CCT41 Fireplace Systems

Installation and Operation Manual

PART NO.	MODEL	DESCRIPTION
794070B	CCT41-EING	Electronic Ignition Natural Gas
794072B	CCT41-SPNG	Standing Pilot Natural Gas
794073B	CCT41-SPLP	Standing Pilot Liquid Propane

FOR YOUR SAFETY
WHAT TO DO IF YOU
SMELL GAS:

1) **Do not try to light any appliance.**
2) **Do not touch any electrical switch; do not use any phone in your building.**
3) **Extinguish any open flame.**
4) **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
5) **If you cannot reach your gas supplier, call the fire department.**

FOR YOUR SAFETY:

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

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

Do not place clothing or other flammable materials on or near the appliance.

This symbol on the product means it is listed by Warnock Hersey

MARCO MFG., INC. 2520 Industry Way, Lynwood, CA 90262 • (323) 564-3201 • (800) 232-1221

P/N 181772B 7/98

APPENDIXES

IMPORTANT: KEEP THIS MANUAL FOR FURTHER REFERENCE. IT PROVIDES ALL THE INFORMATION NECESSARY FOR THE QUALIFIED BUILDER OR FIREPLACE INSTALLER TO INSTALL THE MARCO CCT41 SAFELY AND EFFICIENTLY. THIS MANUAL ALSO CONTAINS INFORMATION ON REPLACEMENT PARTS.

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.

TABLE OF CONTENTS

1. WHAT YOU NEED TO DO BEFORE YOU INSTALL YOUR FIREPLACE

GENERAL INFORMATION

This appliance is tested and listed by Warnock Hersey to ANSI Z21.50b 1990 and applicable sections of ANSI Z21.44-1991 as a direct vent gas appliance.

The input rating is 31,000 BTU-Hr. The Burner orifice is #37 for natural gas and #54 for liquid propane

HIGH ALTITUDE INSTALLATION

The Calorific value of gas may be different from one region to another due to the difference in altitude, you must check with your local gas supplier to determine the corresponding orifice size for natural or propane gas then call Marco Mfg., Inc. for a replacement orifice if needed.

LOCATION

You can install your new Marco CCT41 in almost any location in your home. You will need to refer to local building codes for building restrictions. Refer to Figure 1-1 for possible location. Placement of the external vent system must also comply with minimum clearances to combustibles and openings as detailed on page 32 of this manual

Place the fireplace on a flat and hard surface, such as plywood, wood flooring, concrete slab, or particle board, that evenly supports the fireplace. A raised platform made of these materials may also be used to support the fireplace.

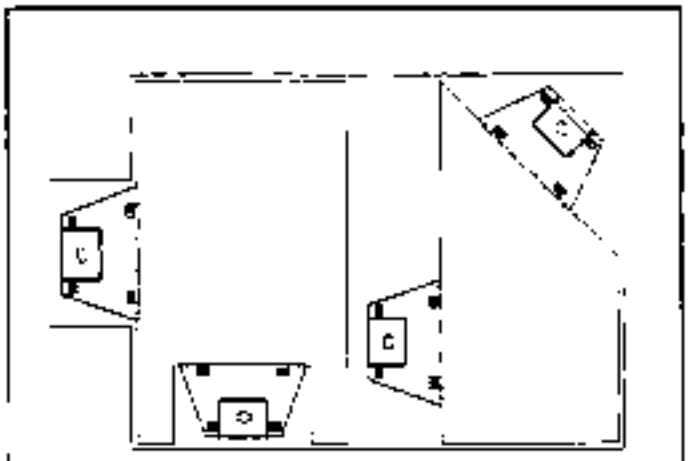


FIGURE 1-1 LOCATION

IMPORTANT: EXCEPT FOR THE TOP STANDOFFS AND THE NAILING FLANGES, COMBUSTIBLE MATERIAL MUST NOT TOUCH OR COVER ANY METAL PART OF THE FIREPLACE FRAME. NONCOMBUSTIBLE MATERIAL MAY NOT COME WITHIN 1/4 INCH OF THE ACCESS PANEL OR 1/4 INCH TO THE SIDES OF THE FIREPLACE. REFER TO FIGURE 6-2B ON PAGE 20 FOR ILLUSTRATED DETAILS.

FIREPLACE FRAMING DIMENSIONS

THE FRAMING DEPTH VARIES WITH THE TYPE OF VENT INSTALLATION. REFER TO SECTION 4 AND FIGURES 4-1 AND 4-2 FOR DETAILS.

The framing enclosure measures 46-1/8" high x 45-9/16" wide. The width dimension includes a 1" gap to combustible materials and the height allows a 1/4" gap for the fireplace to slide into place. The depth allows for 1/2" facing material to be flush with the face of the fireplace

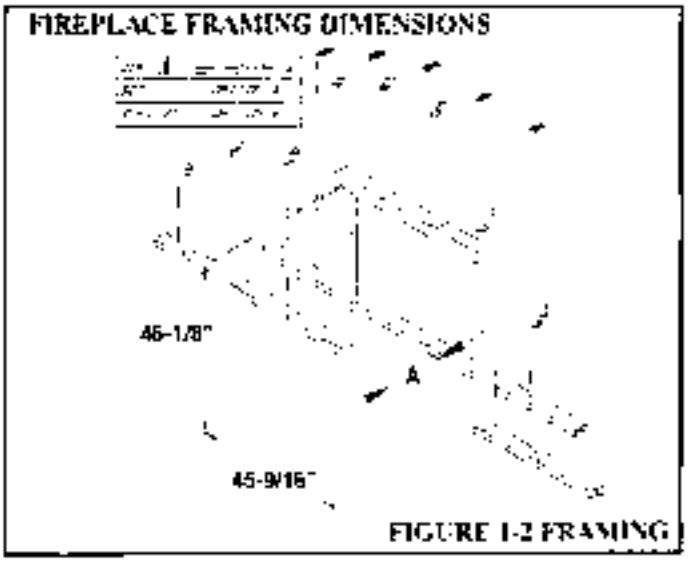


FIGURE 1-2 FRAMING

The minimum fireplace clearances to combustible materials are:

Top	6"
Mantel	14-1/2"
Rear	1"
Nailing Flanges	0"
Sides	1"
Floor	0"

FIREPLACE PIPING AND WIRING

In order for you to operate your fireplace you must have gas and electrical service.

A standing pilot fireplace requires a sediment trap and a shut-off valve. The sediment trap and shut-off valve are **not included** with the fireplace, and must be purchased separately. The provided 3/8" diameter flexible gas line exits through an access port on the right side of the fireplace. You then connect the gas line to the shut-off valve. See page 4 for instructions.

Both the electronic ignition fireplace and the fan kit require a wall switch that is not included with the fireplace and must be purchased separately. The switch turns the fireplace and fan on and off and must be installed before connecting the fireplace, remote control, and fan kit. In a standing pilot fireplace, the standing pilot switch with a millivolt wire turns the fireplace on and off. See page 6 for instructions.

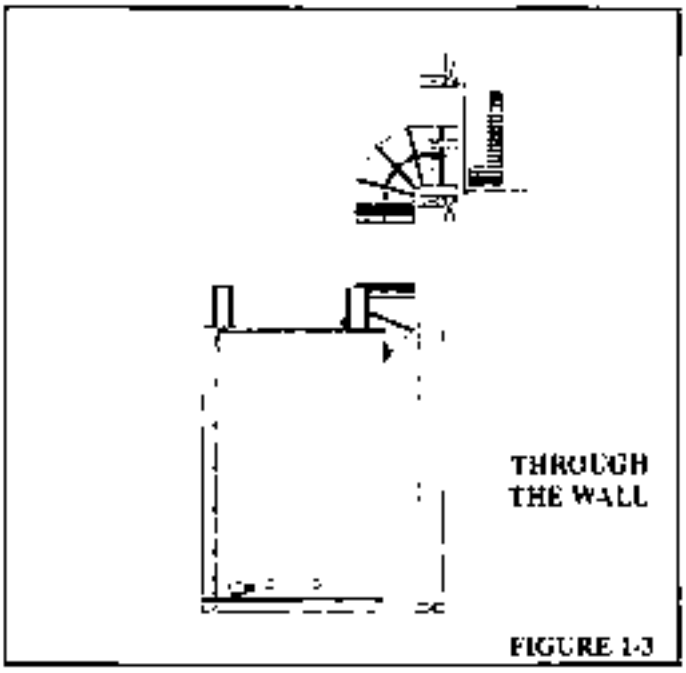


FIGURE 1-3

VENTING SYSTEM

The Marco Direct Vent Pipe System (MDV Pipe) is a direct vent system with an inner exhaust pipe that runs inside an intake pipe. The MDV Pipe System may run through the roof, vertically and through the wall or between floor joists.

VENTING OPTIONS

1) Through the Wall
2) Elevated Through the Wall
3) Vertical Through the Roof

MDV FLUE PIPE CLEARANCES TO COMBUSTIBLES	
HORIZONTAL RUN	3 1/4" CLEARANCE
VERTICAL RUN	1" CLEARANCE

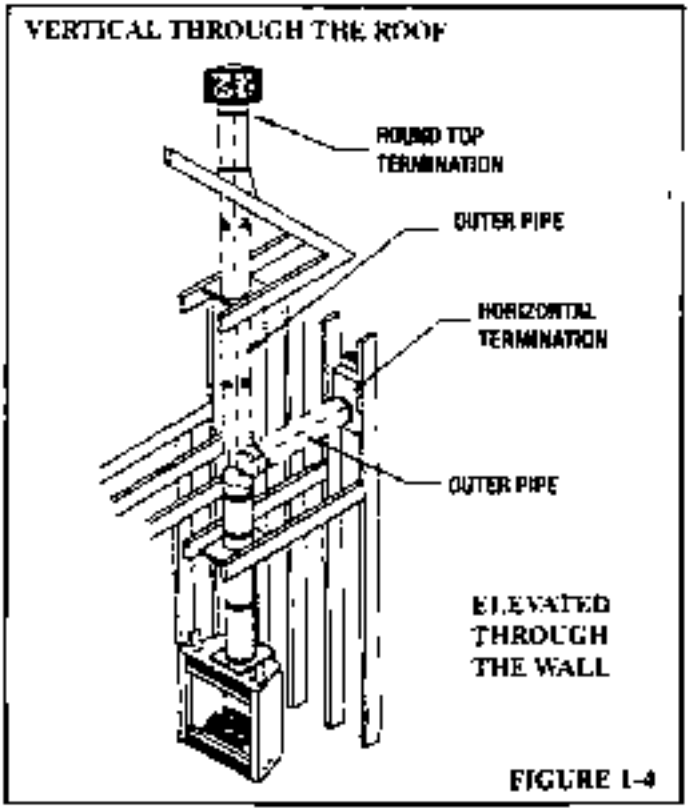


FIGURE 1-4

Note: Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person. More frequent inspections/ cleanings may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that the control compartment, burner and circulating air passage ways of the appliance be kept clean.

2. PRECAUTIONS YOU MUST TAKE BEFORE INSTALLING THE FIREPLACE

PRECAUTIONS:

To ensure personal and property safety, and to avoid explosions or fire hazards, the following precautions must be observed:

1. Read and follow the instructions in this manual carefully. For assistance or additional information, consult a qualified service technician, agency, or gas supplier.
2. Have only a qualified service technician to install or repair a gas line.
3. Before initially starting the fireplace, you must remove the glass panel.
4. Use natural gas with a natural gas fireplace, and propane gas with a propane gas fireplace.
5. Consult local building codes before installation to ensure the installation conforms with the codes. If there are no codes, installation must conform with the current National Fuel Gas Code, ANSI Z223.1-Latest. The fireplace must be electrically grounded in accordance with the National Electrical Code, ANSI/NFPA No. 70-Latest.
6. Before initial use, and at least once a year, have the fireplace inspected by a qualified service technician.
7. Regularly clean the control compartment, burner, and circulating air passageways of the fireplace.
8. Keep air passageways free from obstructions.
9. Keep the front opening of the fireplace free from obstructions.

WARNINGS:

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.

- Do not light the fireplace or strike a match if you smell gas.
- Do not touch the front face of the fireplace when it is in operation. This area becomes extremely **hot**.
- Supervise children and pets. Do not leave them unattended when the fireplace is operating.
- It is extremely hazardous to burn wood, paper or anything other than the approved gas.
- 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/or any gas control which has been under water.

3. Installing Your Fireplace

Setting the Fireplace

Slide the fireplace into the frame, level it with the use of shims, and secure it to the frame nailing flanges with screws.

Piping Gas to the Fireplace

The standing pilot fireplace requires a shut-off valve and a sediment trap that are not included with the fireplace and must be purchased separately.

To connect the 3/8" diameter flexible gas line (included with the fireplace) to the gas supply line, you have two options:

- The flexible gas line can exit the fireplace through an access port on the right side panel
- The gas supply line can enter the access port on the left side panel. Refer to Figure 3-1

To connect the gas supply line:

INSTALLATION AND GAS LINE HOOKUP SHOULD BE PERFORMED BY A QUALIFIED INSTALLER.

1. Turn off gas main supply.
2. Open the lower access grille on the front of the fireplace. Attach the free end of the flexible gas line to the gas supply line
3. To avoid air drafts, seal the access ports with silicon caulking.
4. Connect the shut off valve (not included) between the flexible gas line (included) and the gas supply line. Refer to Figure 3-2.
5. Install a sediment trap (not included) on the gas line on the supply end of the gas valve. Refer to Figure 3-2.

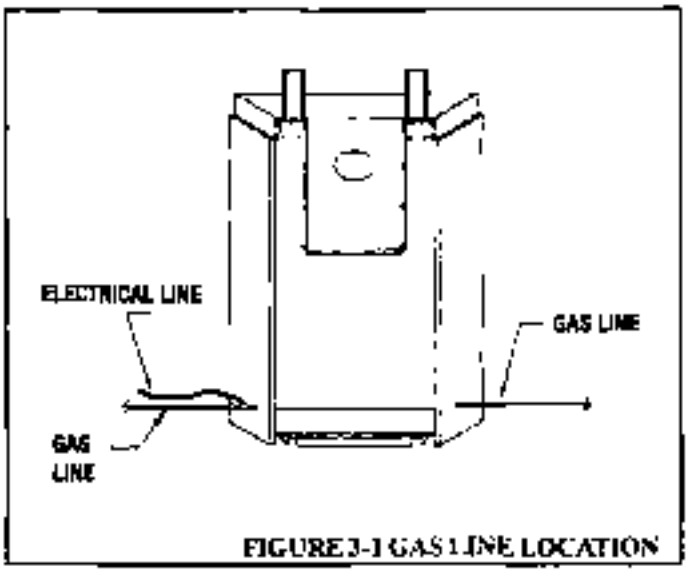


FIGURE 3-1 GAS LINE LOCATION

NOTE: YOU MUST INSTALL A GAS SUPPLY SHUT-OFF VALVE IN THE SUPPLY LINE SO THAT THE FIREPLACE CAN BE DISCONNECTED DURING SERVICING, MAINTENANCE, OR TESTING. THE FIREPLACE GAS CONTROL VALVE AND ITS SHUT-OFF VALVE MUST BE DISCONNECTED FROM THE GAS SUPPLY PIPING DURING PRESSURE TESTING WHEN THE PRESSURE IS MORE THAN 1/2 PSIG (3.5 KPA).

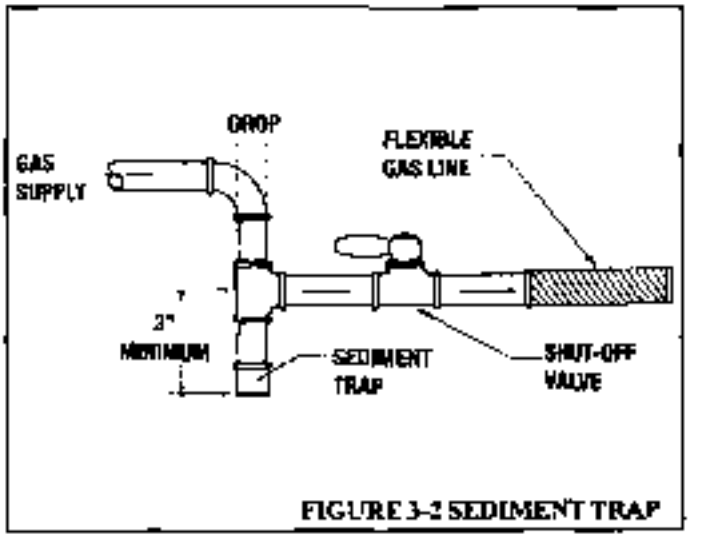


FIGURE 3-2 SEDIMENT TRAP

Gas Pressure Testing	Natural gas	Propane gas
Minimum inlet gas supply pressure	4.5 water column inches	11 water column inches
Maximum inlet gas supply pressure	10 water column inches	13 water column inches

For test gauge connections in an electronic ignition fireplace, a 1/8" N.P.T. plugged tapping is located on the gas control valve on the inlet side of the main burner.

CONNECTING AC POWER

In the Marco standing pilot with a fan kit and electronic ignition models, AC power must be connected to the power receptacle on the bottom right corner behind the access grille. Refer to Figures 3-3 and 3-5 for location.

WARNING: YOU MUST CONNECT AC POWER ONLY TO THE POWER RECEPTACLE. IF YOU ATTEMPT TO APPLY AC POWER ANYWHERE ELSE, YOU WILL DESTROY THE CONTROL CIRCUITS AND CREATE A FIRE HAZARD.

you are connecting a wall switch to the electronic fireplace, go to "Connecting the AC Power Wall Switch" on this page before connecting AC power.

TO CONNECT AC POWER TO THE FIREPLACE:

1. Remove the screw and access panel cover and set them aside. Refer to Figure 3-3.

2. Turn off power to the supply line.

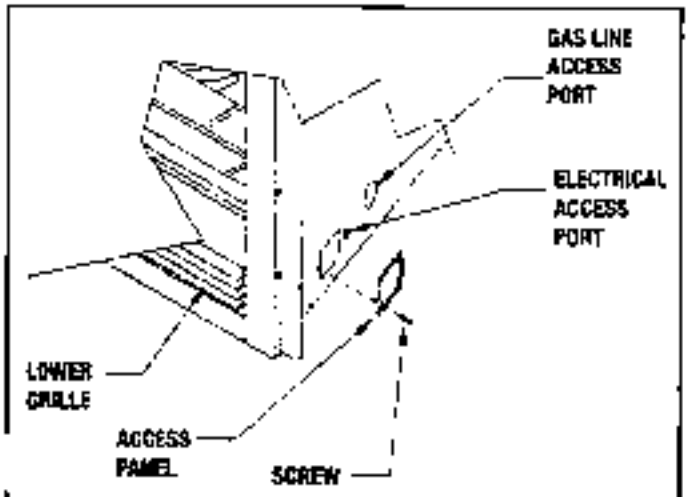


FIGURE 3-3 ELECTRICAL ACCESS LOCATION

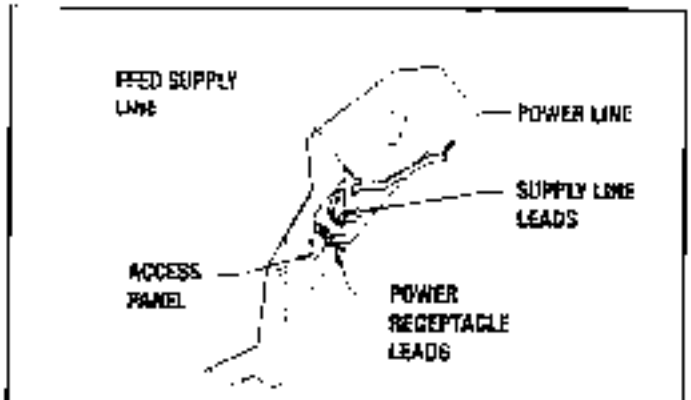


FIGURE 3-4 SUPPLY LINE

3. Feed the supply line through the port to the right of the access panel. Refer to Figure 3-4.

4. Twist the supply line leads and power receptacle leads together (black to black, white to white, green to green) and secure the connections with wire nuts.

