This appliance has been retired.
Service parts pages within have been removed.
For replacement parts, please refer to the individual service parts list located on the brand websites.

HEAT-N-GLO
No one builds a better fire

Installers Guide

Models:
TIARA I-CE
TIARA II-CE

CE
0087

WARNING: IF THE INFORMATION IN THESE INSTRUCTIONS IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.

- Do not store or use petrol or other flammable vapors and liquids in the vicinity of this or any other appliance.
- **What to do if you smell gas**
  - Do not try to light any appliance.
  - Do not touch any electrical switch.
  - Do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer or competent person.

READ THIS MANUAL BEFORE INSTALLING OR OPERATING THIS APPLIANCE. THIS *INSTALLERS GUIDE* MUST BE LEFT WITH APPLIANCE FOR FUTURE REFERENCE.

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 OR COMPETENT PERSON.

These instructions are only valid if the following country symbol is on the appliance. If this symbol is not present on the appliance, it is necessary to refer to the technical instructions which will provide the necessary information concerning the modification of the appliance to the conditions of use for the country.

These instructions are valid for the following countries: GB, IE

Please contact your Heat-N-Glo dealer with any questions or concerns. For the number of your nearest Heat-N-Glo dealer, please call 952-985-6000.

U.S. Patents 4,793,322; 4,875,464; 5,000,162 and Patents Pending • Canadian Patent 1,297,746

SAFETY AND WARNING INFORMATION

READ and **UNDERSTAND** all instructions carefully before starting the installation. **FAILURE TO FOLLOW** these installation instructions may result in a possible fire hazard and will void the warranty.

Prior to the first firing of the stove, **READ** the Using Your Fireplace section of the Users Guide.

DO NOT USE this appliance if any part has been under water. Immediately **CALL** a qualified service technician to inspect the unit and to replace any part of the control system and any gas control which has been underwater.

THIS UNIT IS NOT FOR USE WITH SOLID FUEL.

Installation and repair should be **PERFORMED** by a qualified service person. The appliance and flue system should be **INSPECTED** before initial use and at least annually by a professional service person.

Always **KEEP** the appliance clear and free from combustible materials, petrol, and other flammable vapors and liquids.

NEVER OBSTRUCT the flow of combustion and ventilation air. Keep the front of the appliance **CLEAR** of all obstacles and materials for servicing and proper operations.

Due to the high temperature, the appliance should be **LOCATED** out of traffic areas and away from furniture and draperies. Clothing or flammable material **SHOULD NOT BE PLACED** on or near the appliance.

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.

These units **MUST** use one of the fluing systems described in the Installing the Fireplace section of the Installers Guide. **NO OTHER** flue systems or components **MAY BE USED.**

This gas stove and flue assembly **MUST** be vented directly to the outside and **MUST NEVER** be attached to a chimney serving a separate solid fuel burning appliance. Each gas appliance **MUST USE** a separate flue system. Common flue systems are **PROHIBITED**.

INSPECT the external terminal cap on a regular basis to make sure that no debris is interfering with the air flow.

The glass door assembly **MUST** be in place and sealed, and the trim door assembly **MUST** be in place on the stove before the unit can be placed into safe operation.

DO NOT OPERATE this appliance with the glass door removed, cracked, or broken. Replacement of the glass door should be performed by a licensed or qualified service person. **DO NOT** strike or slam the glass door.

The glass door assembly **SHALL ONLY** be replaced as a complete unit, as supplied by the gas stove manufacturer. **NO SUBSTITUTE** material may be used.

DO NOT USE abrasive cleaners on the glass door assembly. **DO NOT ATTEMPT** to clean the glass door when it is hot.

Turn off the gas before servicing this appliance. It is recommended that a qualified service technician perform an appliance check-up at the beginning of each heating season.

Any safety screen or guard removed for servicing must be replaced before operating this appliance.

DO NOT place furniture or any other combustible household objects within 36 inches of the stove front.

The appliance is intended for use on a gas installation with a governed meter.

Table of Contents

1

Approvals and Regulations

Approval Listings and Regulations

Appliance Certification

The Heat-N-Glo stove models discussed in this *Installers Guide* have been tested to certification standards and listed by the applicable laboratories.

MODEL	LABORATORY	TYPE	CERTIFICATION DIRECTIVE
TIARA-I-CE	Advantica	Gas Stove	90/396/EEC
TIARA-II-CE	Advantica	Gas Stove	90/396/EEC

Installation Regulations

Before installation check that local distribution conditions, nature of gas and pressure, and adjustment of the appliance are compatible.

This appliance must be installed with the rules in force, and used only in a sufficiently ventilated space. Consult instructions before installation and use of this appliance.

2

Getting Started

Introducing the Heat-N-Glo Gas Stoves

Heat-N-Glo gas stoves are designed to operate with all combustion air siphoned from outside of the building and all exhaust gases expelled to the outside.

The information contained in this *Installers Guide*, unless noted otherwise, applies to all models and gas control systems.

Gas stove diagrams, including the dimensions, are shown in this section.

Pre-installation Preparation

This gas stove and its components are tested and safe when installed in accordance with this *Installers Guide*. Report to your dealer any parts damaged in shipment, particularly the condition of the glass. **Do not install any unit with damaged, incomplete, or substitute parts.**

The flue system components and trim doors are shipped in separate packages. The gas logs are packaged separately and must be field installed. **Read all of the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit. Failure to follow these instructions will void the owner's warranty and may present a fire hazard.**

The Heat-N-Glo Warranty will be voided by, and Heat-N-Glo disclaims any responsibility for, the following actions:

- Installation of any damaged stove or flue system component.
- Modification of the stove or flue system.
- Installation other than as instructed by Heat-N-Glo.
- Improper positioning of the gas logs or the glass door.
- Installation and/or use of any component part not manufactured and approved by Heat-N-Glo, not withstanding any independent testing laboratory or other party approval of such component part or accessory.

ANY SUCH ACTION MAY POSSIBLY CAUSE A FIRE HAZARD.

When planning a stove installation, it's necessary to determine:

- Where the unit is to be installed.
- The flue system configuration to be used.
- Gas supply piping.
- Electrical wiring.
- Framing and finishing details.
- Whether optional accessories—devices such as a fan, wall switch, or remote control—are desired.

If the stove is to be installed on carpeting or tile, or on any combustible material other than wood flooring, the stove should be installed on a metal or wood panel that extends the full width and depth of the stove.

