacting the glass to any surface and be careful to not damage any of the controls in the lower cavity.

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

If the barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this appliance.

1. Remove the front air panel using a screwdriver to lift from center if necessary.

2. Remove the left and right side panels by lifting up and moving to the center slightly.

3. Remove the Component Heat Shield cover by lifting up and toward you.

4. By pulling forward and up, unclip the 6 glass frame retainers at the top of the glass frame.

5. Lift the glass frame up out of the glass frame retainer and onto the glass support flanges on the front of the fireplace.

6. Carefully lift the right hand side of the glass frame off of the glass support flange allowing the glass frame to move down and to the right within the enclosure.
7. Carefully lift the left hand side of the glass frame off of the glass support flange allowing the glass to sit on the floor of the enclosure. **USE CAUTION NOT TO LET THE GLASS FRAME REST ON ANY COMPONENTS OR WIRES.**

8. Lift the glass frame out of the opening of the enclosure beginning with the top left corner while angling the glass frame toward you.

9. Continue to lift the rest of the glass out of the enclosure opening using caution not the damage the edges of the enclosure.

10. Once the glass is removed from the unit, lay the glass on a flat surface so as not to put stress on any localized area of the glass or glass frame. Reverse the removal steps to re-install the glass assembly.
PLACING THE BURNER GLASS MEDIA (OPTIONAL)

The optional burner glass media comes packaged in a poly-bag and contains the correct amount of glass material to cover the burner. The entire contents of the bag should be evenly distributed over the burner tray.

1. Locate the burner in the fireplace. Refer to the adjacent illustration.
2. Carefully clip one corner of the poly-bag to form a pouring spout. The opening should be large enough to allow the glass media to flow but not so large that you can’t control the flow.
3. You will notice that the burner surface is designed with turned-up edges that form a tray to hold the glass media.
4. Starting at one end, pour the glass media onto the burner tray, keeping the pouring spout of the poly-bag towards the center of the burner to avoid spillage of glass pieces over the sides of the burner. See the adjacent illustrations.
5. Once you have poured all the glass burner media into the tray, carefully smooth the glass pieces out so they have a uniform depth over the entire surface of the burner. When the burner glass media is properly placed, it should look like the adjacent illustrations.
6. Note: If a few pieces of glass escape over the edges of the burner tray during installation, it is not a problem. They will simply land in the area below the burner and will do no harm.
1. Grip the burner panel in the center and pull towards the front of the fireplace to disengage.

2. Once disengaged, lift straight up and remove through the front of the fireplace.

3. Remove burner panel brackets on front lip before installing media tray.

4. Place media tray (see figure 37) on support brackets as shown in figure 38, and screw down the 11 screws provided.

5. Fill the tray with media supplied. Do not place media in such a way as to block air flow between burner and tray. See figure 39.

Figure 37 - One piece media tray

Figure 38 - Placing media tray

Figure 39 - Filling the tray with media
LIGHTING INSTRUCTION

FOR YOUR SAFETY READ BEFORE OPERATING

**WARNING**
Do not operate appliance with the glass front removed, cracked, or broken. Replacement of the glass should be done by a licensed or qualified service person.

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

A. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:
- Do not try to light any appliance.
- Do not touch any 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.

C. Main gas valve in this appliance is not serviceable and does not have any control knobs or switches to operate. Do not remove heat shields covering the valve and electronic devices; do not try to repair or modify the valve as it may result in a fire or explosion. Call a qualified service technician if you have any safety concerns.
D. Do not use this appliance if any part of it has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

LIGHTING FOR THE FIRST TIME

**INITIAL LIGHTING**
Purge air from the supply line as follows:
- Open main shutoff valve.
- Unscrew main pressure test point.
- Leave inlet test screw open until gas comes in.
- When gas is flowing, tighten inlet screw immediately.

**DANGER**
Never use an open flame to check for gas leak.

**LEAK TESTING**
1. Follow the pipe from the gas supply line connection to the gas valve. Check connection for leaks with soap and water mixture.
2. Next check for gas leaks at the burner with soap and water mixture.
3. Check the pilot for gas leaks with soap and water mixture.
LIGHTING FOR THE FIRST TIME

APPROVED LEAK TESTING METHOD
You may check for gas leaks with the following methods only:

- Soap and water solution
- An approved leak testing spray
- Electronic sniffer

DANGER
Never use an open flame to check for gas leak.

NOTE: Remove any excessive pipe compound from the connections. Excessive pipe compound can set off electronic sniffer.

WARNING
If using a soap and water solution to test for leaks, DO NOT spray solution onto electronic parts.