5. Place all secured wiring inside the access panel.

6. Replace the access panel cover with the screw removed in Step 1.

CONNECTING THE AC POWER WALL SWITCH

For an electronic ignition fireplace and a fan in a standing pilot fireplace, a wall switch must be connected in series to the black AC supply lead. The wall switch is not included in the fireplace.

To connect the AC power wall switch:

1. Mount the wall switch box.

2. Turn off the power to the supply cord.

3. Feed the supply line into the wall switch box and connect the black wire to the switch. Twist the supply line leads and power receptacle leads together (black to black, white to white, green to green).

WARNING: DO NOT CONNECT THE SWITCH TO A GREEN OR WHITE WIRE.

4. Go to "Connecting AC Power" on this page to connect the supply line exiting the switch.

CONNECTING THE STANDING PILOT WALL SWITCH

WARNING: YOU ONLY APPLY AC POWER TO THE POWER RECEPTACLE. CONNECT ONLY THE MILLIVOLT WIRE TO THE WALL SWITCH. IF YOU ATTEMPT TO APPLY AC POWER ANYWHERE ELSE, YOU WILL DESTROY THE CONTROL CIRCUITS AND CREATE A FIRE HAZARD.

To connect the wall switch to the standing pilot:

1. Pull the free end of the millivolt wire (black duplex) out of the fireplace through the access panel. Refer to Figure 3-5.

2. Mount the wall switch (included in the kit) on a wall near the fireplace.

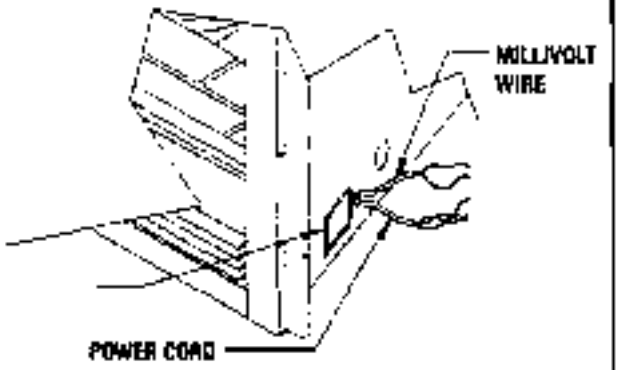


FIGURE 3-5 MILLIVOLT POWER

NOTE: ELEVEN (11) FEET OF MILLIVOLT WIRE ARE PROVIDED WITH THE FIREPLACE. YOU MAY SPLICE ADDITIONAL WIRE FOR A MILLIVOLT SYSTEM PROVIDING YOU OBSERVE LOCAL CODES.

4. INSTALLING THE VENTING SYSTEM

This section gives installation instructions for venting the CCT41 with the MDV Pipe System horizontal through the wall or vertical through the roof.

CLEARANCES

The MDV flue pipe clearances to combustibles are:

Horizontal Run: 3 1/4" clearance

Vertical Run: 1" clearance

HORIZONTAL THROUGH THE WALL VENTING

The CCT41 requires 1 foot section minimum vertical before any horizontal length. The maximum horizontal run is 12".

The minimum horizontal through the wall installation requires the following: (See Figure 4-1)

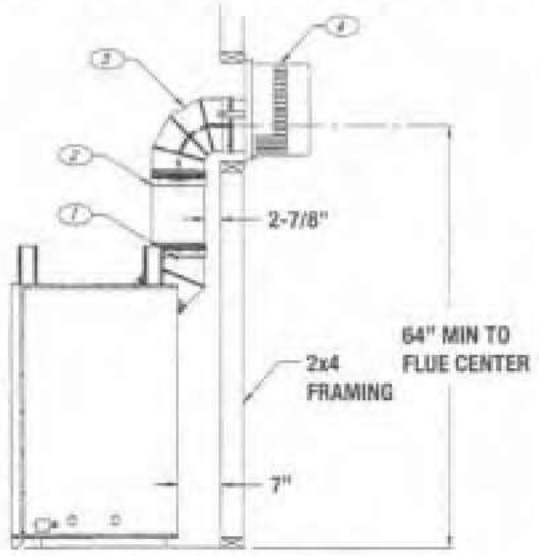
1) One 45° Elbow Set (Inner Elbow P/N 493805 and Outer Elbow P/N 493681).

2) One 90° Elbow Set (Inner Elbow P/N 493801 and Outer Elbow P/N 493683).

3) One 12" Pipe section P/N 493832.

4) One Horizontal Termination P/N 480261.

TYPICAL HORIZONTAL THROUGH THE WALL



OPTION A=32" FRAMING DEPTH

FIGURE 4-1

FIREPLACE FRAMING DEPTH

The fireplace framing depth depends on the stud size.

- Option A is limited to 2x4 framing studs.
- Option B can be used for 2x4 and 2x6 framing studs.

OPTION A

TYPICAL INSTALLATION

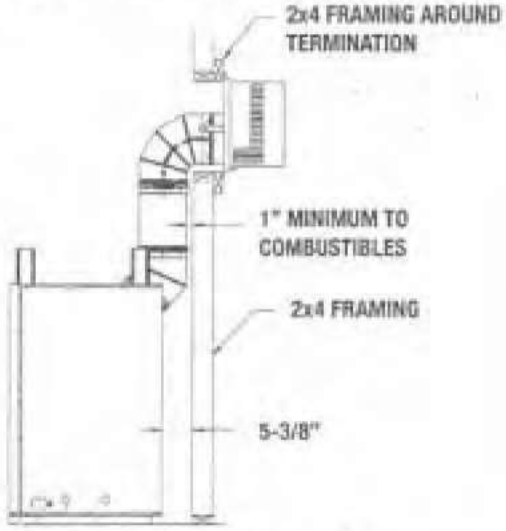
The fireplace framing depth for a typical horizontal through the wall installation is 32". This allows the termination to be framed flush to the exterior wall. (Figure 4-1).

OPTION B

MDV PIPE 1" MINIMUM OR 2x6 FRAMING

This framing option allows the fireplace to be installed closer to the framing and maintain the MDV pipe 1" minimum clearance to combustibles. It requires the termination to be spaced with a frame made of 2x4 studs on the flat side as shown on Figure 4-2. This is not required for 2x6 wall framing.

MDV PIPE 1" MINIMUM OR 2X6 FRAMING



OPTION B = 30-1/2" FRAMING DEPTH

FIGURE 4-2

USE THE MARCO DIRECT VENT EXTENSION KIT (P/N 794616) TO COMPLETE INSTALLATIONS WHEN THE DIMENSION FROM THE ELBOW OR PIPE SECTION TO THE TERMINATION NAILING FLANGE IS IN THE 3" TO 13-1/2" RANGE.

INSTALLING THE HORIZONTAL VENT SYSTEM

1) Snap lock the 45° elbow onto the fireplace to the position shown on figure 4-1 item 1.

2) Position the fireplace according to the framing dimensions and clearances provided in page 1. Refer to figure 1-2.

3) Locate the position where the vent passes through the wall and Frame a 15-1/2" x 14-1/2" opening for the termination. See figure 4-3 for framing location and page 32 for restrictions.

4) Add the remaining pipe components to complete the system as shown in figure 4-1

5) Position the termination as shown on figure 4-4. Insert the vent system inner pipe into the termination inner pipe. The outer pipe of the termination must slide into the open end of the vent system until the engagement safety strips on the termination are about even with the vent outlet pipe step.

6) Center the termination base around the framed opening then secure it to the studs using ten nails or screws (not provided) through the holes on the base

7) Secure the termination to the vent pipe using the #10 x 1/2" sheet metal screws (provided) through the holes on the engagement safety strips. See figure 4-4.

8) Seal the outside corners of the termination base and the junction between the termination base and siding with caulking material. See figure 4-5.

NOTE: The **minimum** clearance from the termination outer pipe to combustible materials is 3" on the top and 1" on the bottom and sides. The termination design will allow the proper clearances to be maintained when centered in the frame opening and secured to the studs. See figure 4-4.

Distance from elbow or pipe section to the termination base should not exceed 3".
Use the Marco Direct Vent Extension kit (P.N 794616) to complete the installations when the dimension from the elbow or pipe section to the termination nailing flange is in the 3" to 13-1/2" range. (See Figure 10)

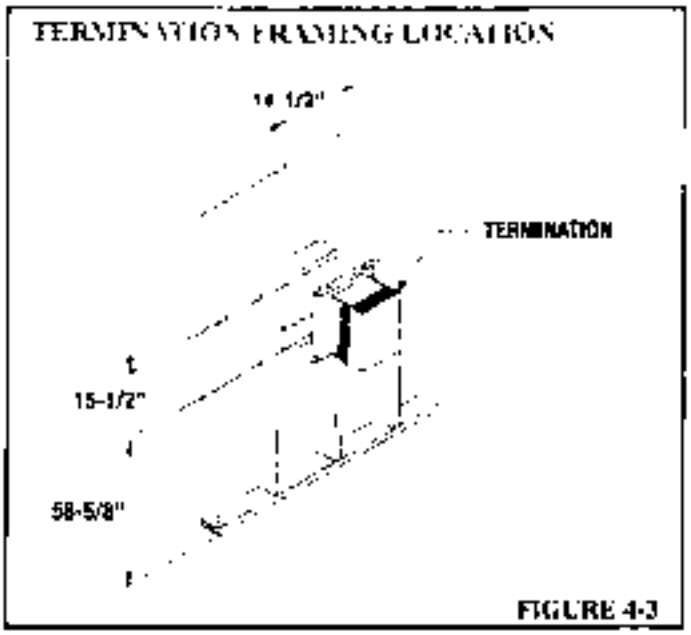


FIGURE 4-3

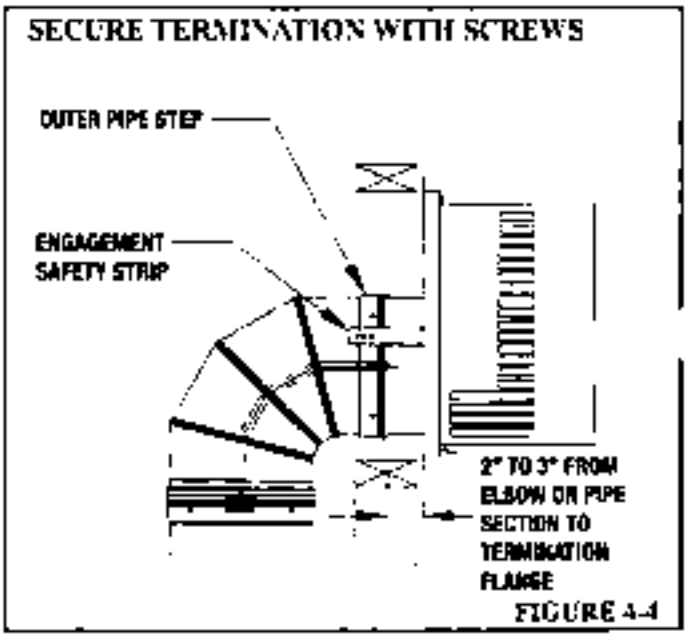


FIGURE 4-4

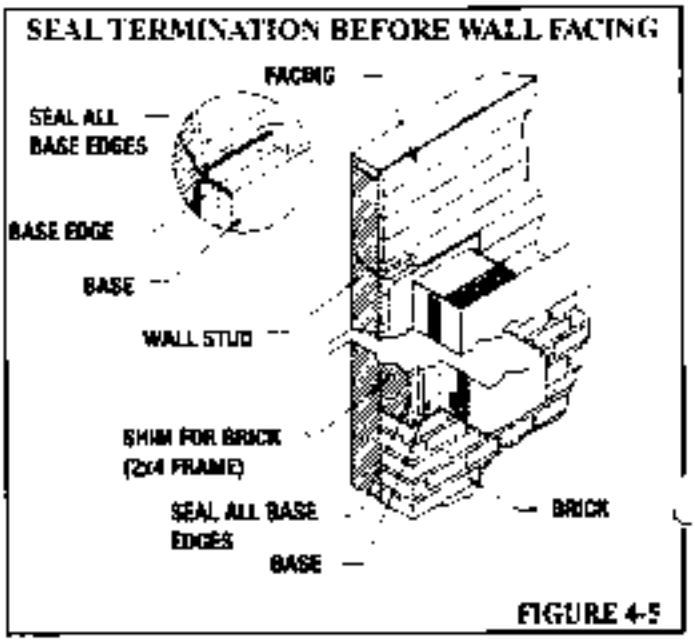


FIGURE 4-5

VERTICAL INSTALLATION

The CCT41 may be vented vertically with a maximum 30' rise between the fireplace and the vertical termination and combined horizontal run of 12'. See figure 4-6.

The simple vertical installation requires only one 45° elbow, straight pipe sections and the Roof Vent (MDV-RV) Marco P/N 794598.

VERTICAL INSTALLATION

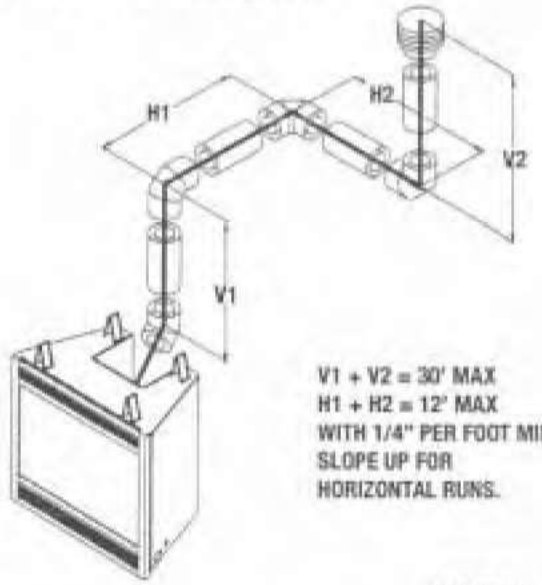


FIGURE 4-6

DETERMINING OFFSETS

45° AND 90° ELBOW SETS

The maximum number of elbows used for vertical and horizontal installation, must not exceed three (3) 90° and one (1) 45°. This configuration permits up to 30' vertical rise with a maximum 12' horizontal run. Figure 4-7 illustrates an example of this configuration.

THE FOLLOWING RULES APPLY TO DETERMINE AN OFFSET

- The chimney weight above the offset section rests on the return elbow. The straps provided with the elbow must be secured to the rafters or joists with nails or screws. Refer to figure 4-7.
- The maximum length of pipe between supports (return elbow or chimney pipe support) is 12 feet of angled run. There is a maximum of two (2) 12 ft. angled run sections allowed per chimney system.
- Use combinations of 12", 18", 24", Telescopic, 36" or 48" pipe sections in an offset.

OFFSET SECTION AND RETURN ELBOW

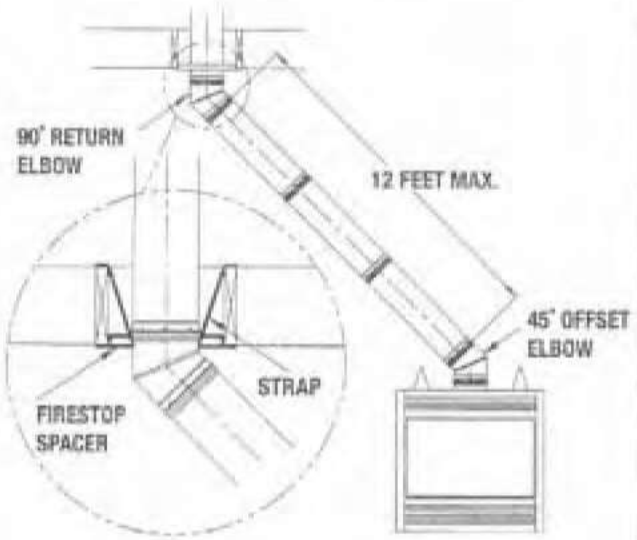


FIGURE 4-7

TELESCOPIC PIPE SECTION

The Telescopic Pipe Section (P/N 493849) is designed to be infinitely adjustable from 17" to 24", and should be used when a specific offset, or length is required that cannot be achieved easily with the standard straight pipe lengths. Refer to figure 4-8.

After the connections are made, wrap the end of the telescopic pipe with aluminum tape to prevent the entrance of outside air into the room.

TELESCOPIC SECTION

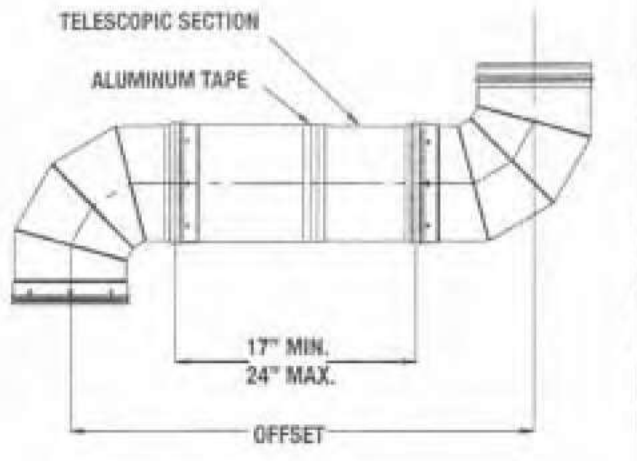


FIGURE 4-8

USING FIRESTOP SPACERS

Firestop spacers (Marco part number 493676), are required at each point where the chimney penetrates a floor or ceiling joist space.

The firestop spacers establish and maintain the required clearance between the chimney and combustible materials. They also provide separation from one floor to another floor or attic space.

NOTE: FOR VERTICAL INSTALLATION THE CLEARANCE TO COMBUSTIBLE MATERIALS, INCLUDING INSULATION, IS 1 INCH.

- If the chimney passes through a framed opening *between floors*, install the firestop spacer to the bottom of the joists and secure it with nails or screws.
- If the chimney passes *into the attic space*, install the firestop spacer on top of the joists and secure it with nails or screws.