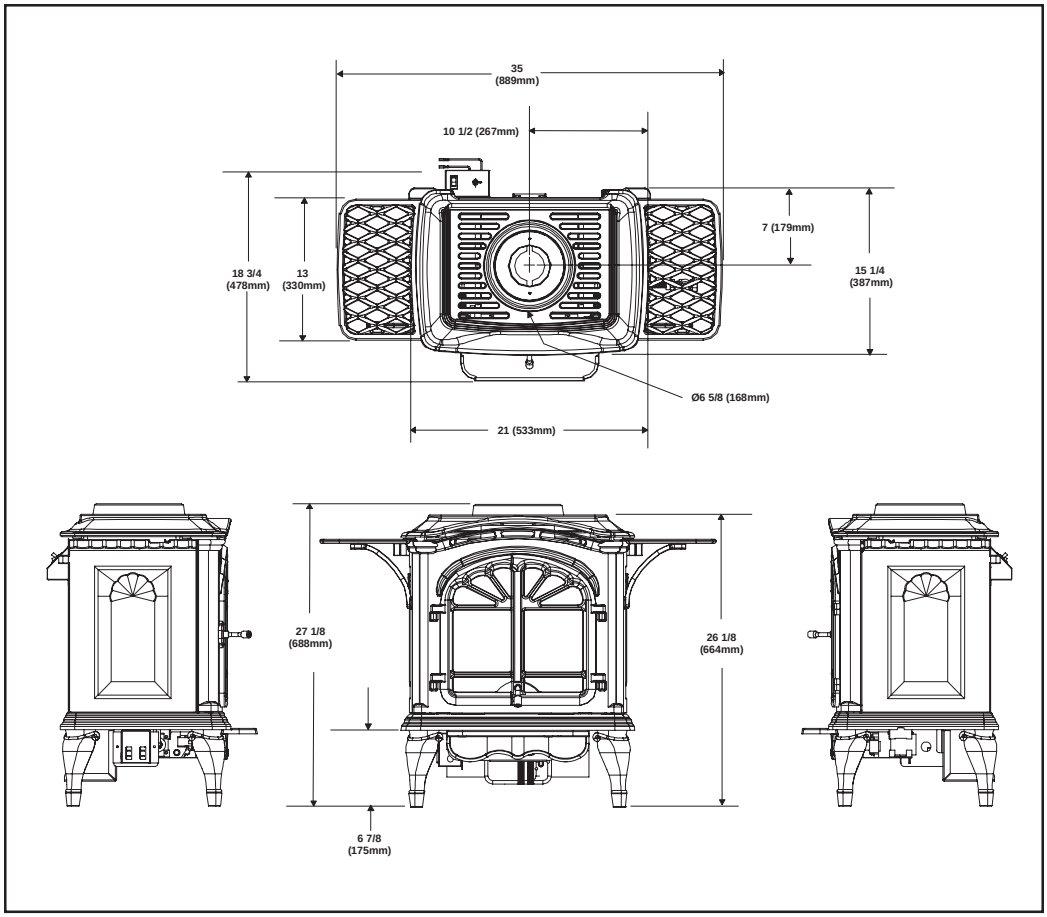


Figure 1. Diagram of the TIARA I-CE

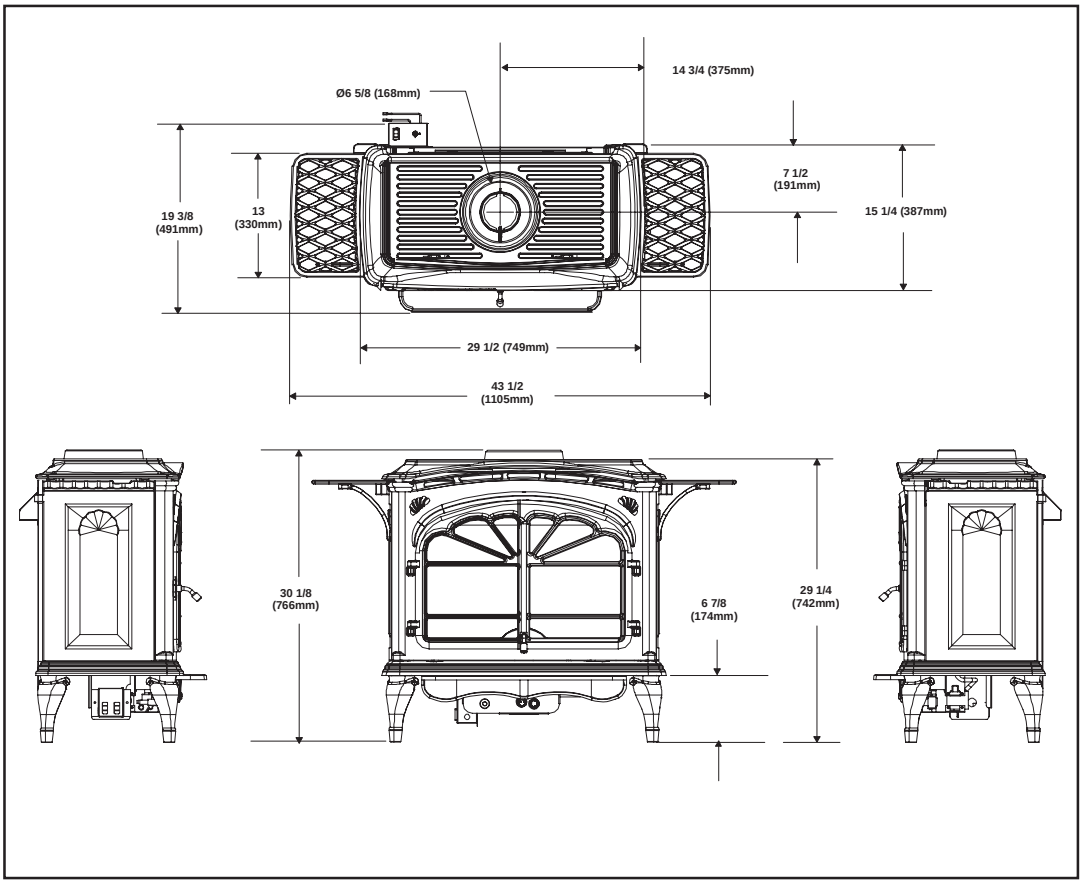


Figure 2. Diagram of the TIARA II - CE

3

Installing the Stove

Step 1
Locating the Stove

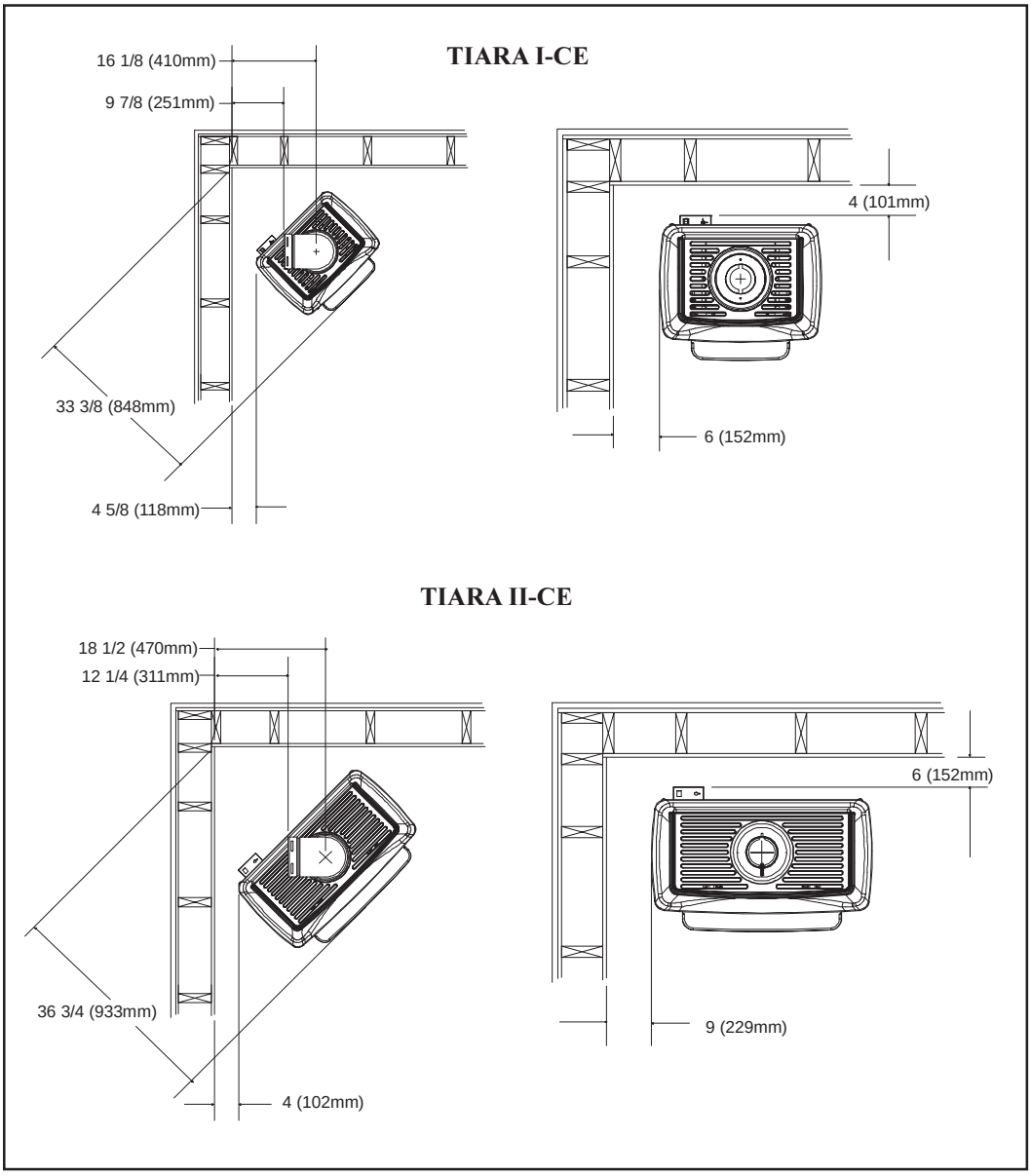


Figure 3. Stove Dimensions, Locations, and Space Requirements

Clearance Requirements

Minimum Clearances from the Flue Pipe to Combustible Materials						
For Horizontal Sections			For Vertical Sections	At Wall Firestops		
Top	Bottom	Sides		Top	Bottom	Sides
(75 mm)	(25 mm)	(25 mm)	(25 mm)	(63.7 mm)	(13 mm)	(25 mm)

Step 2 Installing the Flue System

A. Flue System Approvals

This model is approved for 4"/6 5/8" SL D-Series flue pipe components and terminations. See Figures 4 and 5. Figures 6 through 9 show the vent systems approved for use with these models. Approved flue systems components are labeled for identification. **NO OTHER FLUE SYSTEMS OR COMPONENTS MAY BE USED.** Detailed installation instructions are included with each flue termination kit and should be used in conjunction with this manual.

> ⚠ **WARNING**
> **A minimum .915 m length of straight flue pipe MUST be attached to the unit's starting collars for all flue systems.**

Identifying Flue Components

The flue systems installed on this gas stove may include one, two, or three 90° elbow assemblies. The relationships of vertical rise to horizontal run in flue configurations using 90° elbows **MUST BE** strictly adhered to. The rise to run relationships are shown in the flue drawings and tables. Refer to the diagrams on the next several pages.

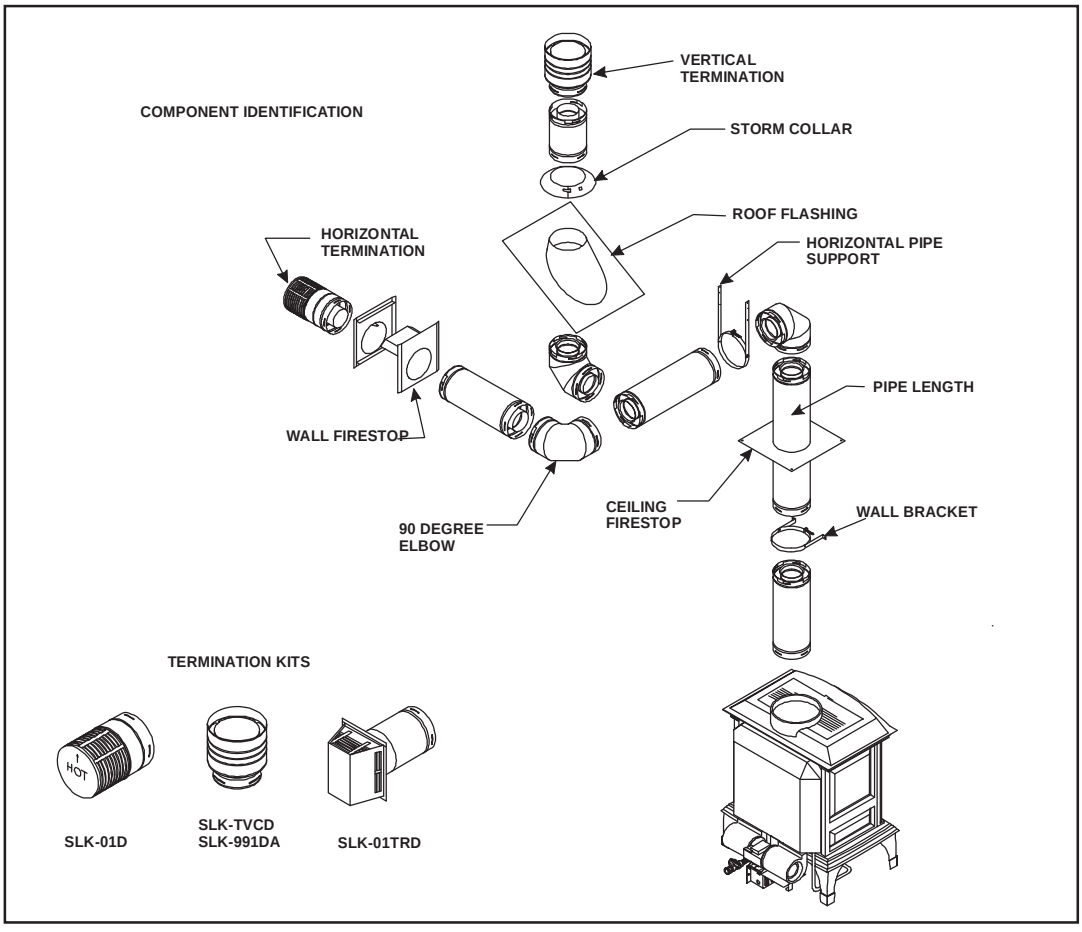


Figure 4. Flue Components and Terminations

Straight Vertical Flue System
Figure 6 shows a straight vertical configuration and termination approved for use on this model. No elbows are used in this configuration.

NOTE: **The minimum vertical is .915m and the maximum vertical rise is 5.4m. These dimensions are measured from the top of the unit to the end of the last section of flue pipe. (See dimension V in Figure 6).**

An SLK-991DA is a vertical termination cap which must be used to terminate flue systems in a vertical position.

Elbows

The flue system installed on this gas stove may include one (1), two (2), or three (3) 90° elbow assemblies.

Figures 7 through 9 and their corresponding tables show examples of flue configurations using elbows. The relationships of vertical rise to horizontal run in flue configurations using elbows **MUST** be strictly adhered to.

NOTE: The ratio of vertical rise to horizontal run must be strictly followed.

One (1) 90° Elbow

Figure 7 shows examples of possible installations using one (1) 90° elbow. Dimensions V are listed as **MINIMUM** vertical dimensions and dimensions H are listed as corresponding **MAXIMUM** horizontal dimensions. If one 90° elbow is used in the flue system, a horizontal termination will result.

Two (2) 90° Elbows

Figure 8 shows examples of possible installations using two (2) 90° elbows. If two 90° elbows are used in the flue system either a horizontal or a vertical termination can result. Dimensions V are listed as **MINIMUM** vertical dimensions and dimensions H are listed as corresponding **MAXIMUM** horizontal dimensions.

