# Installing and Operating Your Marco Gas Fireplace

MARCO

| CCT 36 | | |
|---|---|---|
| 794031 | CCT36-SPNG | Closed Combustion Technology 36" Fireplace, Standing Pilot, Natural Gas |
| 794032 | CCT36-SPLP | Closed Combustion Technology 36" Fireplace, Standing Pilot, Propane |

**CHECK LOCAL CODES PRIOR TO INSTALLATION**

OPTIONAL FEATURES:
- CIRCULATION BLOWER
- GRILLE TRIM KITS
- EDGE TRIM KITS
- REMOTE CONTROL

**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 181733G 6/97

# MARCO CCT 36
# INSTALLATION INSTRUCTIONS
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SAVE THIS BOOK

THIS MANUAL PROVIDES ALL THE INSTRUCTIONS NECESSARY FOR THE BUILDER OR HOMEOWNER TO INSTALL THE CCT 36 FIREPLACES SAFELY AND EFFICIENTLY. IT ALSO PROVIDES INFORMATION ON HOW TO ORDER REPLACEMENT PARTS WHEN NEEDED.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE AND HOMEOWNER'S USE.

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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.

# INTRODUCTION

Before beginning the installation of your appliance, please read completely through these instructions and the instructions contained in the separate Operation Manual.

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

This CCT 36 fireplace and its components are safe when installed according to this Installation Manual. Unless you use Marco components which have been designed and tested for this system, you may cause a fire hazard.

The CCT 36 is a radiant system that utilizes a millivolt gas control valve and a piezo ignition system.

The CCT 36 fireplace may be installed in either a conventional or prefabricated home.

# REMOTE CONTROL

The CCT 36 is operated by the use of a wall switch provided by Marco. If desired, this fireplace may also be operated by the use of an optionally purchased handheld remote control (Marco Part Number 794012). The handheld remote control may be purchased before or after the time of installation from an authorized Marco distributor.

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.

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

A) 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.

B) Use of any component part not manufactured or approved by Marco for use in the CCT 36 system.

C) Installation and/or operation in a manner other than as instructed in this manual.

D) The burning of wood and/or other unapproved material.

E) Removal of the appliance's fixed glass door, log set and/or burner unless they are removed and replaced for normal maintenance.

F) The use of any accessory products not approved for use in the CCT 36 System.

PROPER INSTALLATION is the most important step in ensuring safe, long-term operation of this gas appliance. Consult the local building codes prior to installation to ensure conformance with the codes relating to the installation of this appliance.

# 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.

Installation must conform to local codes. In the absence of local codes, installation must conform with the current National Fuel Gas Code, ANSI Z223.1-Latest.

This appliance must be electrically grounded in accordance with the National Electrical Code, ANSI/NFPA No. 70-Latest.

Please read this entire manual prior to installation and operation.

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.

This unit is equipped with the MARCO Common Module, which contains all the central wiring, as well as the critical components for this unit's operation. The Common Module may be removed for individual component servicing.

Provide adequate clearances around the air openings into the combustion chamber and adequate accessibility clearance for service and proper operation. Never obstruct the front opening of the appliance.

Minimum clearances to combustibles are: Top of Spacers 0"; Sides 0"; Back 0" (1" for vertical or elevated through the wall venting); Floor 0"; Ceiling 36". Venting system is supplied by Marco.

Minimum inlet gas pressure is 4.5 inches water column of natural gas, and 11.0 inches for propane, for the purpose of input adjustment.

Maximum inlet gas supply pressure is 10.0 inches water column for natural gas and 13.0 inches for propane.

A 1/8" N.P.T. plugged tapping is provided on the gas control along the side of the outlet to the main burner for a test gauge connection.

The appliance must not be connected to a chimney flue already servicing a solid fuel burning appliance.

The appliance and its individual shutoff valve must be disconnected from the gas supply piping 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 more than 1/2 psig (3.5 kPa).

A gas supply shutoff valve must be installed in the supply line to the appliance so that the appliance may be disconnected for servicing. THIS SHUTOFF VALVE IS NOT SUPPLIED WITH THE APPLIANCE.

When the appliance is installed directly on carpeting, tile or any other combustible material other than wood flooring, the appliance must be installed on a metal or wood panel that extends the full width and depth of the appliance.

# SELECTING YOUR FIREPLACE LOCATION

The fireplace location selected must allow the appliance to be installed with the necessary clearances. Do not place the fireplace on soft-surfaced floor coverings such as carpeting. The mounting surface must be flat and hard (such as plywood, wood flooring, particle board or any other hard-surfaced material), and evenly support the total base of the fireplace. A raised platform may be used to support the fireplace.

# CLEARANCES

When installed in accordance with the instructions given in this manual, the fireplace system may touch combustible materials at the bottom, sides and back.

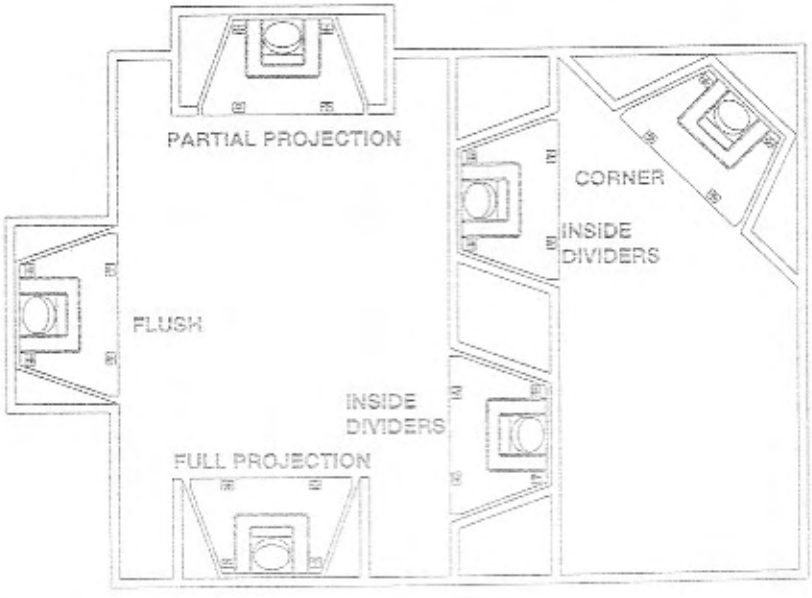
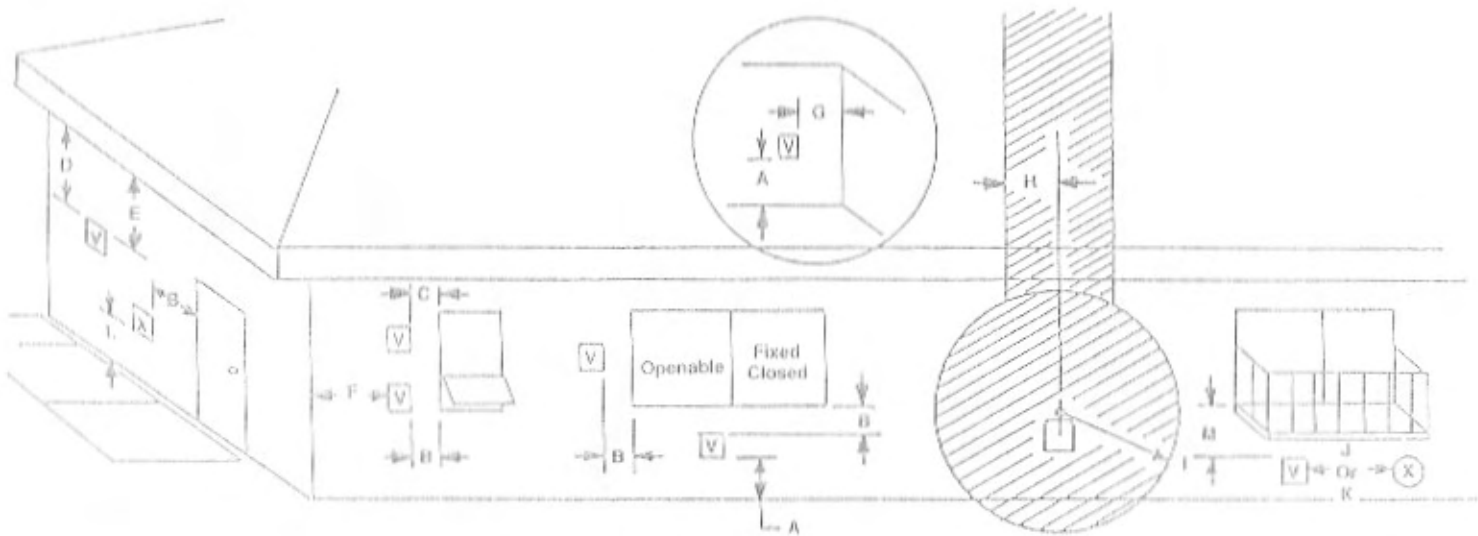



FIGURE 2

# Vent Termination Minimum Clearances




V - VENT TERMINAL  (X) - AIR SUPPLY INLET  - AREA WHERE TERMINAL IS NOT PERMITTED

| | |
|---|---|
| A=12" | Clearances above grade, veranda, porch, deck or balcony |
| B=12" | Clearance to window or door that may be opened |
| C=9" (U.S.A.) | Clearance to permanently closed window |
| 12" (Canada) | Clearance to permanently closed window |
| D=18" | Vertical clearance to ventilated soffit located above the terminal within |
| E=18" | Clearance to unventilated soffit |
| F=9" | Clearance to outside corner |
| G=6" | Clearance to inside corner |
| H=3 feet | Not to be installed above a meter/regulator assembly within 3 feet (90cm) horizontally from the centre-line of the regulator |
| I=3 feet (U.S.A.) | Clearance to service regulator vent outlet. |
| 6 feet (Canada) | Clearance to service regulator vent outlet |
| J=9" (U.S.A.) | Clearance to non-mechanical air supply inlet to building |
| 12" (Canada) | or the combustion air inlet to any other appliance |
| K=3 feet (U.S.A.) | Clearance to a mechanical air supply inlet |
| 6 feet (Canada) | |
| * L=7 feet | Clearance above paved sidewalk or a paved driveway located on public property |
| ** M=18" | 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

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# MANTELS

If desired, a mantel may be installed, provided that it is installed no less than 6" from the top of the appliance (See Figure 3).