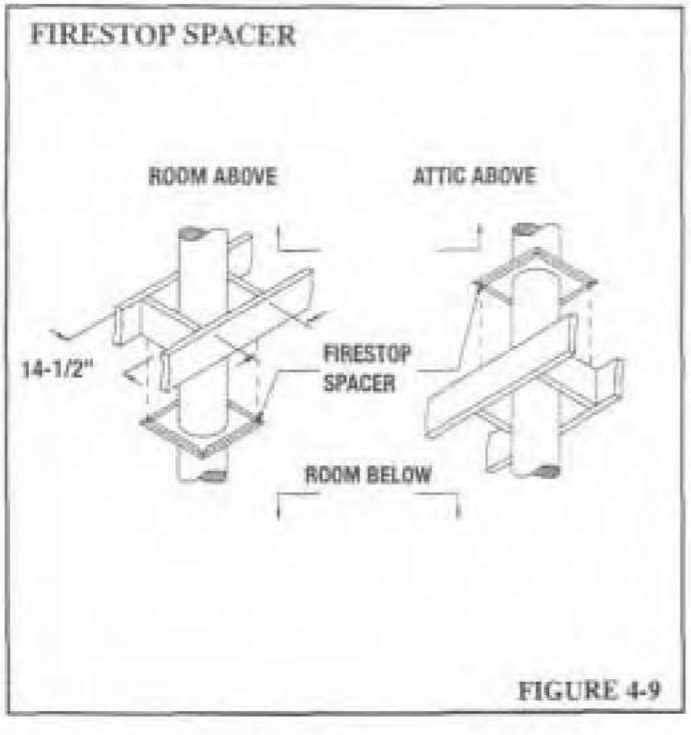


FIGURE 4-9

INSTALLING THE VERTICAL SYSTEM

You may complete the vertical vent system with termination through the roof with an exposed chimney or field constructed chase.

THROUGH THE ROOF INSTALLATION

1. Determine the location of the hole that is to be cut through the roof. The size of the cut depends on the pitch of the roof.
   - A flat roof pitch requires an 11" x 11" opening.
   - A 6/12 roof pitch requires a 12-1/2" x 11" opening.
2. Cut the opening in the roof and add sections until the outer pipe extends a minimum of 31-1/2" above the highest point of the roof cutout.
3. Position the flashing over the outer pipe and flat on the roof.
4. Mark an outline of the flashing on the roof and remove the flashing. Refer to figure 4-10.
5. Remove all nails within the outlined area that may interfere with securing the flashing.

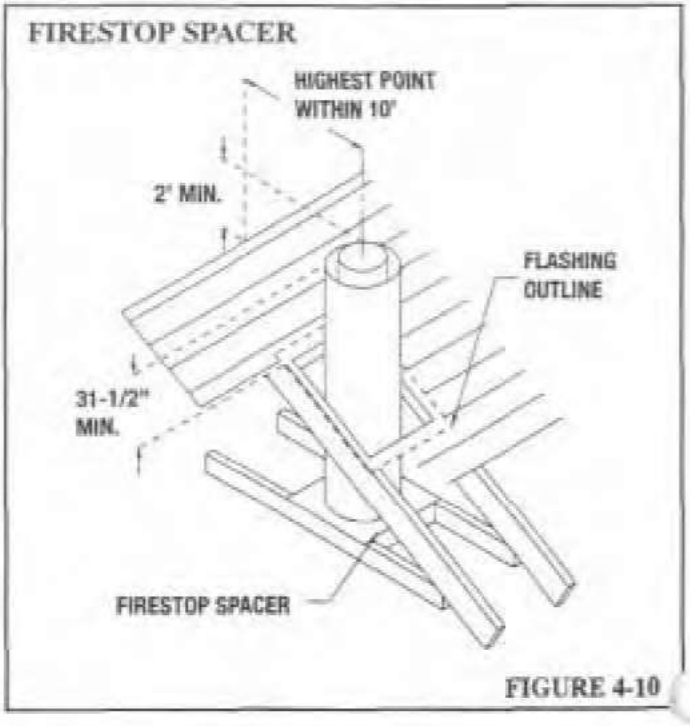


FIGURE 4-10

6. Apply a waterproof caulking around the top of the storm collar. Refer to Figure 4-11.

7. Place the flashing into position on a roof that is not shingled. Hold it in position by nailing the shingles in place over the flashing edges.

8. Install the storm collar on the chimney and push it down near the top of the flashing.

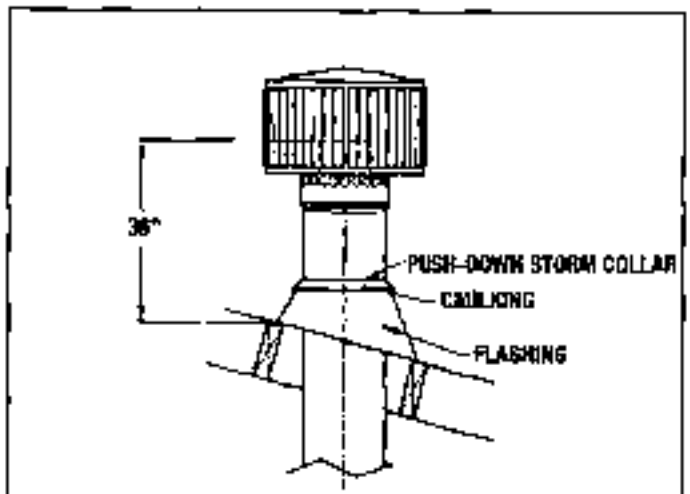


FIGURE 4-11 STORM COLLAR

IMPORTANT: SEAL THE STORM COLLAR WITH SILICON CAULKING TO ENSURE THAT THE SYSTEM IS WATERTIGHT.

NOTE: TO PAINT THE PIPES TO MATCH THE COLOR OF THE HOUSE, FIRST CAULK THE SEAMS AND NOTCHES ON ALL JOINTS ABOVE THE FLASHING, AND THEN PAINT ALL EXPOSED PARTS OF THE CHIMNEY WITH GALVANIZED PRIMER PAINT.

INSTALLING A TERMINATION ON AN EXPOSED CHIMNEY

You may complete the vertical venting system with a termination on an exposed chimney installation or on a field-constructed chase installation. If you are terminating the vent system through a field-constructed chase, go to page 12.

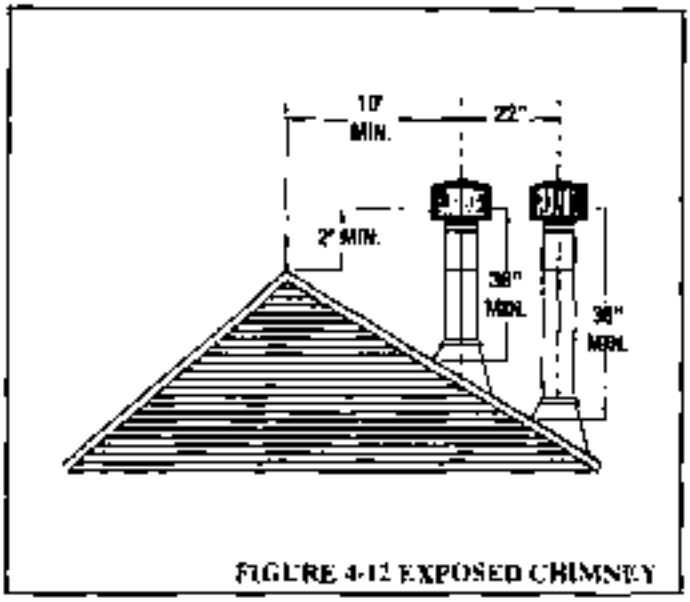


FIGURE 4-12 EXPOSED CHIMNEY

1. Insert the inner pipe of the chimney into the inner pipe of the termination.

2. Push the termination assembly down onto the chimney until the outer pipe engages the fastening strips on the termination outer pipe. (See figure 4-16).

3. Secure the termination by installing three (3) sheet metal screws through the outer pipes. One screw on each of the terminations fastening strips.

NOTE: THE CHIMNEY MUST EXTEND AT LEAST 3 FEET ABOVE THE HIGHEST POINT WHERE IT PASSES THROUGH THE ROOF AND AT LEAST 2 FEET HIGHER THAN ANY PORTION OF THE BUILDING, ADJACENT WALL OR BUILDING WITHIN A HORIZONTAL DISTANCE OF 10 FEET. (SEE FIGURE 4-12)

INSTALLING THE TERMINATION ON A FIELD-CONSTRUCTED CHASE

The minimum inside dimension of a field-constructed chase is 14 1/2 inches square. Refer to Figure 4-13.

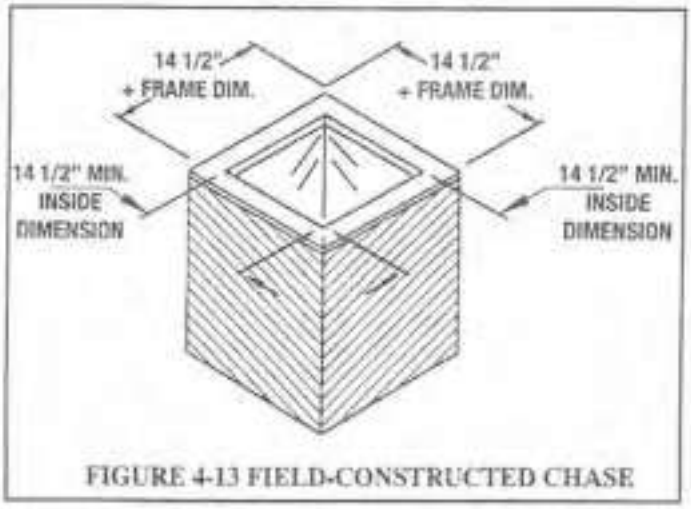


FIGURE 4-13 FIELD-CONSTRUCTED CHASE

1. Construct and cover the chase with a field-constructed flashing and collar. Refer to Figure 4-15 for construction parameters.
2. Seal the collar to the flashing with watertight caulking material.
3. Slip the chase cover over the pipe sections and secure it to the chase.
4. Ensure that the outer pipe extends at least 3 inches above the chase cover. (See figure 4-16).
5. Install the storm collar on the chimney and push down to cover around the field constructed chase cover.
6. Seal the storm collar with water tight caulking material.
7. Insert the inner pipe of the chimney into the inner pipe of the termination, then push the termination assembly down until the chimney outer pipe engages the fastening strips on the termination outer pipe.
8. Secure the termination by installing three (3) sheet metal screws through the outer pipes. One screw on each of the terminations fastening strips.
9. Seal all the holes and cracks in the chase cover to water leak proof with a quality metal mastic. It is optional to paint the termination and chase cover to match the trim.

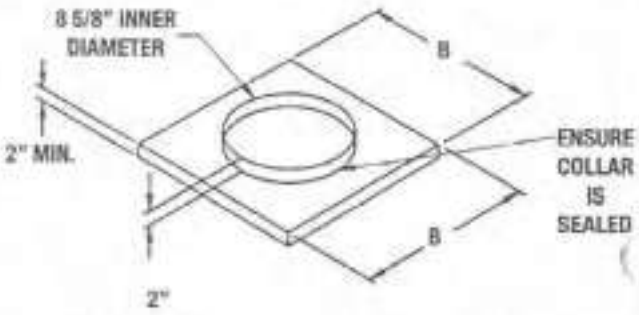


FIGURE 4-15 FIELD CONSTRUCTED CHASE COVER

TERMINATION ON A FIELD CONSTRUCTED CHASE

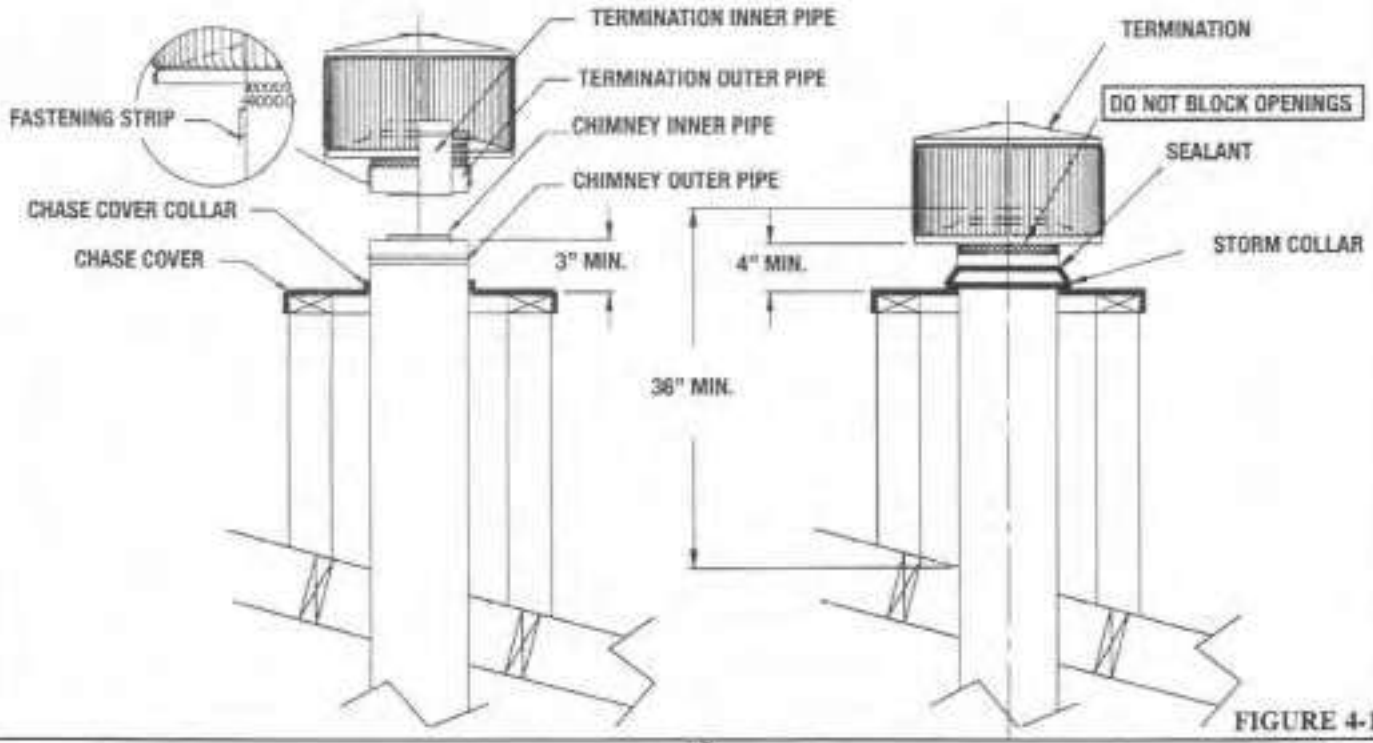


FIGURE 4-16

5. OPERATING THE FIREPLACE

REMOVING THE GLASS PANELS

WARNING: THIS IS NOT A WOOD BURNING FIREPLACE. ANY ATTEMPT TO BURN WOOD IN THIS FIREPLACE IS EXTREMELY HAZARDOUS AND WILL VOID THE MARCO WARRANTY.

WARNING: WHEN INITIALLY IGNITING THE FIREPLACE, YOU MUST REMOVE THE GLASS PANEL TO VERIFY THE PROPER LIGHTING OF THE BURNER ONLY. DO NOT OPERATE THE FIREPLACE WITHOUT THE GLASS.

1. Remove the upper grille by lifting it up, then swinging the bottom out towards you. Refer to Figure 5-1.
2. Open the lower grille by swinging the top towards you and down.
3. Open the upper and lower access panels. Refer to Figure 5-2.
4. Remove the three screws along the top frame and the three screws on the bottom frame and set the screws and frame aside.
5. Remove the four screws on the left and right side brackets and set them aside. Refer to Figure 5-3
6. Slightly loosen the screws securing the bottom bracket. Do not remove the screws.

CAUTION: THE BOTTOM BRACKET SUPPORTS THE GLASS PANEL. IF YOU REMOVE THE BOTTOM BRACKET SCREWS, THE GLASS PANEL WILL FALL ON YOU AND POSSIBLY BREAK.

7. Hold the glass panel against the face of the fireplace while removing the 6 screws holding the bracket to the frame.
8. Grasp the top edge of the glass panel and tilt it towards you. Gently lift the glass panel out of the bottom bracket. Set the glass panel upright.
9. You are now ready to test-ignite the fireplace. Refer to "Igniting the Fireplaces" on the following page.

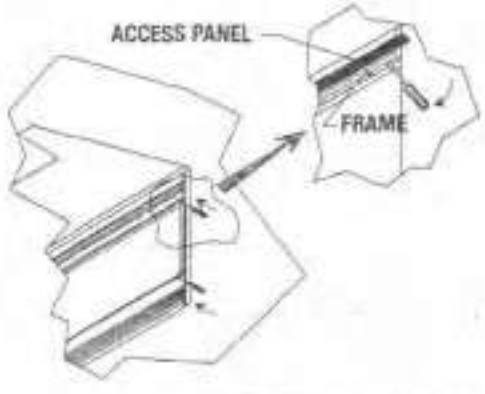


FIGURE 5-2 PANEL FRAME

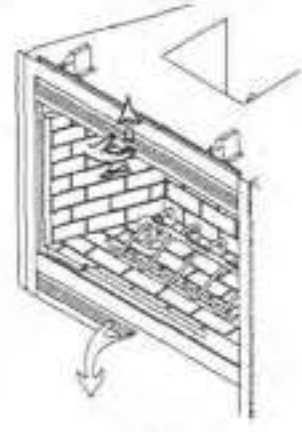


FIGURE 5-1 ACCESS GRILLES

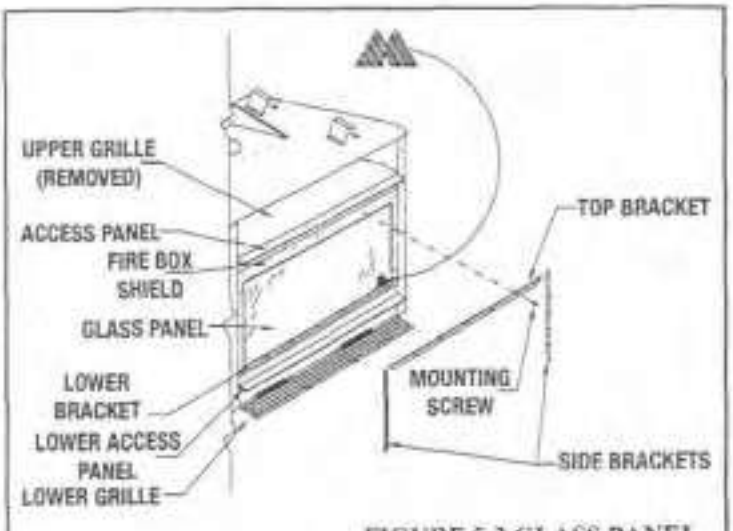


FIGURE 5-3 GLASS PANEL

LIGHTING AND SHUTDOWN INSTRUCTIONS

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. THE STANDING PILOT FIREPLACE.
Has a pilot which must be lit manually. When lighting the pilot follow these instructions exactly.