Three (3) 90° Elbows

Figure 9 shows examples of possible installations using three (3) 90° elbows. If three 90° elbows are used in the flue system either a horizontal or a vertical termination can result. Dimensions V are listed as **MINIMUM** vertical dimensions and dimensions H and $H + H_1$ are listed as corresponding **MAXIMUM** horizontal dimensions.

45° Elbows

The vertical rise to horizontal run must still be followed.

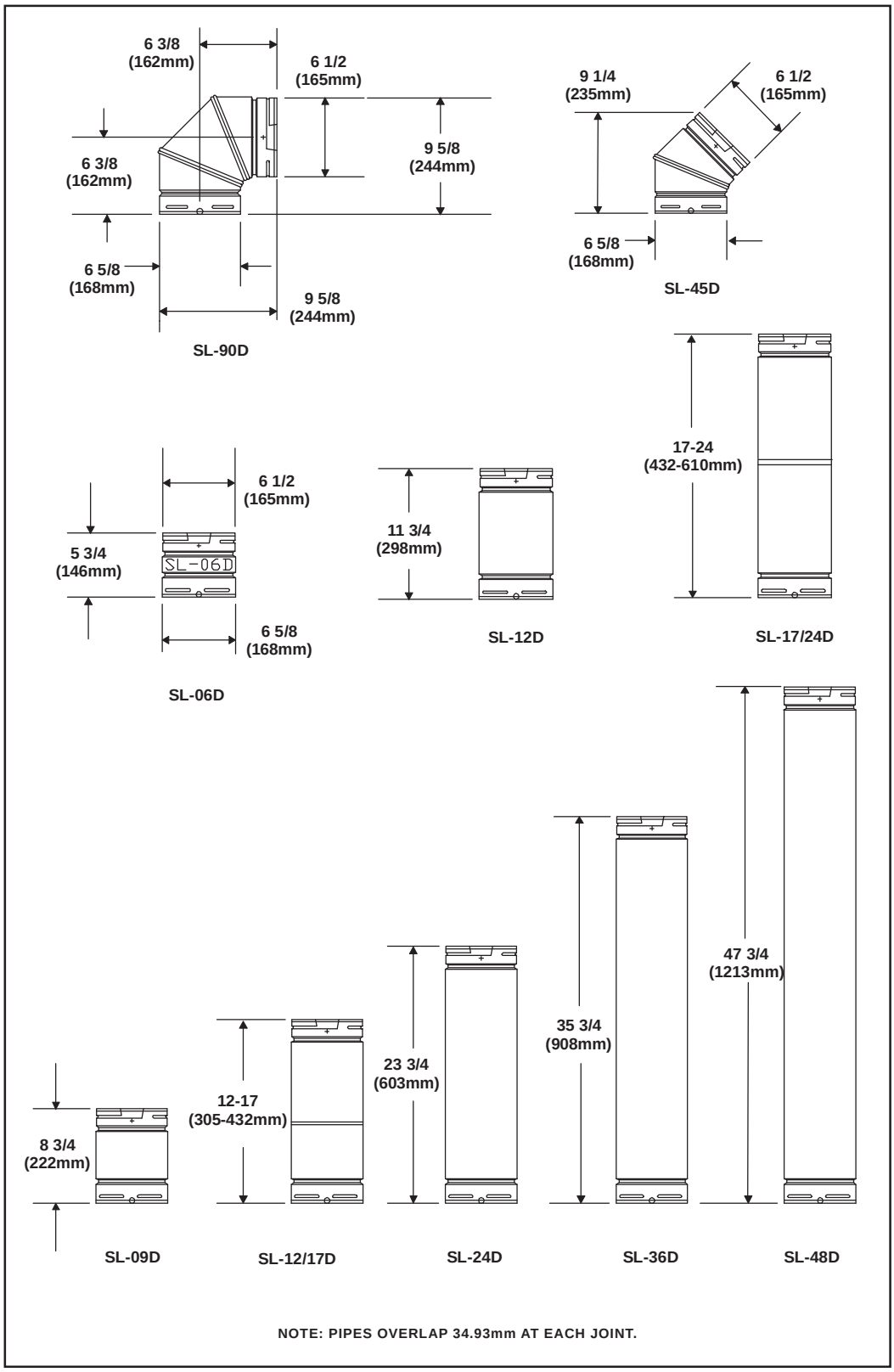


Figure 5. SL D-Series Flue Component Specifications (102mm inner pipe/168mm outer pipe)

STRAIGHT VERTICAL FLUEING

When a vertical run of 4 meters and higher is attached directly to the top of the stoves, further baffling is necessary to maintain high efficiency. A round baffle with two tabs on each side is included in the manual bag assembly. To install the round baffle follow these steps:

Tiara I

1. Open the front of the casting.
2. Remove the glass assembly.
3. Remove logs and set aside.
4. Disassemble the square baffle by unfastening four screws located inside top of the firebox.
5. Unfasten the two screws on the existing round baffle, and replace it with the new round baffle. Note: The new round baffle is bigger than the existing round baffle already on the unit.
6. Re-install the square baffle removed in Step 4.

Figure 8 and table show a straight vertical vent configuration and termination approved for use on this model.

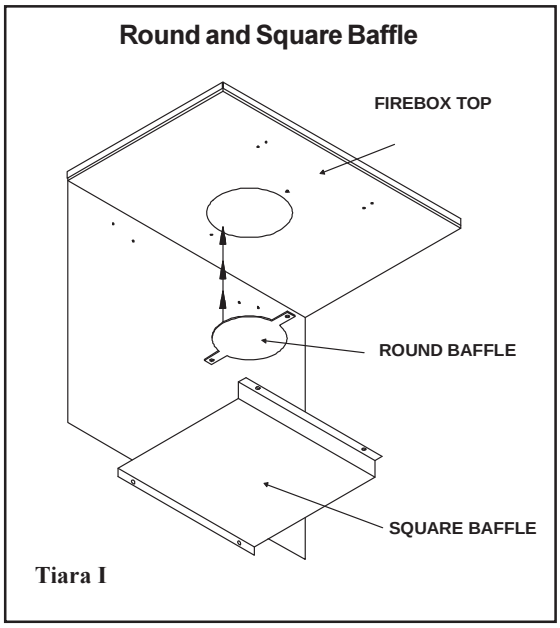


Figure 6.

Tiara II

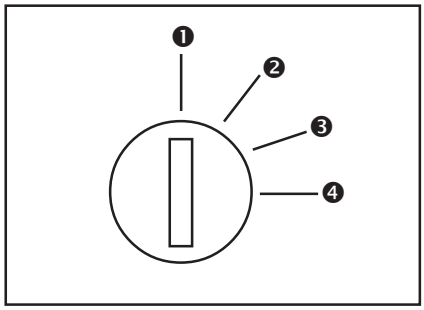
The Tiara II has an adjustable baffle (see Figure 7). The baffle setting is dependent upon the amount of vertical flue. The settings are as follows:

❶ = All horizontal terminations and vertical runs under 4m.

❷ = Vertical runs between 4m and 6m.

❸ = Vertical runs between 7m and 9m.

❹ = Vertical runs between 10m and 12m.



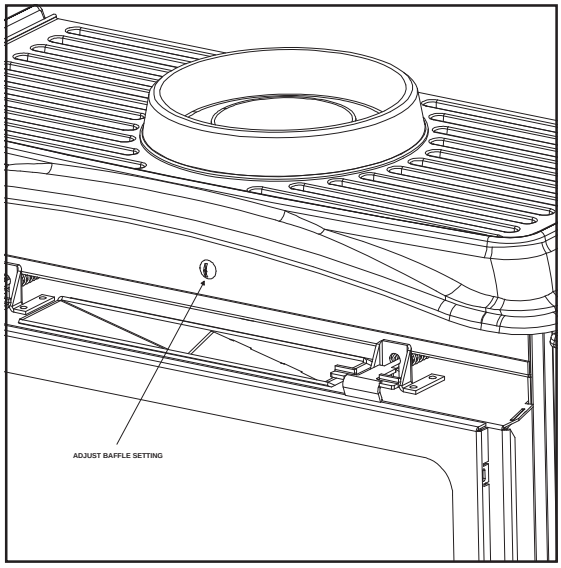


Figure 7.

VERTICAL FLUE
V (FT)
610mm MIN.
12m MAX.

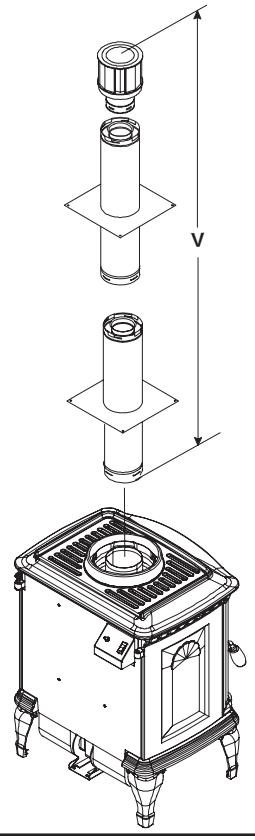


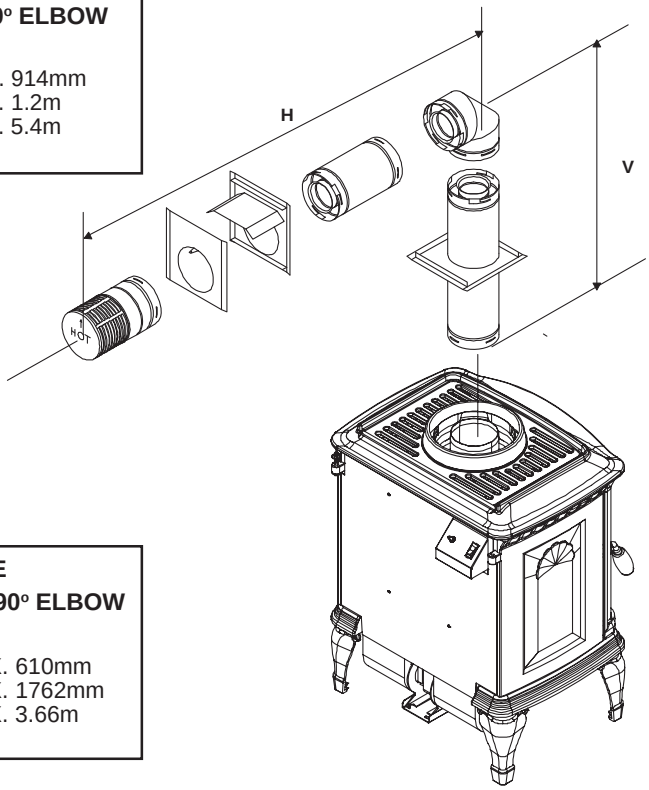
Figure 8. Straight Vertical Flue System

TIARA I-CE
VENTING WITH ONE 90° ELBOW

V	H
914mm MIN.	MAX. 914mm
1.2m MIN.	MAX. 1.2m
5.4m MAX.	MAX. 5.4m

Rise to Run Ratio = 1:1

NOTE: Optional Kit #970D can be used for this type of installation on model Tiara I-CE.