Check for gas leaks in each of the following locations:

- Pipe from the gas supply line connection to the gas valve
- Burner connections, pilot
- All joints on valve and control body
- Field made joints / gas shutoff valve
- Factory made joints, each joint and connection

OPERATING INSTRUCTIONS

STOP! Read the safety information on previous page.

1. Turn off all electric power to the appliance.
   Press the on/off switch ① on the fireplace to the off position.
2. Do not attempt to light the pilot by hand.
3. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow Step 3 in the safety information (see page 3). If you don’t smell gas, go to the next step.
4. Press the on/off switch on the fireplace to the on position.
5. Read and follow instructions in how to set up and to use remote control described in supplied with remote control booklet "Use and Installation Instructions for PROFLAME 2 SYSTEM."
6. If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.
TO TURN OFF GAS TO APPLIANCE

1. Turn off all electric power to the appliance if service is to be performed.
2. Remove Air Panel from the appliance, and unplug the power cord.
3. Turn the gas control valve to the full OFF position.
4. If necessary, replace Air Panel.

TO SELECT BETWEEN IPI AND CPI PILOT MODES

This fireplace is equipped with a user programmable pilot; the pilot has 2 modes, Intermittent Pilot Ignition (IPI) and Continuous Pilot Ignition (CPI).

Intermittent Pilot Ignition (IPI) only ignites the pilot when the burners are to be ignited.

Continuous Pilot Ignition (CPI) allows the pilot to remain lighting at all times when the ON/OFF switch on the fireplace is in the ON position.

This fireplace is shipped from the factory programmed for Intermittent Pilot Ignition (IPI).

In colder climates it may be advantages to operate the unit in Continuous Pilot Ignition (CPI) mode in order to keep the flue system preheated reducing the amount of condensation produced upon startup. Condensation will form on the inside of the glass and might leave temporary water marks on the glass.

To select between IPI and CPI:
1. Press the ON/OFF button on the Handheld Transmitter. All that should be displayed on the Handheld Transmitter is the room Temperature in the upper right corner of the display.
2. Press the MODE button on the Handheld Transmitter.
3. The screen should now display either IPI or CPI; select either IPI or CPI using the UP/DOWN arrows on the Handheld Transmitter as desired.
4. Press the MODE button to confirm.
CLEANING AND MAINTENANCE

WARNING

Turn off gas before servicing fireplace. It is recommended that a qualified service technician perform these check-ups at the beginning of each heating season.

BURNER, PILOT AND CONTROL COMPARTMENT

Keep the control compartment and burner areas clean by vacuuming or brushing at least twice a year. Make sure the burner porting, pilot air opening and burner air opening are free of obstructions at all times.

PILOT FLAME

The flames from the pilot should be visually checked as soon as the heater is installed and periodically during normal operation. The pilot flame must always be present when the fireplace is in operation. See Figure 45. The pilot flame has 2 distinct flames, one engulfing the thermopile, and the other reaching to the main burner.

BURNER

Inspect area around the injectors. Remove any lint or foreign material with a brush or vacuum.

BURNER FLAME

The flames from the burner should be visually checked as soon as the heater is installed and periodically during normal operation. In normal operation, at full rate, and after operating for about 15 to 30 minutes, the flame should be yellow and up to 6 inches high. See Figure 46.

If the flame is blue and only in the center, turn off unit and contact your service technician.

NOTE: The type of installation, vent system configuration, and wind effects may cause the flame patterns to vary.
**VENT SYSTEM**

The fireplace and venting system should be inspected before initial use and at least annually by a qualified field service person. Inspect the external vent cap on a regular basis to make sure that no debris is interfering with the airflow. Inspect entire venting system to ensure proper function. Follow directions on pages 17 to 18 to reassemble vent after servicing.

**GLASS PANEL**

Thoroughly clean the inside of the glass panel after using the fireplace for ten hours. Periodically clean the glass panel as necessary.

When cleaning the glass, remember:

- **Do not remove the glass when hot.** Allow glass to cool before removal or attempting to clean.
- NEVER use abrasive materials.
- Keep children and pets a safe distance away.
- Never operate the fireplace without the glass door properly secured.
- Never operate the fireplace if the glass is broken.
- Replace any glass that is chipped, cracked, or broken. When removing broken glass, always wear gloves and use caution. Replacement glass door assemblies MUST be supplied by the fireplace manufacturer – **No substitute materials may be used.** Glass and glass frame must be replaced as an assembly.
- Handle glass door with care to avoid striking or scratching it on hard objects.

To clean glass door, follow “Glass Removal” procedure outlined in the *Glass Removal* section. Film deposit on the inside of the glass should be cleaned off using a nontoxic, non-corrosive, non-abrasive, mild-cleaning solution. Simply apply an adequate amount to the glass and wipe off with a damp cloth. After all maintenance has been completed, re-install glass door by reversing the removal steps.

