



Monessen Hearth Systems Company

Model: KSTDV500

Installation and Operating Instructions

WARNING

IF THE INFORMATION IN THESE INSTRUCTIONS IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

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

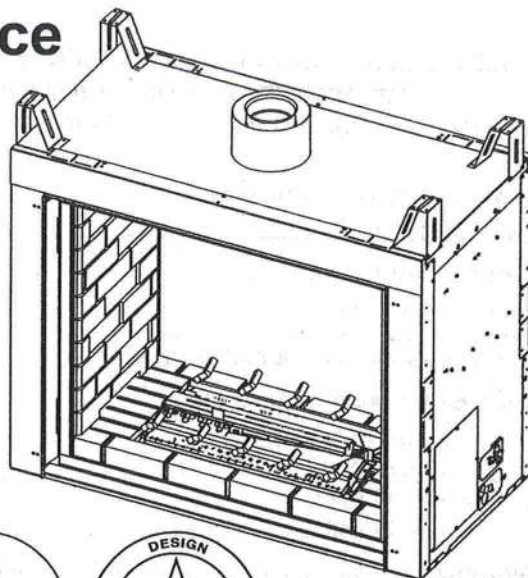
WARNING: Improper installation, adjustment, alteration, services or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

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

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

* Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer.

KSTDV Series Direct Vent Gas Fireplace



WARNING

DUE TO HIGH TEMPERATURES, THE APPLIANCE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES.

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 SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.

CLOTHING OR OTHER FLAMMABLE MATERIAL SHOULD NOT BE PLACED ON OR NEAR THE APPLIANCE.

KEEP THE ROOM AREA CLEAR AND FREE FROM COMBUSTIBLE MATERIALS, GASOLINE, AND OTHER FLAMMABLE VAPORS AND LIQUIDS.

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

INSTALLER

Please leave these instructions with the appliance.

OWNER

Please retain these instructions for future reference.

WARNING

- Read this owner's manual carefully and completely before trying to assemble, operate, or service this fireplace.
- Any change to this fireplace or its controls can be dangerous.
- Improper installation or use of this fireplace can cause serious injury or death from fire, burns, explosions, electrical shock and carbon monoxide poisoning.

This fireplace is a vented product. This fireplace must be properly installed by a qualified service person. The glass door must be properly seated and sealed. If this unit is not properly installed by a qualified service person with glass door properly seated and sealed, combustion leakage can occur.

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

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

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

1. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases unless a certified kit is used.
2. For propane/LP fireplace, do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.
3. If you smell gas
 - shut off gas supply.
 - do not try to light any appliance.
 - do not touch any electrical switch; do not use any phone in your building.
 - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.

4. Never install the fireplace
 - in a recreational vehicle
 - where curtains, furniture, clothing, or other flammable objects are less than 42" from the front, top, or sides of the fireplace
 - in high traffic areas
 - in windy or drafty areas
5. This fireplace reaches high temperatures. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surfaces to cool before touching.
6. Carefully supervise young children when they are in the room with fireplace.
7. Do not modify fireplace under any circumstances. Any parts removed for servicing must be replaced prior to operating fireplace.
8. Turn fireplace off and let cool before servicing, installing, or repairing. Only a qualified service person should install, service, or repair the fireplace. Have burner system inspected annually by a qualified service person.
9. You must keep control compartments, burners, and circulating air passages clean. More frequent cleaning may be needed due to excessive lint and dust. Turn off the gas valve and pilot light before cleaning fireplace.
10. Have venting system inspected annually by a qualified service person. If needed, have venting system cleaned or repaired. Refer to *Cleaning and Maintenance*, Page 43.
11. Keep the area around your fireplace clear of combustible materials, gasoline, and other flammable vapor and liquids. Do not run fireplace where these are used or stored. Do not place items such as clothing or decorations on or around fireplace.
12. Do not use this fireplace to cook food or burn paper or other objects.
13. Never place anything on top of fireplace.
14. Do not use any solid fuels (wood, coal, paper, cardboard, etc.) in this fireplace. Use only the gas type indicated on rating plate.

PRODUCT FEATURES

KSTDV Series Gas Fireplace

PRODUCT SPECIFICATIONS

- This appliance has been certified for use with either natural or propane gas. See appropriate data plates.
- This appliance is not for use with solid fuels.
- The appliance is approved for bedroom or bedsitting room installations.
- The appliance must be installed in accordance with local codes if any. If none exist use the current installation code. ANSI Z223.1/NFPA 54 in the USA, CSA B149 in Canada.
- This appliance is mobile home approved.
- The appliance must be properly connected to a venting system.
- The appliance is not approved for closet or recessed installations.

HIGH ELEVATIONS

Input ratings are shown in BTU per hour and are certified without deration for elevations up to 4,500 feet (1,370 m) above sea level.

For elevations above 4,500 feet (1,370 m) in USA, installations must be in accordance with the current ANSI Z223.1/NFPA 54 and/or local codes having jurisdiction.

In Canada, please consult provincial and/or local authorities having jurisdiction for installations at elevations above 4,500 feet (1,370 m).

GAS PRESSURES

	Natural	Propane (LP)
Inlet Minimum	4.5" w.c.	11.0" w.c.
Inlet Maximum	10.5" w.c.	13.0" w.c.
Manifold Pressure	3.5" w.c.	10.0" w.c.

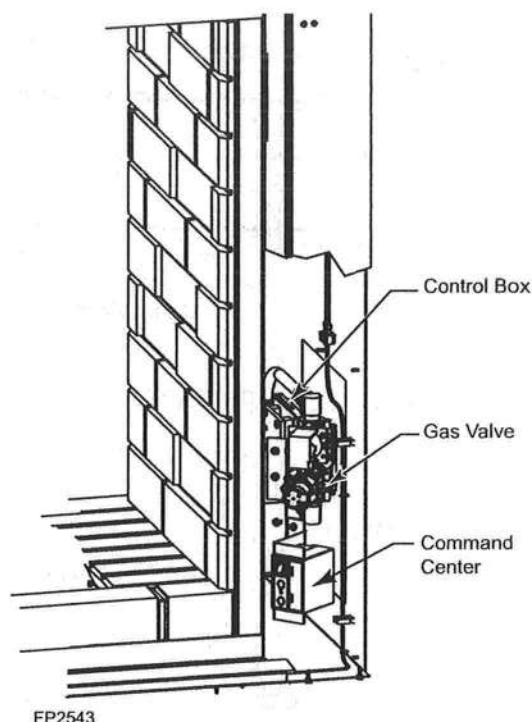


Figure 1 -
KSTDV Controls

GAS SPECIFICATIONS & ORIFICE SIZE

Model	Fuel	Btu/hr Input		
		Max. All Burners	Min. All Burners	Front Burners Only
KSTDV500	Nat.	56,000	37,000	30,000
KSTDV500	LP	56,000	44,000	27,000

Model	Fuel	Orifice Size	
		Front (2)	Middle
KSTDV500	Nat.	#46	#29
KSTDV500	LP	#56	#50

BEFORE YOU START

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

- Fireplace (Firebox and Burner System)
- Log Set
- Rock Wool
- White Toggle Switch
- Fasteners
- Restrictor Plate/Disc (2)
- Switch Cover Plate

ITEMS REQUIRED FOR INSTALLATION

- Phillips Screwdriver
- Hammer
- Saw and/or saber saw
- Measuring Tape
- Electric Drill and Bits
- Pipe Wrench
- Noncombustible Panel
- Caulking Material (noncombustible)
- Fireplace Surround Material (noncombustible)
- Piping Complying with Local Codes
- Pipe Sealant Approved for use with Propane/LPG (Resistant to sulfur compounds)
- Framing Materials
- Wall Finishing Materials
- Level
- Pliers
- Square
- Tee Joint

WARNING

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

NOTE**COLD CLIMATE INSULATION**

If you live in a cold climate, seal all cracks around your appliance, and wherever cold air could enter the room, with noncombustible material. It is especially important to insulate the outside chase cavity between the studs and under the floor on which the appliance rests, if the floor is above ground level.

FIREBOX FRAMING

Firebox framing can be built before or after the appliance is set in place. Construct firebox framing following *Figure 2* for your specific installation requirements. The framing headers may rest on the top of the firebox standoffs. Do not bring headers below top of standoffs. **NOTE:** When planning your framing and installation, keep in mind that your gas line will come in on the right side of the box (as you are facing it) and your electricity will come in on the left side.

The firebox may be installed directly on a combustible floor or raised on a platform of an appropriate height. When the firebox is installed directly on carpeting, tile, or other combustible material, other than wood flooring, the firebox shall be installed on a metal or wood panel extending the full width and depth of the enclosure.