THE ELECTRONIC IGNITION FIREPLACE.
Does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.

B. BEFORE LIGHTING, smell all around the appliance area for any gas odor. 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. Use only your hand to push in and rotate the gas control knob. Never use tools. If the knob will not push in or rotate by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

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 which has been under water.

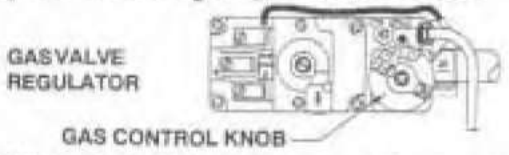
CAUTION: IF THE APPLIANCE DOES NOT LIGHT ON THE FIRST TRY, ALLOW 5 MINUTES FOR THE GAS TO DISSIPATE. THIS IS CRITICALLY IMPORTANT IF THE GLASS DOORS ARE IN PLACE, PREVENTING THE OPERATOR FROM BEING ABLE TO SMELL A GAS BUILD UP IN THE CHAMBER. THE FIRST TIME THIS APPLIANCE IS LIT, THE GLASS DOORS SHOULD BE REMOVED TO ALLOW FOR LINE PURGING, ETC.

STANDING PILOT
LIGHTING INSTRUCTIONS

1. STOP! Read the safety information on page 14.

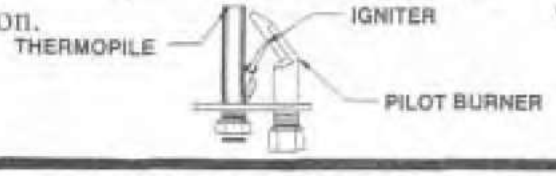
2. Turn wall switch to "OFF" position, than open bottom access panel.

3. Push regulator gas control knob in slightly and turn clockwise → to "OFF".
   NOTE: knob can not be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.



4. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information section on page 12. If you don't smell gas, go to next step.

5. Find Pilot and Pilot Igniter. Follow aluminum tube from gas control. The pilot is behind the burner to your left hand side.
   The pilot igniter is located below the gas valve regulator. Look for the red button.



6. Rotate knob on gas valve regulator counterclockwise to "PILOT". ←

7. Push in control knob all the way and hold. Immediately light the pilot by pressing the Pilot Igniter Red Button. Continue to hold control knob in for about one (1) minute after pilot is lit. Release knob and it will pop back up. Pilot should remain lit.

- If it pilot goes out, repeat steps 3 through 7.

- If knob does not pop up when released, stop, turn the gas shut-off valve and immediately call your service technician or gas supplier.

If pilot will not stay lit after several tries, turn the control knob to "OFF" and call your service technician or gas supplier.

Rotate gas control knob counterclockwise to "ON" ← and close the bottom access panel. Your fireplace is ready to operate from the wall switch.

TO TURN OFF GAS TO APPLIANCE

1. Turn off fireplace at wall switch and disconnect electrical power if connected before service is to be performed.

2. Open control access panel. (Lower Grille).

3. Push in gas control knob slightly and rotate clockwise to "OFF." Do not force. →

4. Close control access panel. (Lower Grille).

ELECTRONIC IGNITION OPERATING INSTRUCTIONS

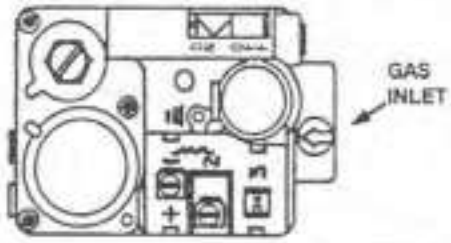
1. STOP! Read the safety information on page 12.
2. Turn off all electrical power to the appliance.
3. This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
4. Push in gas control lever slightly and move to the right to "OFF."

   NOTE: Lever cannot be moved to "OFF" unless lever is pushed in slightly. Do not force.

   →
5. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information section on page 12. If you don't smell gas, go to next step.
6. Move gas control lever to the left to "ON."

   ←
7. Close control access panel.
8. Turn on all electric power to the appliance.
9. If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.

GAS CONTROL LEVER SHOWN IN "ON" POSITION



TO TURN OFF GAS TO APPLIANCE

1. Turn off all electrical power to the appliance if service is to be performed.
2. Open control access panel. (Lower Grille).
3. Push in gas control lever slightly and move to the right to "OFF." Do not force. →
4. Close control access panel. (Lower Grille).

INSTALLING THE LOGS

After you have test-ignited the burner, you are ready to install the grate and logs.

CAUTION: TURN OFF ALL ELECTRICITY TO THE FIREPLACE BEFORE YOU INSTALL THE GRATE AND LOGS.

PLACING THE GRATE

1. Remove the burner from the hearth by removing the shipping strap and the screw securing the burner to the orifice. Refer to Figure 5-4
2. Install the grate on the hearth.
3. Reinstall the burner by placing the bottom part of the burner in the hearth cavity and inserting the burner into the orifice.
4. Reinstall the screw securing the burner to the orifice Refer to Figure 5-4

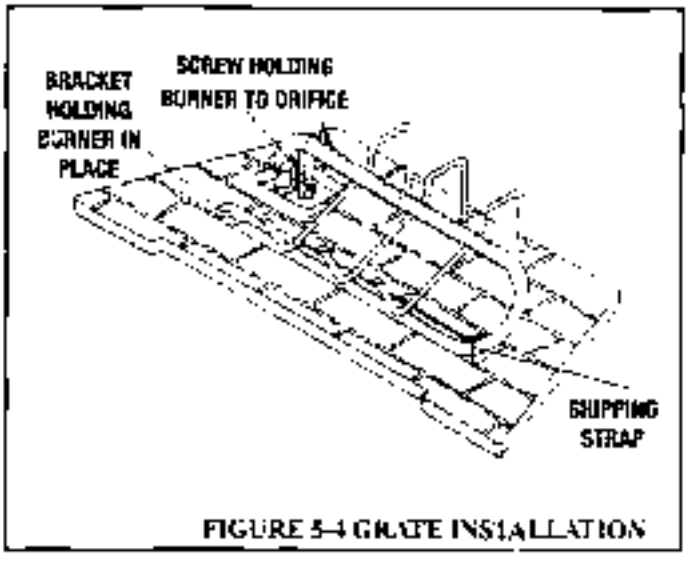


FIGURE 5-4 GRATE INSTALLATION

PLACING THE LOGS

The Marco CCT41 includes a seven (7) piece log set Alignment pins and slots are provided to ensure proper spacing and location. Refer to Figure 5-5.

1. Put the logs in place as shown in Figure 5-5.
2. Prepare the glowing embers for placement by tearing the ember material into cotton-ball sized pieces

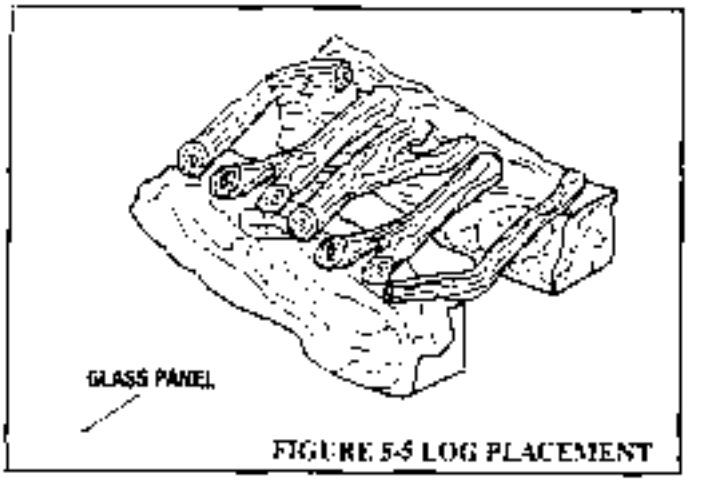


FIGURE 5-5 LOG PLACEMENT

3. Flatten the embers by placing them on a hard surface and "smashing" them flat with your palm, or the side of your fist.
4. Place the glowing embers evenly along the edge of the burner tube in front of the front log, covering the flame holes Refer to Figure 5-6
5. Test-ignite the fireplace again to verify that there is no continuous flame impingement on the logs. Refer to "Standing Pilot Lighting Instructions" or "Electronic Ignition Operating Instructions" on pages 15 and 16

If you have flame impingement on the logs, reposition the logs so that the yellow flame burns between the four cross logs

WARNING: THE SIZE AND POSITION OF THE LOG SET WAS ENGINEERED TO GIVE YOUR FIREPLACE A SAFE, RELIABLE AND ATTRACTIVE FLAME PATTERN. ANY ATTEMPT TO USE A DIFFERENT LOG SET IN THE FIREPLACE WILL VOID THE MARCO WARRANTY AND WILL RESULT IN INCOMPLETE COMBUSTION, SOOTING, AND POOR FLAME QUALITY.

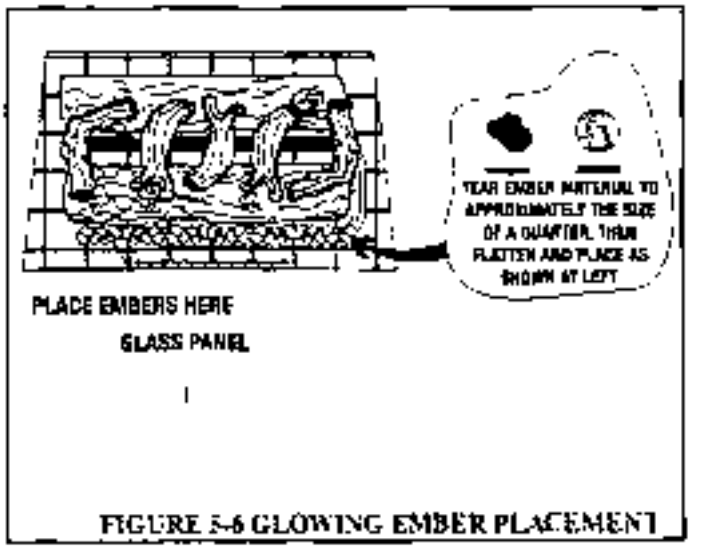


FIGURE 5-6 GLOWING EMBER PLACEMENT

REPLACING THE GLASS PANELS

1. Clean the glass panel with glass cleaner.

2. Follow Steps 1-2 on page 12 in reverse order to replace the glass panel.

3. Screw the bracket onto the fireplace hand-tight (Do not over-torque). Ensure that the bracket is properly aligned and tighten the screws.

4. Replace the frame in the same manner as in Step 3.

5. Reinstall the upper grille and close the hinged lower grille.

WARNING: YOUR FIREPLACE HAS A TEMPERATURE-CUSTOMIZED GLASS PANEL THAT HAS AN INSIDE AND OUTSIDE SURFACE. THE GLASS OVERHEATS AND FRACTURES IF YOU DO NOT INSTALL THE GLASS PANEL AS SHOWN IN FIGURE 5-3.

OPERATE THE FIREPLACE WITH ONLY THE MARCO GLASS PANEL. OPERATION OF THE FIREPLACE WITH ANOTHER PANEL, OR WITHOUT THE MARCO GLASS PANEL WILL VOID THE WARRANTY OF THE FIREPLACE. OPERATION OF THE FIREPLACE WITHOUT THE GLASS PANEL MUST ONLY BE DONE FOR SERVICING, AND AS INSTRUCTED IN THIS MANUAL.

DO NOT OPERATE THE FIREPLACE WHEN THE GLASS PANEL IS CRACKED OR BROKEN. REPLACEMENT OF THE GLASS PANEL MUST BE MADE BY A QUALIFIED SERVICE TECHNICIAN.

DURING SERVICING, DO NOT PLACE GLASS PANELS FLAT ON THE FLOOR AND DO NOT PLACE ANY OBJECTS ON THE GLASS PANELS.

OPERATING GUIDELINES AND MAINTENANCE INSTRUCTIONS

1. Upon completing your gas line connection, a small amount of air will be in the lines. When first lighting the appliance, it will take a few minutes for the lines to purge themselves of this air. Once purging is complete, the burner will light and operate as indicated in this instruction manual. Subsequent lighting of the appliance will not require such purging. If subsequent purging is required, it indicates a leak in the gas supply line. This should be remedied immediately.

2. **BEFORE LIGHTING, CHECK ALL CONNECTIONS WITH SOAP SOLUTION FOR POSSIBLE LEAKS.**

3. When lit for the first time, the appliance may emit a slight odor for an hour or two. This is due to the "curing" of the logs and the "burn-in" of internal paints and lubricants used in the manufacturing process.

CAUTION: IF THE APPLIANCE DOES NOT LIGHT ON THE FIRST TRY, ALLOW 5 MINUTES FOR THE GAS TO DISSIPATE. THIS IS CRITICALLY IMPORTANT IF THE GLASS DOORS ARE IN PLACE, PREVENTING THE OPERATOR FROM BEING ABLE TO SMELL A GAS BUILD UP IN THE CHAMBER. THE FIRST TIME THIS APPLIANCE IS LIT, THE GLASS DOORS SHOULD BE REMOVED TO ALLOW FOR LINE PURGING, ETC.

CAUTION: THE LOGS CAN GET VERY HOT, AND WILL REMAIN HOT FOR UP TO ONE HOUR AFTER THE GAS SUPPLY IS TURNED OFF TO THE BURNER--HANDLE ONLY WHEN LOGS ARE COOL.

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

5. Always turn off the gas (at the valve) and the electricity to the appliance before cleaning. Before relighting, refer to the lighting instructions located in the appliance's bottom control panel.

6. The appliance and venting system should be inspected before use and/or annually by a qualified service person. Keep the control compartment, logs, burner and area surrounding the logs clean by vacuuming or brushing, at least twice a year. In order to properly clean the burner assembly, remove the logs and expose the burner. **BEFORE VACUUMING, MAKE SURE TO REMOVE THE APPLIANCE'S GLOWING EMBERS.**

IMPORTANT: Turn off the gas and the wall switch before servicing the appliance. It is recommended that a qualified serviceman perform these checkups annually before beginning the appliances seasonal use. Any guard removed for servicing an appliance must be replaced prior to operating the appliance.

7. Always keep the area surrounding the appliance clean and free from combustible materials, gasoline, and other flammable liquids.

8. Never obstruct the flow of combustion and ventilation air. Keep the front of the appliance clear of all obstacles and materials.

9. Periodically perform a visual check of your appliance's flame pattern. Refer to Figure 5-7.

WARNING: Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition. Young children should be carefully supervised when they are in the same room as the appliance.

AIR SHUTTER ADJUSTMENT

The air shutter on the burner has to be set to the proper position at the factory. However, due to altitude conditions, it may be necessary to adjust the air mixture as follows:

Remove the logs to expose the burner, then loosen the air shutter screw and rotate the shutter to the left or right as needed while watching the flame on the burner to achieve a yellowish flame. Once it is aesthetically acceptable, not too dark and not too light, retighten the air shutter screw. (See Figure 27) to reposition the logs, follow the instructions on page 8.

Note: Opening the air shutter increases the air to gas mix in the burner, it produces a bluer, shorter and cleaner burning flame. Closing the air shutter reduces the air to gas mix producing a longer yellow flame.

Sooting: In most environments, the air shutter can be fully closed, but if there is any evidence of sooting (with logs positioned properly), the air should be adjusted.

Warning: The burner can get very hot. Use heat protection on your hands when adjusting the burner to avoid injury.

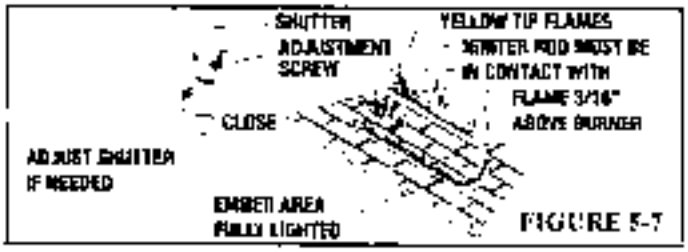


FIGURE 5-7

PILOT ADJUSTMENT

The pilot flame has been set at the factory and usually further adjustment is not required. If for any reason the pilot needs to be adjusted, follow these instructions.

1. Remove pilot adjustment cap on main valve (See Wiring Diagram below).
2. Adjust pilot screw to provide properly sized flame, enough to engulf the thermopile for at least 3/8 of an inch. Turning the adjustment screw clockwise reduces the pilot flame. Counter clockwise increase the pilot flame. (Refer to Figure 20 for details). Replace pilot adjustment cap screw when done.

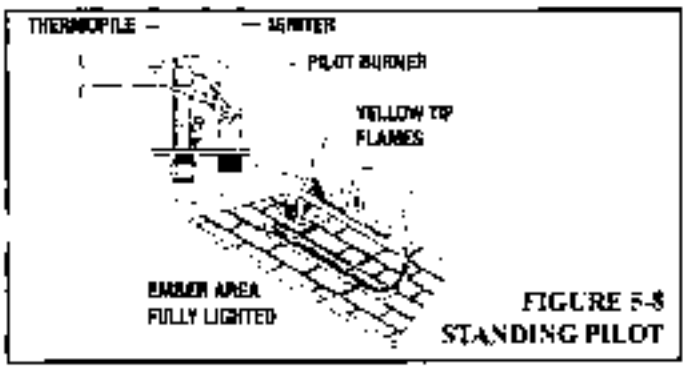


FIGURE 5-8 STANDING PILOT

6. INSTALLING FINISHINGS AND ACCESSORIES

MANTELS AND SURROUNDS

You may install surrounds made of noncombustible material to the sides of the fireplace with 0" clearance. Refer to Figure 6-1.

WARNING: DO NOT INSTALL COMBUSTIBLE MATERIALS TO THE FACE OF THE FIREPLACE.

If you attach a noncombustible surround to the metal face of the fireplace, the following rules apply.

1. The mantels must be high at least 14 inches above the opening of the fireplace, and no more than 12 inches wide. Refer to Figure 6-2.

2. The opening of the fireplace must be at least 6 inches from a perpendicular wall. Refer to Figure 6-2.

NOTE: THE 6 INCH CLEARANCE TO A PERPENDICULAR WALL ALSO INCLUDES LEGS, COLUMNS, OR SUPPORTS MADE OF COMBUSTIBLE MATERIAL THAT YOU MAY INSTALL AT EITHER SIDE OF THE OPENING OF THE FIREPLACE.