TIARA II-CE
VENTING WITH ONE 90° ELBOW

V	H
MIN. 914mm	MAX. 610mm
MIN. 1.2m	MAX. 1762mm
MAX. 5.4m	MAX. 3.66m

Rise to Run Ratio = 3:2

Figure 9. Flue System with One 90° Elbow

TIARA I-CE
VENTING WITH TWO (2) 90° ELBOWS

V	H
MIN. 914mm	MAX. 914mm
MIN. 1.2m	MAX. 1.2m

Rise to Run Ratio = 1:1
$V + V_1$ MAX. 5.4m
$H + H_1$ MAX. 5.4m

TIARA II-CE
VENTING WITH TWO (2) 90° ELBOWS

V	H
MIN. 914mm	MAX. 610mm
MIN. 1.2m	MAX. 762mm

Rise to Run Ratio = 3:2
$V + V_1$ MAX. 5.4m
$H + H_1$ MAX. 3.66m

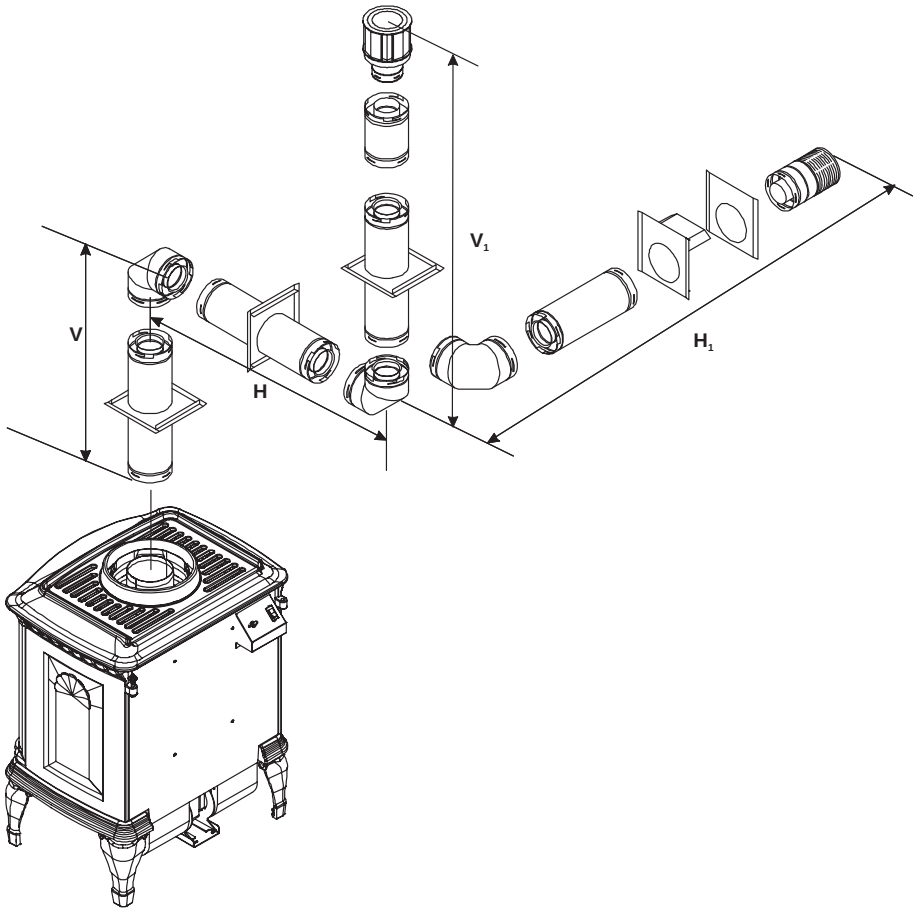


Figure 10. Flue System with Two 90° Elbows

TIARA I-CE
VENTING WITH THREE (3) 90° ELBOWS

V	H
MIN. 914mm	MAX. 914mm
MIN. 1.2m	MAX. 1.2m

Rise to Run Ratio = 1:1
$V + V_1$ MAX. 5.4m
$H + H_1$ MAX. 5.4m

TIARA II-CE
VENTING WITH THREE (3) 90° ELBOWS

V	H
MIN. 914mm	MAX. 610mm
MIN. 1.2m	MAX. 762mm

Rise to Run Ratio = 3:2
$V + V_1$ MAX. 5.4m
$H + H_1$ MAX. 3.66m

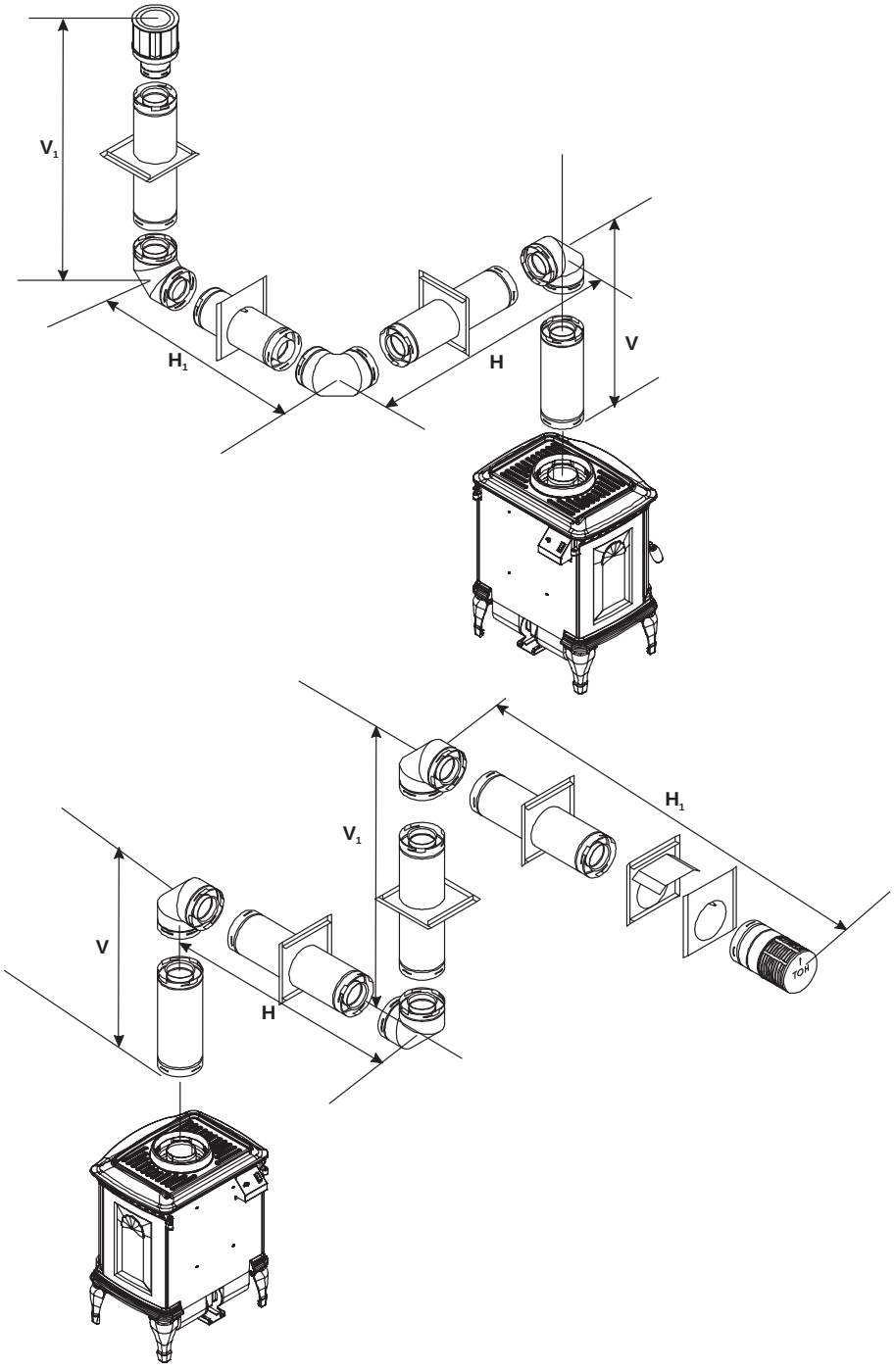


Figure 11. Flue System with three 90° elbows

B. Flue System Installation

Before starting installation of flue kits, the installer should read the Gas Stove Instructions and the Flue Kit Instructions to ensure that the proper system has been selected for the installation.

Determine the exact position of the stove so the flue pipe is centered (if possible) between two building framing members. This will avoid any extra framing. Using a level, make sure the stove is properly positioned and squared. Minimum clearances to walls and ceilings must be maintained.

Flue terminals should not be recessed into a wall.

Consult your local Building Regulations before beginning the installation.

⚠ WARNING
THIS GAS STOVE AND FLUE ASSEMBLY MUST BE FLUED DIRECTLY TO THE OUTSIDE AND MUST NEVER BE ATTACHED TO A CHIMNEY SERVING A SEPARATE SOLID FUEL BURNING APPLIANCE. EACH GAS APPLIANCE MUST USE A SEPARATE FLUE SYSTEM-COMMON FLUE SYSTEMS ARE PROHIBITED.

CAUTION:
Under no condition should combustible material be closer than 76.2 mm (63.5 mm at firestops) from the top of the 168.27 mm pipe or 25.4 mm to the sides and the bottom for horizontal sections of this flue system. Vertical sections of this system require a minimum of 25.4 mm clearance to combustible materials all around the 168.27 mm pipe.

INSTALLING THE FLUE SYSTEM IN A CHASE

A chase is a vertical box-like structure built to enclose the gas appliance and/or its flue system. Vertical flues that run on the outside of a building my be, but are not required to be, installed inside a chase.

CAUTION
Treatment of firestop spacers and construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building regulations. Therefore, your local building regulations **MUST** be checked to determine the requirements for these steps.

NOTE: When installing this flue system in a chase, it is always good building practice to insulate the chase as you would the outside walls of your home. This is especially important for cold climate installations. Upon completion of building your chase framing, install the flue system by following the instructions in this manual. Remember to build the chase large enough so that minimum clearance of combustible materials (including insulation) to the flue system are maintained. **Be sure to maintain a 25.4mm clearance (air space) between vertical flue pipe and all insulation materials.**

C. Installing Flue Components

1. Attach the First Flue Component to the Starting Collars

- Apply a (10 mm) bead of stove cement around the end of the stove 102 mm starting collar and the flue extension **BEFORE** installing the first flue component. The sealant should be placed 25 mm from the end of the collar as shown in Figure 10. The stove sealant is supplied in all termination kits. If the first flue component is not properly installed and sealed tightly to the appliance flue starting collars, the appliance may not operate properly. This is especially important for 102 mm inner pipe. **The crimped end goes up.**
- Attach a **MINIMUM** 914 mm section of straight flue pipe to the starting collars of the unit. This 914 mm section of flue is a **REQUIRED MINIMUM** vertical rise for **ALL** flue system configurations.
- Lock the flue components into place by sliding the concentric pipe sections with four (4) equally spaced interior beads into the stove collar or previously installed component end with four (4) equally spaced indented sections.
- When the internal beads of each 168 mm outer pipe line up, rotate the pipe section clockwise about one-quarter (1/4) turn. The flue pipe is now locked together.

⚠ WARNING
BE CERTAIN THAT THE INNER 102 mm FLUE PIPES ENGAGE ONE ANOTHER AT EACH JOINT.

1. Apply the stove cement.
2. Line up the internal beads and rotate the pipe sections clockwise until locked.
3. Lock the flue components into place.