CLEARANCES TO COMBUSTIBLES

WARNING

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

The appliance cannot be installed on a carpet, tile or other combustible material other than wood flooring. If installed on carpet or vinyl flooring, the appliance shall be installed on a metal, wood or noncombustible material panel extending full width and depth of the appliance.

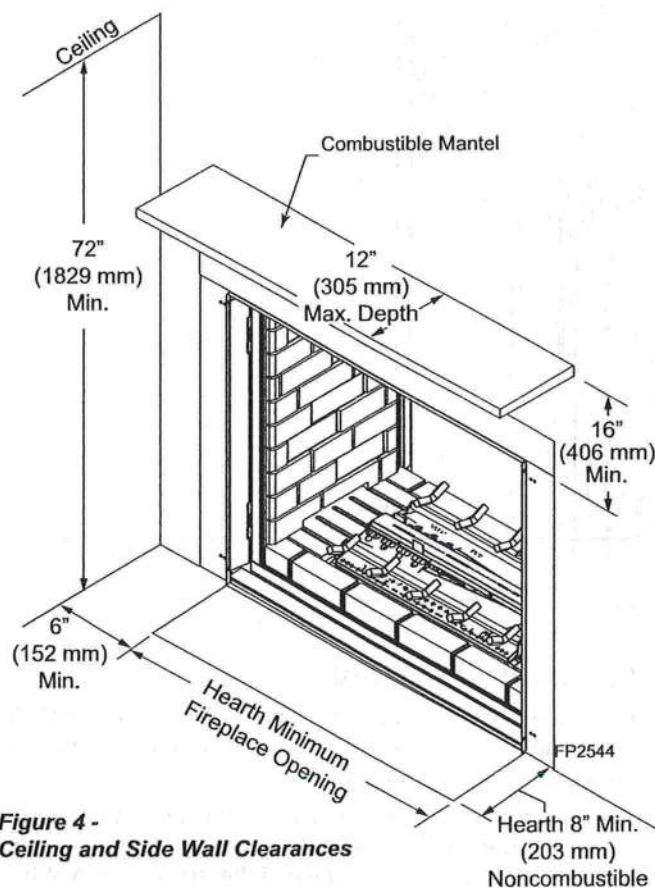
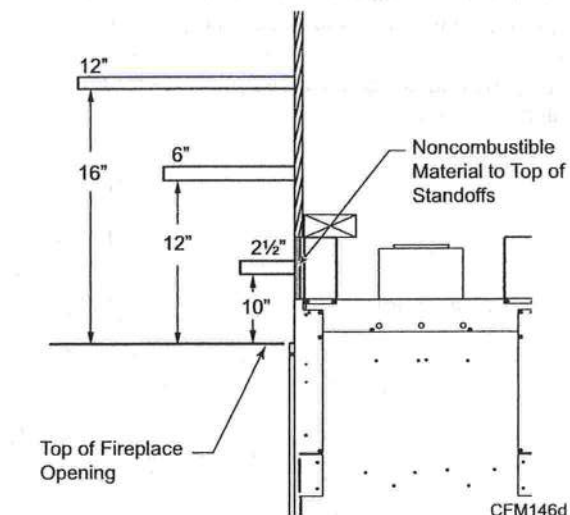


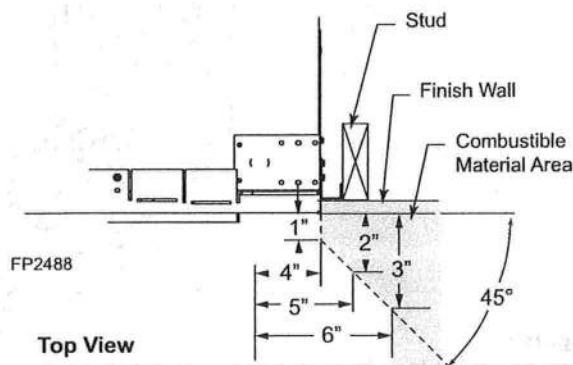
Figure 4 - Ceiling and Side Wall Clearances

MANTEL CLEARANCES

NOTE: The combustible area above the facing must not protrude more than 1/2" from the facing. If it does, it is considered a mantel and must meet the mantel requirements listed in this manual.



Side View



Top View

Figure 5 - Mantel Clearance

WARNING

Never obstruct or modify the air inlet or outlet grilles (louvers). This may create a fire hazard.

WARNING

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

INSTALLATION PRECAUTIONS

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

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

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

The following actions will void the warranty on your venting system:

- Installation of any damaged venting component.
- Unauthorized modification of the venting system.
- Installation of any component part not manufactured or approved by MHSC
- Installation other than permitted by these instructions.

WARNING

Horizontal sections of this vent system require a minimum of 3" clearances to combustibles at the top of the flue and 1" clearance at the sides and bottom *until the flue penetrates the outside wall*. A minimum 1" clearance all around the flue is acceptable at this point of penetration. Unless the vertical run is 7½ feet or higher from floor of fireplace, the clearance for horizontal run is 1" on all sides.

Vertical sections of this vent system require a minimum of 2" clearance to combustibles at the top of the unit directly above the stand-off. A minimum of 1" clearance all around the flue is acceptable thereafter.

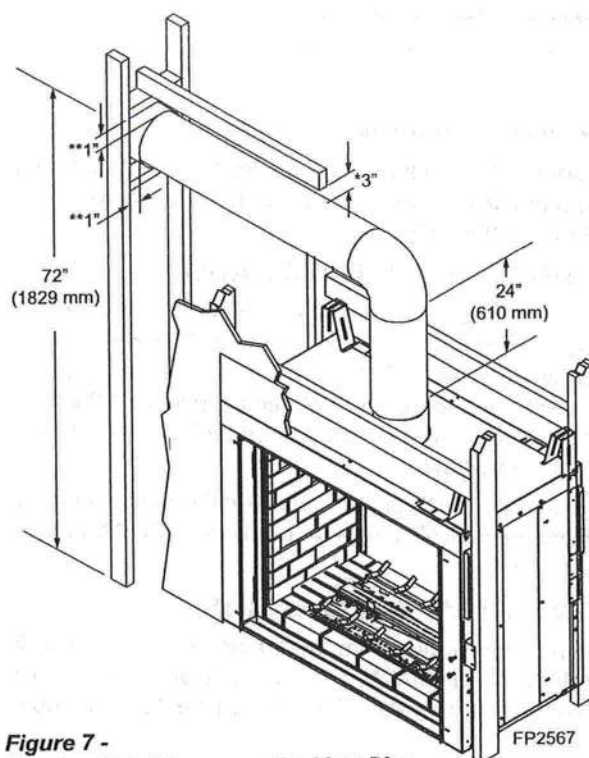


Figure 7 - Combustible Clearances for Vent Pipe

* A minimum of 3" clearance to the top is required along horizontal length until flue pipe penetrates outside wall.

** A minimum 1" clearance to combustibles permitted all around flue at outside wall

WARNING

This fireplace must be vented to the outside. The venting system must NEVER be attached to a chimney serving a separate solid fuel burning appliance. Each gas appliance must use a separate vent system. Do not use common vent systems.

NOTICE

Failure to follow these instructions will void the warranty.