**MEDIA**

Replace or add media as required following installation instructions in the *Final Installation* section of this manual.

---

**CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.
## ILLUSTRATED PARTS LIST

### RIGID VENT COMPONENTS (not supplied with fireplace)

<table>
<thead>
<tr>
<th>Item</th>
<th>Qty/Box</th>
<th>Description</th>
<th>M&amp;G Duravent Direct Vent Pro or Spark Modern Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Model 19 5X8 Starter</td>
<td>*Supplied with fireplace</td>
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<tr>
<td>1</td>
<td>1</td>
<td>High Wind Horizontal Termination</td>
<td>58DVA-HC</td>
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<td>2</td>
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<td>Vertical Termination</td>
<td>58DVA-VHC</td>
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<td>3</td>
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<td>6&quot; Pipe Length</td>
<td>58DVA-06</td>
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<td>9 1/2&quot; to 15 1/2&quot; Pipe, Adjustable</td>
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<td>15 1/2&quot; To 22 1/2&quot; Pipe, Adjustable</td>
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<td>5</td>
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<td>45° Elbow</td>
<td>58DVA-E45</td>
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<td>90° Elbow</td>
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<td>6</td>
<td>Flashing, 0/12 To 6/12 Roof Pitch</td>
<td>58DVA-F6</td>
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<td>8</td>
<td>6</td>
<td>Storm Collar</td>
<td>58DVA-SC</td>
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<td>9</td>
<td>6</td>
<td>Firestop</td>
<td>58DVA-FS</td>
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<td>Vinyl Siding Standoff</td>
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<tr>
<td>2</td>
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<td>ICC Excel 5X8 High Wind Vertical Termination</td>
<td>TM5VT</td>
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# PARTS LIST

This list contains replaceable parts used in your fireplace.

For replacement parts, contact Spark Modern Fires at 866-938-3846.

<table>
<thead>
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<th>KEY No.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
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<td>30&quot; X 5/8&quot; FLARE FLEX CONNECTOR</td>
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<td>FRONT AIR PANEL</td>
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<td>LEFT SIDE PANEL</td>
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<td>-</td>
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<td>RIGHT SIDE PANEL (NOT SHOWN)</td>
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<td>20</td>
<td>M19023</td>
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<tr>
<td></td>
<td>GLASS DOOR WITH GASKET *</td>
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<td>21</td>
<td>XXXXXXX</td>
<td>XXXXXXX</td>
<td>SET</td>
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<td>VARIOUS TRAY MEDIA (&quot;M&quot; MODELS ONLY)</td>
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<td>22</td>
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<td></td>
<td>TRANSMITTER</td>
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<td>MAIN WIRE HARNESS</td>
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<td>24</td>
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<td>MAIN POWER CORD</td>
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<td>25</td>
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<td></td>
<td>COMPONENT HEAT SHIELD COVER</td>
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* Shall only be replaced as a complete unit as supplied by the manufacturer
CONTROL COMPARTMENT

BURNER COMPARTMENT

FIREBOX COMPONENTS

ACCESS AND MEDIA COMPONENTS
ILLUSTRATED PARTS LISTS (continued)

Proflame Wiring Diagram

This diagram shows replaceable SIT Proflame parts used in your fireplace.

WARNING

Electrical Grounding Instructions

This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.
# TROUBLESHOOTING

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>POSSIBLE CAUSE</th>
<th>ACTION</th>
</tr>
</thead>
</table>
| 1. Spark ignitor will not light pilot after repeated triggering of piezo. | A. On/off switch in off position.  
B. Wire disconnected.  
C. Defective ignitor.  
D. No gas or low gas pressure.  
E. No Propane/LPG in tank. | A. Turn on/off switch to on position.  
B. Open door and check to make sure wire is connected to ignitor.  
C. Check for spark at electrode and pilot. If no spark and electrode wire is properly connected, replace pilot assembly.  
D. Check remote/manual shut off valve from fireplace. Low pressure can be caused by bent lines, restricted lines, low line pressure. Consult with plumber or gas supplier.  
E. Check Propane/LPG tank. Refill tank. |
| 2. Frequent pilot outage problem. | A. Pilot flame may be too high or too low, causing pilot safety to drop out | A. Clean and adjust the pilot flame for maximum flame impingement on thermocouple. |
| 3. The pilot and main burner extinguish while in operation | A. Inner vent pipe leaking exhaust gases back into system  
B. Horizontal vent improperly pitched  
C. Improper vent cap installation | A. Check for flue product leak. Replace defective pipe section.  
B. Check horizontal-venting piping is running upward 1/4" per foot. Do not run the pipe level or downward.  
C. Check for proper installation and freedom from debris or blockage. |
| 4. Flame burn blue and lifts off burner (ghosting) | A. Insufficient oxygen being supplied | A. Ensure that the vent cap is installed properly and free of debris. Ensure that the vent system joints are tight and have no leaks. Ensure that no debris has been blocking the inner air intake at the bottom back of the combustion chamber. Ensure that the glass is properly secure and latch. |
The installer should complete the form below that describes the details of the installation. Having this written record of installation information available will greatly expedite trouble-shooting should any problem arise with your fireplace. The installer should keep a duplicate of this form for their records. Accurate completion of this form is required for warranty coverage and for any technical support by Spark Modern Fires.