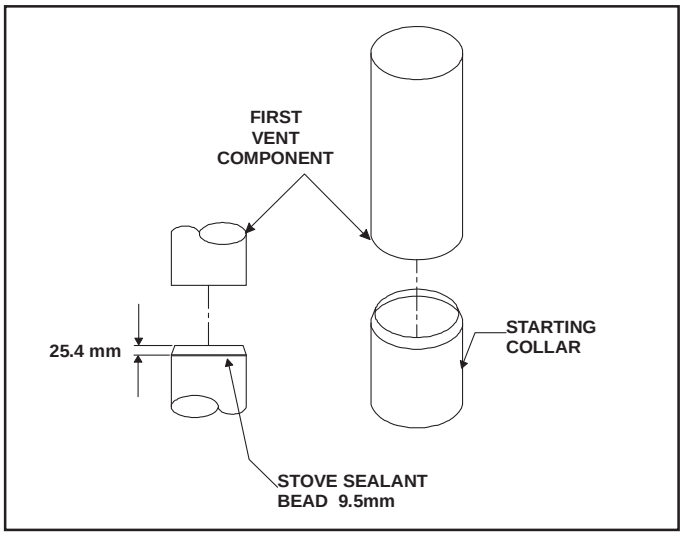


Figure 12. Attaching the First Flue Component to the Starting Collars

⚠ WARNING
A 9.5 mm BEAD OF STOVE CEMENT MUST BE PLACED AROUND THE 127 mm STOVE STARTING COLLAR BEFORE ATTACHING THE FIRST FLUE COMPONENT. FAILURE TO SEAL THIS JOINT MAY CAUSE THE STOVE TO OPERATE IMPROPERLY. SEE THE DIAGRAM .

2. Continue Adding Flue Components

To continue adding flue components in accordance with the pre-planned flue system configuration:

- Ensure that each succeeding flue component is securely fitted and locked into the preceding component in the flue system.

90° elbows may be installed and rotated to any point around the preceding component's vertical axis. If an elbow does not end up in a locked position with the preceding component, attach with a minimum of three (3) sheet metal screws.

Continue adding flue components, locking each succeeding component into place.

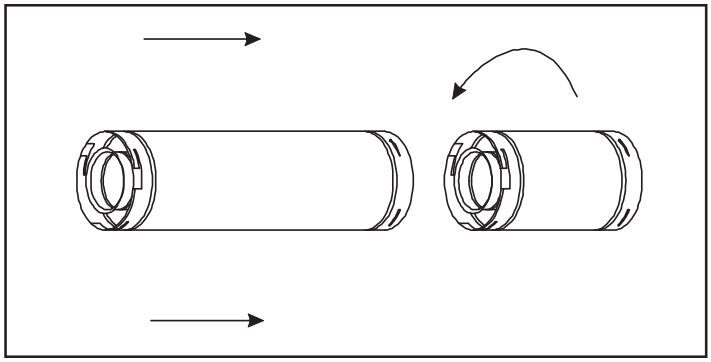


Figure 13. Adding Flueing Components

3. Install Support Brackets

For Horizontal Runs - The flue system must be supported every 1.5 m of horizontal run by a horizontal pipe support.

To install support brackets for horizontal runs:

- Place the pipe supports around the flue pipe.
- Nail the pipe supports to the framing members.

For Vertical Runs - The vent system must be supported every 2.4 m above the stove flue outlet by wall brackets.

To install support brackets for vertical runs:

- Attach wall brackets to the flue pipe and secure the wall bracket to the framing members with nails or screws.

Use wall brackets to support vertical runs every 2.4 m above the stove flue outlet.

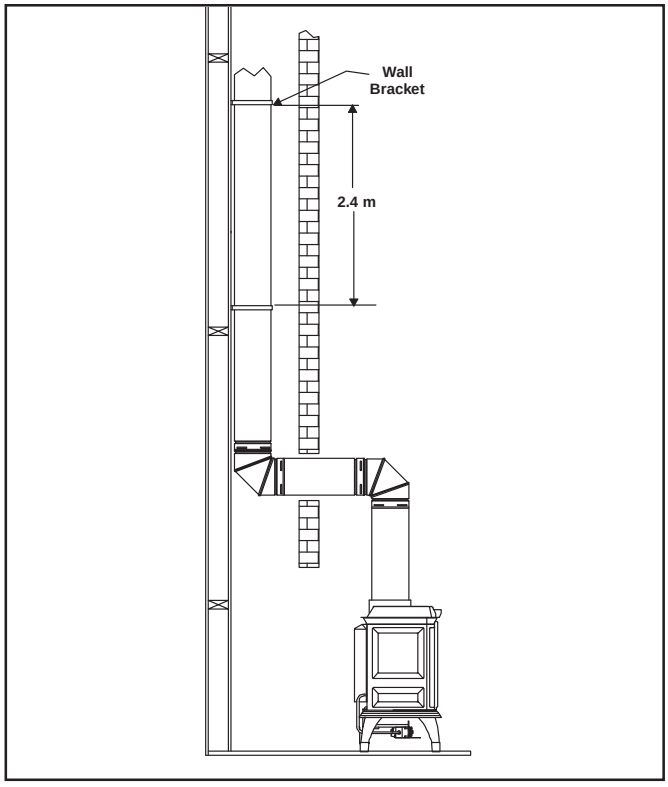


Figure 14. Installing Support Brackets

4. Seal **ALL** outer pipe joints with high temperature silicone compound.

5. Install Firestops

For Horizontal Runs - Firestops are **REQUIRED** on both sides of a combustible wall through which the flue passes.

NOTE

Model SLK-01TRD does not need an exterior firestop on an exterior combustible wall.

To install firestops for horizontal runs that pass through either interior or exterior walls:

- Cut a 254 mm X 254 mm hole through the wall. The center of the hole is 25.4 mm above the center of the horizontal flue pipe.
- Position the firestops on both sides of the hole previously cut and secure the firestops with nails or screws.
- The heat shields of the firestops **MUST BE** placed towards the top of the hole.
- Continue the flue run through the firestops.

NOTE: There must be NO INSULATION or other combustibles inside the framed firestop opening.

1. Cut the 254 mm by 254 mm hole.

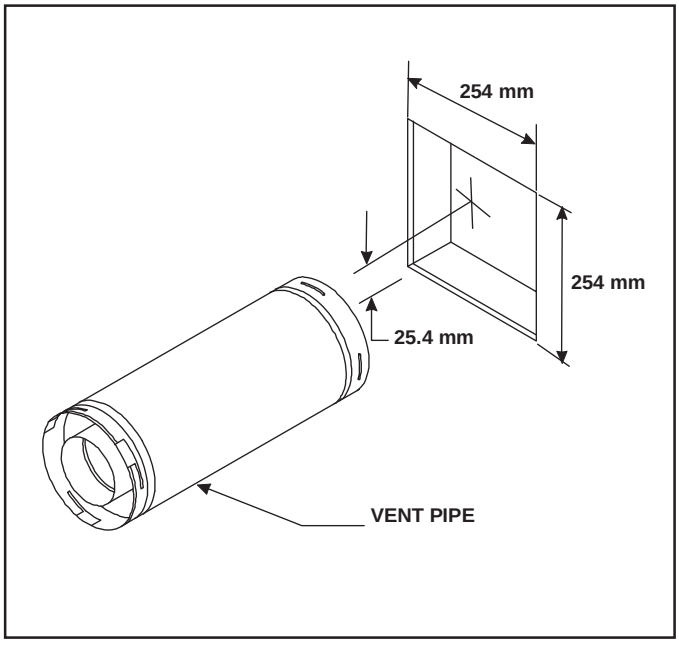


Figure 15. Hole and Flue Pipe

1. Position the firestops.
2. Place the heat shield to the top.
3. Continue the flue run.

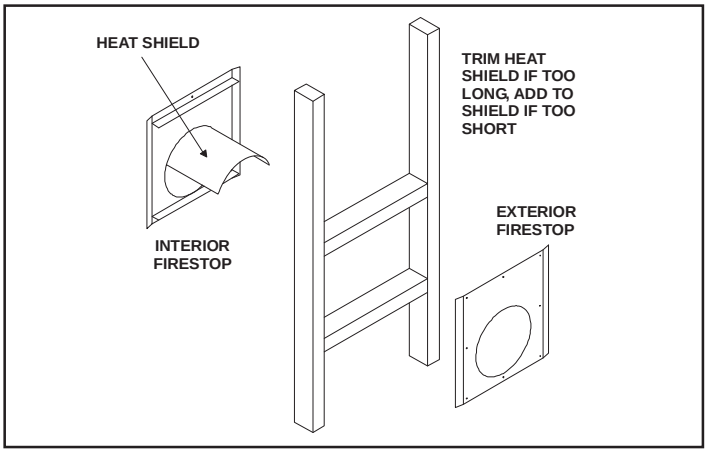


Figure 16. Heat Shield, Interior & Exterior Firestops

For Vertical Runs - One ceiling firestop is **REQUIRED** at the hole in each ceiling through which the flue passes.

To install firestops for vertical runs that pass through ceilings:

- Position a plumb bob directly over the center of the vertical flue component.
- Mark the ceiling to establish the centerpoint of the flue.
- Drill a hole or drive a nail through this centerpoint.
- Check the floor above for any obstructions, such as wiring or plumbing runs.
- Reposition the stove and flue system, if necessary, to accommodate the ceiling joists and/or obstructions.
- Cut an 254 mm X 254 mm hole through the ceiling, using the centerpoint previously marked.
- Frame the hole with framing lumber the same size as the ceiling joists.

NOTE: There must be NO INSULATION or other combustibles inside the framed firestop opening.

1. Cut the 254 mm by 254 mm hole.
2. Add the new framing members.

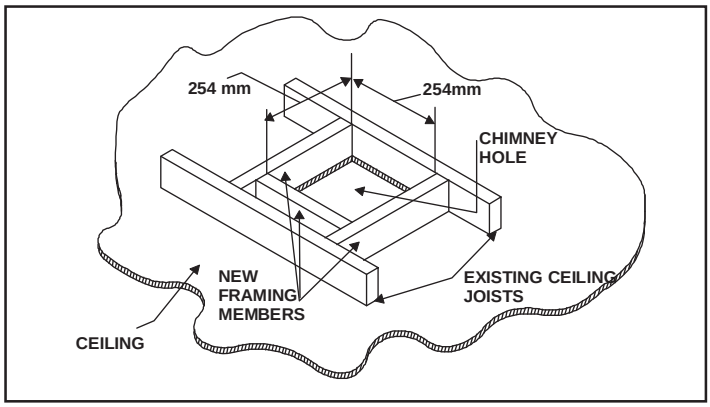


Figure 17. Hole and New Framing Members

If the area above the ceiling is **NOT** an attic, position and secure the ceiling firestop on the ceiling side of the previously cut and framed hole.

This shows a ceiling installation.