GENERAL VENTING INFORMATION - TERMINATION LOCATION

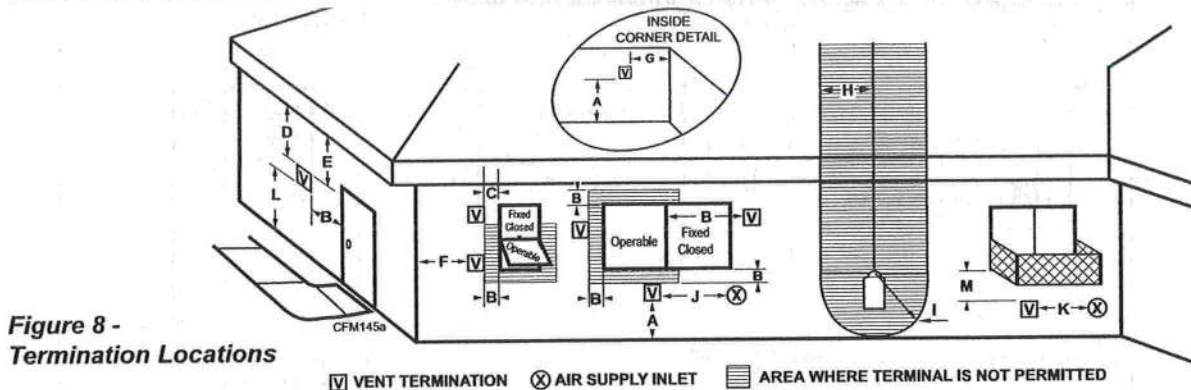


Figure 8 - Termination Locations

	Canadian Installations ¹	US Installations ²
A = Clearance above grade, veranda, porch, deck, or balcony	12" (30 cm)	12" (30 cm)
B = Clearance to window or door that may be opened	6" (15 cm) for appliances < 10,000 BTU/h (3kW), 12" (30 cm) for appliances > 10,000 Btuh (3kW) and < 100,000 BTU/h (30kW), 36" (91 cm) for appliances > 100,000 BTU/h (30kW)	6" (15 cm) for appliances < 10,000 BTU/h (3kW), 9" (23 cm) for appliances > 10,000 Btuh (3kW) and < 50,000 BTU/h (15kW), 12" (30 cm) for appliances > 50,000 BTU/h (15kW)
C = Clearance to permanently closed window	12" (305 mm) recommended to prevent window condensation	12" (305 mm) recommended to prevent window condensation
D = Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2' (610mm) from the center line of the terminal	18" (458 mm)	18" (458 mm)
E = Clearance to unventilated soffit	12" (305 mm)	12" (305 mm)
F = Clearance to outside corner	see next page	see next page
G = Clearance to inside corner (see next page)	see next page	see next page
H = Clearance to each inside of center line extended above meter/regulator assembly	3' (91 cm) within a height of 15' (5 m) above the meter/regulator assembly	3' (91 cm) within a height of 15' (5 m) above the meter/regulator assy
I = Clearance to service regulator vent outlet	3' (91 cm)	3' (91 cm)
J = Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliances	6" (15 cm) for appliances < 10,000 BTU/h (3kW), 12" (30 cm) for appliances > 10,000 BTU/h (3kW) and < 100,000 Btuh (30kW), 36" (91 cm) for appliances > 100,000 BTU/h (30kW)	6" (15 cm) for appliances < 10,000 BTU/h (3kW), 9" (23 cm) for appliances > 10,000 BTU/h (3kW) and < 50,000 BTU/h (15kW), 12" (30 cm) for appliances > 50,000 BTU/h (15kW)
K = Clearance to a mechanical air supply inlet	6' (1.83 m)	3' (91 cm) above if within 10' (3 m) horizontally
L = Clearance above paved sidewalk or paved driveway located on public property	7' (2.13 m)†	7' (2.13 m)†
M = Clearance under veranda, porch, deck or balcony	12" (30 cm)‡	12" (30cm)‡

1 In accordance with the current CSA-B149 Installation Codes

2 In accordance with the current ANSI Z223.1/NFPA 54 National Fuel Gas Codes

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

‡ only permitted if veranda, porch, deck or balcony is fully open on a minimum 2 sides beneath the floor:

NOTE: 1. Local codes or regulations may require different clearances.

2. The special venting system used on Direct Vent Fireplaces are certified as part of the appliance, with clearances tested and approved by the listing agency.

3. MHSC assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

VENTING INSTALLATION

KSTDV Series Gas Fireplace

VERTICAL SIDEWALL INSTALLATION

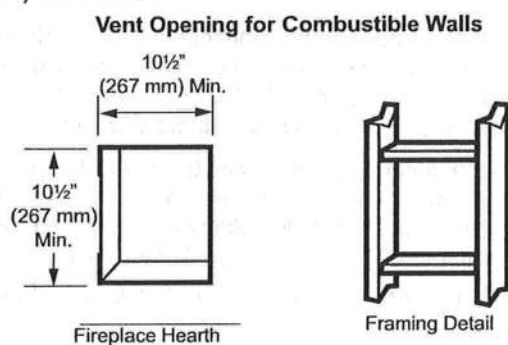
NOTE: Sealant is not required to assemble fireplace venting. Do not use silicone sealant at the inner flue exhaust connections.

Step 1

Locate vent opening on the wall. It may be necessary to first position the fireplace and measure to obtain hole location. Depending on whether the wall is combustible or noncombustible, cut opening to size. *Figure 11* (For combustible walls first frame in opening.)

Combustible Walls: Cut a 10½"H x 10½"W (267 x 267 mm) hole through the exterior wall and frame as shown. *Figure 11*

Noncombustible Walls: Hole opening must be 8½" (216 mm) in diameter.



Opening for Noncombustible Wall

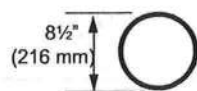


Figure 11 -
Locate vent opening on wall

Step 2

Secure firestop to the inside frame, center in the 10½" x 10½" vent opening.

Step 3

Place fireplace into position. Measure the vertical height (X) required from the base of the flue collars to the center of the wall opening. *Figure 12*

Step 4

Using appropriate length of pipe section(s) attach to fireplace with three (3) screws. Follow with the installation of the elbow.

Step 5

Measure the horizontal length requirement figuring a 1¼" (32 mm) overlap, i.e. from the elbow to the outside wall cap. *Figure 13*

Figure 12 -
Vertical Height Requirement

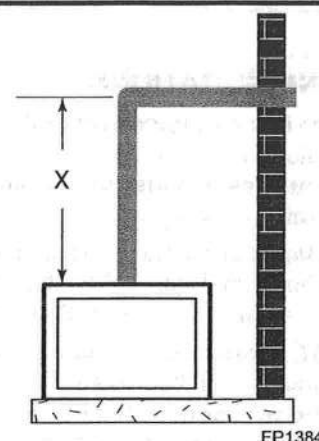
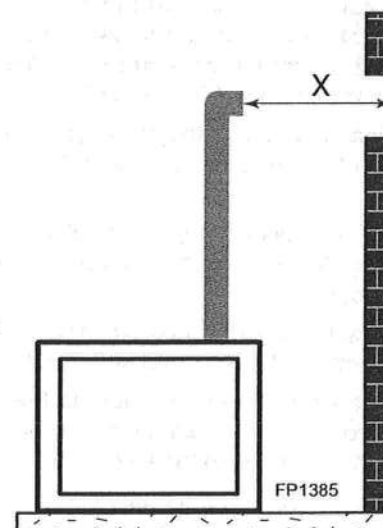


Figure 13 -
Horizontal Length Requirement



Always install horizontal venting on a level plane.

Step 6

Use appropriate length of pipe sections - telescopic or fixed - and install.

Sealing vent pipe and firestop gaps with high temperature sealant will restrict cold air being drawn in around fireplace.

Step 7

Guide the vent terminations 5" and 8" collard into their respective vent pipes. Double check that the vent pipes overlap the collars by a minimum of 1¼" (32 mm). Secure the termination to the wall with screws provided and caulk around the wall plate to weatherproof. As an alternative to screwing the termination directly to the wall, you may also use expanding plugs or an approved exterior construction adhesive.



Support horizontal pipes every 36" (914 mm) with metal pipe straps.

VENTING INSTALLATION

KSTDV Series Gas Fireplace

- For each 45° elbow installed in the horizontal run, the length of the horizontal run **MUST** be reduced by 18" (457 mm). This does not apply if the 45° elbows are installed on the vertical part of the vent system.
- The maximum number of elbow degrees in a system is 270°. *Figure 17*

Example:

Elbow 1	=	90°
Elbow 2	=	45°
Elbow 3	=	45°
Elbow 4	=	90°
Total Angular Variation = 270°		

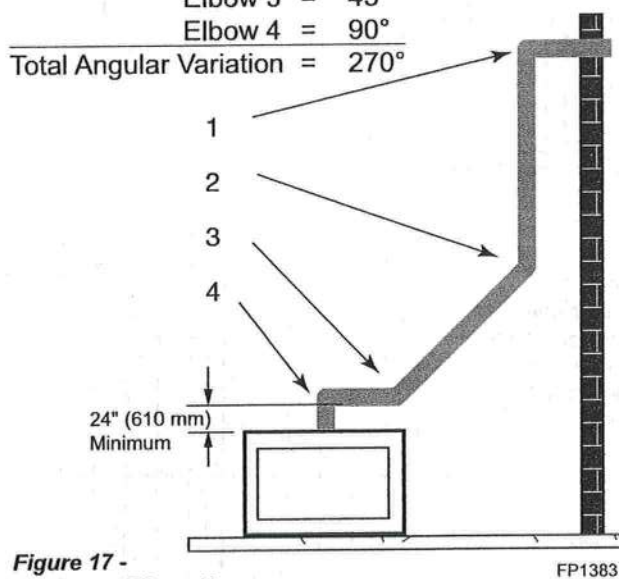


Figure 17 -
Maximum Elbow Usage

BELOW GRADE INSTALLATIONS

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

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

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

1. Establish vent hole through the wall.

2. Remove soil to a depth of approximately 16" below base of snorkel. Install drain pipe. Install window well (not supplied). Refill hole with 12" of coarse gravel leaving a clearance of approximately 4" below snorkel. *Figure 18*
3. Install vent system.
4. Ensure a watertight seal is made around the vent pipe coming through the wall.
5. Apply high temperature sealant caulking (supplied) around the 5" and 8" snorkel collars.
6. Slide the snorkel into the vent pipes and secure to the wall.
7. Level the soil so as to maintain a 4" clearance below snorkel. *Figure 18*