# ADJACENT WALLS

The fireplace may be installed with adjacent walls perpendicular to the side of the fireplace with 0 inch clearance as shown in Figure 4.

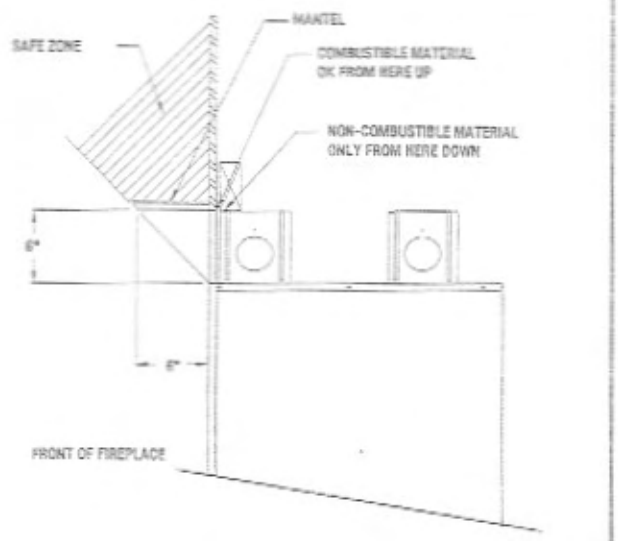



FIGURE 3

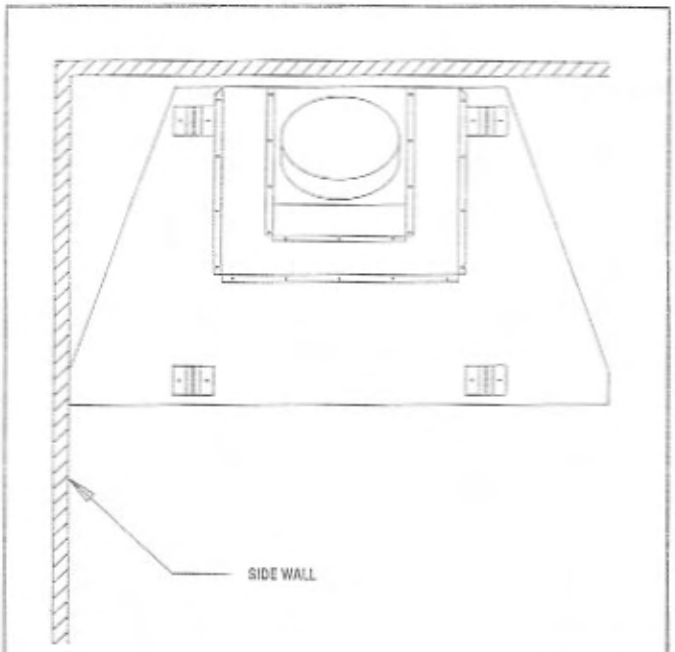
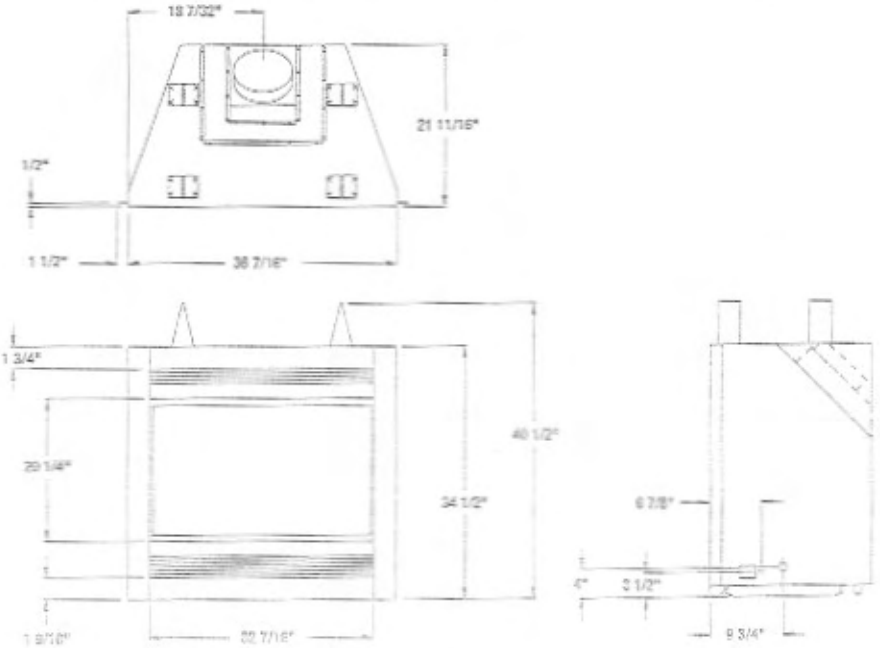



FIGURE 4




FIREPLACE DIMENSIONS

FIGURE 5



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# FRAMING, GENERAL

The exact framing of your fireplace will depend upon which venting system you have chosen to use. Proper framing will provide the specified clearances to combustible materials. Refer to figure 6 for minimum 2" x 4" framing dimensions.

Refer to figure 29 and table 2 on page 21 for the components necessary for varying framing depth dimensions as well as dimensions for 2" x 6" framing.

## CORNER INSTALLATION:

### CORNER OF THE HOUSE:

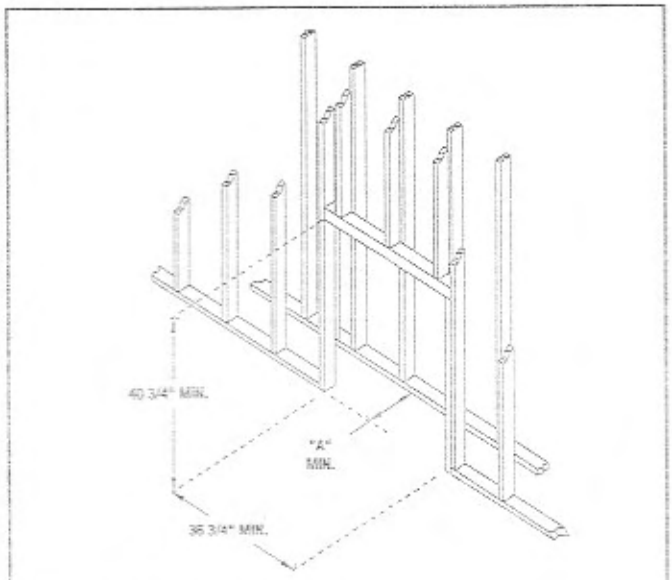
Use figure 7 for min. framing dimensions.
Use one 45° Elbow (Part No. 493847), one Extension (Part No. 794616) terminated with a MDV-WVE (Part No. 794597).

Note: **Marco Direct Vent-Wall Vent Elbow (MDV-WVE) P/N 794597 is supplied with one 45° Elbow.**

### CORNER OF A ROOM, BUT NOT THE HOUSE:

Use figure 8 for min. framing dimensions.
Use one 45° Elbow (Part No. 493847), one Extension (Part No. 794616) terminated with a Marco MDV-WVE Part No. 794597).

Note: **Marco Direct Vent-Wall Vent Elbow (MDV-WVE) P/N 794597 is supplied with one 45° Elbow.**




"A" = 24" FOR HORIZONTAL VENTING
"A" = 25 3/4" FOR VERTICAL OR ELEVATED THROUGH THE WALL VENTING

FIGURE 6

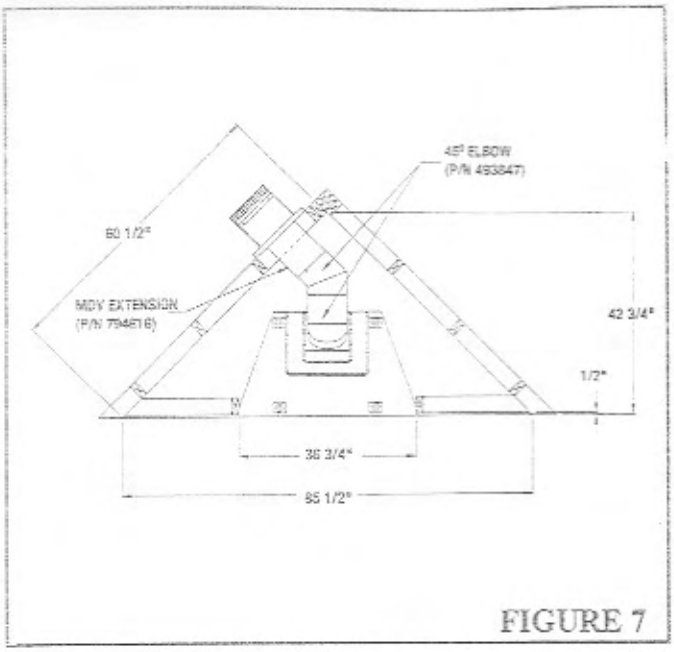



FIGURE 7

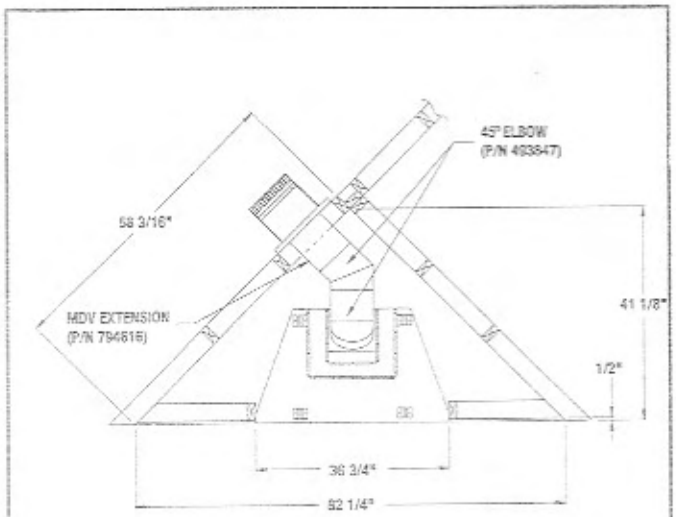



FIGURE 8

## VENTING SYSTEMS AND LIMITATIONS

**WARNING: THIS APPLIANCE MAY NOT BE CONNECTED TO A MASONRY CHIMNEY. YOU MUST ONLY USE THE VENT SYSTEM APPROVED BY MARCO FOR USE WITH THIS APPLIANCE.**

The CCT36 may be vented in one of the following ways:

1) Through the wall venting - Use Marco Direct Vent-Wall Vent Elbow (MDV-WVE) Part No. 794597.
   **The horizontal run may not exceed 12 feet.**
   See figure 9.

