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

For Your Safety:
Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

What To Do If You Smell Gas:
• Do not try to light any appliance.
• Do not touch any electrical switch; do not use any phone in your building.
• Immediately call your gas supplier from a neighbor’s phone. Follow the gas supplier’s instructions.
• If you cannot reach your gas supplier, call the fire department.

Check local codes and read all instructions prior to installation.

Leave this manual with the owner.

SP28-F2
5” B-Vented Gas Fireplaces

Approved for use in BC only
Introduction

Thank you for purchasing the **EC-Plus Modular Series Fireplace**. This fireplace is modular, allowing the installation of four different decorative burner configurations or one heat-efficient model. The modular concept provides the opportunity to upgrade easily in the field and customize to your immediate and future requirements.

The SP28-F2 Series is certified in British Columbia only which is upgradable to the EP28-S2 insert, which is certified in the US and Canada as a **Vented Gas Fireplace Heater** (ANSI Z21.88 - 2000 / CSA 2.33 - 2000).

- **SP28-F2** - 5 logs, 22 000 BTU/H sandpan burner (Nat. Gas only). **Available in British Columbia only.**
- **EP28-S2** - 6 logs, 21 000 BTU/H heating insert (Nat. Gas or LP).

The warranty will be voided by, and the manufacturer disclaims any responsibility for, the following actions:

- Modification of the fireplace and/or components including combustion air assembly or glass doors.
- Use of any component part not manufactured or approved by the manufacturer in combination with an EC-Plus fireplace system.
- Installation other than as instructed in this manual.

Consult your local Gas Inspection Branch on installation requirements for factory-built gas fireplaces. Installation & repairs should be done by a qualified contractor.

**Installations in Canada** must conform to the current CAN/CGA B-149.1 and .2 Gas Installation Code and local regulations. When the unit employs the optional Blower Kit, it must be electrically grounded in accordance with CSA C22.1 Canadian Electrical Code Part 1 and/or Local Codes.

**Installations in the USA** must conform to the National Fuel Gas Code, ANSI Z223.1-1988. When the unit employs the optional Blower Kit it must be grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70-1987.

**NOTE:** Decorative burner models are not intended as a primary source of heat. Use for supplemental heating only.

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**CAUTIONS**

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

- Children and adults should be alerted to the hazards of the high surface temperature, which could cause burns or clothing ignition.
- Young children should be carefully supervised when they are in the same room as the appliance.
- Clothing or other flammable materials should not be placed on or near the appliance.
Installing The Fireplace Shell

The fireplace may be installed in any location that is free of air conditioning ducts, electrical wiring and plumbing. Safety, as well as efficiency of operation, must be considered when selecting the fireplace location. Try to select a location that does not interfere with room traffic, has adequate ventilation, and offers an accessible pathway for B-Vent & Combustion Air Kit installation.

The fireplace dimensions are shown below:

![Figure 1. Fireplace dimensions.](image)

Clearances

The EP-28 Series clearances to combustible materials are:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Top*</td>
<td>12&quot;</td>
</tr>
<tr>
<td>Back</td>
<td>0&quot;</td>
</tr>
<tr>
<td>Sides</td>
<td>1&quot;</td>
</tr>
<tr>
<td>Floor</td>
<td>0&quot;</td>
</tr>
<tr>
<td>Mantle**</td>
<td>6&quot;</td>
</tr>
<tr>
<td>Recess Depth***</td>
<td>15&quot;</td>
</tr>
<tr>
<td>Flue</td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

* Clearance from the top of the fireplace to a combustible ceiling, within the fireplace enclosure.

** Refer to page 5.

See Figure 2.

Framing

For protection against freezing temperatures, it is recommended that outer walls of the chase be insulated with a vapor barrier. This will reduce the possibility of a cold-air convection current on the fireplace.

![Figure 2. Framing dimensions.](image)

* When sheetrock is not used behind the fireplace, framing depth may be reduced to 14 3/4".

![Figure 3. Corner Installation - framing dimensions.](image)

WARNING:

When this appliance is installed directly on carpeting, tile or any combustible material other than wood flooring, it must be installed on a metal or wood panel extending the full width and depth of the appliance.
Installing The Gas Line

The gas line must be installed before finishing the fireplace. **Natural Gas** requires a minimum inlet gas supply pressure of 5.5” W.C. & a manifold pressure of 3.5” W.C. **Propane Gas** requires a minimum inlet gas supply pressure of 11” W.C. & a manifold pressure of 10” W.C. Provision must also be made for a 1/8” N.P.T. plugged tapping and be accessible for test gauge connection immediately upstream of the gas supply controls to the appliance. The fireplace gas connection and the main operating gas valve is located behind the removable trim at the bottom of the unit and need only be attached to the gas line with an approved fitting, as required by the applicable installation codes.