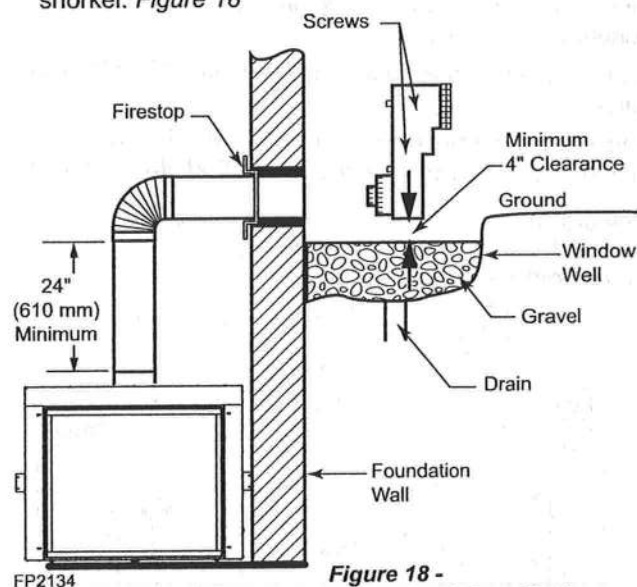


Figure 18 -
Below Grade Installation

If the foundation is recessed, use recess brackets (not supplied) for securing lower portion of the snorkel. Fasten brackets to wall first, then secure to snorkel with self-drilling #8 x 1/2 sheet metal screws. It will be necessary to extend vent pipes out as far as the protruding wall face. *Figure 19*

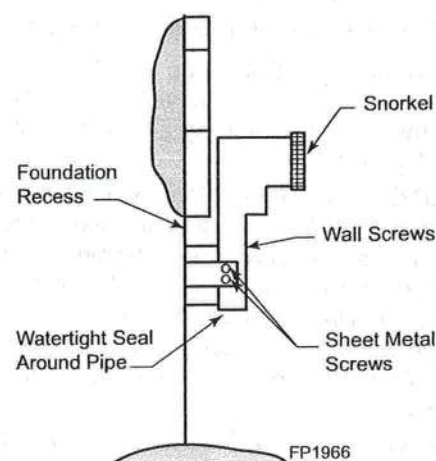


Figure 19 -
Snorkel Installation, Recessed Foundation

VENTING INSTALLATION

KSTDV Series Gas Fireplace

Example:

Elbow 1	=	90°
Elbow 2	=	45°
Elbow 3	=	45°
Elbow 4	=	90°
<hr/>		
Total Angular Variation	=	270°

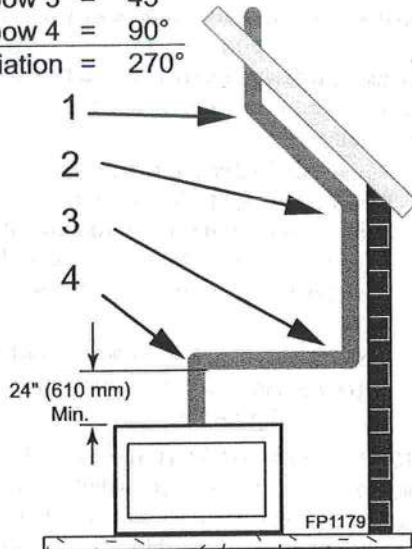


Figure 22 -
Maximum Elbow
Usage

INSTALLATION FOR VERTICAL TERMINATION

1. Determine the route your vertical venting will take. If ceiling joist, roof rafters or other framing will obstruct the venting system, consider an offset. Refer to Figure 24 to avoid cutting load bearing members.

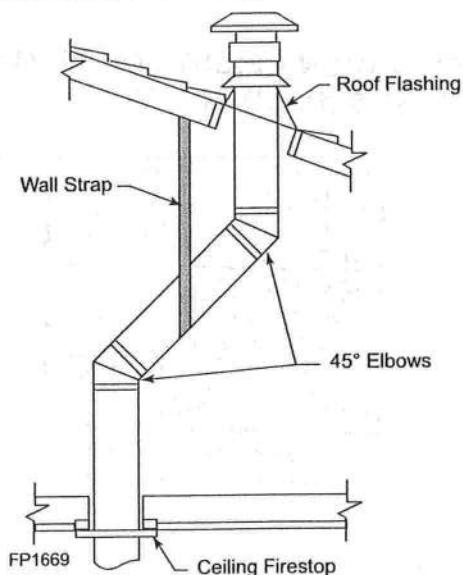


Figure 23 -
Offset with Wall Strap and 45° Elbows

For optimal flame appearance, a restrictor disk is necessary on straight vertical runs of 10' or more.

- Runs may not incorporate elbows.
- The disk is part number 56D3027 and is included in installation manual packet.
- Drop the disk into a 5" inner collar before installing the first section of flue or install at the last section before installing the termination. Also disk can be installed from inside the firebox into the 5" inner collar.
- An additional disk may be installed on runs of 35' or more. Rotate disks perpendicular to each other.

NOTE: Pay special attention to these installation instructions for required clearances (air space) to combustibles when passing through ceilings, walls, roofs, enclosures, attic rafters, etc. Do not pack air spaces with insulation. Also note maximum vertical rise of the venting system and any maximum horizontal offset limitations. Offsets must fall within the parameters shown in Figures 24 and 25.

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

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

FLAT CEILING INSTALLATION

1. Cut a 10½" (241 mm) square hole in the ceiling using the locating hole as a center point. The opening should be framed to 10½"x10½" (267 x 267 mm) inside dimensions as shown in Figure 25 using framing lumber the same size as the ceiling joist. If the area above the ceiling is an insulated ceiling or a room, nail firestop from the top side. This prevents loose insulation from falling into the required clearance space. Figure 23. Otherwise, install firestop below the framed hole. Figure 25

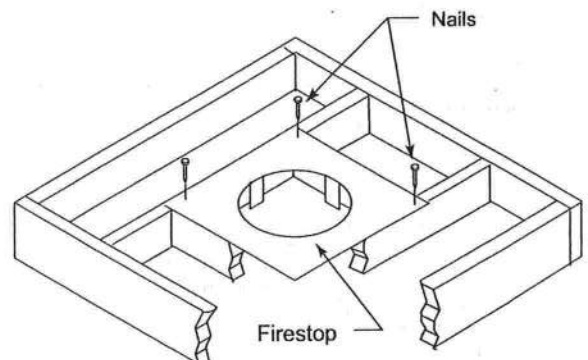


Figure 24 -
If Area Above is a Room, Install Firestop above
Framed Hole as Shown

CHECK GAS TYPE

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

INSTALLING GAS PIPING TO FIREPLACE LOCATION

WARNING

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

INSTALLATION ITEMS NEEDED

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

- External regulator
- Tee joint
- Test gauge connection*
- Pipe wrench
- Sediment trap (recommended)
- Equipment shutoff valve*
- Piping (check local codes)
- Sealant (resistant to propane/LP gas)(supplied by installer)
- approved flexible gas line with gas connector (if allowed by local codes — not provided)
- * A CSA design-certified equipment shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the CSA design-certified equipment shutoff valve from your dealer.

For propane/LP connections only, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11 and 13 inches of water. If you do not reduce incoming gas pressure, burner system regulator damage could occur. Install external regulator with the vent pointing down as shown in *Figure 27*. Pointing the vent down protects it from freezing rain or sleet.