2) Elevated through the wall venting - Use a combination of horizontal and vertical runs, terminated with a Marco Direct Vent-Wall Vent Elbow (MDV-WVE) Part No. 794597.
   **The horizontal run may not exceed 12 feet and the vertical rise may not exceed 30 feet.** See figure 10.

3) Vertical venting - Use Marco Direct Vent-Roof Vent (MDV-RV) Part No. 794598.
   **The vertical rise may not exceed 30 feet.**
   See figure 11.

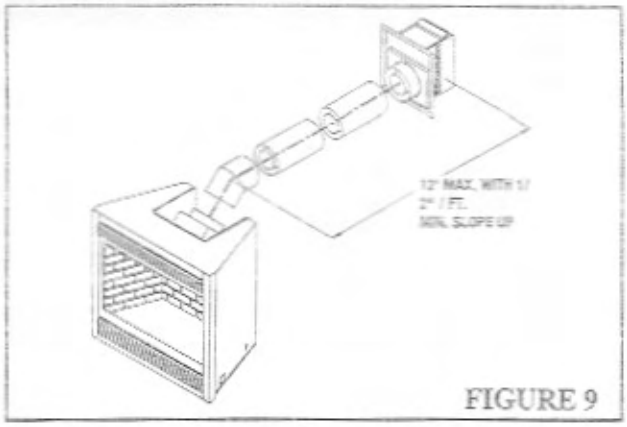


FIGURE 9

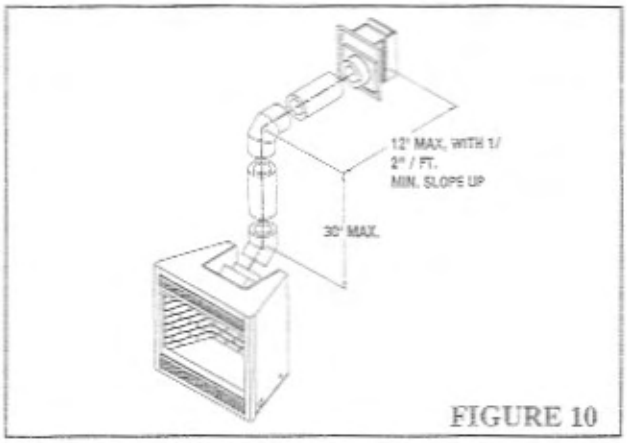


FIGURE 10

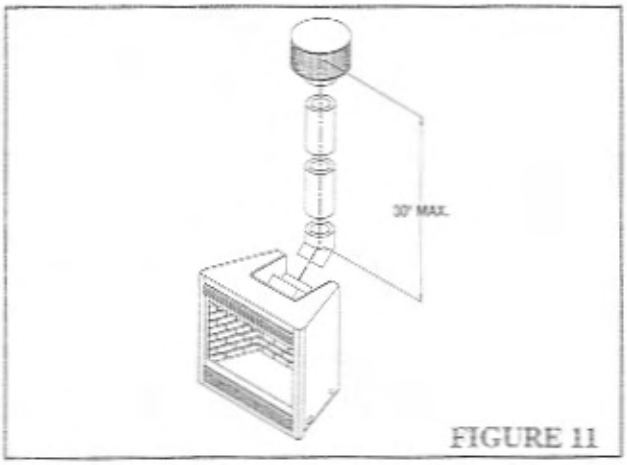


FIGURE 11

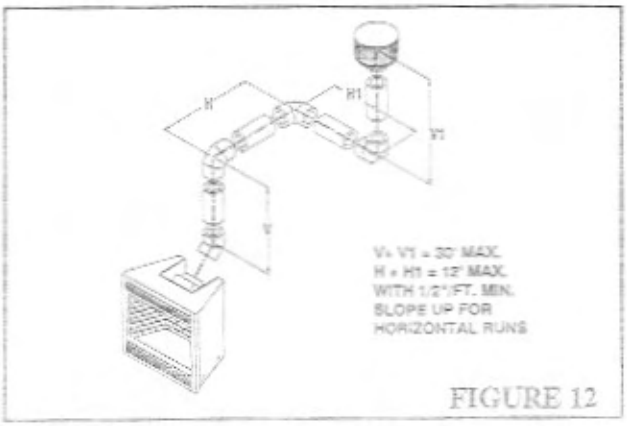


FIGURE 12

## ELBOWS

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

## REQUIRED CLEARANCES FOR THE FLUE SYSTEM

**Horizontal Run -** The minimum clearance from the outer pipe to combustibles is 3" on top and 1" on the sides and bottom.

**Vertical Rise -** 1" clearance all the way around the outer pipe.

## TELESCOPIC PIPE SECTION

The Telescopic Pipe section 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 13.

After the connections are made, use three (3) sheet metal screws through the slots in the middle of the telescopic pipe to secure it in place. Wrap the middle seam with aluminum tape to prevent the entrance of outside cold air into the room.

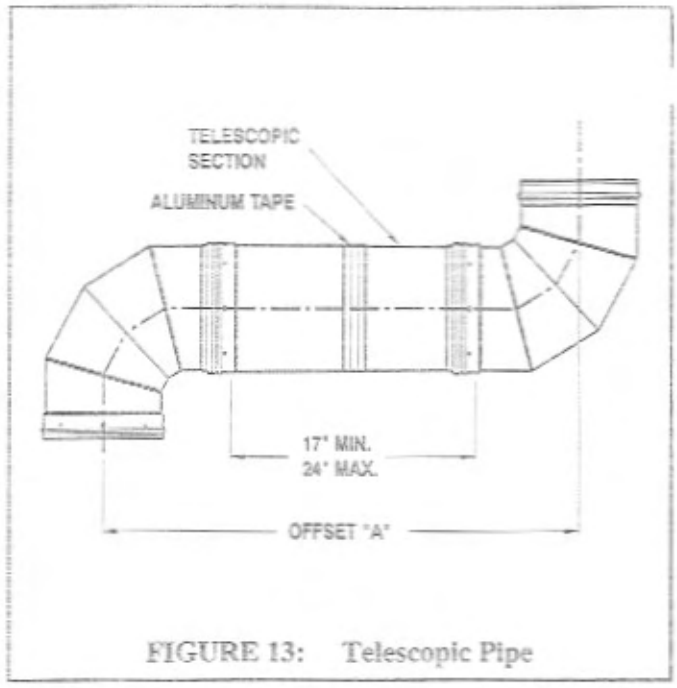



FIGURE 13: Telescopic Pipe

## FIRESTOP SPACERS

Firestop Spacers are required at each point where the chimney penetrates a floor or ceiling joist space. Their purpose is twofold: they establish and maintain the required clearance between the chimney and combustible materials, and they provide separation from one floor to another floor or attic space. They are <u>not</u> intended to halt a fire that's already established. It is <u>not</u> necessary to seal any gaps between the firestop spacer and the vent pipes or joists.

If the pipe passes through a framed opening *between floors*, install a firestop spacer to the *bottom* of the joists. When the pipe passes *into the attic space*, install the firestop spacer on *top* of the joists and secure with sheet metal screws or nails. Refer to Figure 14.

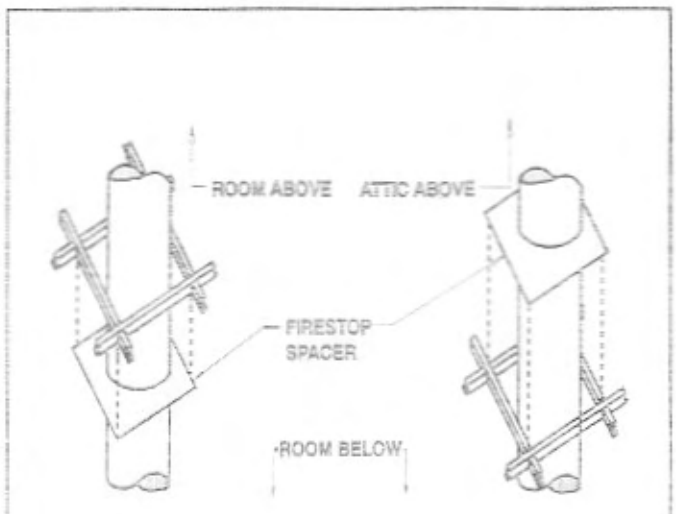



FIGURE 14: Firestop Spacers

# HORIZONTAL TERMINATION KIT (MDV-WVE)

The Marco Direct Vent-Wall Vent Elbow (MDV-WVE) is designed to allow venting of your CCT 36 fireplace horizontally through the wall. This kit is approved to be used with the MDV 5" x 8" Coaxial Pipe System.