Figure 4. Gas line access.

![Diagram of gas line access](image)

The appliance and its individual shutoff 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 psig (3.5 kPa).

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

**Notes:**

- After gas line is connected each appliance connection, valve and valve train must be checked while under normal operating pressure with either a liquid solution, or leak detection device, to locate any source of leak. Tighten any areas where bubbling appears or leak is detected until bubbling stops completely or leak is no longer detected. **Do NOT** use a flame of any kind to test for leaks.

Installing The Remote Switch

The EP28 Series’ gas valve, located behind the lower trim, may be connected to a wall switch. The valve generates its own power. This is a millivolt circuit. Use only low voltage wire, and **DO NOT** connect any external power to it.

Refer to Figure 24a, 24b, and 24c for wiring requirements.

**Note:** The switch location must not exceed 30’ from the fireplace.

**B-Vent Installation**

The EP-28 Modular Series is certified for use with standard 5” B-Vent and requires no B-Vent appliance connector. Simply attach the B-Vent to the fireplace flue collar, and secure it to the L-shaped brackets on each side of the opening using 1/4” sheet metal screws. Do not penetrate the inner sleeve of the B-Vent when tightening the screws.

Refer to the current CAN/CGA B-149.1 and .2 or ANSI Z223.1-1988 Gas Installation Code for specific vent sizing.

**CAUTION:**

Test your B-Vent installation after completion to ensure that no combustible by-products are spilling from the fireplace opening. This draft test should be performed after a fifteen (15) minute warm up period. The manufacturer will not be responsible for any installations with inadequate draw.
Finishing Around the Fireplace

Combustible mantels and mouldings may be safely installed over the top and on the front of the fireplace provided that they do not project beyond shaded area shown in Figure 5. Side wall clearances are 0”. Combustible surrounds may be installed with 0” clearance to the side of the fireplace as shown in Figure 6.

Fireplace Facing

When selecting the finish material for your fireplace, it is important to remember the following: **TRIMS MUST NOT BE OBSTRUCTED IN ANY WAY** - to do so restricts the air supply for the control compartments and heat exchanger it also prevents access for servicing controls.

The face of the fireplace may be painted to match the room decor, provided you use a heat-resistant paint. Decorative facing must not extend past the fireplace opening at all, because it will interfere with the access to retainers for removal of glass door.

**Mantels & Surrounds**

**NOTE:** Mantel clearances shown are for fire hazard prevention.

New technology, to meet consumer and government demands for the wise use of energy, has prompted us to manufacture many models of fireplaces which are hot, fuel and energy efficient.

Please be aware: temperatures over the mantel will rise above normal room temperature and walls above fireplace may be hot to touch.

We recommend careful consideration be given to the effects of elevated mantel temperatures which may be in excess of product design, for example: candles, plastic or pictures. This can cause melting, deformation, discoloration or premature failure of T.V. and radio components.

**Painting:**

Special care is recommended by the Master Painters and Decorators Association, when painting the fireplace surrounds, to select and apply a quality **Alkyd sealer** prior to the applying of latex paints. This is to prevent leaching of water from evaporation and causing a brownish staining effect to paint over coats.

Figure 5a. Combustible mantles and facings.

Figure 6. Combustible surrounds.
Installing Decorative Burner Trays

The burner tray may be installed/upgraded before or after the EP28 outer shell has been installed.

1. Remove the lower trims.

2. If you are converting or upgrading an EP28 Series fireplace which has doors installed, you must first remove the doors. To remove the doors, push up firmly on the spring clip to release the top of the door. Tilt the top of the door towards the middle of the fireplace, and lift the bottom door pin out of its locating hole. Continue on with steps 3 - 9.

3. Remove the four screws holding the front bar in place. See figure 7.

4. **Warning:** You must disconnect the gas supply line from the fireplace.

5. If replacing an existing burner tray, remove the two screws located at bottom rear of burner pan. Lift complete burner assembly, up and out of unit to clear support ledge.

6. Install the new burner by reversing step 5. Be sure to re-install the two screws at the bottom rear of burner pan to secure pan into place.