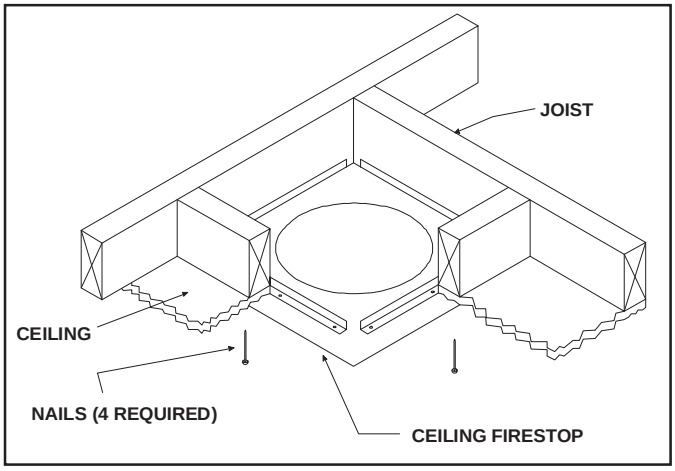


Figure 18. Ceiling Firestop (Ceiling Side)

If the area above the ceiling **IS** an attic, position and secure the firestop on top of the previously framed hole.

This shows an attic installation.

1. Keep insulation away from the vent pipe at least 25 mm.

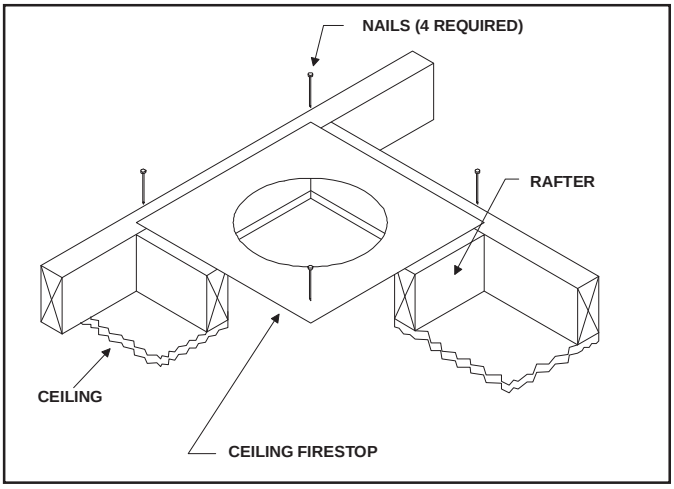


Figure 19. Attic Firestop

D. Flue Termination

For Horizontal Terminations - To attach and secure the termination to the last section of horizontal flue:

- Rotate and interlock the ends as described at the beginning of the Installing Flue Components section.
- The termination kit should pass through the wall firestops from the exterior of the building.
- Adjust the termination cap to its final exterior position on the building.

⚠ WARNING
THE TERMINATION CAP MUST BE POSITIONED SO THAT THE ARROW IS POINTING UP.

For roundcap termination kits:

- Use the exterior pipelock hole provided on the round flange of the wall firestop to secure the flue pipe in place.

For trapezoidal cap termination kits:

- Using screws, secure the cap to the exterior wall through the flanges built into the cap.
- Use a high-temperature sealant or fiberglass rope gasket to seal between the 168 mm pipe and exterior firestop.

For round cap termination:

1. Secure the 168 mm pipe, using the exterior pipelock hole on the round flange of the wall firestop.

For trapezoidal termination:

1. Screw the cap to the exterior wall through the flanges in the cap.
2. Seal the joint between the pipe and the exterior firestop.

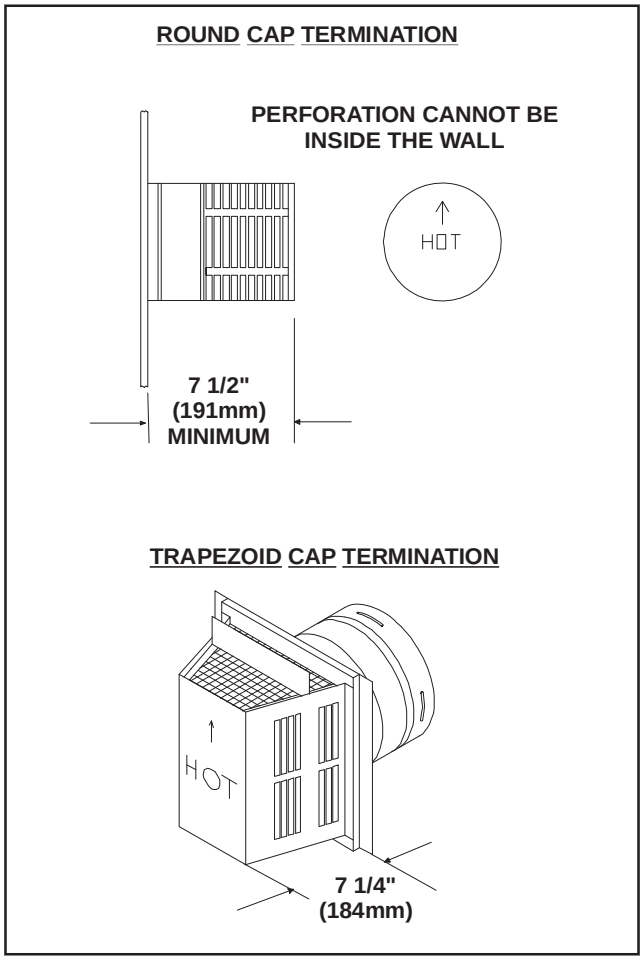


Figure 20. Round and Trapezoid Termination Caps

⚠ WARNING
FOLLOW NATIONAL REGULATIONS AND CODES OF PRACTICE FOR MINIMUM CLEARANCES FROM GAS TERMINALS, AND PLACEMENT OF GAS TERMINAL.

CAUTION

IF EXTERIOR WALLS ARE FINISHED WITH VINYL SIDING, IT IS NECESSARY TO INSTALL THE VINYL PROTECTOR KIT (VPK-DV) TO THE TOP OF THE EXTERIOR FIRESTOP (FOR ALL ROUND TERMINATION CAPS).

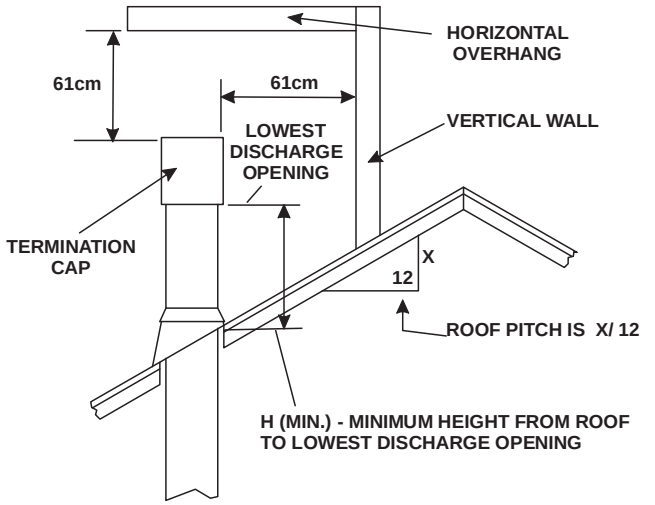
For Vertical Terminations - To locate the flue and install the flue sections:

- Locate and mark the flue centerpoint on the underside of the roof, and drive a nail through the centerpoint.
- Make the outline of the roof hole around the centerpoint nail.
- The size of the roof hole framing dimensions depend on the pitch of the roof. There **MUST BE** a 25.4 mm clearance from the vertical flue pipe to combustible materials.
- Mark the roof hole accordingly.
- Cover the opening of the installed flue pipes.
- Cut and frame the roof hole.
- Use framing lumber the same size as the roof rafters and install the frame securely. Flashing anchored to the frame must withstand heavy winds.
- Continue to install concentric flue sections up through the roof hole (for inside flue installations) or up past the roof line until you reach the appropriate distance above the roof (for outside terminations).

To seal the roof hole, and to divert rain and snow from the flue system:

- Attach a flashing to the roof using nails, and use a non-hardening mastic around the edges of the flashing base where it meets the roof.
- Attach a storm collar over the flashing joint to form a water-tight seal. Place non-hardening mastic around the joint, between the storm collar and the vertical pipe.
- Slide the termination cap over the end of the flue pipe and rotate the pipe clockwise 1/4 turn.

1. Attach the flashing and apply sealant around the edges of the flashing base.
2. Attach the storm collar over the flashing joint and apply sealant between the storm collar and vertical pipe.



Roof Pitch	H (min.) cm
flat to 6/12	30.5
6/12 to 7/12	38
over 7/12 to 8/12	45.75
over 8/12 to 9/12	61
over 9/12 to 10/12	76.25
over 10/12 to 11/12	99
over 11/12 to 12/12	122
over 12/12 to 14/12	152.5
over 14/12 to 16/12	183
over 16/12 to 18/12	213.5
over 18/12 to 20/12	228.75
over 20/12 to 21/12	244

Figure 21. Minimum Height from Roof to Lowest Discharge Opening

Step 3
The Gas Control Systems

WARNING
THIS UNIT IS NOT FOR USE WITH SOLIDFUEL.

Standing Pilot Ignition System
This system includes millivolt control valve, standing pilot, thermopile/thermocouple flame sensor, and piezo ignitor. Make sure the pilot screw on the valve is turned out flush with the valve to obtain largest pilot flame.

WARNING
230 VAC MUST NEVER BE CONNECTED TO A CONTROL VALVE IN A MILLIVOLT SYSTEM.

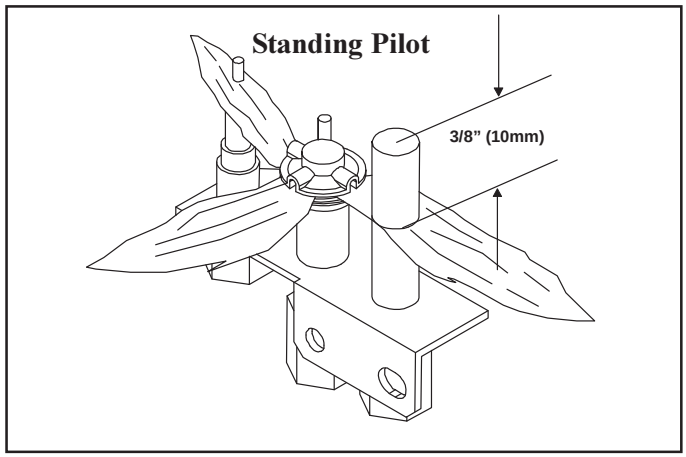


Figure 22. Gas Controls Systems

Step 4
The Gas Supply Line

NOTE: Have the gas supply line installed by a qualified service technician in accordance with all building regulations.

NOTE: Before the first firing of the stove, the gas supply line should be purged of any trapped air.

NOTE: Consult local building regulations to properly size the gas supply line leading to the (Rp 1/2") hook-up at the unit.

The gas inlet connection is ISO 7-Rp 1/2 (BSP Rp 1/2).

To install the gas supply line:

- When attaching the pipe, support the control so that the lines are not bent or torn.
- After the gas line installation is complete, use a soap solution to carefully check all gas connections for leaks.

WARNING
DO NOT USE AN OPEN FLAME TO CHECK FOR GAS LEAKS.