3. Keep the upper and lower grille face from obstructions.

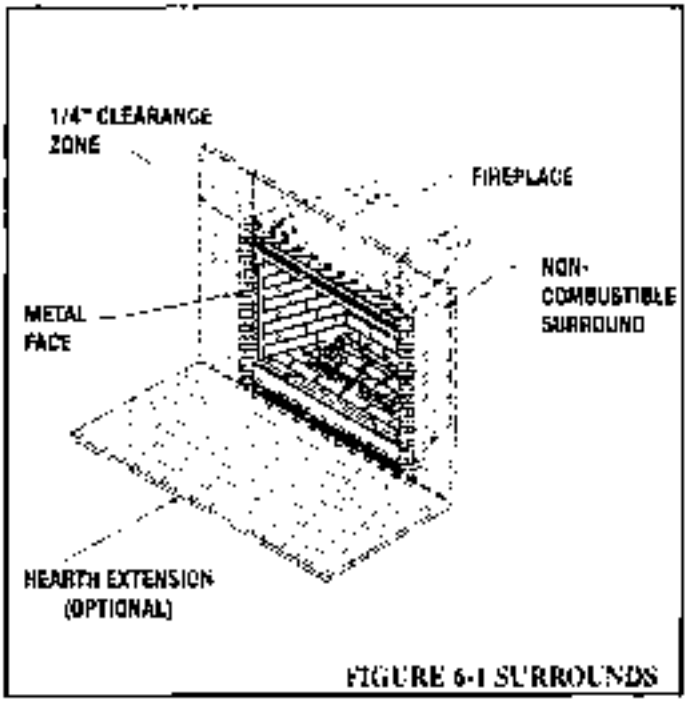


FIGURE 6-1 SURROUNDS

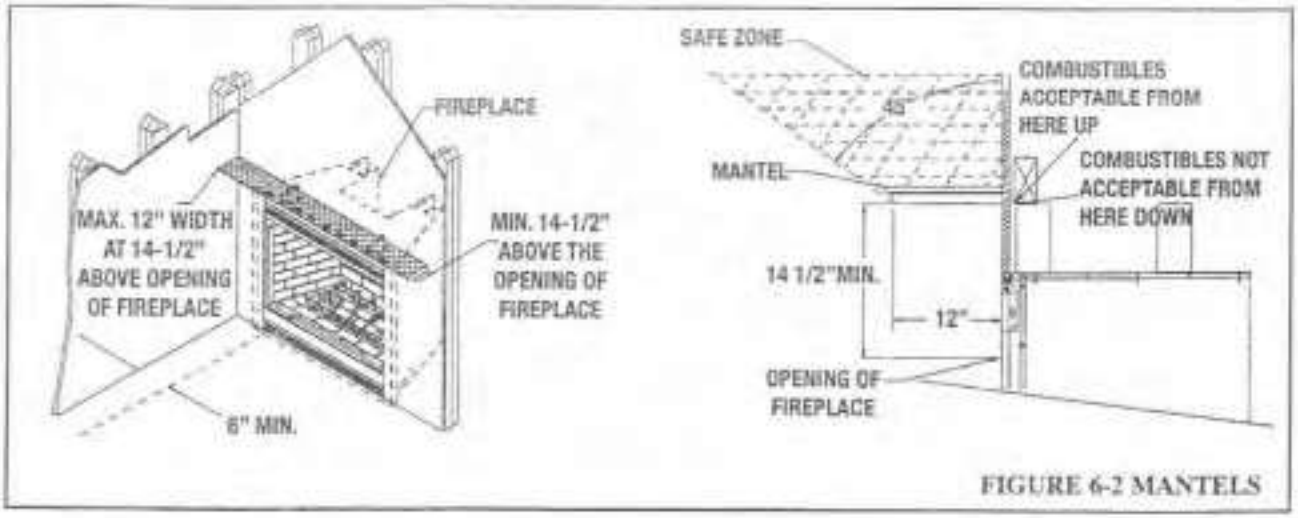


FIGURE 6-2 MANTELS

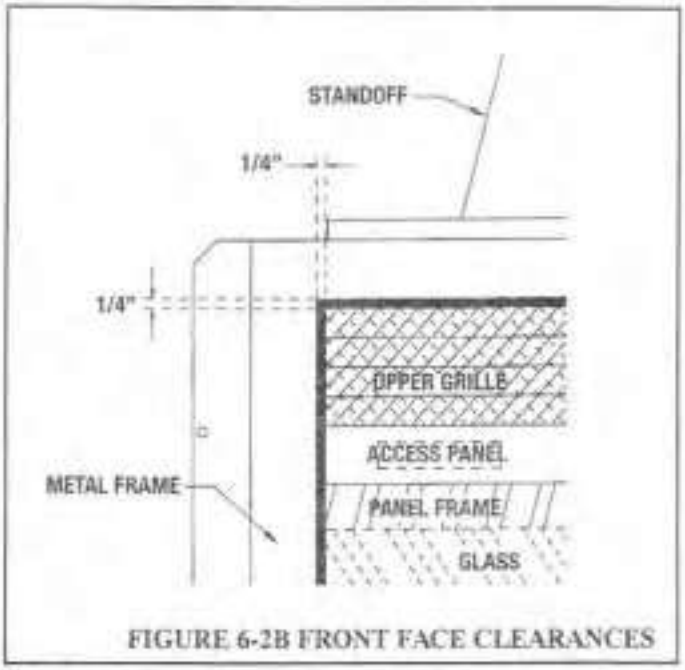


FIGURE 6-2B FRONT FACE CLEARANCES

INSTALLING THE FAN KIT

To install the fan kit, refer to Figure 6-3.

1. Open the lower grille.
2. Attach the bracket on the fan with screws.
3. Secure the fan with bracket to the lower left-hand corner with screws.
4. Attach the fan control on the electronic service module with screws.
5. Plug the fan control power line into the receptacle on the right-hand side.

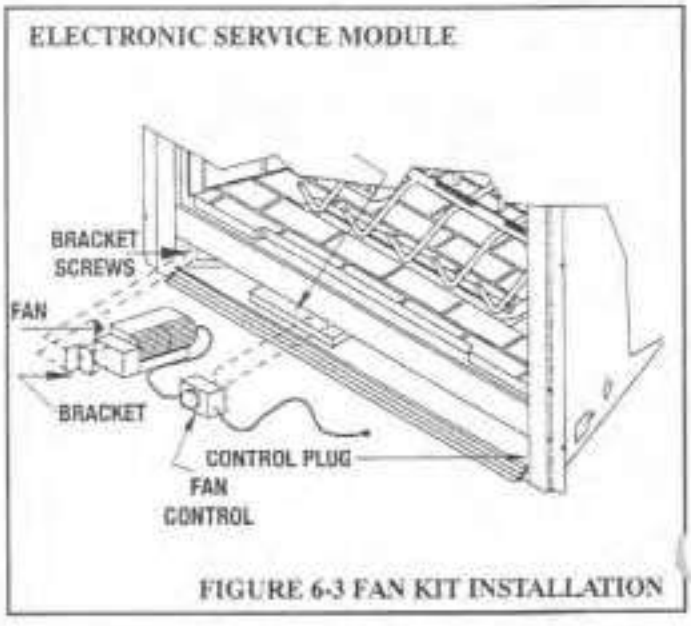


FIGURE 6-3 FAN KIT INSTALLATION

TO OPERATE THE FAN:

- Increase the air flow by turning the control knob counterclockwise.
- Decrease the air flow by turning the control knob clockwise.

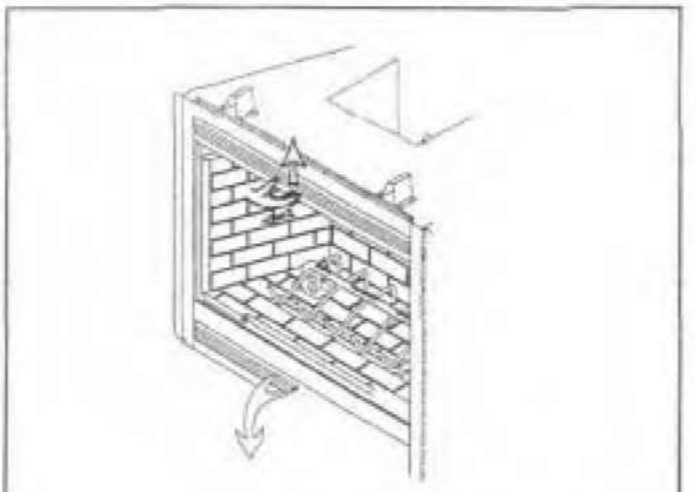


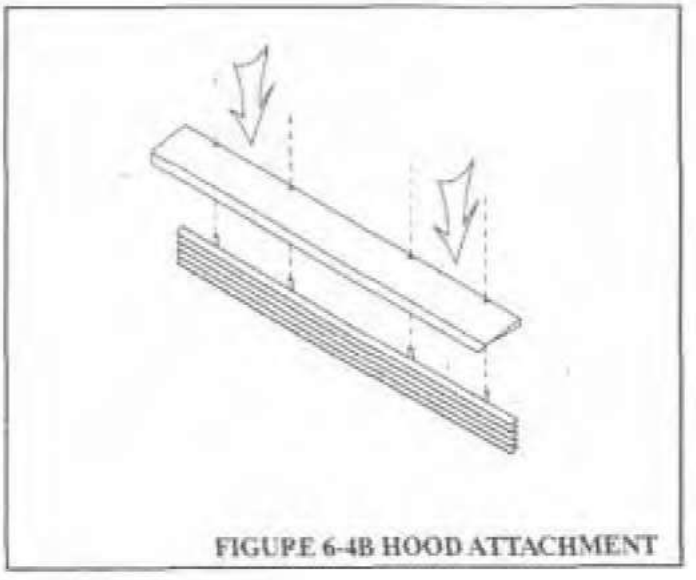
FIGURE 6-4 ACCESS GRILLES

INSTALLING THE DECORATIVE HOOD ATTACHMENT (PART NUMBER: 794554)

The decorative hood attachment is a shield that protects mantels from high temperatures. It is recommended that you install the decorative hood attachment if your mantel is made of heat-sensitive materials.

Before installing your decorative hood attachment, ensure that your fireplace is **OFF**, and that the upper grille is cool.

1. Remove the upper grille by lifting it up, then swinging the bottom out towards you.
2. Lower the upper grille away from the fireplace and pull it towards you. Refer to Figure 6-4.
3. Place the decorative hood attachment over the vertical rods of the upper grille. Refer to Figure 6-4b.
4. Replace the upper grille with the decorative hood attachment by following Steps 1 through 2 in reverse.



FIGUPE 6-4B HOOD ATTACHMENT

INSTALLING VINYL SIDING PROTECTOR (PART NUMBER: 794540)

If you install your termination on a vinyl siding wall, it is recommended that you install the vinyl siding protector to prevent heat damage.

1. Center the vinyl siding protector on the horizontal termination against the side of the house.

2. Slide the vinyl siding protector down the wall until it touches the top edge of the termination.

3. Secure the vinyl siding protector to the side of the house with eight (8) self-tapping screws, or mark the location of 12 screw holes for drilling. Refer to Figure 6-5.

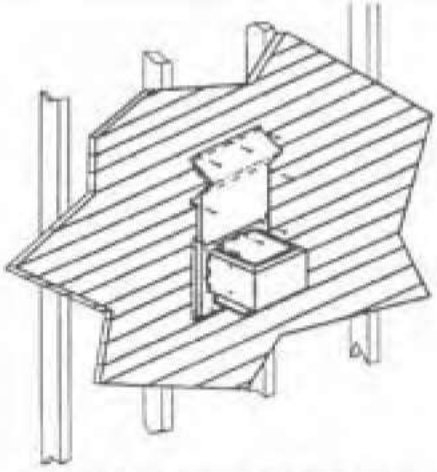


FIGURE 6-5 VINYL SIDING PROTECTOR

INSTALLING THE REMOTE CONTROL

The remote control contains the following components:

- A hand-held transmitter
- A receiver unit
- A remote control bracket
- A wall plate
- 5 screws

The transmitter and the receiver require 9-volt batteries (not included).

Remove the transmitter plate and install a 9 volt battery on the battery clip of the transmitter. Refer to Figure 6-6.

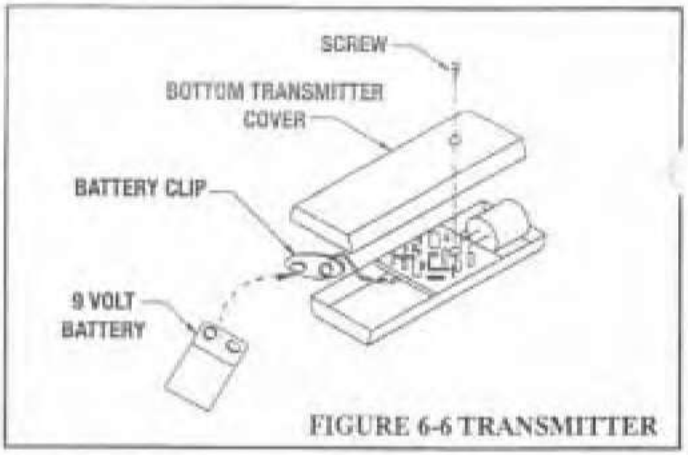


FIGURE 6-6 TRANSMITTER

To install the remote control, follow the directions below:

1. Open the lower access grille and screw the remote bracket to the electronic service module. Refer to Figure 6-7.

2. Plug the remote receiver connector into the remote control connector (J5) on the electronic system module.

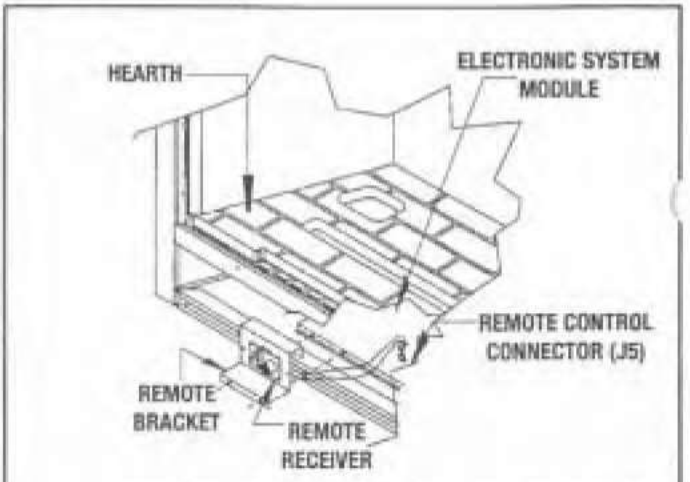


FIGURE 6-7 TRANSMITTER CONNECTION

TO OPERATE THE REMOTE CONTROL:

- Turn the remote receiver to REMOTE. Push the transmitter button for three (3) seconds. The red LED indicates that the remote transmitter is operating.

  To operate the remote control, point the transmitter at the receiver.

- You may operate the fireplace manually by turning the remote receiver to ON or OFF.

NOTE: IF YOU LEAVE YOUR HOME FOR AN EXTENDED PERIOD OF TIME, TURN REMOTE RECEIVER TO OFF TO PREVENT THE RECEIVER FROM TURNING ON AS A RESULT OF A SPURIOUS SIGNAL.

Appendixes

1. CALCULATING PIPE LENGTHS

To determine the number and lengths of pipe needed for your installation, follow steps 1 through 12

1.) Determine the total height of your fireplace system (Height "H" in Fig A-2) .... _____

2.) The height of your fireplace up to the first 45° Elbow is: ..... 15 5/8"

3.) Rise of Offset (Rise "B" of Fig. 10) (See **Single Offset Chart**, below) .. _____

4.) Lineal Gain of Vertical Termination (See **Lineal Gain Chart**, below) ..... 4 3/4"

5.) Total of lines 2 - 4 ..... _____

6.) Subtract line 5 from 1 ..... _____ (This is Height "C" in Figure A-2. Refer to **Chimney Height Chart** to determine the quantity and lengths of pipe sections)

7.) List 12" lengths of pipe needed. .. _____

8.) List 36" lengths of pipe needed .... _____

9.) List 48" lengths of pipe needed _____

10.) List 12" lengths of Telescopic pipe needed (11" - 21" long) .. _____

11.) Subtotal length (add lines 7 - 10) .... _____

12.) Check: Lines 5 and 11 should equal line 1

SINGLE OFFSET CHART

Number and Length of Pipe Sections			45° Elbow Set Dimensions	
12"	36"	48"	Offset A	Rise B
—	—	—	5 3/4"	15 1/2"
1	—	—	13 1/4"	21"
2	—	—	21"	28 3/4"
3	—	—	28 1/2"	36 1/4"
—	1	—	30 1/4"	38"
1	1	—	38"	45 3/4"
—	—	1	38 3/4"	46 1/2"
2	1	—	45 1/2"	53 1/4"
1	—	1	46 1/2"	54 1/4"
3	1	—	53"	60 3/4"
2	—	1	54"	61 3/4"
3	—	1	61 1/2"	69 1/4"
1	2	—	62 1/2"	70 1/4"
—	1	1	63 1/4"	72"
1	1	1	71"	78 3/4"
—	—	2	75 3/4	79 1/2"
2	1	1	78 1/2"	86 3/4"
1	—	2	79 1/2"	87 1/4"
3	1	1	86 1/4"	94"
2	—	2	87"	94 3/4"
1	3	—	87"	94 3/4"
—	2	1	88"	95 3/4"
2	3	—	94 3/4"	102 1/2"
1	2	1	95 1/2"	103 1/4"
—	1	2	96 1/2"	104 1/4"
1	4	—	104"	111 3/4"
—	—	3	105"	112 3/4"

LINEAL GAIN CHART / PARTS LIST

Part Number	Qty/ Pak	Description	Lineal Gain
794619X	1	Fireplace CCF41	45 7/8"
794609	4	MDV-6 (Inner and outer 6" pipe set)	4 3/4"
794620	4	MDV-12 (Inner and outer 12" pipe set)	10-3/4"
794621	4	MDV-18 (Inner and outer 18" pipe set)	16-3/4"
794612	4	MDV-24 (Inner and outer 24" pipe set)	22-3/4"
794613	2	MDV-36 (Inner and outer 36" pipe set)	34-3/4"
794614	2	MDV-48 (Inner and outer 48" pipe set)	46-3/4"
794625	4	TELESCOPIC (Inner and outer set)	17"-24"
794631	4	SUPPORT PIPE (Inner and outer set)	10-3/4"
794598	1	MDV RV VERTICAL TERMINATION	4-3/4"