7. Re-install the front bar. Make sure the front bar is secured with four screws.

8. Reconnect gas line by following the information on page 4.

9. Turn on gas supply and leak test the connection.

**Notes:**

- A Spill Switch is supplied with each unit. This must be wired in the Wall Switch - Gas Valve circuit. (See Figure 24a, 24b, or 24c for Schematic Diagram.)

- After gas line is connected **each appliance connection, valve and valve train** must be checked while under normal operating pressure with either a liquid solution, or leak detection device, to locate any source of leak. Tighten any areas where bubbling appears or leak is detected until bubbling stops completely or leak is no longer detected. **Do NOT** use a flame of any kind to test for leaks.
Installation

EP28-F2 Logset

This model are supplied with five ceramic fibre logs and a package of silica sand. Unpack the logs and handle them very carefully. Pour the sand into the burner pan and spread it out evenly. Place the Back log in the sand as shown below in figure 9. Push the log’s lip into the sand. Place the remainder of the logs as shown in figure 10.

Heat Circulating Blowers

Some EP-28 Series decorative fireplaces may be equipped with an optional blower kit (Part # FAN28) for circulating heat into the living space.

NOTE: If any of the original wire supplied with the appliance is replaced, it must be replaced with the same type, or its equivalent.

**Figure 9a.** Positioning the back log.

**Figure 9b.** Proper top log placement (top view).

Refer to Fan-28 Installation Instructions for more information.

Installations in Canada which employ the fan kit, must be in accordance with CSA C22.1 Canadian Electrical Code Part 1 and/or Local Codes.

Installations in the USA employ the fan kit, must be in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70-1987.
Optional Doors

EP28 Series Decorative Models come standard with a firescreen, and may be fitted with one of the following optional door kits:

- Twin-Pane-Style Doors ............... Part # ETW28
- Bi-Fold Doors ................... Part # EBD28
- Stereo Cabinet Doors ............... Part # ETWD28E

Twin-Pane and Bi-Fold Doors are available in Black, Brass or Nickel Finishes to match your fireplace’s trim. Stereo Cabinet Doors are an all-glass design.

The EP28-S2 Heating Insert includes a fixed glass door, and cannot be fitted with the above doors.

Installation

Complete installation instructions are included with the door kit.

Adjustment

After installation of the fireplace, the doors may require some adjustment.

The spring clips that are installed on both sides of the top door rail are used to align the doors. With the door open, loosen the screw that holds the spring clip in place (see Inset). This will allow the door to move back and forth. Fit the doors so that they are straight and tighten the screw to hold the door in position. Adjust both doors until the opening between the doors, when closed, is even from top to bottom.

Figure 12. Adjusting the glass doors.

Figure 13. Removing the bottom door rail.

1. Remove the upper and lower trims.

Warning: You must turn off gas supply to the fireplace.

2. Remove the doors and mesh firescreen, if installed.

3. Remove the bottom door rail, as shown if Figure 13.

4. Disconnect the gas supply line from the control valve under the fireplace. Remove the two screws located at bottom rear of burner pan. Disconnect the primary spill switch from the gas valve. Leave the primary spill switch in its location, as it must be re-wired to complete the new burner assembly installation. Lift the complete burner assembly, up and out of unit to clear support ledge. See figure 14. Remove the existing fan assembly, if installed.

Figure 14. Removing the old burner assembly.

5. Remove the hood and inner baffle, as shown in figure 15.

Figure 15. Removing the decorative burner hood and inner baffles.
6. Cut the front bar to allow clearance to install the Heating Insert. Using a hacksaw, make the cut approximately 2" in from the side of the firebox, as shown in figure 16.

**Figure 16. Cutting the front bar.**

7. Install the new blower assembly included with the S2 Heating Insert. The blower mounting bracket rests on the EP28 Shell's support ledges. Push the assembly back until it touches the back wall of the shell, and drive two screws through the pilot holes in the bracket. Refer to figure 17. Plug the fan into the fan speed control box.

**Figure 17. Installing the blower assembly.**

8. Install the efficiency collar as shown in figure 18. Use a long screwdriver to hold the collar out of the way while you install the Heating Insert.

**Figure 18. Installing the efficiency collar.**

9. Reconnect the primary limit switch as shown in figure 24c. Install the secondary spill switch in its location on the right side of the insert, centred in its location as shown in figure 20. Drop the wires between the insert and the shell and connect the spill switch to the thermocouple-gas valve circuit as shown in figure 24c.

**WARNING:**

This installation is not complete unless both the primary and secondary limit switches are wired into the safety circuitry as outlined in the following instructions and in figure 24c.