The MDV-WVE 794597 consists of:
One (1) 45° Elbow, Part No. 493847 and
One (1) Horizontal Coaxial Termination, Part No. 480261.

# INSTALLATION OF THE HORIZONTAL TERMINATION

**Note:** Refer to the installation instructions provided with the termination kit.

1) Snap lock the 45° elbow on to the fireplace to the position shown in figure 15.

2) Position the fireplace according to the framing dimensions provided in figure 6.

3) Frame the termination as shown in figure 16.

4) Position the termination as shown in figure 16. The outer pipe of the termination must slide into the open end of the 45° elbow. The 45° elbow must overlap the terminations' outer pipe until the engagement safety strips are about even with the step in the elbow.

5) Secure the termination to the studs by centering the termination base around the framed opening and using ten (10) nails or screws (not provided) through the provided holes in the termination base.

6) Secure the termination to the 45° elbow using the #10 sheet metal screws through the holes in the engagement safety strips.

7) Seal the junction between the termination base, siding and the outside corners of the termination base with caulking material.

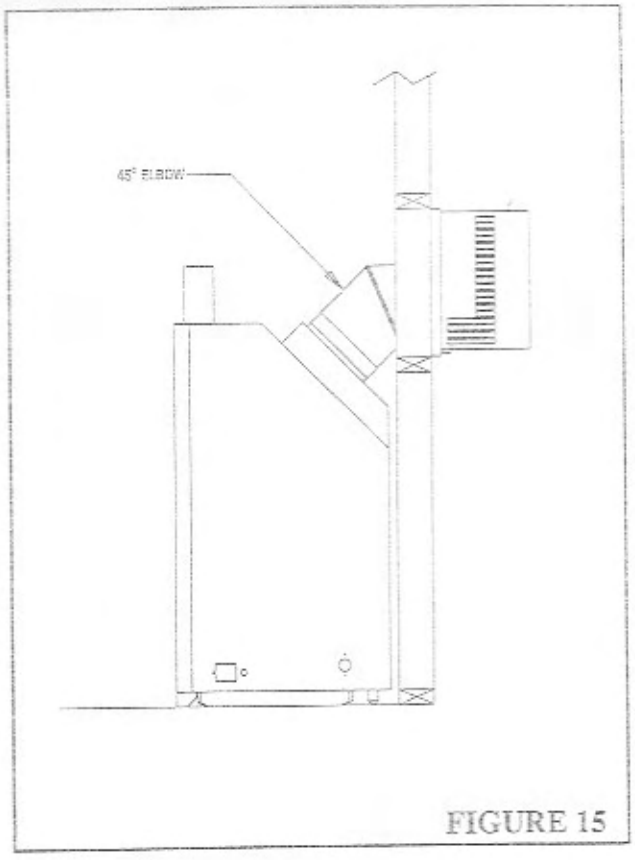



FIGURE 15

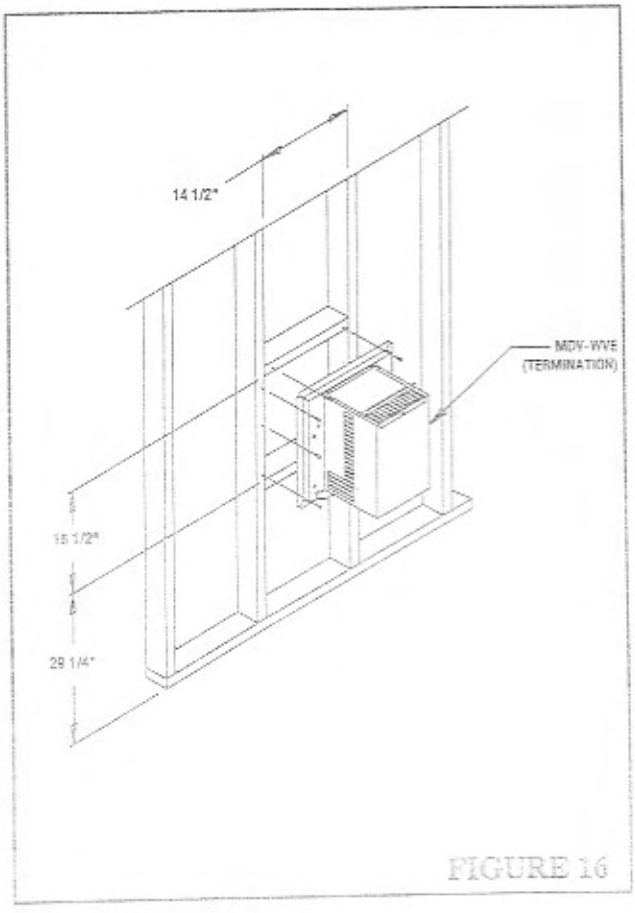



FIGURE 16

# VERTICAL TERMINATION KIT

Note: Refer to the installation instructions provided with the termination kit.

The vertical termination (Part No. 794598) requires running the venting pipes (chimney) through the floor/ceilings above the fireplace, to the roof of the house. This kit is approved to be used with the MDV 5" x 8" Coaxial Pipe System.

Note: Each time the chimney passes through a floor/ceiling, a firestop spacer must be used. If the space above is a room, the firetop spacer must be placed at the bottom edge of the joist area. If the space above is an attic, the firestop spacer must be placed at the top edge of the joist area. Refer to figure 14.

For direct vent appliances, refer to Table 1 for the vent/air intake termination clearances above the high side of an angled roof.

To complete your vertical termination, determine the location of the hole to be cut in the roof.

Cut a square hold in the ceiling which is 11" x 11" for this 8" x 5" pipe system.

Cut the hole in the roof and add sections until the chimney extends a minimum of 14" above the highest point of the roof cutout. See figure 17.

Position the flashing over the chimney and flat on the roof. Mark an outline of the flashing on the roof and remove the flashing. Remove all nails within the outlined area that may interfere with securing the flashing. See figure 18.

Place flashing into position on un-shingled roof. Hold in position by nailing shingles in place over the flashing edges.

Install the storm collar on the chimney and push down near the top of the flashing. Apply a waterproof caulking around the top of the storm collar (see figure 18). NOTE: Caulking the storm collar will ensure a watertight system and is a very important step.

You may wish to caulk the seams and notches on all joints above the flashing and paint all exposed parts of the chimney with galvanized primer paint. A coat of paint to match the house may then be applied.

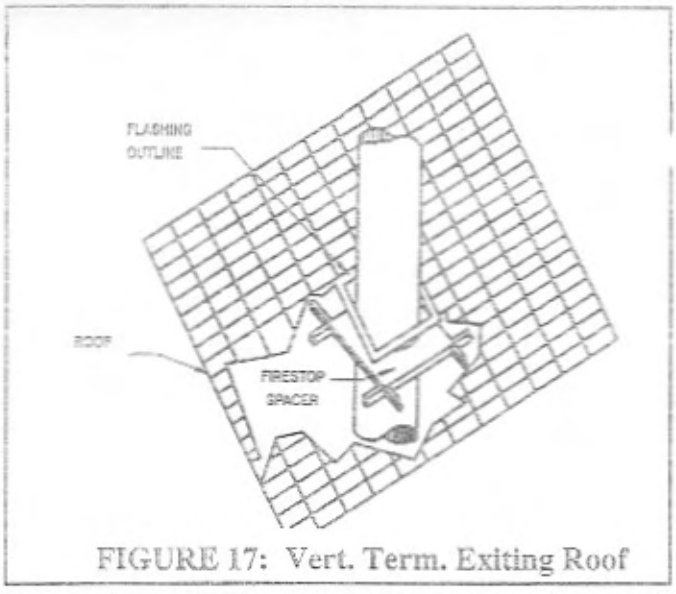



FIGURE 17: Vert. Term. Exiting Roof

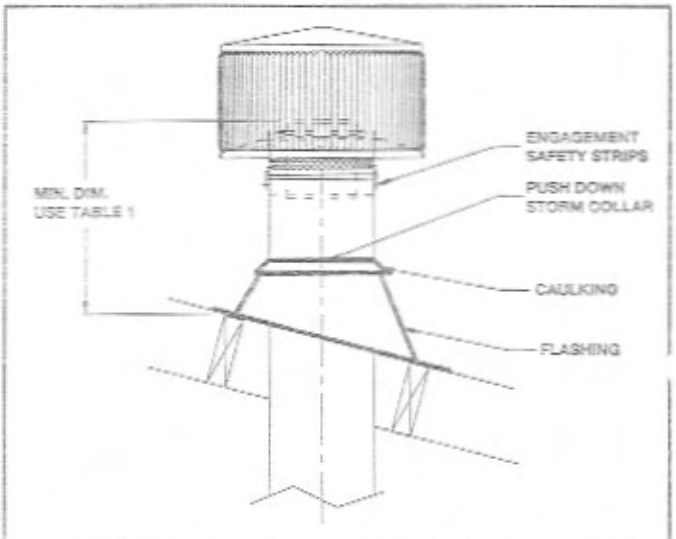



FIGURE 18: Storm Collar, and Flashing

Finally, install the termination on the last section of pipe. Round terminations can be used on either exposed chimney or chase installations.

Secure the outer pipes (of termination and straight pipe) together by using three (3) #10 sheet metal screws through provided holes (or termination's engagement safety strips).

CHECK LOCAL CODES PRIOR TO INSTALLATION. TABLE 1 MAY NOT APPLY IN SOME AREAS. IF SO, IGNORE THE ABOVE AND APPLY LOCAL CODES.

TABLE 1

| ROOF PITCH | FEET | METERS |
|---|---|---|
| FLAT TO 6/12 | 1 | 0.3 |
| 7/12 TO 9/12 | 2 | 0.6 |
| 10/12 TO 12/12 | 4 | 1.2 |
| 13/12 TO 16/12 | 6 | 1.8 |
| 17/12 TO 21/12 | 8 | 2.4 |

# INSTALLING THE OPTIONAL BLOWER KIT ASSEMBLY

You may install an optional blower kit (Marco Part #794501) with your direct vent fireplace. The installation of a blower kit will aid in the heat efficiency of your appliance.