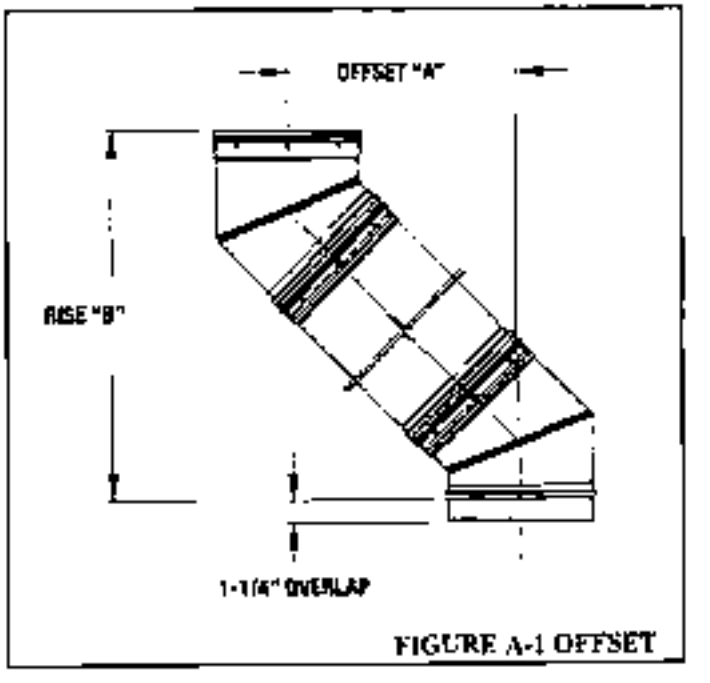


FIGURE A-1 OFFSET

CHIMNEY HEIGHT CHART			
	NUMBER AND LENGTH OF PIPE SECTIONS		
HEIGHT "C"	12"	36"	48"
7' - 9 1/2"	—	—	2
8' - 8"	1	—	2
9' - 7"	2	—	2
10' - 6"	—	1	2
11' - 5"	—	4	—
11' - 9"	—	—	3
12' - 7"	1	—	3
13' - 6"	2	—	3
14' - 5"	—	1	3
15' - 5"	—	—	4
16' - 6"	1	—	4
17' - 4 1/2"	2	—	4
18' - 6"	—	1	4
19' - 6"	—	—	5
20' - 4 1/2"	1	—	5
21' - 3"	2	—	5
22' - 4 1/2"	—	1	5
23' - 4 1/2"	—	—	6
24' - 3"	1	—	6
25' - 2"	2	—	6
26' - 3"	—	1	6
27' - 3"	—	—	7
28' - 2"	1	—	7
29' - 1"	2	—	7
30' - 2"	—	1	7

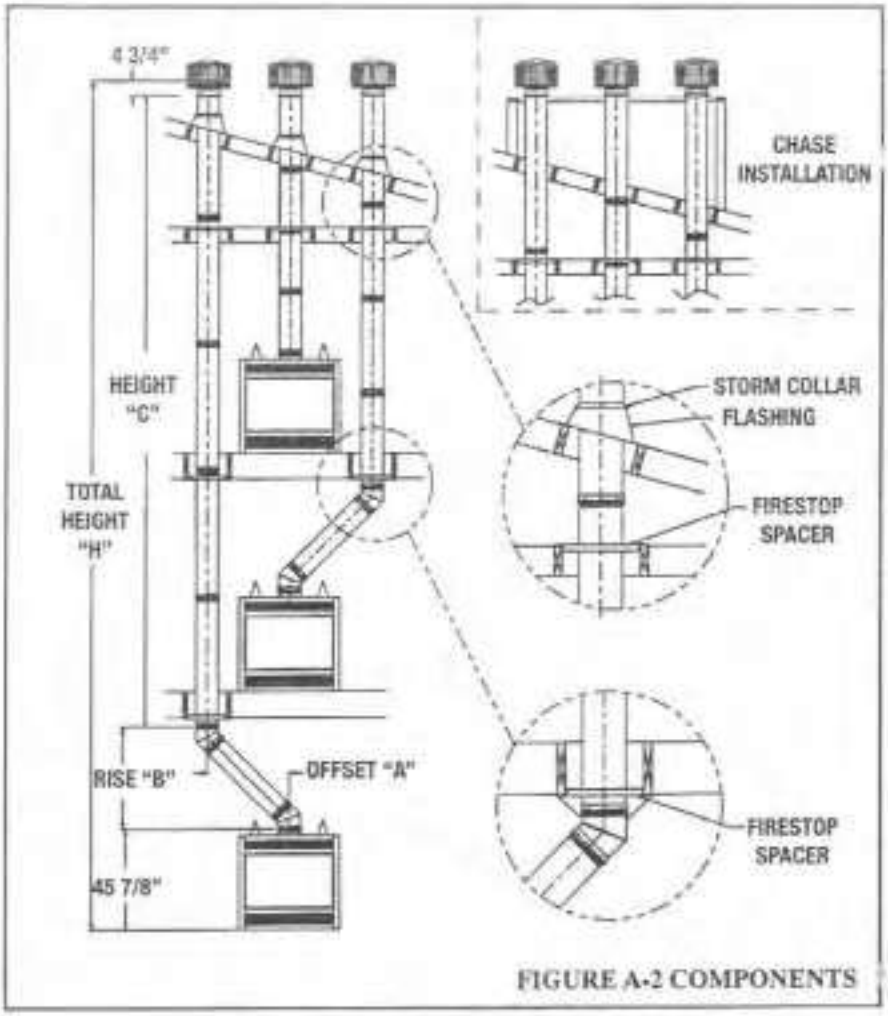


FIGURE A-2 COMPONENTS

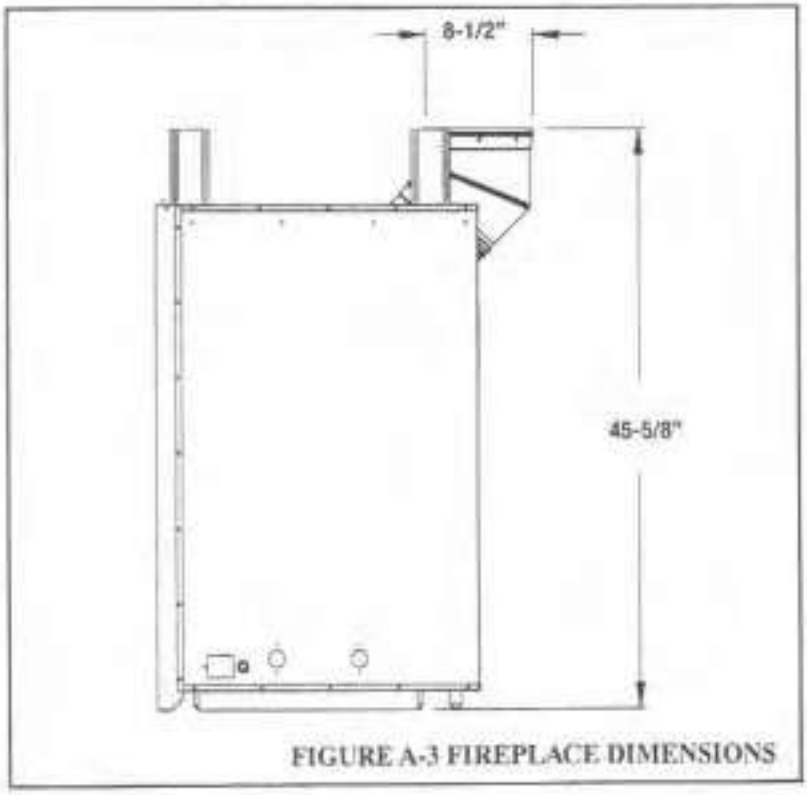


FIGURE A-3 FIREPLACE DIMENSIONS

2. ORDERING REPLACEMENT PARTS

1.) Please refer to the Replacement Parts List and diagram when ordering replacement parts for your appliance. It contains proper names and part numbers of each component to assist you when and if you need to order.

2.) When possible, order repair parts for your appliance from the dealer where it was purchased.

3.) Be sure to give the Part Number, the Name of the part, and the Fireplace Stock Number. You will find the Fireplace Stock Number on the rating plate inside the appliance's bottom control panel.

4.) When remittance is sent with the order, include enough for transportation.

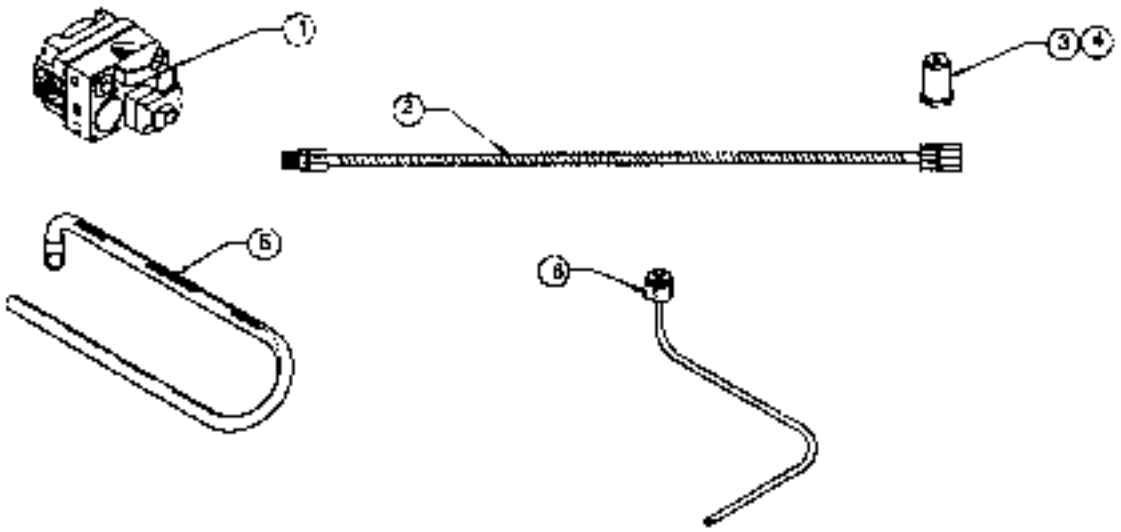
5.) There is a minimum charge of $10.00 plus postage for each order.

6.) All parts are subject to change without notice.

REPLACEMENT PARTS LISTS:

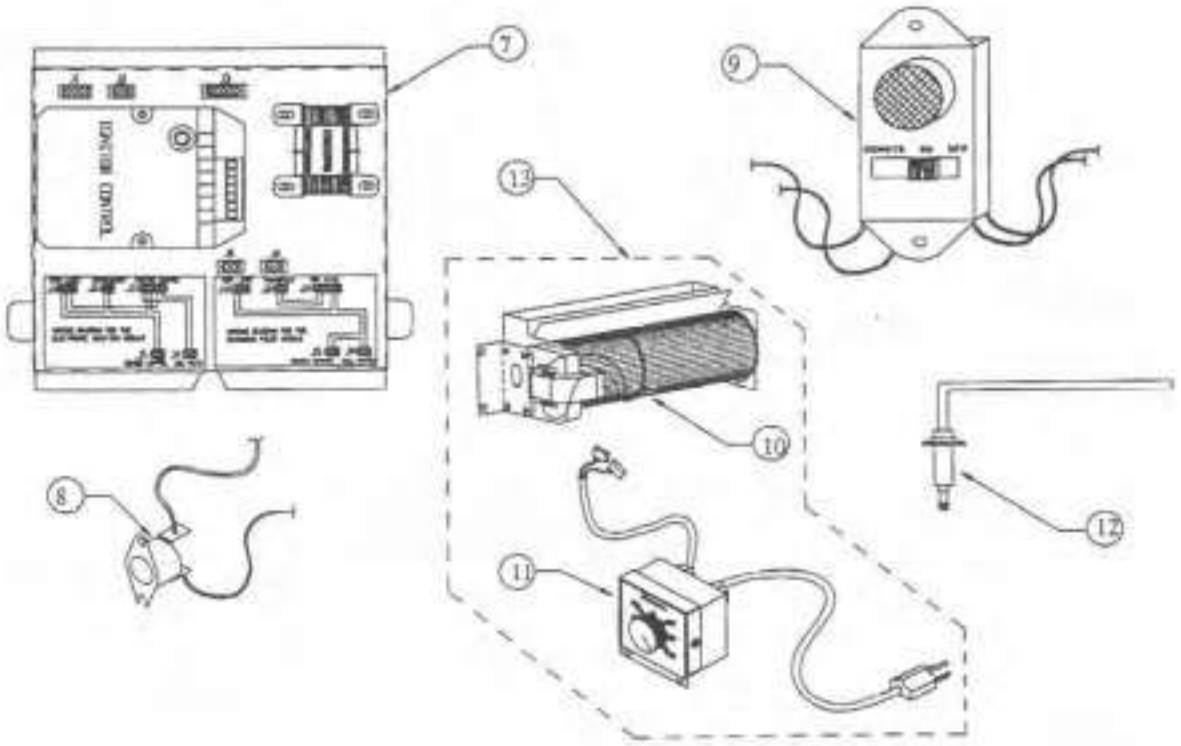
ELECTRONIC IGNITION FIREPLACE COMPONENTS

ITEM	PART #	DESCRIPTION
1	495101	Regulator Valve, Natural Gas
2	495102	Regulator Valve, Propane Gas
3	198440	Flexible Gas Line
4	499098	# 37 Orifice, Natural Gas
4	499093	# 52 Orifice, Propane Gas
5	198490	Gas Burner
6	198491	3/8" Aluminum Tubing



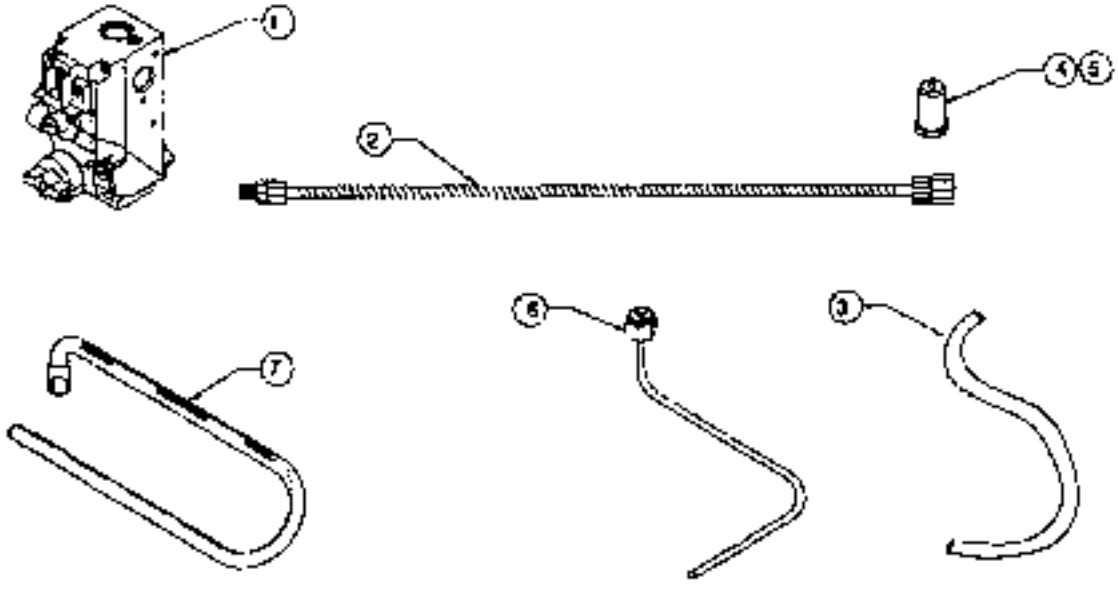
ELECTRONIC IGNITION FIREPLACE COMPONENTS

ITEM	PART #	DESCRIPTION
7	499728	Electronic Service Module, Electronic Ignition
8	113316	Heat Limit Switch
9	794012	Remote Control (Optional)
10	115508	Fan (Optional)
11	499744	Fan Control (Optional)
12	480051	Igniter/Sensor
13	794501	Fan Kit (Optional)



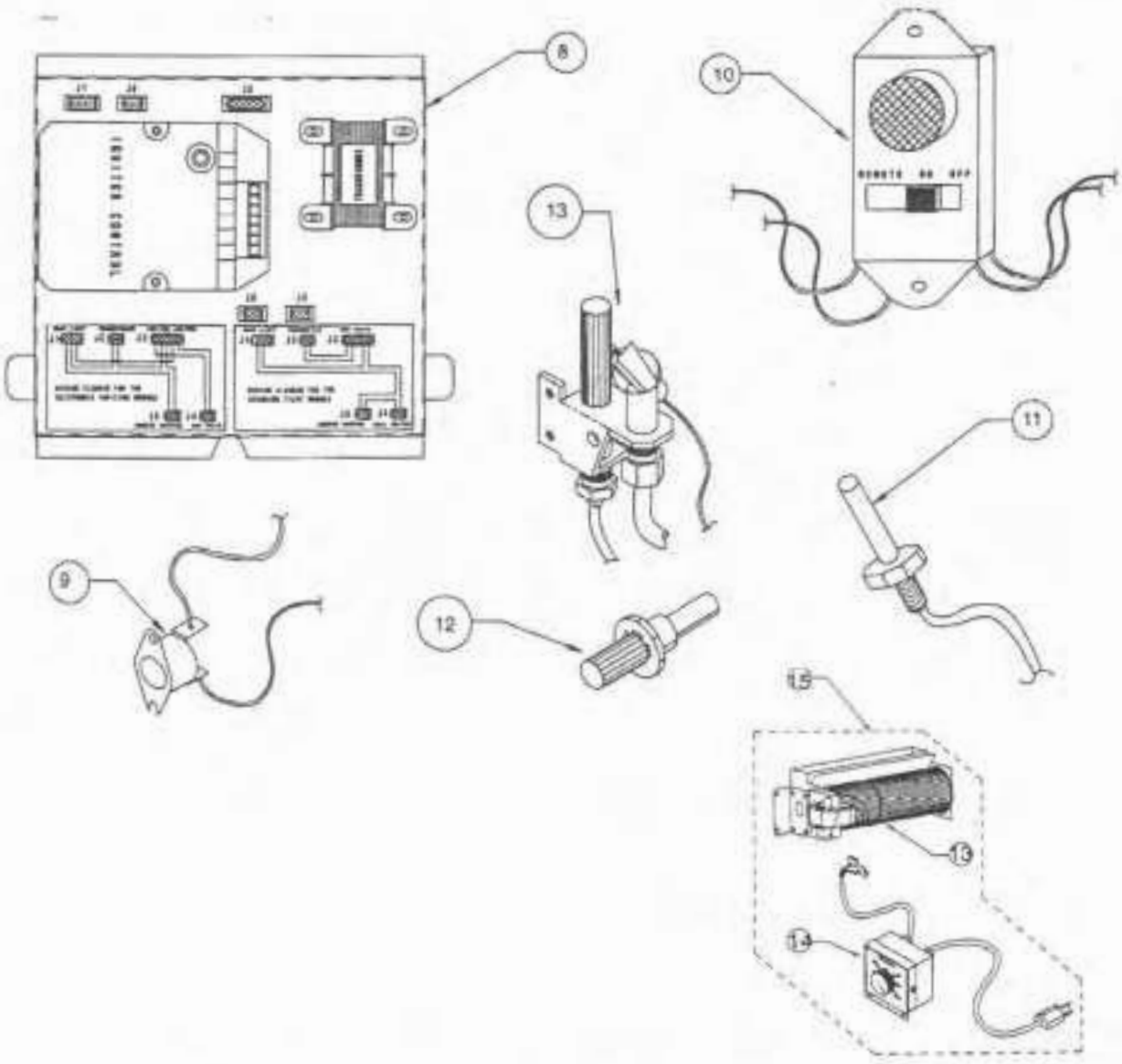
STANDING PILOT FIREPLACE COMPONENTS

ITEM	PART #	DESCRIPTION
1	495103	Valve Regulator, Natural Gas
1	495104	Valve Regulator, Propane Gas
2	198440	Flexible Gas Line
3	480053	1/4" Diameter Aluminum Tubing (Regulator to Pilot)
4	499990	# 37 Orifice, Natural Gas
5	499993	# 52 Orifice, Propane
6	198491	3" Aluminum Tubing
7	198490	Gas Burner