### INSTALLATION RECORD

<table>
<thead>
<tr>
<th>Date Purchased:</th>
<th>Purchaser/Dealer:</th>
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<tbody>
<tr>
<td>Installer:</td>
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<tr>
<td>Fireplace S/N on product ID tag:</td>
<td>Date Installed:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>FUEL:</th>
<th>Natural Gas</th>
<th>L.P. Propane</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Inlet Pressure Measured After Installation:</th>
<th>In. W.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manifold Pressure Measured After Installation:</td>
<td></td>
</tr>
<tr>
<td>High Fire:</td>
<td>Low Fire:</td>
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</table>

### VENTING:

Please Verify The Brand And Model Of Venting Used:

<table>
<thead>
<tr>
<th>Vent Termination (Cap):</th>
<th>Horizontal</th>
<th>Vertical</th>
<th>Snorkel</th>
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</thead>
<tbody>
<tr>
<td>Vent Cap Model No:</td>
<td></td>
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</table>

### CONFIGURATION:

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<th>Vent Configuration Sketch Required Below:</th>
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<tr>
<td>Total Horizontal Run: (\text{Feet/Inches})</td>
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<tr>
<td>Total Vertical Run: (\text{Feet/Inches})</td>
</tr>
<tr>
<td>Quantity 90° Elbows:</td>
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<tr>
<td>Quantity 45° Elbows:</td>
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### ALTITUDE:

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<th>Feet Above Sea Level</th>
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<tbody>
<tr>
<td>Was Fireplace Derated? Yes No</td>
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<tr>
<td>If Yes To What Orifice Size?</td>
</tr>
<tr>
<td>Unusual Structure Near Vent?</td>
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<tr>
<td>Inside Corner Trees/Shrubs Other</td>
</tr>
<tr>
<td>Termination: (Please Describe)</td>
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<tr>
<td>Prevalent Wind Conditions?</td>
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<table>
<thead>
<tr>
<th>Other Installation Notes:</th>
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</thead>
</table>

WARRANTY INFORMATION

KEEP THIS FOR WARRANTY

Model ____________________________
Serial No. __________________________
Date Purchased ______________________

Always specify model and serial numbers when communicating with the factory.

LIMITED LIFETIME WARRANTY

The following components are warranted for life to the original owner, subject to proof of purchase: Firebox, Combustion Chamber, and Steel Burner.

BASIC WARRANTY
Spark Modern Fires warrants the components and materials in your gas appliance to be free from manufacturing and material defects for a period of two years from date of installation. After installation, if any of the components manufactured by Spark Modern Fires in the appliance are found to be defective in materials or workmanship, Spark Modern Fires will, at its option, replace or repair the defective components at no charge to the original owner. Spark Modern Fires will also pay for reasonable labor cost incurred in replacing or repairing such components for a period of two years from date of installation. Any products presented for warranty repair must be accompanied by a dated proof of purchase.

This Limited Lifetime Warranty will be void if the appliance is not installed by a qualified installer in accordance with installation instructions. The Limited Lifetime Warranty will also be void if the appliance is not operated and maintained according to the operating instructions supplied with the appliance, and does not extend to (1) firebox/burner assembly damaged by accident, neglect, misuse, abuse, alterations, negligence of others, including the installation thereof by unqualified installers, (2) the costs of removal, reinstallation or transportation of defective parts on the appliance, or (3) incidental or consequential damage. All service work must be performed by an authorized service representative.

This warranty is expressly in lieu of other warranties, express or implied, including the warranty of merchantability and fitness for purpose and of all other obligations or liabilities. Spark Modern Fires does not assume for it any other obligations or liabilities in connection with sale or use of the appliance. In states that do not allow limitations on how long an implied warranty lasts, or do not allow exclusion of indirect damage, those limitations or exclusions may not apply to you. You may also have additional rights not covered in the Limited Lifetime Warranty. Spark Modern Fires reserves the right to investigate any and all the claims against this Warranty and decide upon method of settlement. For information about this warranty contact:

Spark Modern Fires
53 Chestnut Woods Rd.
Redding, CT 06896
U.S.A.

Rev.1 11/2012