**Figure 19. Installing the insert.**

**Figure 20. Installing the secondary spill switch, also see figure 24c.**
10. Reconnect gas line by following the information on page 4.

11. Turn on the gas supply and leak test the connection using a soap solution.

12. Install the new front bar as shown in figure 21.

13. Install the filler plates first and then the hood as shown in Figure 22. Loosen the two adjustment screws on the mounting brackets. Hook the bottom of the hood of the top edge of the Insert and slide the mounting brackets into the holes on each side of the shell. Re-tighten the adjustment screws.

14. Remove the glass door as shown in Figure 23. Remove the plastic shipping ties and padding from the two bottom logs. Install the top logs as shown in Figure 8b and 8c. Re-install the door.

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**Figure 21.** Installing the new front bar.

**Figure 22.** Installing the hood and filler plates.

**Figure 23.** Removing and installing the glass door.
For Your Safety - READ BEFORE LIGHTING:

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

A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.

B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

What To Do If You Smell Gas:
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbour's phone. Follow the gas supplier's instructions.

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**Lighting Instructions:**

1. **STOP!** Read the safety information above on this label.
2. Remove lower trim.
3. Push in gas control knob and turn clockwise to "OFF."
4. Wait five (5) minutes to clear out any gas. Smell for gas, including near the floor. If you then smell gas, **STOP!** Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
5. Locate pilot burner (*See illustration at right.*) and follow steps below.
6. Turn knob on gas control counterclockwise to "PILOT."
7. Push in gas control knob completely and hold. Light with Piezo Igniter button. Continue to hold the control knob in for about (1) minute after the pilot is lit. Release the knob and it will pop back up. Pilot should remain lit. If it goes out repeat steps 3 through 8.
- If knob does not pop up when released. Stop and immediately call your service technician or gas supplier.
- If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
8. Push in gas control knob and turn counterclockwise to "ON."
9. Replace lower trim.
10. Turn on remote switch to ignite fire.

---

**To Turn Off Gas To Appliance:**

1. Turn off remote switch.
2. Remove lower trim.
3. Push in gas control knob slightly and turn clockwise to "Off". Do not force.
4. Replace trim.
**Maintenance**

**CAUTION**
- Fireplace gas control must be in the “OFF” position and pilot and main burners extinguished when cleaning appliance with a vacuum.
- Glass and logs can get very hot. Handle only when cool.

**General**
- Have the fireplace installation inspected yearly, including a visual check of the vent system, the burner and the pilot flame. For your convenience a 1/8” manifold pressure tap is supplied on the gas valve for a test gauge connection. See Figure 24a, 24b, and 24c.
- For **Natural Gas** this appliance requires a minimum inlet pressure of 5.5” W.C. and a manifold pressure of 3.5” W.C.
- For **Propane Gas** this appliance requires a minimum inlet pressure of 11” W.C. and a manifold pressure of 10” W.C.
- Always keep the fireplace area clear and free of combustible materials, as well as gasoline and other flammable vapours and liquids.
- 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.

**Cleaning**
When the fireplace is first activated, there may be some smoking and a visible film may be left on the glass doors. This is a normal condition, and is the result of burning the protective coatings on new metal.
- Glass must be cleaned periodically to remove any film (a normal bi-product of combustion) which may be visible. Handle the door carefully, and clean it with non-abrasive glass cleaners. One of the most effective products is Kel Kem.
- Silicone seals on inner door during initial firing will “off gas”, leaving a visual deposit of a white substance on combustion chamber walls. This can easily be removed by following the steps described above.
- Use a vacuum cleaner or whisk broom to keep the control compartment, burner, and firebox free from dust and lint.
- Logs may be cleaned periodically to remove soot.

**WARNING:**
Do not attempt to clean glass when hot.
Do not clean glass with abrasive materials as any glass etching may cause premature glass failure.

![Figure 24a. Honeywell gas valve used on the EP28-F2.](image)

![Figure 24b. Robertshaw gas valve used on the EP28-F2.](image)

![Figure 24a. Honeywell VS8510E gas valve used on the EP28-S2.](image)
**Pilot Burner Adjustment**

1. Determine which pilot is installed in the fireplace based on figures 25a and 25b.
2. Locate Pilot Adjustment Screw. *(See figures 24a, 24b, and 24c.)*
3. Adjust pilot key to provide properly sized flame. *(See figure 25a or 25b.)*
4. Replace pilot adjustment cap.
5. After installing or servicing, leak test with a soap solution with main burner on. Coat pipe and tubing joints, gasket etc. with soap solution. Bubbles indicate leaks. Tighten any areas where the bubbles appear until the bubbling stops completely.