STANDING PILOT FIREPLACE COMPONENTS

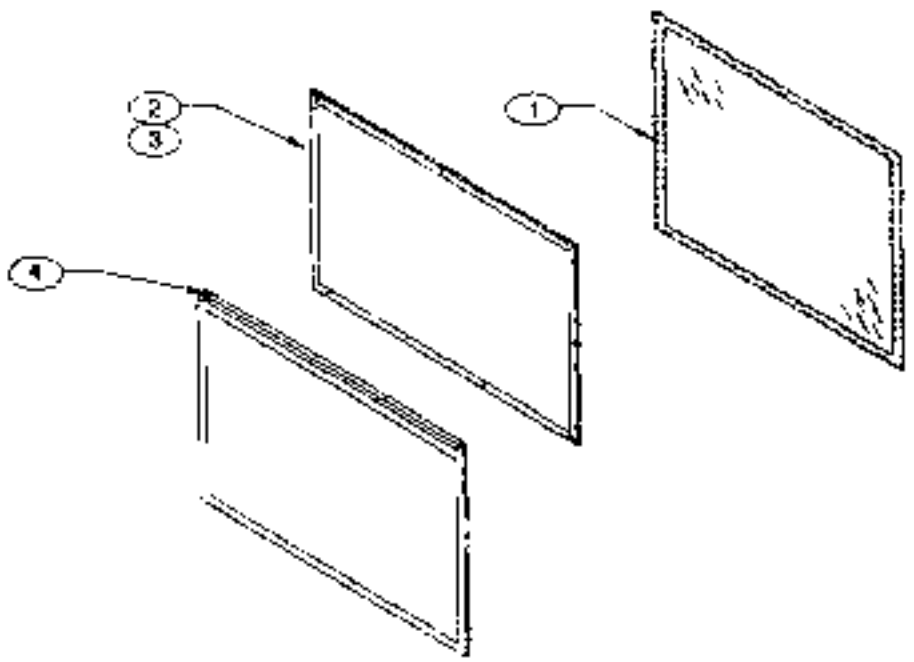
ITEM	PART #	DESCRIPTION
8	499731	Electronic Service Module, Standing Pilot
9	113316	Heat Limit Switch
10	794012	Remote Control (Optional)
11	116158	Thermopile
12	116140	Igniter, Piezo Electronic
13	495105	Pilot Assembly, Natural Gas
13	495106	Pilot Assembly, Propane Gas
14	115508	Fan (Optional)
15	499744	Fan Control (Optional)
16	794501	Fan Kit (Optional)



NOTE: REFER TO PAGE 25 FOR FAN KIT NUMBERS

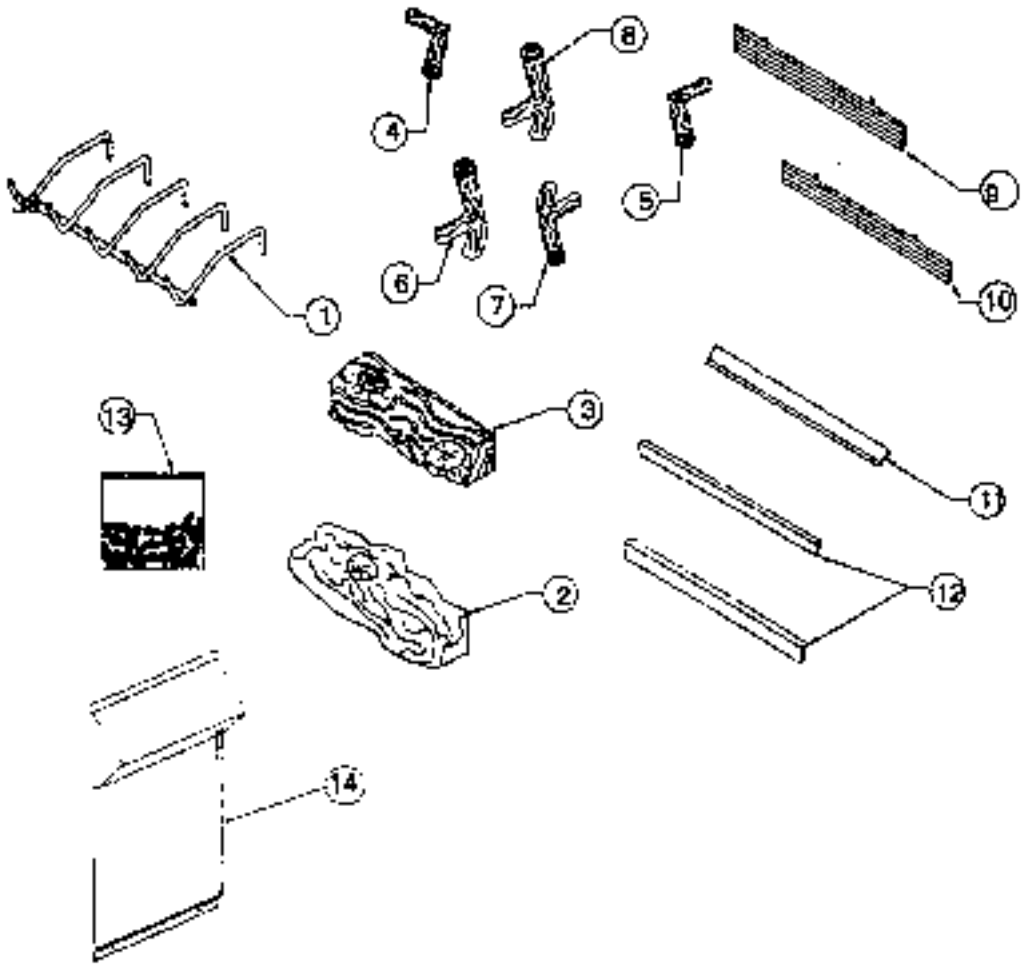
GLASS PANEL AND HARDWARE COMPONENTS

ITEM	PART #	DESCRIPTION
1	494551	Glass Panel Gasket Kit
2	599780A	Glass Panel Bracket, Top & Bottom
3	599799A	Glass Panel Bracket, Sides
4	480045	Panel Frame



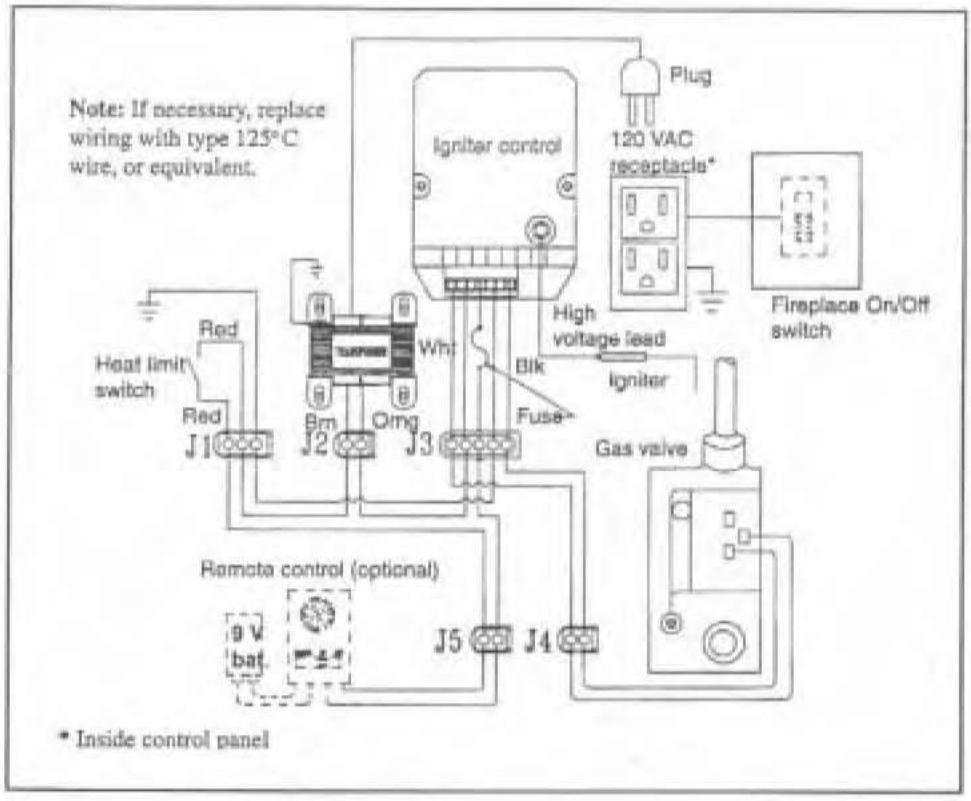
MISCELLANEOUS COMPONENTS

ITEM	PART #	DESCRIPTION
1	480040	Grate
2	164672	Front Log
3	164673	Back Log
4	164674	Cross Log "L" Left
5	164678	Cross Log "L" Right
6	164677	Cross Log "Y" Right
7	165675	Cross Log "Y" Left
8	164676	Cross Log Center "Y"
9	480024	Lower Grille
10	480022	Upper Grille
11	794554	Decorative Hood Attachment
12	794557	Edge Trim Kit
13	N/A	Embers
14	794540	Vinyl Siding Protector

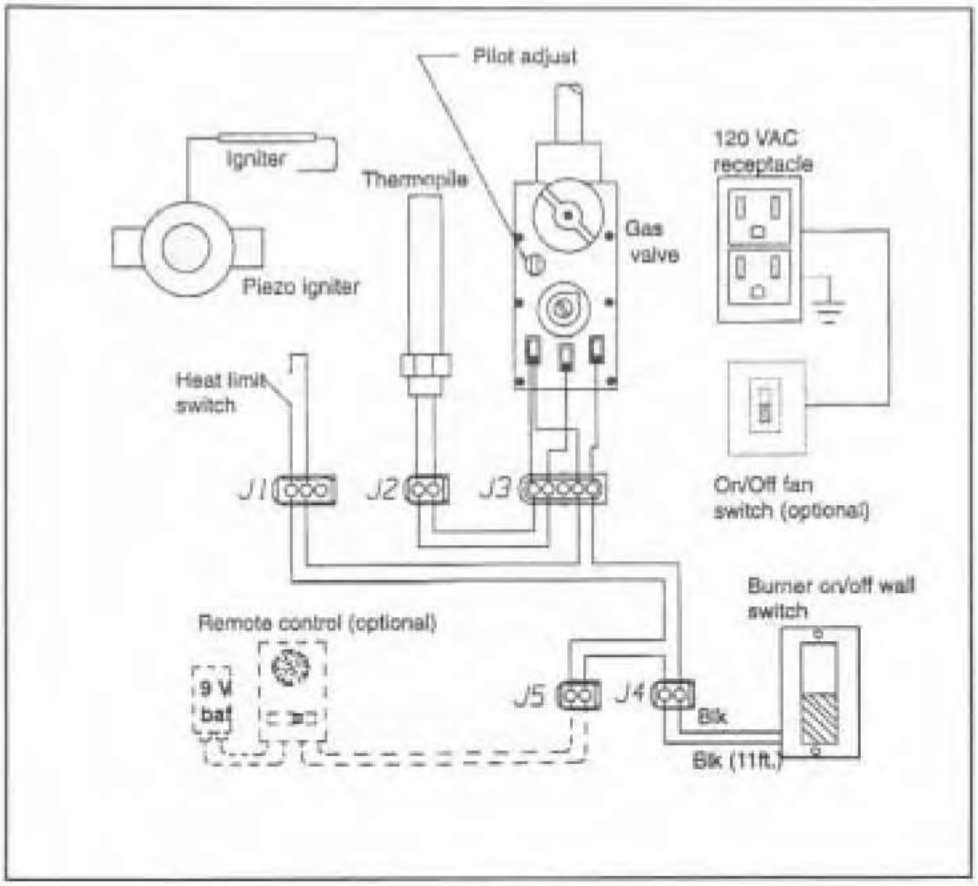


3. WIRING DIAGRAMS

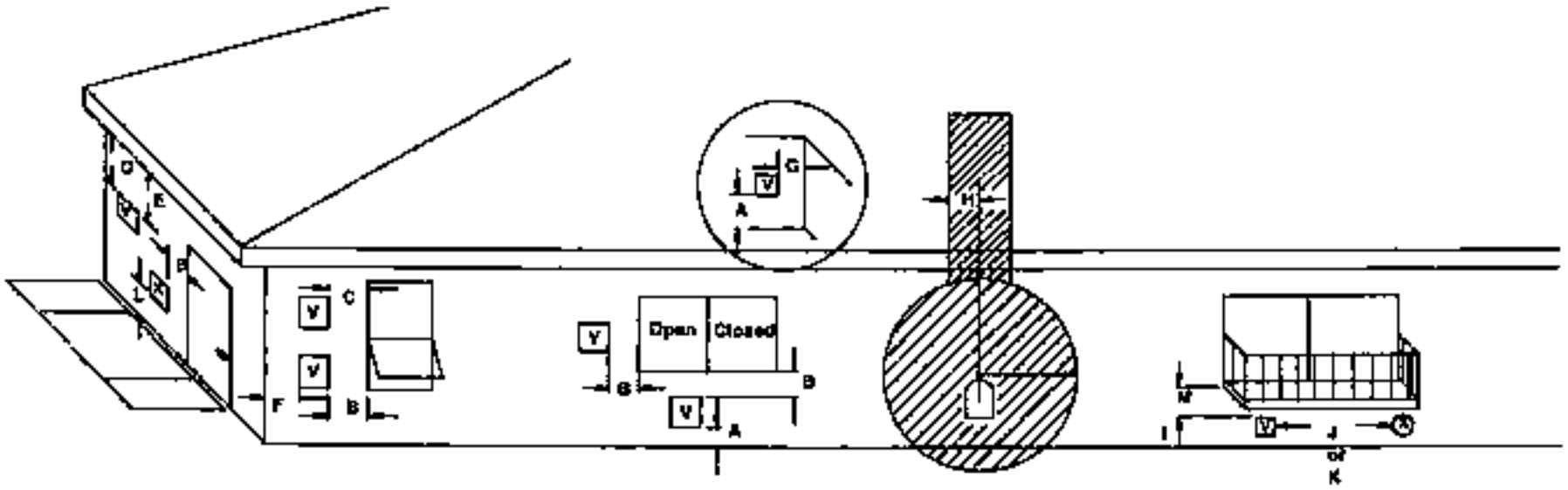
ELECTRONIC IGNITION



STANDING PILOT



4. VENT TERMINATION MINIMUM CLEARANCES



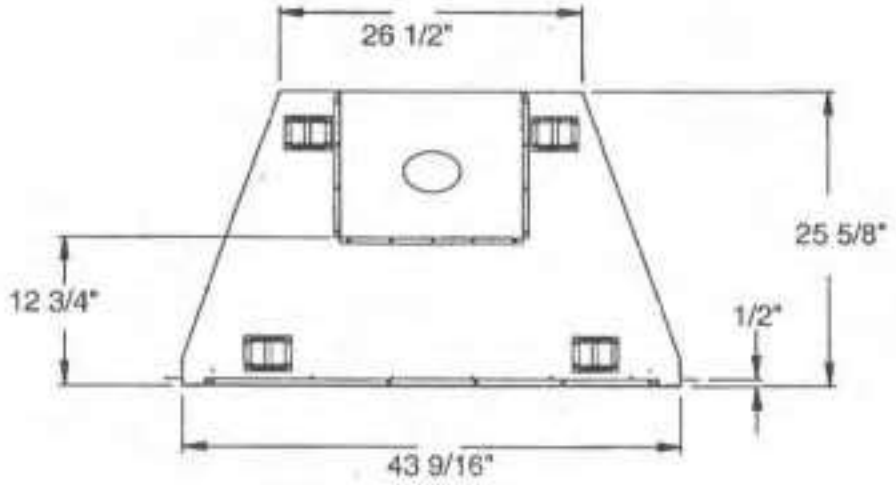
A = 12"	Clearance above grade, veranda, porch, deck or balcony
B = 12"	Clearance to window or door that may be opened
C = 6" (U.S.A.)	Clearance to permanently closed window
300 mm (Canada)	Clearance to permanently closed window
D = 6"	Vertical clearance to ventilated soffit located above the terminal within
E = 18"	Clearance to unventilated soffit
F = 6"	Clearance to outside corner
G = 6"	Clearance to inside corner
H = 1 foot	
I = 1 foot (U.S.A.)	Not to be installed above a pressure-regulator assembly within 3 feet (90cm)
6 feet (Canada)	horizontally from the centre-line of the regulator
J = 6" (U.S.A.)	Clearance to service regulator vent outlet
300 mm (Canada)	Clearance to service regulator vent outlet
K = 1 foot (U.S.A.)	Clearance to non-mechanical air supply inlet or building
6 feet (Canada)	or the combustion air inlet to any other appliance
L = 6 feet	Clearance to a mechanical air supply inlet
M = 7"	Clearance above paved sidewalk or a paved driveway located on public property
	Clearance under veranda, porch, deck or balcony

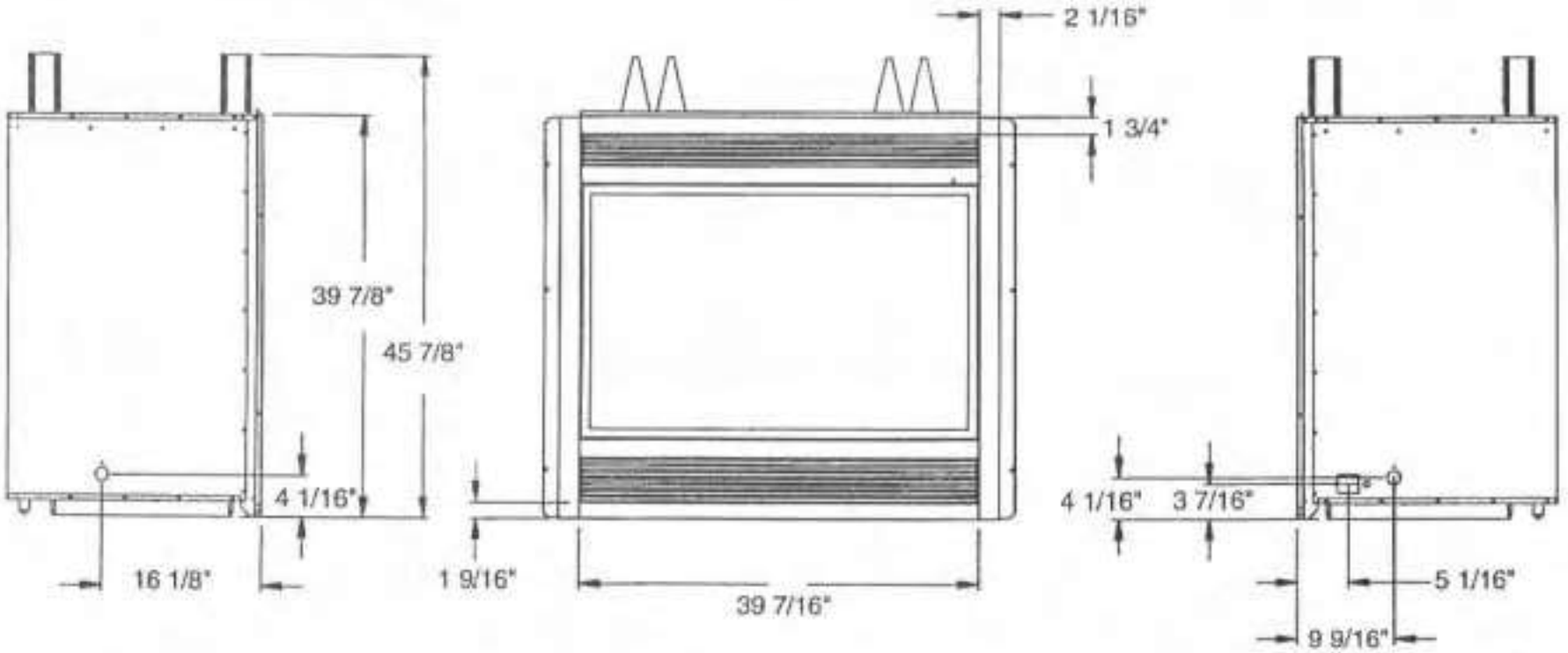
* A vent shall not terminate above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.