CAUTION

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

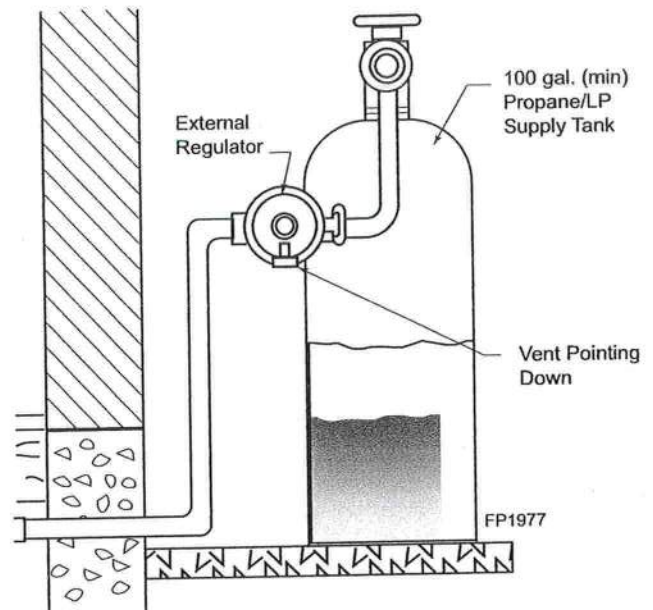


Figure 27 -
External Regulator with Vent Pointing Down
(Propane/LP Only)

CAUTION

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

WARNING

External regulators may be necessary for natural gas. One- or two-pound systems will damage this appliance and may cause fire hazard.

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

WARNING

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

INSTALL GAS SUPPLY LINE

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

A listed manual shutoff valve must be installed upstream of the appliance. Union tee and plugged 1/8" NPT pressure tapping point should be installed upstream of the appliance. *Figure 28*

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

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

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

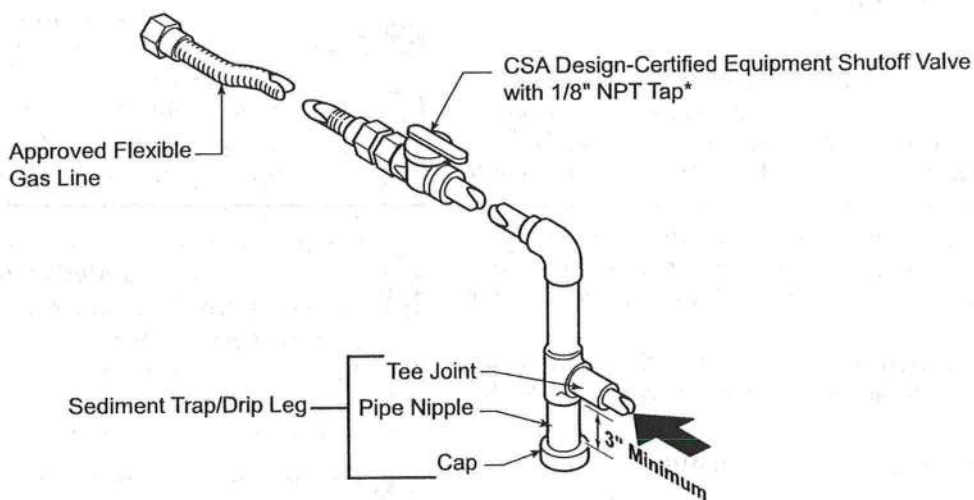
We recommend that you install a sediment trap/drip leg in supply line as shown in *Figure 28*. Locate sediment trap/drip leg where it is within reach for cleaning. Install in piping system between fuel supply and burner system. Locate sediment trap/drip leg where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into the burner system gas controls. If sediment trap/drip leg is not installed or is installed wrong, burner system may not run properly.

CAUTION

A manual shutoff valve must be installed upstream of the appliance. Union tee and plugged 1/8" NPT pressure tapping point should be installed upstream of the appliance. *Figure 28*

CAUTION

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

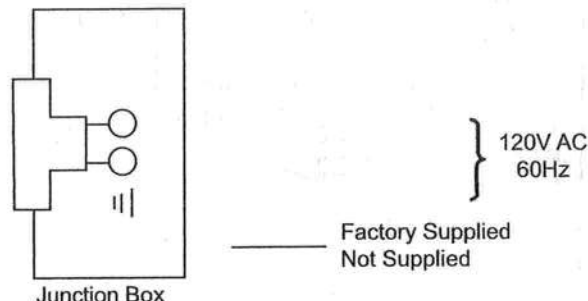


**Figure 28 -
Gas Connection**

Natural Gas
From Gas Meter
(4.0" w.c. to 10.5" w.c. Pressure)
Propane/LP
From External Regulator
(11" w.c. to 13" w.c. Pressure)

JUNCTION BOX WIRING

1. This should be done before framing the fireplace. Wire the receptacle into an electrical circuit. Wire with minimum 60° C wire in accordance with prevailing codes.
2. Remove the external junction box cover by removing the screw from the side of the outside firebox wall. Junction box was installed at the factory.
3. The junction box cover has a factory installed "romex" style strain relief connector. After connecting the wires, route the wire leads through this connector. Refer to the wiring diagram in *Figure 30*.



**Figure 30 -
Junction Box Wiring Diagram**

COMMAND CENTER WALL INSTALLATION

The command center may be mounted on the wall with the use of the SCSWEK Kit (15ft. cable, junction box, wall cover).

Mount the junction box provided at the desired location on the wall. Do not extend beyond the 15 ft. wire cable provided. If a longer distance is required, the 15 ft. may be extended up to 30 ft. maximum by using two (2) SCSWEK cables plugged together.

Route the wire from junction box to lower control area at bottom of fireplace. Unplug the 12" cable from the command center. Attach the connector to the pins from wire by pushing in to connector making sure to follow the color code on connector. Plug the 15 ft. extension cable into the 2 ft. cable. Remove command center from the fireplace and plug the other end of the extension cable into the command center. Snap on wall cover provided and screw to junction box.

WALL SWITCH INSTALLATION

The wall switch wire connection is located off the 2 ft. wire harness from the control box to the command center. *Figure 31*. The connection is labeled "Wall Switch". Unplug the male and female connectors and connect the two (2) low voltage wires provided. Run wire to desired location on wall. Up to 50 ft. of 18 ga. wire may be used if necessary. Attach wires to wall switch. Mount the wall switch in to junction box and screw on cover.

WARNING

Do not connect wall switch to 110 V circuit.

WARNING

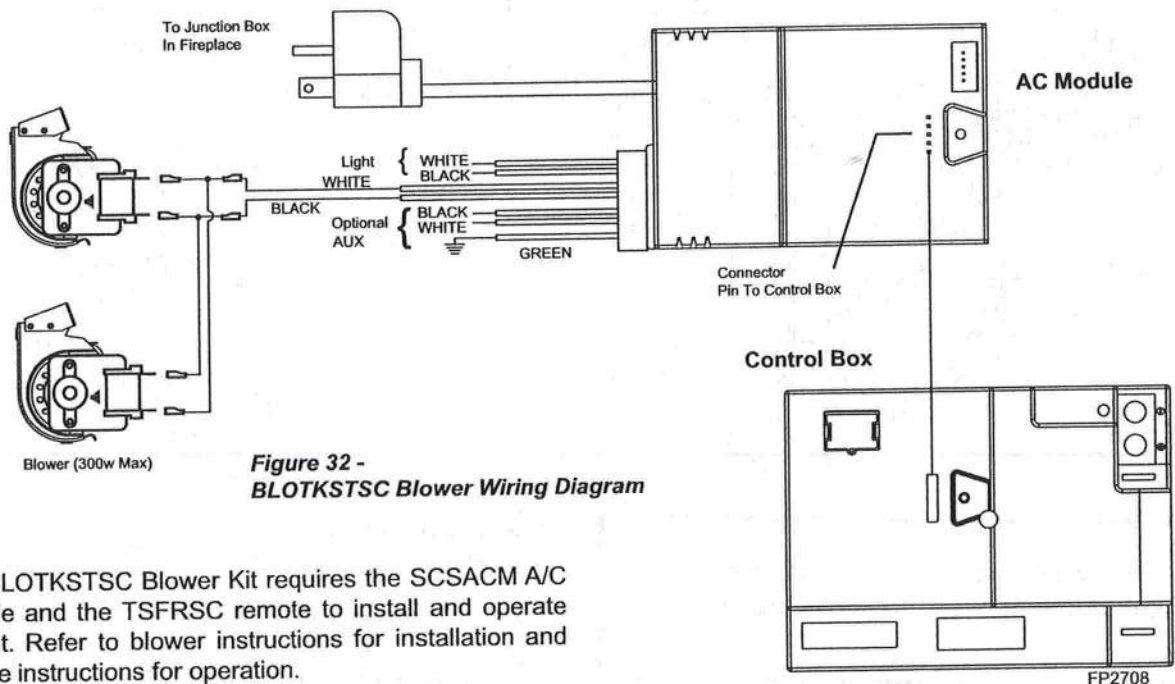
Electrical Grounding Instructions: This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle.