Step 5 Gas Setting Requirements

Pressure requirements for stoves are shown in the table below. (T1 = Tiara I, T2 = Tiara II)

	Natural Gas (G20)	Propane (G31)
Inlet Pressure	20 mbar	37 or 50 mbar
Manifold Pressure	4-8.7 mbar	15.7-25mbar
Gas Rate	.78 m3/h (T1) .93 m 3/h (T2)	.25 m3/h (T1) .27 m3/h (T2)
Max. Input (Net CV)	7.4 kw (T1) 8.8 kW (T2)	6.2 kw (T1) 8.8 kW (T2)
Burner Injector	DMS 38 (T1) DMS 34 (T2)	DMS 53 (T1) DMS 51 (T2)
Pilot Injector	51	35

A tap is provided on the outlet side of the gas control for a test gauge connection to measure the manifold pressure. To measure inlet pressure, provisions must be made to attach a test gauge to the tap immediately upstream of the gas supply connection to the stove.

The stove and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of 60 mbar.

If the stove must be isolated from the gas supply piping system by closing an individual shut-off valve, it must be of the handle-less type.

Step 6 Wiring the Stove

NOTE: Electrical wiring must be installed by a competent electrician.

For Standing Pilot Ignition Wiring

Appliance Requirements

- This appliance **DOES NOT** require 230 VAC to operate.

⚠ **WARNING: DO NOT CONNECT 230 VAC TO THE GAS CONTROL VALVE OR THE APPLIANCE WILL MALFUNCTION AND THE VALVE WILL BE DESTROYED.**

Optional Accessories

Optional fan and remote control kits require that 230 VAC be wired to the factory installed junction box before the stove is permanently installed.

Wall Switch

Position the wall switch in the desired position on a wall. Run a maximum of 7.8 m or less length of 1.02 mm diameter minimum wire and connect it to the stove ON/OFF switch pigtails.

⚠ WARNING
DO NOT CONNECT 230 VAC TO THE WALL SWITCH OR THE CONTROL VALVE WILL BE DESTROYED.

CAUTION

LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.

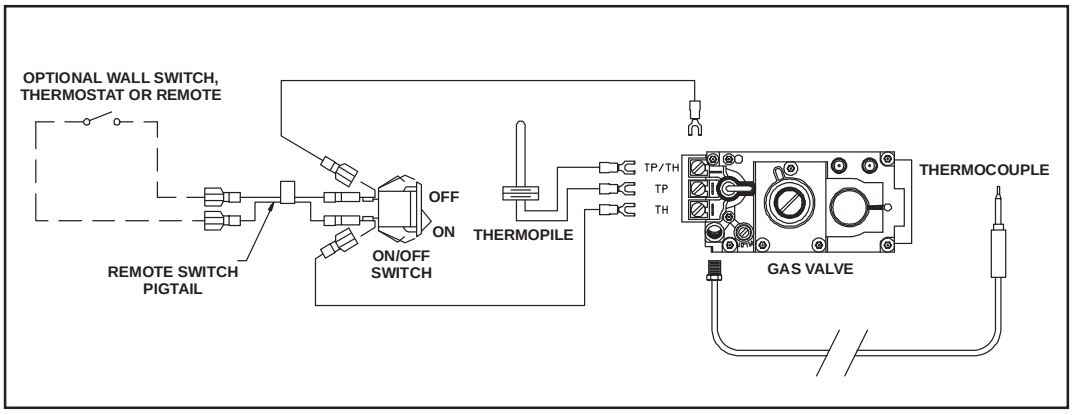


Figure 23. Standing Pilot Ignition Wiring Diagram

Step 7 Finishing

⚠ WARNING: WHEN FINISHING THE STOVE, NEVER OBSTRUCT OR MODIFY THE AIR INLET/OUTLET GRILLES IN ANY MANNER.

Do not install combustible mantel or other combustible projection closer than 1.4m minimum above the base of the stove.

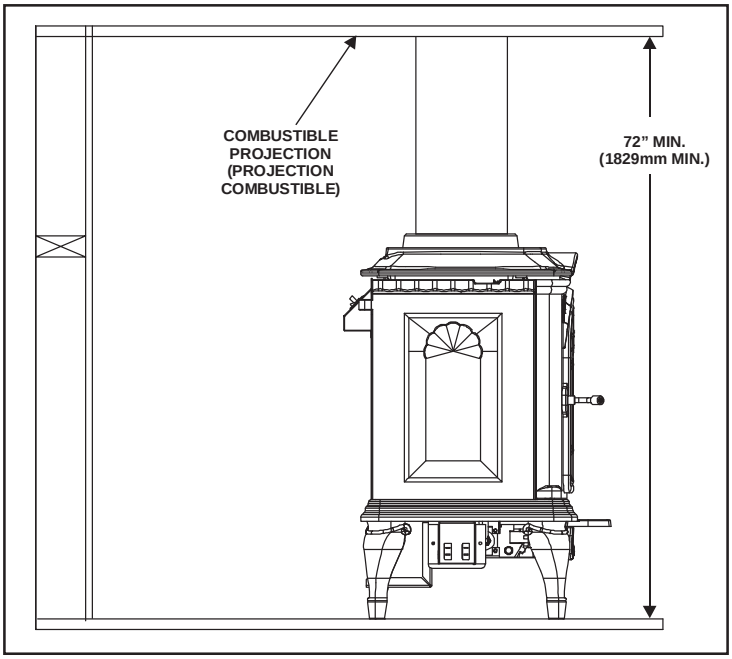


Figure 24. Combustible Mantel Minimum

Step 8 Placement of Ember Material

Positioning the Logs

If the gas logs have been factory installed they should not need to be positioned.

If the logs have been packaged separately, refer to the logs installation instructions.

If sooting occurs, the logs might need to be repositioned slightly to avoid excessive flame impingement.

Placing the Ember Material

- The bag labeled Glowing Ember (050-721) is standard glowing ember material.

To place the ember material:

- Remove the glass door from the unit.
- Cover the top of the burner with a single layer of 10 mm diameter thin discs of ember material.
- Save the remaining ember materials and give to user for use during stove servicing.
- Replace the glass door and a front trim door on the unit (see Replacement Parts Section of the manual.)

1. Place the ember material directly onto the top of the burner.

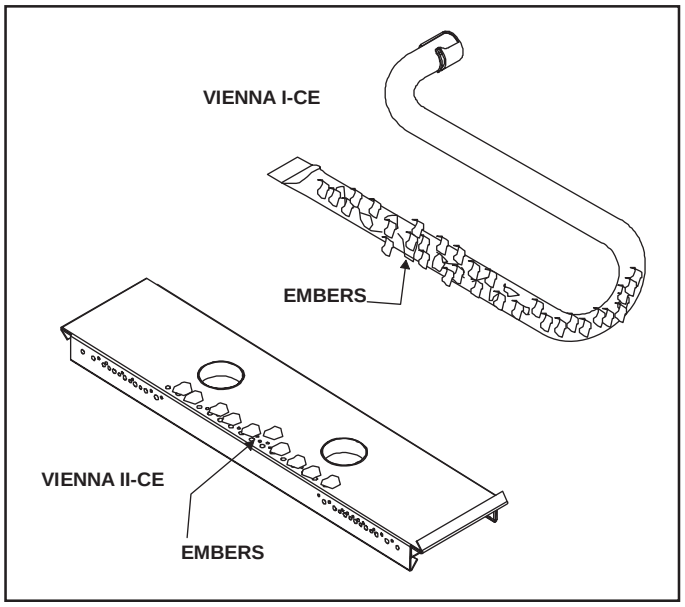


Figure 25. Placement of the Ember Material

Wing Bolt

After logs have been installed pull skirt plate forward (see Figure 26). Insert wing bolt (see Figure 27) from underneath and behind the ashlip (see Figure 28). Close door and thread the wing bolt completely up into the hole on the door.

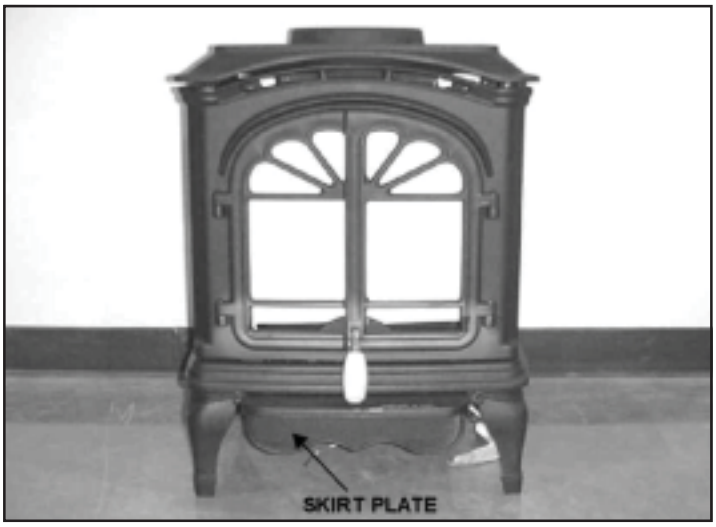


Figure 26

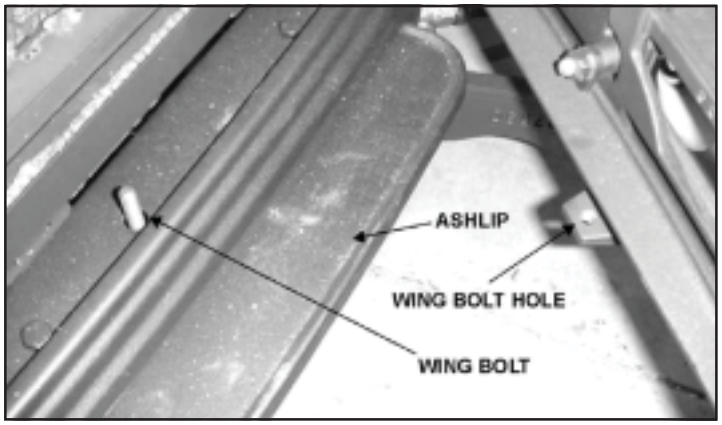


Figure 27

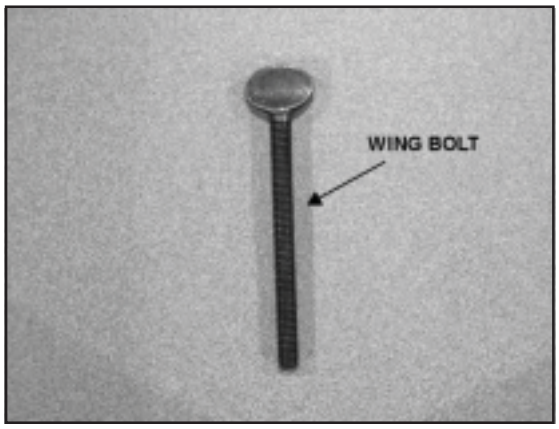


Figure 28

Step 9 Before Lighting the Stove

Before lighting the stove, be sure to do the following:

Review safety warnings and cautions

- Read the **Safety and Warning Information** section at the beginning of this *Installers Guide*.

Double-check for gas leaks

- Before lighting the stove, double-check the unit for possible gas leaks.

Double-check flue terminations for obstructions.

- Before lighting the stove, double-check the unit for possible obstructions that could be blocking the flue terminations.

Double-check for faulty components

- Any component that is found to be faulty **MUST BE** replaced with an approved component. Tampering with the stove components is **DANGEROUS** and voids all warranties.

A small amount of air will be in the gas supply lines. When first lighting the stove, it will take a few minutes for the lines to purge themselves of this air. Once the purging is complete, the stove will light and will operate normally.

Subsequent lightings of the stove will not require this purging of air from the gas supply lines, **unless the gas valve has been turned to the OFF position**, in which case the air would have to be purged.