If you are installing the blower kit, attach it as shown in Figure 19.

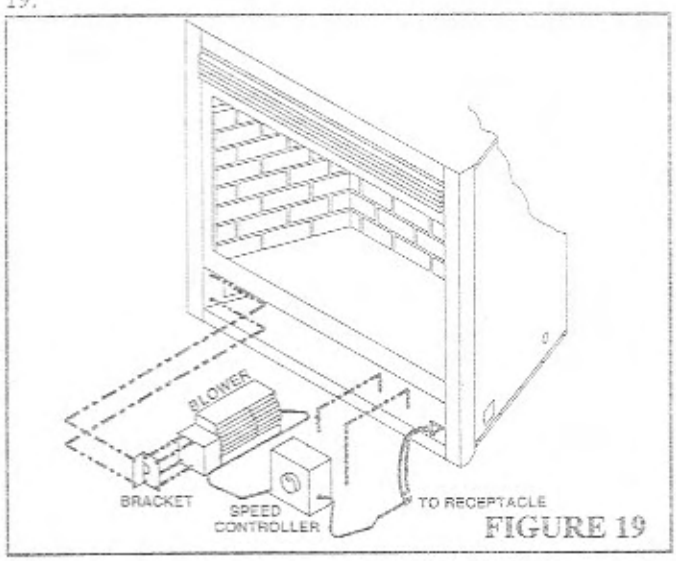


FIGURE 19

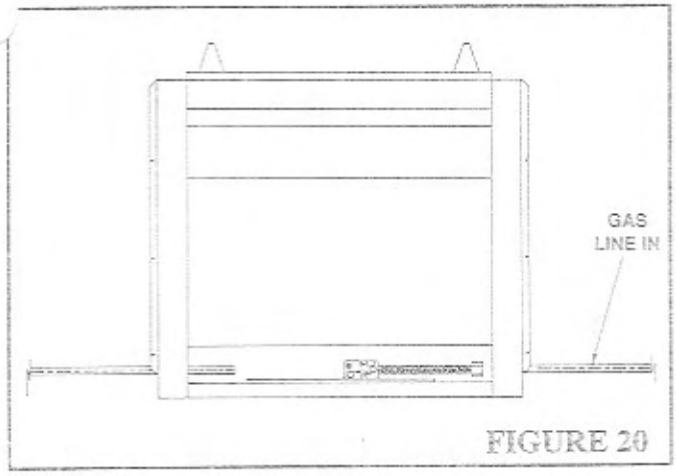


FIGURE 20

# GAS LINE HOOKUP

A manual shutoff valve must be included in the appliance's gas supply system.

Include a plugged 1/8" NPT tapping in the gas line immediately upstream of the appliance's gas supply connection, where it will be accessible for test gauge connection.

Route a 1/2" NPT Black Iron gas line above the floor surface and behind the face of the rough framing (See Figure 20). The gas line may be installed to enter the appliance from either side of the fireplace by removing the screws at one of the access holes provided as shown in Figure 21.

It is essential that the fireplace enclosure be in place before the gas supply line is run into the appliance.

Compounds used on threaded joints of gas piping will be resistant to the action of liquefied petroleum gases. Apply sealant lightly to ensure excess sealant does not enter the gas line.

**CAUTION: All gas piping and connections must be tested for leaks after the installation is completed. After ensuring that the gas valve is on, apply a soap and water solution to all connections and joints. If bubbles appear, leaks can be detected and corrected. DO NOT USE AN OPEN FLAME FOR LEAK TESTING AND DO NOT OPERATE APPLIANCE IF A LEAK IS INDICATED.**

The appliance's bottom grille opens for installation and gas shutoff access. See Figure 22 for correct positioning and operation of the appliance's lower grille.

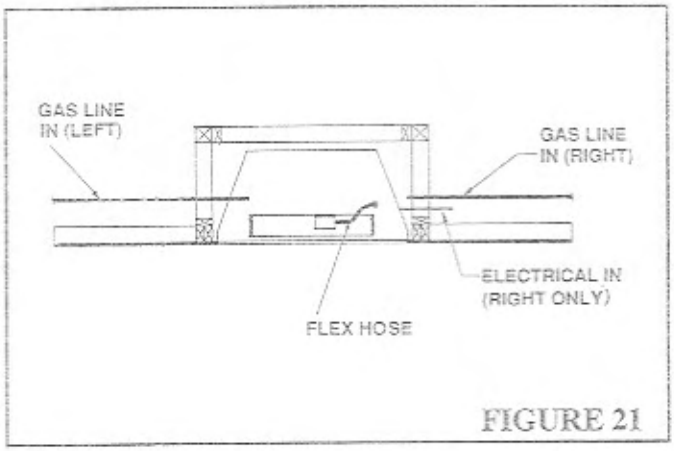


FIGURE 21

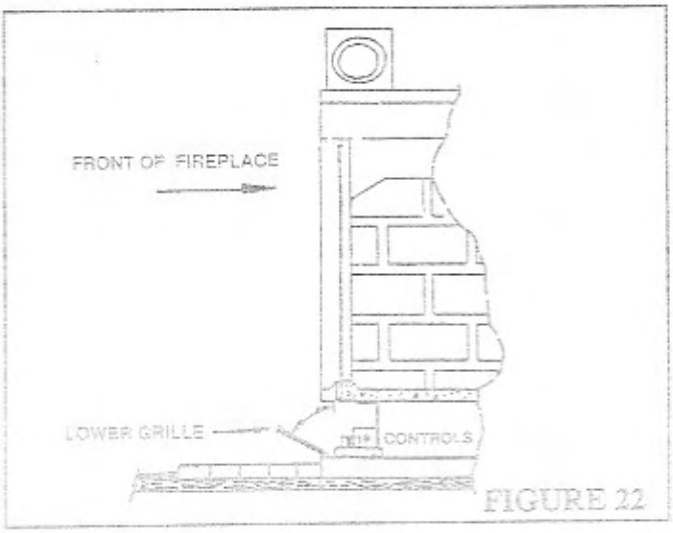


FIGURE 22

# REMOTE MILLIVOLT WALL SWITCH WIRING

The gas control, pilot generator, heat limit and wall switches have been pre-wired at the factory. Additionally, approximately eight (8) feet of millivolt wire is provided for connecting the appliance to a remote wall switch.

Uncoil the millivolt wire from the right side and select a location approximately five (5) feet off the ground within reach of the wire for the wall switch.

After installing an electrical box, run the millivolt wire to the box and tie off. Install the wall switch and switch coverplate during final assembly.

A wiring diagram on page 14 is included for troubleshooting and parts replacement. Simply connect one wire to each switch terminal.

WARNING: DO NOT CONNECT TO LINE VOLTAGE! NO HOUSE CURRENT IS NECESSARY.

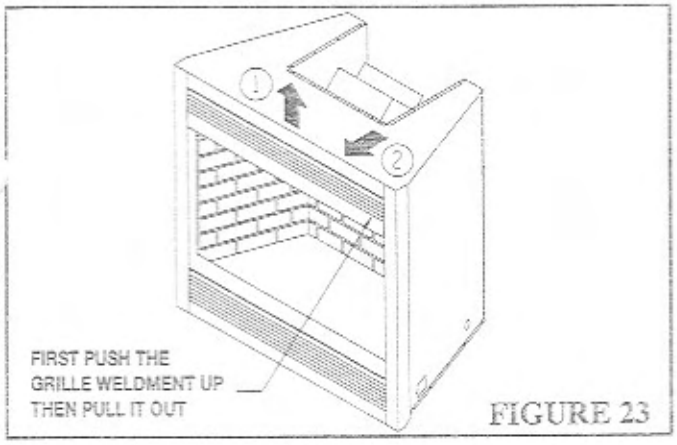


FIGURE 23

# GLASS DOOR MAINTENANCE

To install the appliance's log set and/or for normal cleaning and maintenance, you must remove the appliance's glass door.

1. Remove the upper grille weldment by first pushing up on it, and then pulling out. Refer to Figure 23.

2. Unlock the latches of the glass door and hold the top firmly as it opens toward you. Lift the glass door up with a slight angle toward the front as shown in Figure 24.

To place the glass door back on the unit, line up the bottom of the glass door in the door support as shown in figure 24. Make sure the glass door is centered with reference to the door support. Push the top of the glass door firmly against the top of the firebox and engage the latches and lock. Place the grille weldment back on to the fireplace by reversing step 1.

After forty hours of operation, if you observe any stain on the glass, it is recommended that you remove the glass door and clean the inside surface with "SOFT SCRUB CLEANSER" and "WINDEX". Wet the inside surface of the glass, sprinkle "SOFT SCRUB CLEANSER" and "WINDEX" on the we surface and rub it. Let it sit for one or two minutes, rub the glass surface again, rinse it and then use a glass cleaner to clean any excess of "SOFT SCRUB CLEANSER" and "WINDEX". After doing this procedure, put the glass door back on the fireplace. If at anytime you observe any stain on the glass again, repeat the above procedure.