NOTE

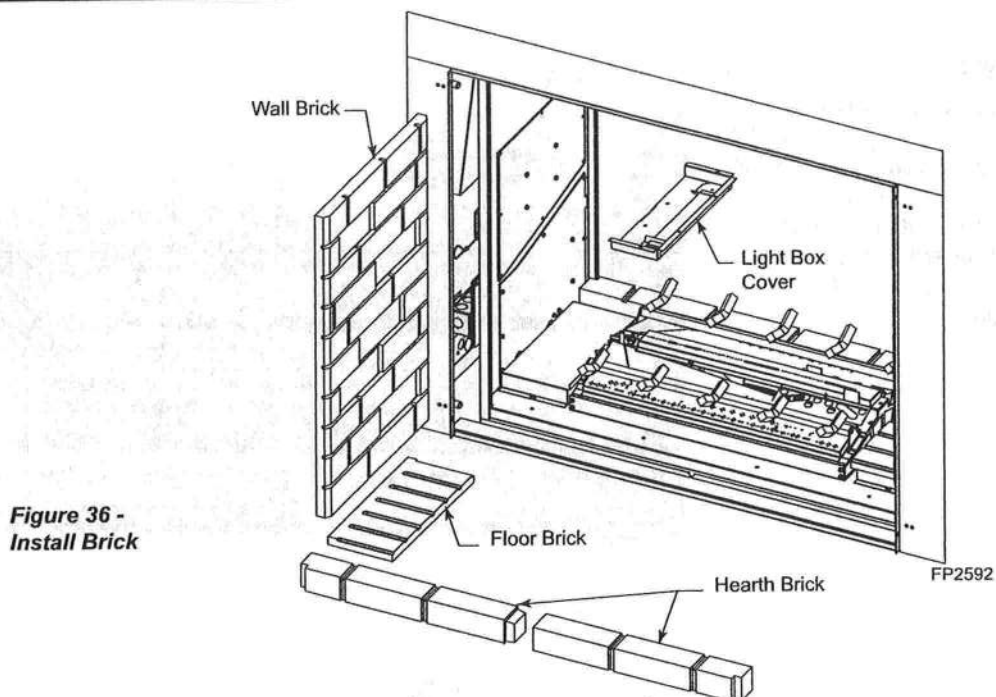
The black and white wires on the AC box wiring harness are marked 'Blower', 'Light' and 'Aux'. It is important to use the wires marked 'Blower' or the control will not work correctly.

WARNING

Electrical connections should only be performed by a qualified licensed electrician. Main power supply must be turned off before connecting the fan to the main electrical power supply or performing service.

BLOTKSTSC SIGNATURE COMMAND BLOWER

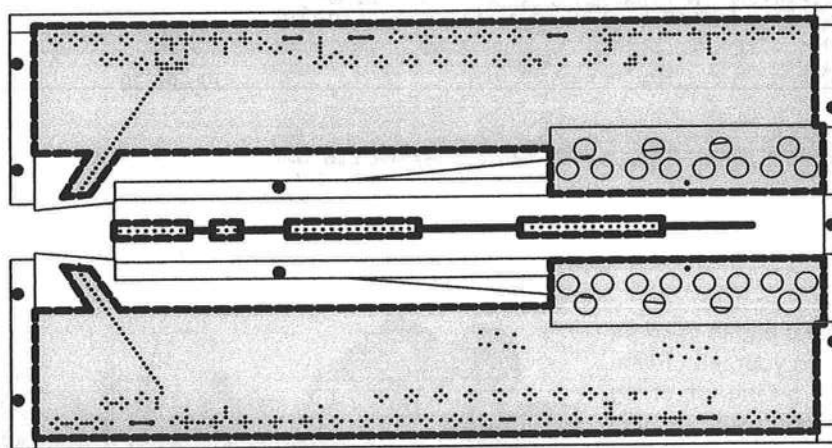
The BLOTKSTSC Blower Kit requires the SCSACM A/C Module and the TSFRSC remote to install and operate this kit. Refer to blower instructions for installation and remote instructions for operation.



**Figure 36 -
Install Brick**

ROCK WOOL PLACEMENT

Place rock wool evenly in dime-sized pieces over front and rear burner both in front and behind rear grate. For the middle burner, place the rock wool only on the carry-over areas between the flames. To better enable the gas to permeate the rock wool, apply the rock wool in light, fluffy pieces.



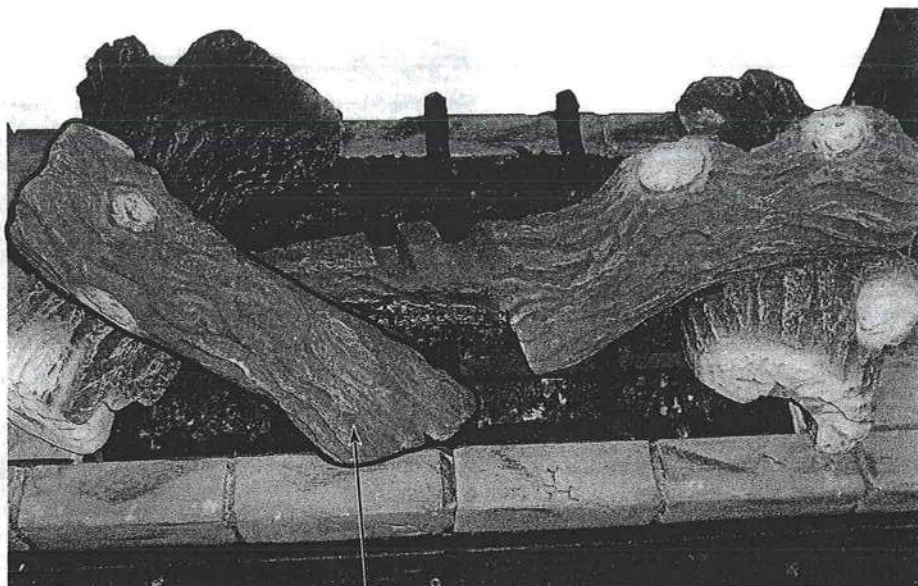
**Figure 37 -
Rockwool placement**

WARNING

Do not use the entire bag of rock wool to cover the burner. This could cause the flame to burn poorly and may lead to sooting.

4. Holding log #4 in your left hand with the beveled end down, place the log on the key of log #1 closest to you. Make sure to locate the notch at the beveled end of the log over the third tine from the left. The inside edge of the log should rest against log #3.

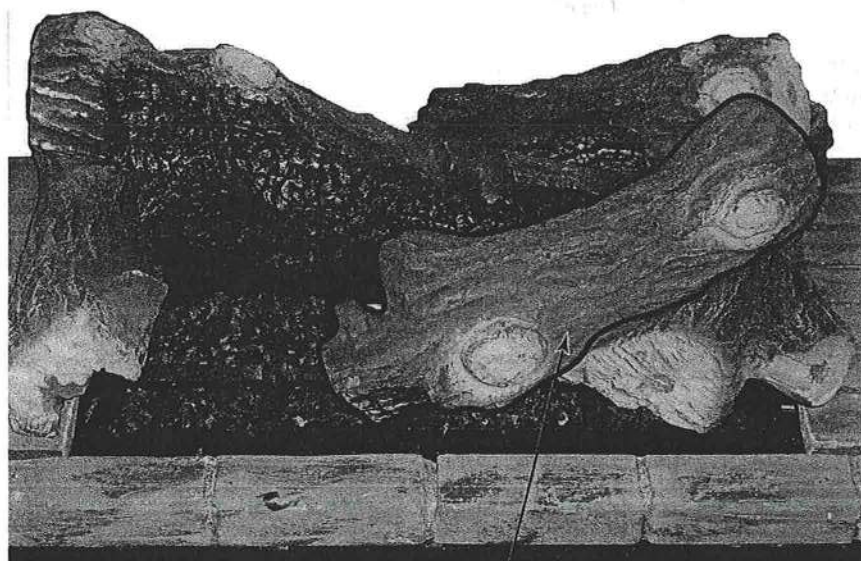
Figure 41



LG729

5. Move to the other side of the unit to place the remaining logs.

Log #4



LG730

6. From the front of the unit (with the controls on your right) and hold log #5 in your right hand with the knots at each end of the log facing you and the notched end on your left, place the log on the key on the top of log #1 with the notch in the bottom of the log resting on the front of the third tine from the right.