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

NOTE: LOCAL CODES OR REGULATIONS MAY REQUIRE DIFFERENT CLEARANCES

5. FIREPLACE DIMENSIONS





6. TROUBLESHOOTING THE MARCO CCT41 ELECTONIC IGNITION
(24 VOLT DIRECT SPARK IGNITION AND GAS CONTROL SYSTEM)

Before troubleshooting be sure the external gas shutoff valve, located at the gas supply inlet, is in the "ON" position, and that 120 VAC is present at the internal receptacle (Refer to the Wiring Diagram on Page 31 and the Replacement Components List on Pages 25 and 36). The Direct Spark Igniter (DSI) must be reset (Turn power off, then on before each operational test).

CAUTION: THE DSI PRODUCES HIGH VOLTAGE. USE EXTEME CARE WHEN WORKING AROUND THIS DEVICE. TESTING SHOULD BE PERFORMED BY A QUALIFIED SERVICE PERSON ONLY.

WARNING: Prior to performing any test that could result in gas flow into the combustion chamber, remove the glass panel to avoid a potential gas build up inside the chamber. Allow enough time (5 minutes) between tests for any gas to dissipate fully.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Flame does not light	There May Be No Line Voltage Faulty Transformer Faulty ON/OFF switch Heat Limit	Check the wiring and all connections to ensure that it is in accordance with the diagram on page 31. Check that the transformer is at 24 VAC. On the low voltage side and the nominal input is 115 VAC at the fireplace receptacle. Check the ON/OFF switch, and Heat Limit Switch. Replace as necessary.
2. No Spark	The Direct Spark Igniter Control Might Be In Lockout Open High Voltage Lead Shorted Igniter Rod Blown In-line Fuse	Interrupt power ON/OFF switch for five seconds. Try again. Check spark from high voltage stud on ignition control. If spark is present, check high voltage lead, then check the igniter rod. Make sure igniter rod is close enough to the burner (within 3/16" See Figure 5-7, Page 19). Correct or replace. Check fuse in J3 harness assembly to igniter control. If okay, replace ignition control.
3. Spark, but no flame	Gas Valve Not Turned On Gas Not Reaching The Burner Plugged Burner Orifice No Power To Gas Valve Regulator	Move "red" lever on gas valve to "ON." Long periods of no use; may require several trials for gas to reach burner. Check orifice for blockage and remove. While igniter is sparking, check for correct voltage at regulator terminals. 24 VAC nominal output. If correct voltage is present, replace valve. If incorrect voltage is present, replace ignition control.
4. Flame will only stay on momentarily or shut down after 30 Min.	Igniter Heat limit switch/Vent Blocked	Check that igniter is continuously washed by the flame. Adjust as necessary. (See Figure 5-7, Page 19). Check the heat limit switch for continuity. Replace if faulty, make sure venting is not restricted.
5. Sparking continues when flame is present	Igniter Away From Burner Flames Ground continuity/Open circuit	Check position of igniter (Figure 5-7, Page 19). Adjust as necessary. Check ground lead (Green) at ESM panel J3, burner ground connection and high voltage cable for continuity. Replace as necessary. If checks above are okay, replace spark igniter controls.
6. Main burner flame will only stay on for several minutes	Ground continuity Igniter Heat limit switch	If ground is poor or intermittent, shutdowns will occur occasionally, even though operation is normal at time of checkout. Look for a loose connection and repair. Check igniter for excessive heat on the ceramic insulator, cracks or glazing. This will cause shorts to ground. Check that venting is not restricted. If above checks are okay, replace ignition controls.
7. Main burner won't shut off	Switches	Check safety switches for correct operation. Remove lead from gas valve. If valve shuts off, recheck safety switches. If not, replace gas valve.

7. TROUBLESHOOTING THE MARCO CCT41 STANDING PILOT
(ELECTRIC PIEZO IGNITOR AND GAS CONTROL SYSTEM)

Before troubleshooting the electric piezo igniter system, be sure the external gas shutoff valve, located at the gas supply inlet, is in the "ON" position. Refer to the Wiring Diagram on Page 31 and the Replacement Components List n pages 27 and 28.

WARNING: Prior to performing any test that could result in gas flow into the combustion chamber, remove the glass panel to avoid a potential gas build up inside the chamber. Allow enough time between tests for any gas to dissipate fully.

CAUTION: TESTING SHOULD BE PERFOMED BY A QUALIFIED SERVICE PERSON ONLY.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Piezo Spark Igniter will not light pilot after repeated triggering of red button.	Defective Igniter (no spark at electrode).	Check for spark at electrode and pilot; if no spark and electrode wire is properly connected to the Piezo Igniter, replace the igniter.
	Defective Or Misaligned Electrode At Pilot Assembly (Spark Will Not reach Pilot Or Leaks Out)	Check gap at electrode and pilot. It should be about 1/8 inch to have a strong spark. Reposition if needed. If spacing is all right and spark is not visible, replace pilot assembly.
2. Pilot will not light.	Gas Valve Regulator Not Turned On.	Be sure external gas shut-off valve, located at the gas supply inlet, is in the "ON" position. Follow the lighting instructions on page 15.
	Air On The Gas Line.	Using a match, light pilot. If pilot lights up and off or flame appears week , an improper gas mixture may be the cause. A longer purge period is recommended. If the pilot lights using a match but will not light with the igniter spark , Align igniter electrode to spark right to the pilot. The distance must be 1/8".
3. Pilot will not stay lit after releasing Gas Control Knob	Pilot Flame May Be Too Low Or Blowing (High) Causing The Pilot Safety To Drop Out.	Check pilot flame. It must impinge on pilot generator (thermopile). Clean and or adjust pilot for a maximum flame contact on thermopile tip as shown in Figure 5-8, Page 19.
	Pilot Generator Defective (Thermopile).	Be sure wire connections from thermopile to gas valve regulator are tight and according to the diagram on page 31. Thermopile must be fully inserted into pilot bracket and secured with the brass nut.
		Keep the pilot on by holding the gas valve knob de-pressed on the PILOT position. With a millivolt meter, check thermopile terminals at gas valve regulator (Marked TP and TH/TP). It should be 325 millivolts minimum. Wall switch must be on "OFF" position. Replace faulty thermopile if reading is bellow specified minimum.
	Gas Valve Regulator Defective.	Replace gas valve regulator if reading is the specified minimum voltage.
4. No gas to burner. Pilot burning, valve knob "ON", wall switch "ON".	Gas Valve Regulator Defective.	With gas valve regulator and wall switch turned to "ON", check for continuity on the gas valve connections to the wall switch. If okay, replace gas valve regulator, If NOT OKAY.
	Wall Switch Defective.	With a jumper cable, bridge the connections on the wall switch. Replace it if burner comes on.
	Heat Limit Switch Defective.	Repeat the above procedure to the Heat Limit Switch. Replace it if the burner comes on.
	Pilot Generator (Thermopile) May Not Be Generating Sufficent Voltage.	Turn gas valve to "ON", place wall switch to "ON". Take a reading on the valve connections to the thermopile, Millivolt reading should be greater than 100 MV. Replace thermopile if less than 100 MV.
	Gas Valve Regulator Defective.	Replace gas valve regulator if reading is greater than 100 MV and burner won't light.
5. Burner flame too low, too light or too dark.	Plugged Burner Orifice Plugged Burner.	Clear the burner ports and burner orifice of debris or anything that might obstruct the passage of gas.
	Air Shutter Needs Adjustment.	Adjust air shutter according to the instructions given in Figure 5-7, Page 19.

8. Warranty Limitations:

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

- The Marco fireplace may not be connected to a masonry chimney.
- Modification of the fireplace and/or the components, which includes the venting system, glass door, and accessories.
- Use of a component or part that is not manufactured or approved by Marco for use in the Marco CCT41 system.
- Installation and/or operation in a manner other than is instructed in this manual.
- The burning of wood and/or other unapproved material in the fireplace.
- Removal of the fireplace's glass door, log set and/or burner unless it is removed and replaced for normal maintenance.
- The use of accessory products that are not approved for use in the Marco CCT41 system.
- Modification of the gas appliance and/or components as they have been designed and assembled. This includes the assembly of the venting system, its fixed glass door, and any accessories such as the optional remote control.

DO'S AND DON'TS

- Read operation and warranty sections thoroughly before installing and using this fireplace.
- **IMPORTANT:** Always turn off the gas and electricity to the appliance before servicing and/or cleaning the fireplace. Allow the appliance's logs to cool before cleaning and/or servicing.
- 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/or any gas control which has been under water.
- **DO NOT BURN WOOD IN THIS FIREPLACE. ANY ATTEMPT TO DO SO WILL VOID THE MARCO WARRANTY AND COULD PROVE EXTREMELY HAZARDOUS.**
- Periodically clean and examine the appliance's burner, grate and venting system.
- Periodically perform a visual check of your appliance's flame pattern. Refer to Figure 5-7 on page 19.
- Do not block the appliance's bottom control panel. It must be available for operator or technician access.
- Keep the area in front of the appliance free from combustible materials such as drapes, paper products, wood storage, furniture, etc. Do not store gasoline or other flammable vapors and liquids nearby.
- Do not obstruct the flow of combustion and ventilation air.
- **Have repairs done by a qualified service technician.**
- Check the firebox's refractory for cracks and damage. Because the firebrick refractory is repeatedly heated and cooled, this can cause hairline cracks to form. This is normal and does not damage the fireplace. If, however, a crack should become large, (1/16" wide or larger) the refractory may be replaced.
- **NEVER USE BLOWN INSULATION TO FILL THE CHIMNEY ENCLOSURE, OR ANY OTHER TYPE OF INSULATION THAT MAY REDUCE THE REQUIRED CHIMNEY CLEARANCES.**
- **Note: This appliance has been designed as a vented decorative gas appliance and is not a primary source of heat.**

WARNING: THIS FIREPLACE IS NOT INTENDED TO BE USED WITH COMPONENTS OTHER THAN THOSE SPECIFIED IN THIS MANUAL. USE OF UNAUTHORIZED COMPONENTS COULD BE A SERIOUS FIRE HAZARD AND WILL AUTOMATICALLY VOID YOUR APPLIANCE'S WARRANTY.

CUSTOMER SERVICE

Keep this manual where you can easily find it. If you have any problems, review it for possible solutions. If the problem continues to persist, contact the appliance's installer or the Marco Dealer or Distributor. A qualified service repairman may also be contacted for service after the warranty period. Consult your local telephone directory. If for some reason you are unable to get the assistance you require, a customer Service Representative at the Marco Factory is available to help you. Please contact:

Marco Customer Service (323) 564-3201
Outside California (800) 232-1221
Hours: 7:30 A.M. - 12:00 P.M. (Pacific Time)
1:00 P.M. - 4:30 P.M. (Pacific Time)

MARCO DECORATIVE GAS APPLIANCES
20 YEAR LIMITED WARRANTY

A. BASIC WARRANTY

Marco Mfg., Inc. ("Marco") warrants its Marco Decorative Gas Appliance (Model CCT41) to be free from defects in materials and workmanship at the time of manufacture. This warranty covers only the original consumer purchaser at the original installation of a fireplace system installed and operated in accordance with the appropriate installation and operating instructions. This warranty extends to specific components for the periods specified below.

B. IMPLIED WARRANTY LIMITATION

NO IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, EXTEND BEYOND THE RESPECTIVE PERIODS SPECIFIED BELOW. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

C. PERIODS OF COVERAGE

Except for special parts covered in Section D below, Marco will repair, replace or refund the original list price, at Marco's option, in accordance with the following schedule:

1. **First Year** –Marco will supply parts, at no charge (F.O.B. factory), and reasonable labor costs to repair or replace components of the fireplace system. Labor costs must be approved in advance by Marco and shall not exceed twice the retail price of the replacement parts.
2. **Second through Fifth Year**–Marco will supply parts only, at no charge (F.O.B. factory), to repair or replace components of the fireplace system.
3. **Sixth through Tenth Year**–Marco will supply parts only, at 50% of the list price in effect at the time (F.O.B. factory), to repair or replace components of the fireplace system.
4. **Eleventh through Twentieth Year**–Marco will supply parts only (if they are available), at the then current list price (F.O.B. factory), to repair or replace components of the fireplace systems.

D. SPECIFIC COMPONENT EXCEPTIONS

The life of the following parts and components of the fireplace system is dependent upon the environment and the care and usage by the consumer. Warranty for these components is as specified below:

Gas Components: The warranty for the gas components not manufactured by Marco is for a period of two years from the *date of installation* of the appliance. Marco will, at its option, repair or replace a defective component. In order to receive a warranty credit, the defective part must be returned in exchange for the new one.

For Standing Pilot Marco Models: A replacement regulator, pilot or thermopile will be provided in exchange for the defective one; and

For Electronic Ignition Marco Models: A replacement low voltage transformer, direct spark ignition assembly, regulator valve and damper or heat limit switch will be provided in exchange for the defective one.

Such repair or replacement will be at no charge, except for the cost of shipping components from Marco's nearest factory. Marco will also pay for reasonable labor costs to repair or replace such components. If repair or replacement of a defective component is not commercially practicable, Marco will refund the wholesale price of the defective component.

REMOTE CONTROL: The remote control is warranted for a period of six months from the date of its purchase. Thereafter, parts will be available at the then current list price.

GAS LOGS: Marco gas logs are covered for two years against material and workmanship defects and against destruction by fire or heat. The warranty does not cover hairline cracks, or log breakage that is the result of mishandling.

GRATES: The grate is warranted for a period of ninety days. Thereafter, parts will be available at the then current list price.

BLOWER, VARIABLE SPEED SWITCH & WIRE SCREENS: Parts or assemblies are warranted for a period of one year. Thereafter, parts will be available at the then current list price.

GLASS: Breakage of glass is normally due to handling and shipment. Glass breakage is not covered by this warranty. Replacement doors for currently manufactured fireplaces will be available at the list price. The dimensions and specifications for replacement glass panels for obsolete units will be made available upon request.

REFRACTORY COMPONENTS: Marco will supply parts or material only, at no charge, to repair or replace defective refractory, for a period of *one year*. This policy does not apply to small hairline cracks in refractory which do not affect the safety and operation of the fireplace. This policy does not apply to refractory which has been broken during installation of the fireplace. After one year, replacement refractory will be made available at the then current list price.

TERMINATIONS: The venting termination is subject to a wide variety of environmental conditions. Marco will supply parts only at no charge (F.O.B. factory), for a period of one year. Thereafter, venting termination will be available at the then current list price.

E. LIMITATIONS, EXCLUSIONS AND LIMITS OF LIABILITY

1. This warranty applies only to the original owner and the original installation.
2. Warranty periods run from the original date of installation. If this date cannot be verified, the date of manufacture shall be used. Claims must be made in writing to Marco or a Marco dealer or distributor within the warranty periods.
3. The warranty does not cover heat loss due to the passage of heat or cold air through or around the fireplace, as this condition can be affected in a major way by the installation and insulation of enclosures.
4. The fireplace is not intended to be a substitute for a primary heating appliance to heat an entire home. It should be used for supplemental heating only. No claims are made by Marco as to the heat output of the fireplace system.
5. Marco makes no representation of warranty regarding local building code compliance and shall not be responsible for compliance therewith. As building codes vary widely, the installer should determine in advance if any special restrictions or requirements apply to the fireplace system.
6. The warranty is void if, in the opinion of Marco, the fireplace system has been improperly installed, abused, misused, tampered with, altered, or used with accessories not supplied or approved by Marco.
7. The warranty does not cover painted surfaces damaged during handling or installation.
8. The warranty does not cover removal and replacement of any portion of the structure in which the fireplace is situated, made necessary by the repair, removal or reinstallation of the fireplace system.
9. All parts are shipped F.O.B. our factory.
10. Marco shall not have responsibility for any special, incidental, contingent or consequential damages of any kind resulting from defects in the fireplace. The exclusive remedy for breach of the limited warranty is, at the option of Marco, repair, replacement or the refund of the original list price. In no event shall Marco's liability exceed the original list price of the fireplace system. 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.
11. The appliance must not be removed after it is installed.
12. The appliance must be operated at all times in accordance with the operating instructions furnished with it. Only natural gas or propane may be burned; burning wood, coal or other solid fuels will void this warranty.
13. Removal of the appliance's logs or burner, and on Direct Vent models only the appliance's fixed glass door, will void this warranty (unless removed and immediately replaced for normal maintenance).
14. The warranty does not apply if the fireplace has been modified, or used, with any component part that is not manufactured or approved by Marco for use in the applicable Marco fireplace system.
15. Neither Marco's employees nor Marco's dealers have any authority to make any warranties on behalf of Marco or to authorize any remedies in addition to, or different from, those described above.
16. **The appliance's installer or local gas company must test the system before Marco can be called with a warranty claim.**

F. SPECIFIC LEGAL RIGHTS

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

G. HOW TO OBTAIN WARRANTY SERVICE

After having the installer or gas company confirm the problem, notify Marco as soon as possible after the defect is discovered. Send your claim, along with the date of installation and a description of the defect in writing to:

Marco Mfg., Inc.,
Customer Service
2520 Industry Way,
Lynwood, CA 90262
(323) 564-3201
(800) 232-1221

Marco has the right to investigate any alleged defects and to decide what to do. Marco will not be responsible for any work done without first obtaining Marco's permission.

MARCO MFG.,INC. 2528 Industry Way, Lynwood, CA 90262 • (323) 564-3201 • (800) 232-1221

P/N 181772B 7/98