**WARNING: The appliance must be operated only with the Fixed Glass Door. Operation of the appliance with another glass door or without a glass door is prohibited and will void the appliance's warranty**

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

**WARNING: During servicing, do not place glass panel flat on the floor and do not place any objects on the glass panel.**

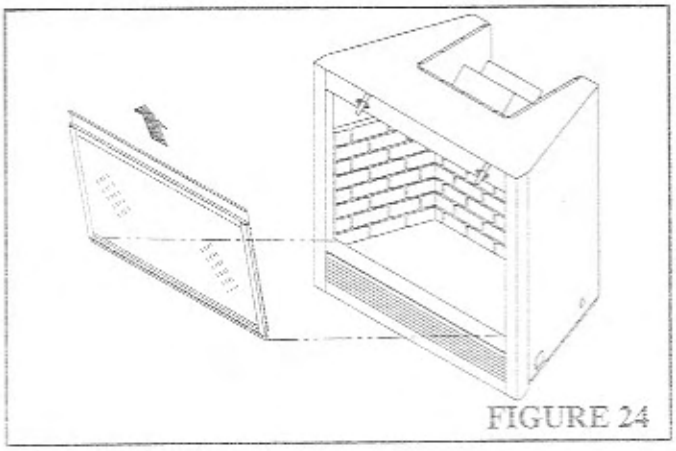


FIGURE 24

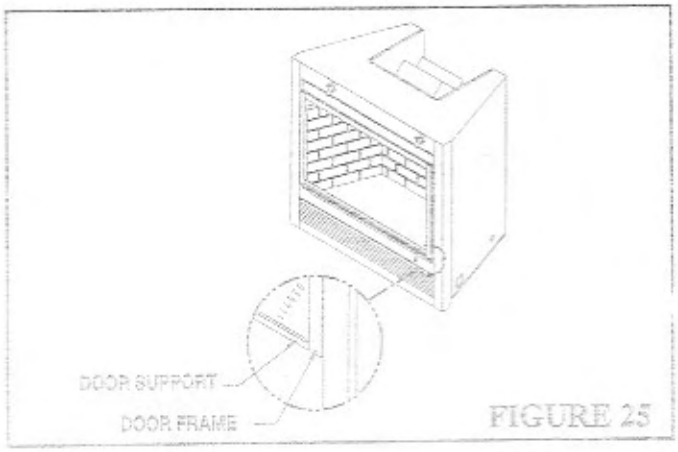


FIGURE 25

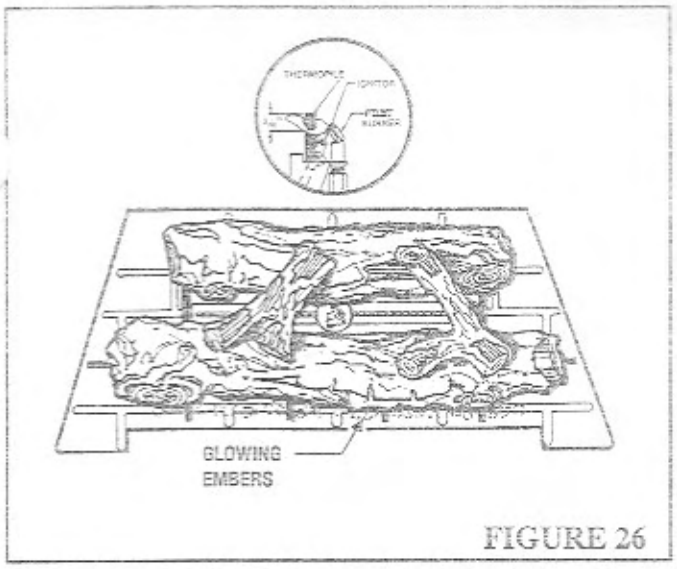



FIGURE 26

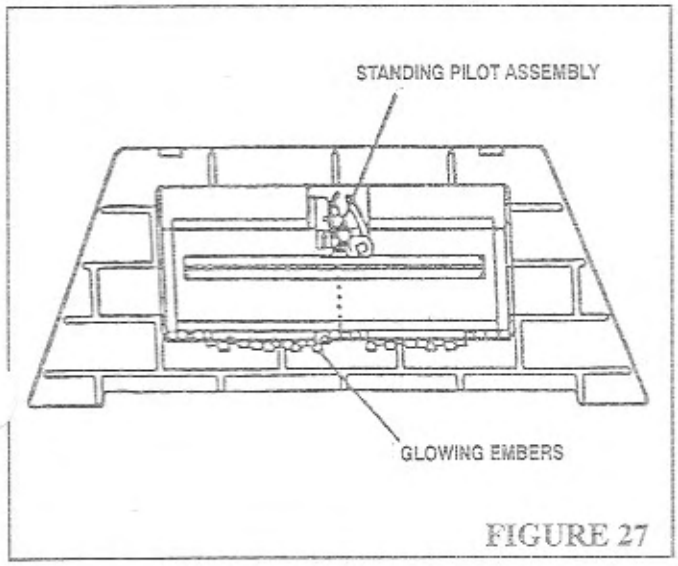



FIGURE 27

# LOG PLACEMENT

The CCT 36 comes complete with a four (4) piece log set. Placement has been set to provide the safest and most efficient use for your appliance. See Figure 26 for proper log placement location.

Place the appliance's glowing embers evenly along the front of the burner as shown in Figure 27. DO NOT PLACE GLOWING EMBERS AROUND THE SIDES OR BEHIND THE BURNER.

# FINISHING THE FIREPLACE

When selecting the finish material for your fireplace, it is important to remember the following: THE BLACK FACE MUST NOT BE COVERED WITH ANY TYPE OF COMBUSTIBLE MATERIAL. The sides of the CCT 36 may be faced to the fireplace and the top of the fireplace may be faced to the top grille. However, the upper grille or the lower grille may not be obstructed in any way and must be left clear to allow access to the installer and/or homeowner.

Non-combustible facing material such as tile, brick, glass, etc. may overlap the clean black face portion at the top and sides of the fireplace. Be sure to use a non-combustible heat resistant mortar or adhesive when attaching the finish trim to the fireplace face. The face of the fireplace may be painted to match the room decor provided you use a heat resistant paint.

# FIREPLACE GRATE AND LOG POSITION

The appliance has been equipped with a grate and a four (4) piece log set. The size and position of the grate and the log set were engineered to give your appliance a safe, reliable and beautiful flame pattern. **Any attempt to use a different grate or log set in this appliance will void the Marco warranty and is extremely dangerous.**

**THIS FIREPLACE IS NOT MEANT TO BURN WOOD. ANY ATTEMPT TO DO SO COULD CAUSE IRREPARABLE DAMAGE TO YOUR APPLIANCE AND PROVE HAZARDOUS TO YOUR SAFETY.**

# OPERATION INSTRUCTIONS

To operate this appliance, refer to the lighting instructions label located behind the lower grille.

The CCT 36 Standing Pilot model is a millivolt type. It consists of a pilot burner, piezo igniter, a combination gas control valve and a manual ON/OFF switch. The wall switch is connected in series with a high temperature limit switch.

Approximately the top 3/8" of the pilot generator (thermopile) should be engulfed in the pilot flame as shown in Figure 26.

The air shutter on the Venturi tube is located below the hearth. For your convenience this shutter has been set at the proper position at the factory for both natural and propane gas units. However, the shutter can be adjusted by loosening the air shutter screw and rotating the air shutter around the burner while watching the burner's flame. When the desired adjustment has been achieved, retighten the air shutter screw.

Opening the air shutter increases the air to gas mix in the main burner producing a bluer, shorter, cleaner burning flame. Closing the air shutter reduces the air to gas mix producing a longer, yellow flame.

# OPERATION 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 pilot burner, 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 lightings of the appliance will not require such purging.

2. BEFORE LIGHTING, CHECK ALL CONNECTIONS WITH A 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: 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.

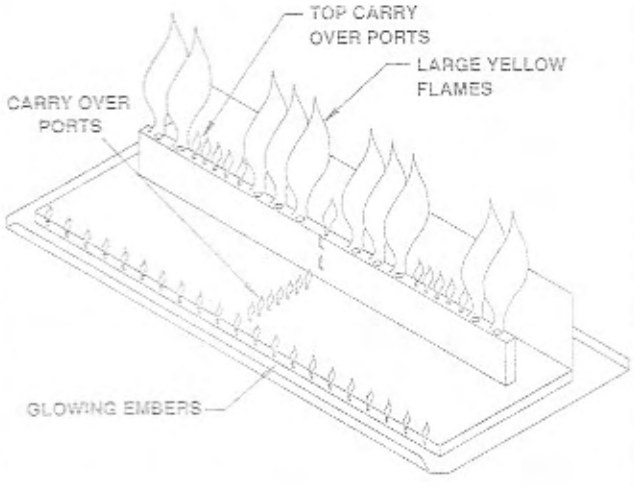



FIGURE 28

5. Always turn off the gas to the pilot 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. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.

**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 appliance's 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 clear and free from combustible materials, gasoline and other flammable vapors and 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 28.