Figure 42

Log #5

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 is equipped with an ignition device which automatically lights the pilot. Refer to the instructions.
- B.** BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Do not attempt 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 finger to push in the master switch. Never use tools. If the switch will not function by hand, do not 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 that has been under water.

continued on next page

FEATURES

Command Center

- Easy Access Function Operation and System Configuration
- Operation Confirmation/Fault Diagnostic Indications (LED/Buzzer)
- ON/OFF/HI/Med/Low Operation
- Optional Wall Mounting

Control Board

- Electronic Ignition
- Pilot Lockout safety feature
- Electric Power Regeneration from Thermopile to save battery
- 6-hour Automatic Shut Down Option
- Convenient NG/LP Gas Type Conversion
- Standing Pilot/Intermittent pilot Conversion
- Previous settings Restoration Ability (Memory Off)
- Uninterrupted Operation During Power Outage (Automatic Battery Backup)
- ON/OFF RF Remote Receiver
- Optional Transmitter Learn Capability

AC Module Board (Requires TSFRSC Remote)

- Easy Snap-on Design
- Embedded Compact 120 VAC Adapter with Auto Battery Back up Feature
- Remote Controlled 3-step Blower, Lighting, and On/Off Auxiliary AC Outputs

Transmitter (Optional)

	TSFRSC
Three Flame Height Settings	X
Low battery Indication for Transmitter	X
Child Proof Lock-out	X
LCD Backlight	X
Security Codes 16	X
Countdown 6 hr Timer	X
Standard Thermostatic Control Mode	X
Smart Mode® Thermostat (Auto Flame & Blower Modulation)	X
Three Brightness Settings for Lights	X
Three Speed Control for Blower	X
On/Off Auxiliary Center Burner Shutdown	X
Programmable Timer to turn blower on and off	X

BATTERY INSTALLATION

The Command Center uses four (4) "AA" batteries as back up for power outages. The system can operate for approximately six (6) months on battery power.

To Install Batteries (not included):

1. Press down the battery door tabs and pull out to remove battery door.
2. Install the batteries as indicated on Command Center.
3. Close battery door by snapping in place.
4. When the four (4) batteries are installed the system will operate without power.
5. The batteries should be replaced when the LED indicates low battery or at least once a year.

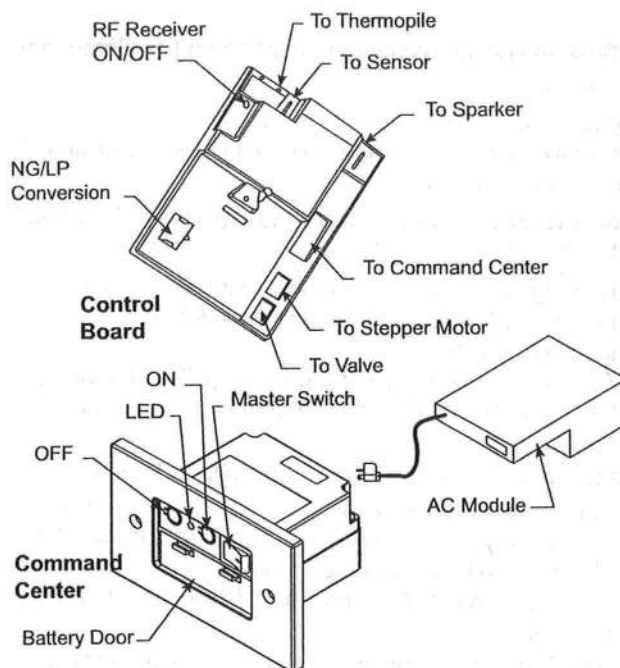


Figure 45 -
Signature Command System Components

FUNCTIONS/OPERATION (with Command Center)

Turning on the fireplace

1. Turn on the master switch and wait for a beep.
2. Press the ON button on the Command Center or turn on wall switch. Pilot will light and burner will come on High setting or last memory setting (See Turning Off Fireplace below). For memory feature.

Pilot Safety Lockout Function

1. If the pilot doesn't light after sparking for 30 seconds, pilot trial lockout happens. The LED on the Command Center flashes Green once every 2 seconds, until reset.
2. If the pilot flame is lost during normal operation, the system will try three (3) times to relight after three (3) failures, flame loss lockout happens. The LED on the Command Center flashes Red-Green once every 2 seconds, until reset.
3. Turning the master switch on the Command Center to the off position, then ON again will reset the system.

Flame Height Control

1. Press the ON button (on the Command Center) once to turn on the main burner with maximum flame height.

2. Press the OFF button to decrease flame height. The first two presses will decrease the flame height to medium and low.
3. The third press on OFF will turn off the main burner. In standing pilot configuration, the pilot will stay; in intermittent pilot configuration, the pilot will be shut off.

Turning the Fireplace Off

There are three ways to turn the fireplace off.

1. Flip the master switch to the off ("O") position. (This will turn the entire system OFF.)
2. Press the OFF button to Medium, Low, then Off.
3. Hold the OFF button anytime for three seconds or by turning off the wall switch. These two commands of OFF are (Memory Off) the system will remember all last settings before turning off. The next time the fireplace is turned on, all settings will resume. To reset, change to the desired settings and shut off by using the Memory Off commands and the system will be reset to those new settings.

Command Center Operations:

The following functions are available on the Command Center.

Function	Operation
Power Up	Flip the master switch to the ON ("I") position to power up the system
Fireplace ON	Press the ON ▲ button on the Command Center or turn on wall switch to turn the fireplace on
Fireplace OFF	Flip the master switch to the OFF ("O") position OR press the OFF ▼ button 3 times OR for Memory Off, hold the OFF ▼ button 3 seconds, or turn off wall switch
Flame Height Up	Press the ON ▲ button once to turn on the fireplace with maximum flame height
Flame Height Down	Press the OFF ▼ button to lower the flame height to Medium and Low

Self Diagnostics Chart:

The Command Center has a self-diagnostic LED enabling you to troubleshoot problems and potentially avoid a service call. Please refer to the charts below for indicator reference.

Fault	LED Indication
Conversion Cover Missing	One RED (1 time)
Spark Fail	Two RED (1 time)
No Sensor Signal	Three RED (1 time)
Pilot Lockout - trial	One GREEN, every 2 sec. (until manual reset)
Pilot Lockout - flame loss	One RED-GREEN, every 2 sec. (until manual reset)
Low Battery	One RED, every 10s (continuously)
No or Low Thermopile Power	Two RED, every 10s (continuously)
Learning	GREEN Flashes, every 1 sec. (for 10 sec.)
AC Power On	GREEN solid
Pressure Switch Failed (Power Vent only)	One RED every 2 sec. (until manual reset)

Setting Privacy Code on Transmitter: Figure 48

The remote transmitter privacy code is preset in factory. In the event of activation or interference from other nearby transmissions, change the code using the following procedures (learn function must be performed after changing the code):

1. Press the ON/arrow button and the TIMER button at the same time to enter privacy code setup mode.
2. The setup display is shown in the figure. The four digits on the top stand for the privacy code (as the actual DIP switches on Ambient's previous remotes). The default values of the four digits will be all "1" (ON).
3. The first digit will be flashing upon entering the setup mode. Push the ON button to toggle its value between "0" (OFF) and "1" (ON), and push the "OFF" button to jump to the next digit. The next digit will then start flashing and the first one stops flashing. Set up the four digits to your choice.
4. After setting up all the four digits, push "OFF" to finish the process and return to the previous mode.
5. The Signature Command control board then needs to re-learn the new setting.

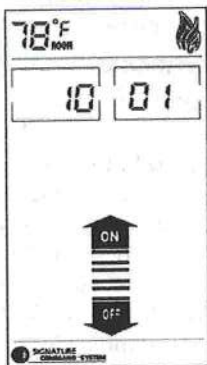


Figure 48

Performing Learn Function

1. The RF receiver button on the control board in the fireplace must be in the on position before the learn function can begin. Figure 50 With the Command Center master switch in the ON position, use paper clip to depress the recessed button on Control Board, one beep for RF receiver ON or two beeps for RF receiver OFF.
2. Holding the OFF button on the Command Center while turning on the master switch will activate the learn function for the transmitter.
3. After the above operation, two beeps will be given and the green LED on the Command Center will flash for 10 seconds.