**Troubleshooting**

The following is a troubleshooting chart of possible problems:

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CORRECTIVE ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noisy Pilot Flame</td>
<td>Remove pilot adjuster cap, located on the gas control valve. Flame is decreased by turning adjustment screw clockwise.</td>
</tr>
<tr>
<td>Pilot won’t ignite</td>
<td>Disconnect remote wires and try to light pilot. If pilot now works, remote connections are faulty. Check wiring diagram figure 24a/b/c.</td>
</tr>
</tbody>
</table>
| Main burner will not light | 1. Check wiring *(see figure 24a/b/c)*  
2. Check wall switch for proper connection. |

*Figure 25a. SIT Pilot Burner used on the EP28-F2 model.*

*Figure 25b. PSE Pilot Burner used on the EP28-S2 model.*
**The Warranty**

The Companies warrants the Montigo Gas Appliance to be free from defects in materials and workmanship at the time of manufacture. On the Montigo, there is a ten-year warranty on the firebox and its components, a five-year warranty on the main burner and pilot burner, and a one-year warranty on the gas control valve and fibre logs. Glass, plated/painted finishes, and refractory lining are exempt.

**Remedy And Exclusions**

The coverage of this Warranty is limited to all components of the Gas Appliance manufactured by The Companies.

This Warranty only covers Montigo Gas Appliances installed in the United States or Canada.

If the components of the Gas Appliance covered by this Warranty are found to be defective within the time frame stated (see The Companies right of investigation outlined below). The Companies will, at its option, replace or repair defective components of the Gas Appliance manufactured by The Companies at no charge, and will also pay for reasonable labour costs incurred in replacing or repairing components. If repair or replacement is not commercially practical, The Companies will, at its option, refund the purchase price of the Montigo Gas Appliance.

This Warranty covers only parts and labour as provided above. In no case shall The Companies be responsible for materials, components, or construction which are not manufactured or supplied by The Companies, or for the labour necessary to install, repair or remove such materials, components or construction. All replacement or repair components will be shipped F.O.B. the nearest The Companies factory.

**Qualifications To The Warranty**

The Gas Appliance Warranty outlined above is further subject to the following qualifications:

1. The Gas Appliance must be installed in accordance with The Companies installation instructions and local building codes. The Warranty on this Montigo Gas Appliance covers only the component parts manufactured by The Companies. The use of components manufactured by others with this Montigo Gas Appliance could create serious safety hazards, may result in the denial of certification by recognized national safety agencies, and could be in violation of local building codes. This warranty does not cover any damages occurring from the use of any components not manufactured or supplied by The Companies.

2. The Montigo Gas Appliance must be subjected to normal use. The Gas Appliances are designed to burn gas only. Burning conventional fireplace fuels such as wood, coal or any other solid fuel will cause damage to the Gas Appliance, will produce excessive temperatures and will result in a fire hazard.

**Limitations On Liability**

It is expressly agreed and understood that The Companies sole obligation, and purchaser's exclusive remedy under this Warranty, under any other warranty, expressed or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above.

In no event shall The Companies be responsible for any incidental or consequential damages caused by defects in its products, whether such damage occurs or is discovered before or after replacement or repair, and whether or not such damage is caused by The Companies negligence. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. The duration of any implied warranty with respect to this Montigo Gas Appliance is limited to the duration of the foregoing warranty. Some states do not allow limitation on how long an implied warranty lasts, so the above may not apply to you.

**Investigation Of Claims Against Warranty**

The Companies reserves the right to investigate any and all claims against this Warranty and to decide upon method of settlement.

The Companies Are Not Responsible For Work Done Without Written Consent

The Companies shall in no event be responsible for any warranty work done without first obtaining The Companies written consent.

Dealers Have No Authority To Alter This Warranty

The Companies employees and dealers have no authority to make any warranties nor to authorize any remedies in addition to or inconsistent with those stated above.

**How To Register A Claim Against Warranty**

In order for any claim under this Warranty to be valid, The Companies must be notified of the claimed defect in writing or by telephone, as soon as reasonably possible after the defect is discovered. Claims against this Warranty in writing should include the date of installation, and a description of the defect.

**Other Rights**

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

NOTE: The Companies as stated above refer to - Canadian Heating Products Inc. and/or Montigo Del Ray Corp.

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Canadian Heating Products Inc. and/or Montigo DelRay Corp. reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and also to discontinue colors, styles and products.