**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.**

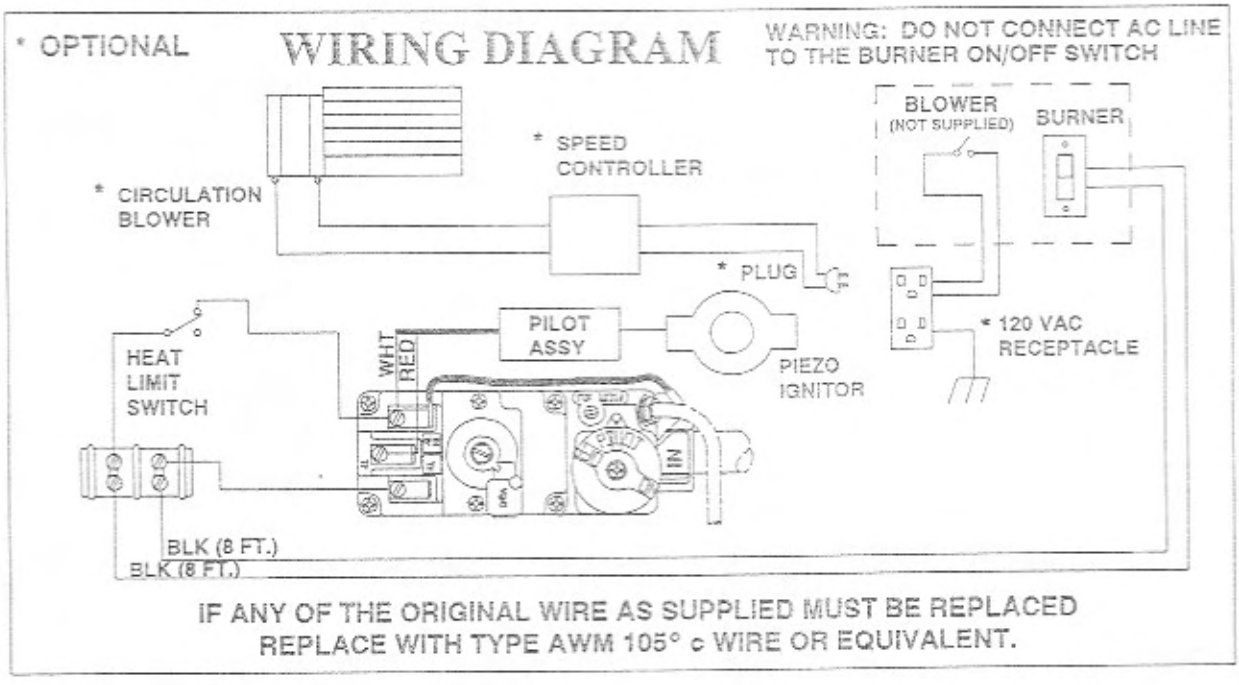
# PILOT ADJUSTMENTS

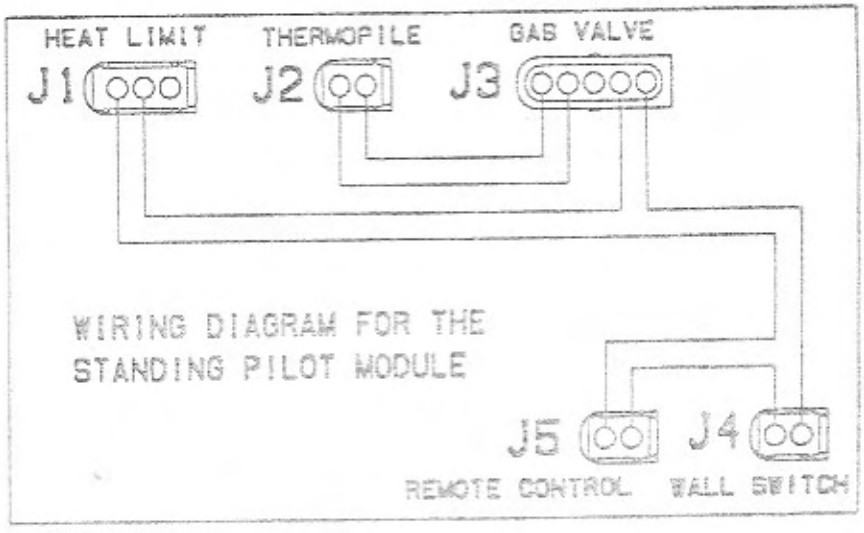
1. Remove pilot adjustment cap on the main valve (See Wiring Diagram on next page).

2. Adjust pilot screw to provide properly sized flame. Turning the adjustment screw clockwise reduces the pilot flame. This adjustment is made at the factory and usually is not required upon initial installation.

3. Replace pilot adjustment cap screw.

# WIRING DIAGRAM



## LIGHTING AND SHUTDOWN INSTRUCTIONS AND CAUTIONS

### 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 lit 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 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 or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

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.

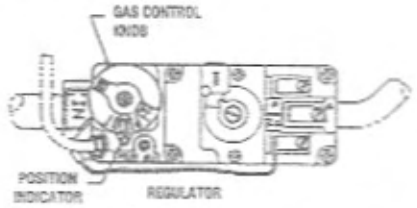
# OPERATING INSTRUCTIONS

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

2. Open bottom control panel.

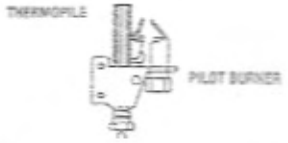
3. Push in gas control knob slightly and turn clockwise to "OFF." ⟶

   NOTE: Knob cannot 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 previous page. If you don't smell gas, go to the next step.

5. Find pilot - follow metal tube from gas control. The pilot is behind the burner.




6. Turn knob on the gas control counterclockwise to "Pilot." ⟵

7. Push in control knob all the way and hold in. Immediately light the pilot by pressing the red igniter button. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 3 through 7.
   - 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 "OFF" and call your service technician or gas supplier.

8. Turn gas control knob counterclockwise to "ON."

9. Close bottom control panel.

# TO TURN OFF GAS TO APPLIANCE

1. Turn off wall switch.

2. Open control access panel.

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

4. Close control access panel.



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# TROUBLESHOOTING THE CCT 36
# ELECTRIC PIEZO IGNITER AND GAS CONTROL SYSTEM

Note: Before troubleshooting the electric piezo igniter system, be sure external gas shutoff valve, located at the gas supply inlet, is in the "ON" position. Refer to Wiring Diagram on Page 4.

| SYMPTOM | POSSIBLE CAUSE | CORRECTIVE ACTION |
|---|---|---|
| 1. Spark igniter will not light pilot after repeated triggering of the red button. | 1) Defective igniter (No spark at electrode) | A) Check for spark at electrode and pilot; if no spark and electrode wire is properly connected, replace the igniter. |
| | 2) Defective or mis-aligned electrode at pilot (Spark at electrode). | A) Using a match, light pilot. If pilot lights, turn off the pilot and trigger the red button again. If pilot lights, an improper gas mixture caused the bad lighting and a longer purge period is recommended. If pilot will not light, check gap at electrode and pilot - should be 1/8" to have a strong spark. If not, replace the pilot assembly. |
| 2. Pilot will not stay lit after carefully following lighting instructions. | 1) Defective pilot generator (thermopile) or remote wall switch wiring. | A) Check pilot flame. It must impinge on pilot generator. Clean and/or adjust pilot for maximum flame impingement on generator.<br>B) Be sure wire connections from generator at gas valve terminals are tight and generator is fully inserted into pilot bracket.<br>C) One of the wall switch wires may be grounded. Remove wall switch wires from valve terminals. If pilot now stays lit, trace wall switch wires for a ground. May be grounded to appliance or gas supply.<br>D) Check pilot generator with millivolt meter. Take reading at generator terminals of gas valve. Should read 325 millivolts minimum while holding valve knob depressed in pilot position and wall switch "OFF." Replace faulty generator if reading is below specified minimum. |
| | 2) Defective automatic valve operator | A) Turn knob to "ON," place wall switch to "ON." Millivolt meter should read greater than 100MV. If the reading is okay and the burner does not come on, replace the gas valve. |
| 3. Pilot burning, no gas to burner, valve knob "ON," wall switch "ON." | 1) Wall switch or wires defective | A) Check wall switch and wires for proper connections. Jump wires for proper connections. Place jumper wire across terminals at wall switch. If burner comes on, replace defective wall switch. If okay, place jumper wires across wall switch wires at gas valve. If burner comes on, wires are defective or connections are bad. |
| | 2) Limit switch defective | A) Check limit switch and wires for proper connection. Place jumper wire across terminals at limit switch. If burner comes on, replace defective limit switch. |
| | 3) Pilot generator may not be generating sufficient millivoltage. | A) Re-check above symptom. |
| | 4) Plugged burner orifice | A) Check burner orifice for blockage and remove. |
| 4. Frequent pilot outage problem | 1) Pilot flame may be too low or blowing (high) causing the pilot safety to drop out. | A) Clean/adjust pilot flame for maximum flame impingement on pilot generator. |

# DO'S AND DON'TS

- Read operation and warranty manuals thoroughly before installing and using this fireplace.
- IMPORTANT: Always turn off the gas 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.
- Visually check the pilot and burner flames periodically. Refer to Figure 16 on page 10.
- Do not block the appliance's bottom control panel. It must be available for operator or technician access.
- 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, (1/8" wide or larger) the refractory should be replaced.
- 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.

# REPLACEMENT PARTS

## HOW TO ORDER REPAIR 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 No. You will find the fireplace stock number on the rating plate behind the appliance's lower grille.
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 LIST

| ITEM | PART # | DESCRIPTION |
|---|---|---|
| 1 | 164651 | Hearth Refractory |
| 2 | 164653 | Left Side Refractory |
| 2A | 164654 | Right Side Refractory |
| 3 | 164655 | Back Refractory |
| 4 | 499738 | Gas Burner Assembly |
| 5 | 164689 | Custom Log Set |
| 6 | 580133 | Grate |
| 7 | 116140 | Piezo Igniter |
| 8 | 116137 | Pilot Assembly, Natural |
| 8A | 116138 | Pilot Assembly, Propane |
| 8B | 116158 | Thermopile, 26" |
| 9 | 116135 | Regulator Valve, Natural |
| 9A | 112966 | Regulator Valve, Propane (Conversion Kit) |
| 10 | 198440 | Corrugated Flex Hose |
| 11 | 198462 | #41 Orifice, Natural (High Altitude #40) |
| 11A | 198463 | #54 Orifice, Propane (High Altitude #53) |
| 12 | 499681 | Lower Grille |
| 13 | 499680 | Upper Grille |
| 14 | 116148 | Remote Jumper Cable Assembly (Not Pictured) |
| 15 | 794597 | Marco Direct Vent-Wall Vent Elbow (MDV-WVE) |
| 16 | 794598 | Marco Direct Vent-Roof Vent (MDV-RV) |
| 17 | 198422 | 12" Aluminum Flex Pipe (4 Feet Extended) |
| 18 | 112948 | Heat Limit Switch |
| 19 | 113336 | Switch Harness Wire Assembly (Standing Pilot) |
| 20 | 198559 | Glass Door |
| 21 | 198441 | Glowing Embers (1 bag) |
| 22 | 794012 | Remote Control (Optional) |
| 23 | 499687 | Wire Wall Switch (Not Pictured) |
| 24 | 112970 | Plug |
| 25 | 112969 | Receptacle |
| 26 | 499713 | 48" Insulation |
| 27 | 499740 | 38" Insulation |
| 28 | 493644 | Firestop Spacer |
| 29 | 481033 | Glass Gasket |
| 30 | 499731 | Electronic Service Module (Standing Pilot) |
| 31 | 794501 | Fan Kit (Optional) |
| 32 | 794616 | MDV Extension |
| 33 | 794609 | 6" Pipe Section |
| 34 | 794610 | 12" Pipe Section |
| 35 | 794611 | 18" Pipe Section |
| 36 | 794615 | 17-24" Telescopic Pipe Section |
| 37 | 493847 | 45° Elbow |