NOTE: The stove should be run 3 to 4 hours on the initial start-up. Turn it off and let it cool completely. Remove and clean the glass. Replace the glass and run the stove for an additional 8 hours. This will help to cure the chemicals used in the paint and logs.

Step 10 Lighting the Stove

You've reviewed all safety warnings, you've checked the stove for gas leaks, you know the flue system is unobstructed, and you've checked for faulty components. Now you're ready to light the stove.

⚠ **WARNING**
PLEASE REFER TO THE USER'S MANUAL FOR ALL CAUTIONS, SAFETY, AND WARNING INFORMATION PERTAINING TO THE LIGHTING AND OPERATION OF THE STOVE.

After the Installation

LEAVE THIS INSTALLATION MANUAL WITH THE APPLIANCE FOR FUTURE REFERENCE.

4

Maintaining and Servicing Your Stove

Stove Maintenance

Although the frequency of your stove servicing and maintenance will depend on use and the type of installation, you should have a qualified service technician perform an appliance check-up at the beginning of each heating season. See the table below for specific guidelines regarding each stove maintenance task.

IMPORTANT *TURN OFF THE GAS BEFORE SERVICING YOUR STOVE.*

Type of Stove Maintenance	Frequency	By	Stove Maintenance Task To Be Completed
Replacing Old Ember Material	Once annually, during the annual check-up	Qualified Service Technician	Brush away loose ember material near the burner. Replace old ember material with new 10 mm thin pieces Glowing Ember (050-721). New ember material should be placed on top of the burner. Save the remaining ember material and repeat this procedure at your next servicing. For more information, see **Placing Ember Material** in the **INSTALLERS GUIDE.**
Cleaning Burner & Controls	Once annually	Qualified Service Technician	Brush or vacuum the control compartment, stove logs, and burner areas surrounding the logs.
Checking Flame Patterns, **Flame Height**	Periodically	Qualified Service Technician/ Owner	Make a visual check of your stove's flame patterns. Make sure the flames are steady—not lifting or floating. See the picture in Figure 23**.** The thermopile/ thermocouple tips should be covered with flame. See the picture in Figure 24.
Checking Flue System	Before initial use and at least annually thereafter, more frequently if possible	Qualified Service Technician/ Owner	Inspect the external terminal cap on a regular basis to ensure that no debris is interfering with the flow of air. Inspect flue system for proper function.
Cleaning Glass Door	After the first 3 to 4 hours of use. As necessary after initial cleaning.	Home Owner	Remove and clean glass after the first 3 to 4 hours of use. After the initial cleaning, clean as necessary, particularly after adding new ember (flame colorant) material. Film deposits on the inside of the glass door should be cleaned off using a household glass cleaner. **NOTE: DO NOT handle or attempt to clean the door when it is hot and DO NOT use abrasive cleaners.**

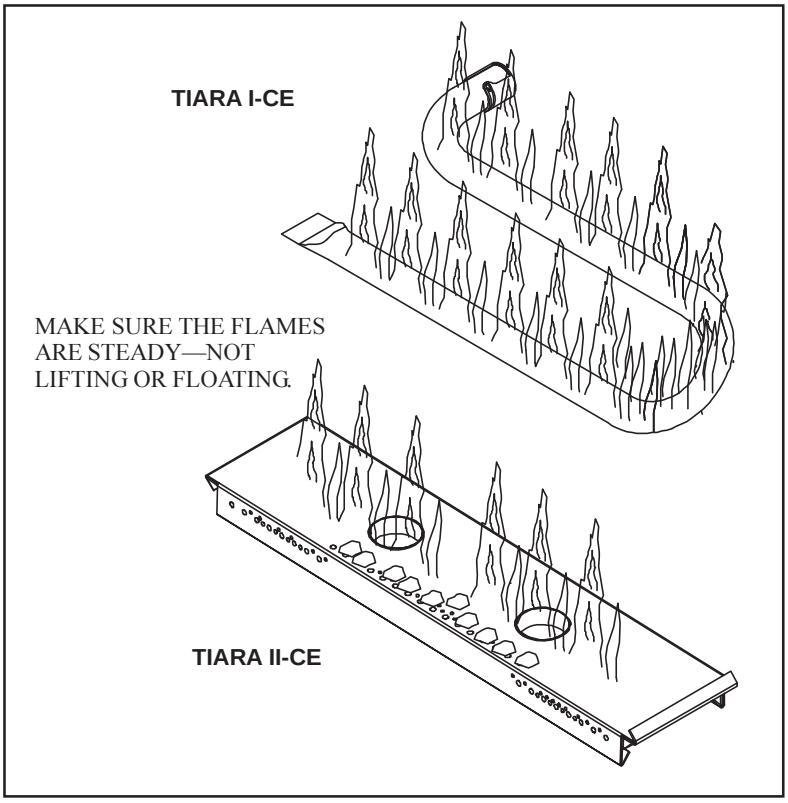


Figure 26. Burner Flame Patterns

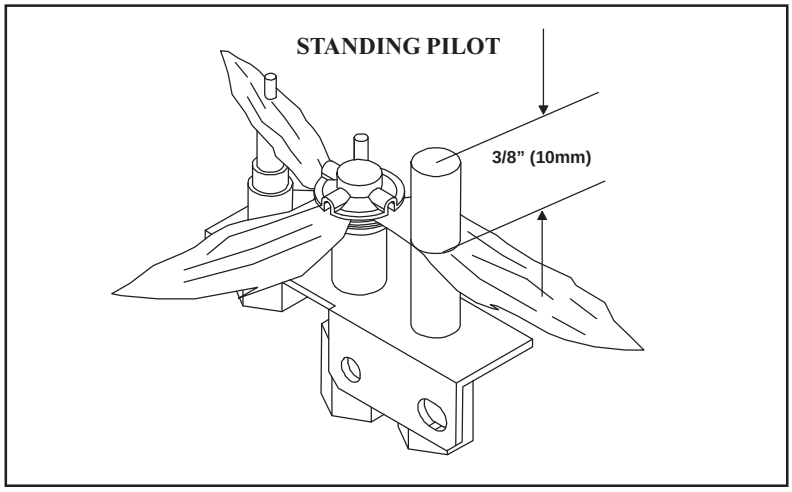


Figure 27. Pilot Flame Patterns

5

Troubleshooting

With proper installation, operation, and maintenance your gas stove will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist a qualified service person in the diagnosis of a problem and the corrective action to be taken. This troubleshooting guide can only be used by a qualified service technician.

Standing Pilot Troubleshooting

Symptom	Possible Cause	Corrective Action
1. After repeated triggering of the red piezo button, the spark ignitor will not light the pilot.	a. Defective ignitor	Check the spark at the electrode and pilot. If no spark and electrode wire is properly connected, replace the ignitor.
	b. Defective pilot or misaligned electrode (spark at electrode)	Using a match, light the pilot. If the pilot lights, turn off the pilot and trigger the red piezo button again. If the pilot lights, an improper gas/air mixture caused the bad lighting and a longer purge period is recommended. If the pilot will not light, ensure that the gap at the electrode and pilot is 3 mm to have a strong spark. If the gap is OK, replace the pilot.
	c. No gas or low gas pressure	Check the remote shut-off valves from the stove. Usually, there is a valve near the gas main. There can be more than one (1) valve between the stove and the main.
	d. No LP in the tank	Check the LP (propane) tank. You may be out of fuel.
2. The pilot will not stay lit after carefully following the lighting instructions.	a. Defective thermocouple	Check that the pilot flame impinges on the thermocouple. Clean and/or adjust the pilot for maximum flame impingement. Ensure that the thermocouple connection at the gas valve is fully inserted and tight (hand tighten plus 1/4 turn). Disconnect the thermocouple from the valve, place one millivolt meter lead wire on the tip of the thermocouple and the other meter lead wire on the thermocouple copper lead. Start the pilot and hold the valve knob in. If the millivolt reading is less than 15mV, replace the thermocouple.
	b. Defective valve	If thermocouple is producing more than 15 millivolts, replace faulty valve.
3. The pilot is burning, there is no gas burner, the valve knob is in the ON position, and the ON/OFF switch is in the ON position.	a. ON/OFF switch or wires defective	Check the ON/OFF switch and wires for proper connections. Place the jumper wires across the terminals at the switch. If the burner comes on, replace the defective switch. If the switch is OK, place the jumper wires across the switch wires at the gas valve. If the burner comes on, the wires are faulty or connections are bad.
	b. Thermopile may not be generating sufficient millivoltage	If the pilot flame is not close enough physically to the thermopile, adjust the pilot flame. Be sure the wire connections from the thermopile at the gas valve terminals are tight and that the thermopile is fully inserted into the pilot bracket.

Symptom	Possible Cause	Corrective Action
3. (Continued)		Check the thermopile with a millivolt meter. Take the reading at TH-TP&TP terminals of the gas valve. The meter should read 325 millivolts minimum, while holding the valve knob depressed in the pilot position, with the pilot lit, and the ON/OFF switch in the OFF position. Replace the faulty thermopile if the reading is below the specified minimum. With the pilot in the ON position, disconnect the thermopile leads from the valve. Take a reading at the thermopile leads. The reading should be 325 millivolts minimum. Replace the thermopile if the reading is below the minimum.
	c. Defective valve	Turn the valve knob to the ON position. Place the ON/OFF switch in the ON position. Check the millivolt meter at the thermopile terminals. The millivolt meter should read greater than 125mV If the reading is acceptable, and if the burner does not come on, replace the gas valve.
	d. Plugged burner orifice	Check the burner orifice for stoppage. Remove stoppage.
	e. Wall switch or wires are defective	Follow the corrective action in Symptom and Possible Cause 1. a. above. Check the switch and wiring. Replace where defective.
4. Frequent pilot outage problem.	a. Pilot flame may be too high or too low, or blowing (high), causing pilot safety to drop out	Clean and adjust the pilot flame for maximum flame impingement on thermocouple. Follow lighting instructions carefully.

Symptom	Possible Cause	Corrective Action
5. The pilot and main burner extinguish while in operation.	a. No LP in the tank	Check the LP (propane) tank. Refill the fuel tank.
	b. Inner flue pipe leaking exhaust gases back into the system	Check for gas leaks.
	c. Horizontal flue improperly pitched	The horizontal flue cap should slope down only enough to prevent any water from entering the unit. The maximum downward slope is 6 mm.
	d. Glass too loose and air tight packet leaks in corners after usage	Tighten the corner.
	e. Bad thermopile or thermocouple	Replace if necessary.
	f. Improper vent cap installation	Check for proper installation and freedom from debris or blockage.
6. Glass soots.	a. Flame impingement	Adjust the log set so that the flame does not excessively impinge on it.
	b. Improper venturi setting	Adjust the air shutter at the base of the burner.
	c. Debris around venturi	Inspect the opening at the base of the burner. NO MATERIAL SHOULD BE PLACED IN THIS OPENING.
7. Flame burns blue and lifts off burner.	a. Insufficient oxygen being supplied	Ensure that the flue cap is installed properly and free of debris. Ensure that the flue system joints are tight and have no leaks. Ensure that no debris has been placed in the area at the base of, or in the area of, the air holes in the center of the base pan beneath the burner. Ensure that the glass is tightened properly on the unit, particularly on top corners.