# CCT 36 Direct Vent
# Standing Pilot Component Parts

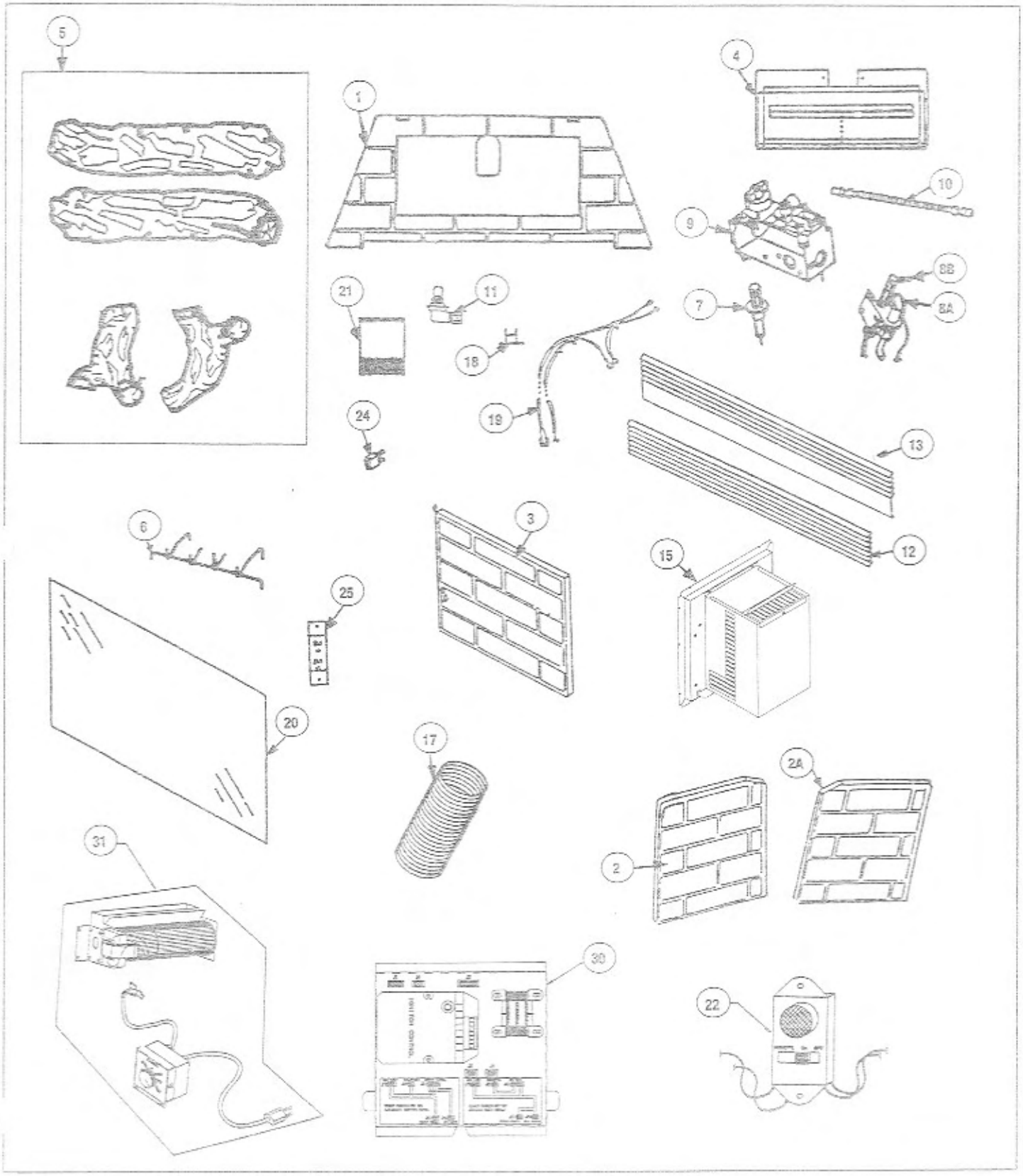
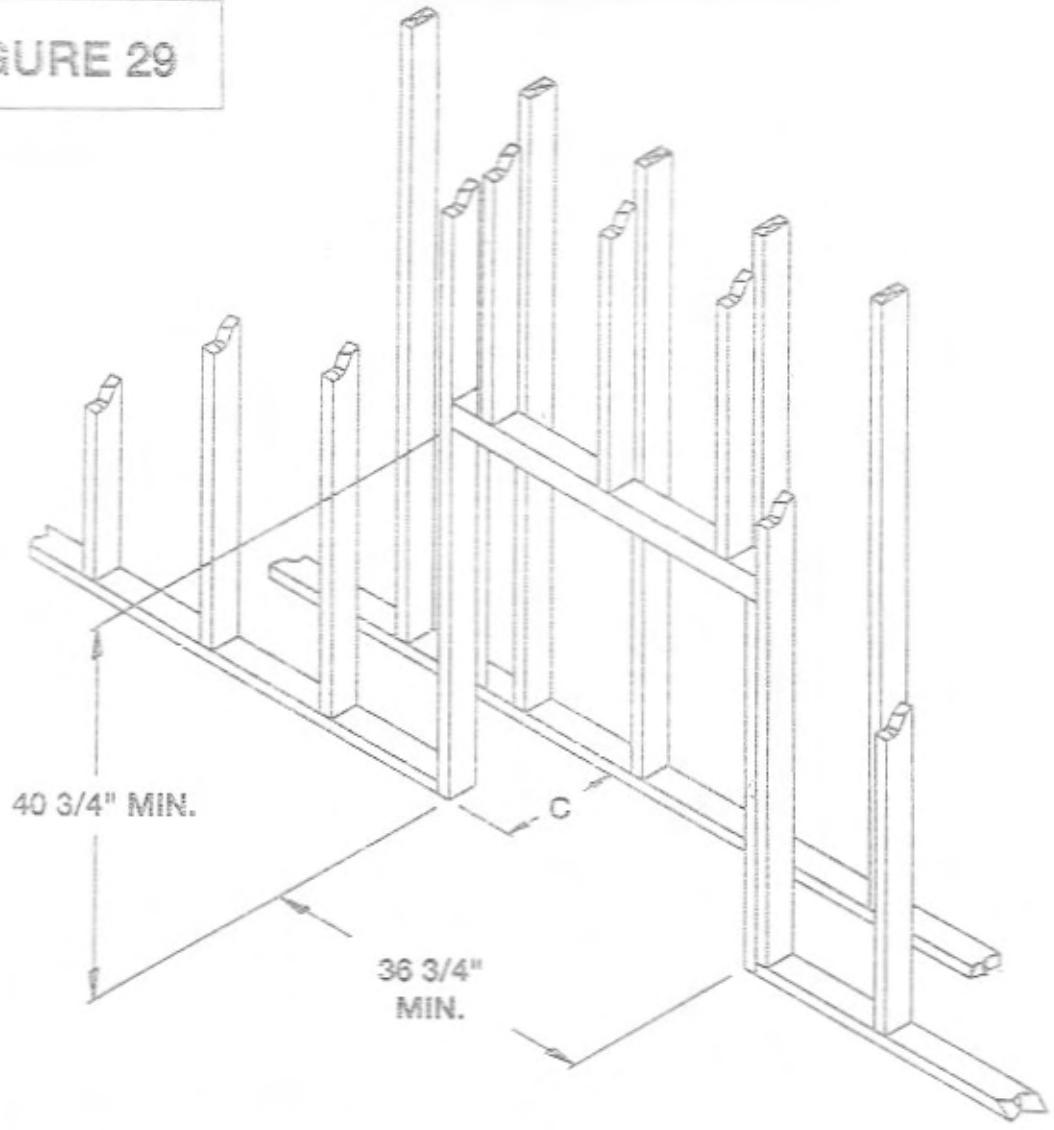


FIGURE 29




FRAMING FOR HORIZONTAL THROUGH THE WALL VENTING

| | DIM "C" (2 x 4 Framing) | DIM "C" (2 x 6 Framing) |
|---|---|---|
| 45° ELBOW ONLY | 24" | 22" |
| 45° ELBOW + MDV EXTENSION | 24 3/8" - 34 7/8" | 22 3/8" - 32 7/8" |
| 45° ELBOW + 6" PIPE + MDV EXTENSION | 29 1/4" - 39 3/4" | 27 1/4" - 37 3/4" |
| 45° ELBOW + 12" PIPE + MDV EXTENSION | 35 1/4" - 45 3/4" | 33 1/4" - 43 3/4" |

TABLE 2

THE PART NUMBER OF THE ABOVE COMPONENTS CAN BE FOUND ON PAGE 19.

# MARCO DECORATIVE GAS APPLIANCES 20 YEAR LIMITED WARRANTY

**A. BASIC WARRANTY**

Marco Mfg., Inc. ("Marco") warrants its Decorative Gas Appliances (Model CCT36) 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 Models:** A replacement regulator, pilot or thermopile will be provided in exchange for the defective one; and

**For Electronic Ignition 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.

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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 warrantied 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:** 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 warrantied 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 warrantied 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 terminations 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 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.

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