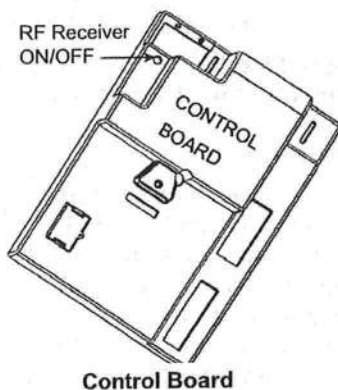


Figure 49

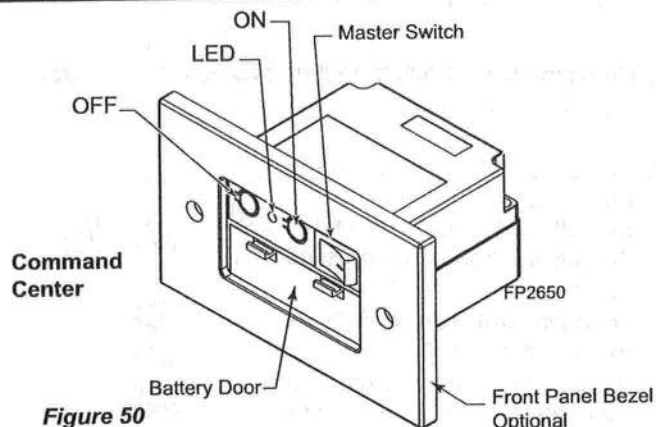


Figure 50

4. During the 10 seconds, press the OFF button on the transmitter to learn. Another two beeps will be given to confirm a successful learning.

WARNING

Do not use two (2) or more remote control systems in the same area with the same privacy code setting, as they will communicate with each other. This may cause the appliances to malfunction.

Resetting the transmitter:

If the transmitter is not working properly, reinstall the batteries to reset the transmitter.

1. Pull out at least one of the batteries.
2. Press any key on the screen to discharge.
3. Wait for 10 seconds and reinstall the batteries.

Pushing and holding any key for more than 10 seconds until the display refreshes will also reset the transmitter.

Functions and Operations

General:

The TSFRSC Remote Control has four (4) operating modes: Manual, Timer, Thermostatic and Smart Mode® thermostat. The control system can be set to temperature range between 45° F and 90° F. The blower speed and flame height can be adjusted in the manual, timer and thermostatic mode. The Smart Mode® thermostat will automatically adjust flame height and blower speed according to the difference between Set and Room temperatures.

The transmitter will operate the remote receiver from 1 foot to a maximum of 30 feet. The distance is reduced when batteries are low.

Manual Mode

Figure 51

In this mode, the TIMER button and the THERMO button will only display "TIMER" and "THERMO", respectively without showing the time and the SET temperature. Pressing the ON/up and OFF/down buttons will change the flame height if none of the menu buttons (TIMER,

will automatically adjust the flame height according to the difference between the Set temperature and the Room temperature. There is no manual flame height adjustment. The fan speed will also automatically adjust if turned on.

NOTE: When entering the Smart Mode® thermostat function there will be a 1 second delay for the flame and blower adjustment. When Smart Mode® thermostat operates automatically, there can be up to a 3 minute delay for flame/blower adjustment. Smart Mode® thermostat checks temperatures every 3 minutes. Also see AUX Control.

1. When Set Temp. is 3° F or higher than Room Temp., flame height will be on High.
2. When Set Temp. is 2° F higher than Room Temp., flame height will be on Medium.
3. When Set Temp. is 1° F higher than Room Temp., flame height will be on Low.
4. When Set Temp. is equal to Room Temp., flame height does not change (stays on low).
5. When Set Temp. is lower than Room Temp., the fireplace will be shut off.
6. When Set Temp. is 1° F higher than Room Temp., again the flame height will be on Low.
7. the fan speed follows the flame height, if the fan is turned on.

To exit Smart Mode® thermostat and shut off the fireplace;

- a. push and hold the THERMO buttons for 3 seconds, Or
- b. press the OFF button, Or
- c. slide down on the arrow buttons.

To shut off the Smart Mode® thermostat option and return to regular thermostat mode, press and hold the THERMO button and the ON/UP button at the same time for 3 seconds again.

Blower Speed Control

Figure 55

NOTE: Blower will only work with flame on.

The blower speed control function is used to adjust the speed of the blower connected to the Signature Command System. There are four speed levels, Off, Low, Medium, High.

1. Press the FAN button to enter the blower speed control mode. The fan icon will start flashing.
2. Press the ON/up and OFF/down button to increase/decrease the blower speed.
3. Press the fan button again to confirm the speed setting. If the fireplace is on, the blower speed will take effect right away; if the fireplace is off, the receiver will

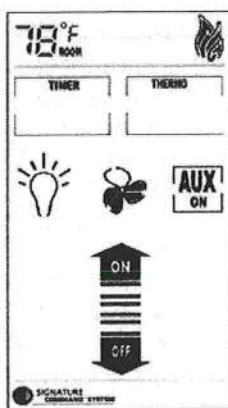


Figure 55

remember this setting and the blower is still off (see blower On Delay and Off Delay in the next section).

4. After the signal is sent, the ON/up and OFF/down buttons become flame height controller again.
5. When the fan button is flashing, slide up and down on the arrow buttons will turn the blower speed to High or Off directly without pressing the fan button again to confirm.
6. If the blower is turned on using the FAN button, the blower speed will adjust automatically when using Smart Mode® thermostat (See Smart Mode® thermostat section).

Blower On Delay Time and Off Delay Time Setup

Figure 56

1. Hold the FAN button for 3 seconds until two numbers appear on the LCD screen. The left number is blower On Delay and the right number is blower Off Delay Time.
2. When the first number is flashing, use the ON/up button to set the desired On Delay Time from 0 to 15 min.
3. Press the OFF/down button to jump to the Off Delay Time setup.
4. When the second number is flashing, use the ON/up button again to set the desired Off Delay Time from 0 to 15 min.
5. Press the OFF/down button again to finish the setup and the new settings will be transmitted to the receiver.
6. The default settings are 5 minutes for the On Delay Time and 8 minutes for the Off Delay Time, as shown.

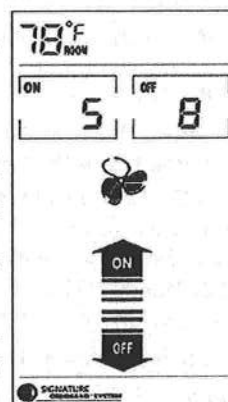


Figure 56

Light Brightness Control

Figure 57

The light brightness control function is used to adjust the brightness of the light bulbs connected to the AC module on the Signature Command System. There are four light brightness levels defined: Off, Low, Medium, High.

1. Press the LIGHT button to enter the light brightness control mode. The LIGHT icon will start flashing.
2. Press the On/up and OFF/down buttons to increase/decrease the light brightness (Off-Low-Medium-High).
3. Press the light button again to confirm the setting. The new setting will be transmitted to the receiver.

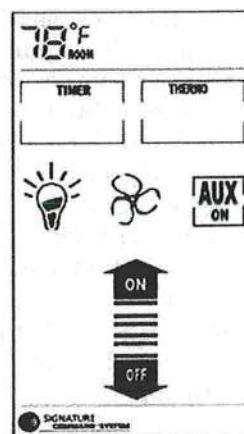


Figure 57

■ Using the Mounting Base

The transmitter comes with a mounting base which allows you to hang the transmitter on the wall.

1. Secure the mounting base on the wall with supplied screws. For best viewing angle, make it the same height as your eyes.
2. Hang the transmitter on the hook of the mounting base, then push down so the transmitter is flush to the mounting base.

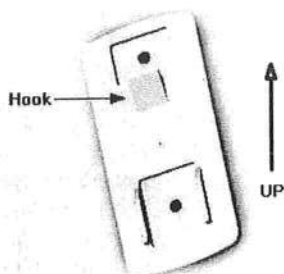


Figure 59

TROUBLESHOOTING

Symptom	Causes	Action
1. Battery icon on LCD on transmitter	1. Low Battery	1. Replace batteries. Change batteries every 6 months.
2. LCD display is blank		2. Check battery installation or replace batteries.
3. LCD display shows "funny" display		3. Reset the transmitter (see "Resetting the Transmitter" section).
4. Appliance does not come on	2. The transmitter did not match with the receiver	1. Make sure the transmitter has learned to the receiver.
	3. Transmitter measures temperature exceeding 99 degrees Fahrenheit and shows "HI" on LCD	1. Move transmitter to a cooler place and wait until temperature drops below 99 degrees.
	4. Distance between the transmitter and receiver is more than 30 feet	1. Make sure the opening distance is less than 30 feet.
5. Blower is not on after the fireplace is turned on	5. Blower setting is off	1. Press FAN key to select Fan speed you desire.
	6. Blower delay setting is set too high	1. Press and hold FAN key to set desired ON/OFF delays. This is done in minutes.

VENT SYSTEM

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

GLASS DOOR

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

When cleaning the glass, remember:

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

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

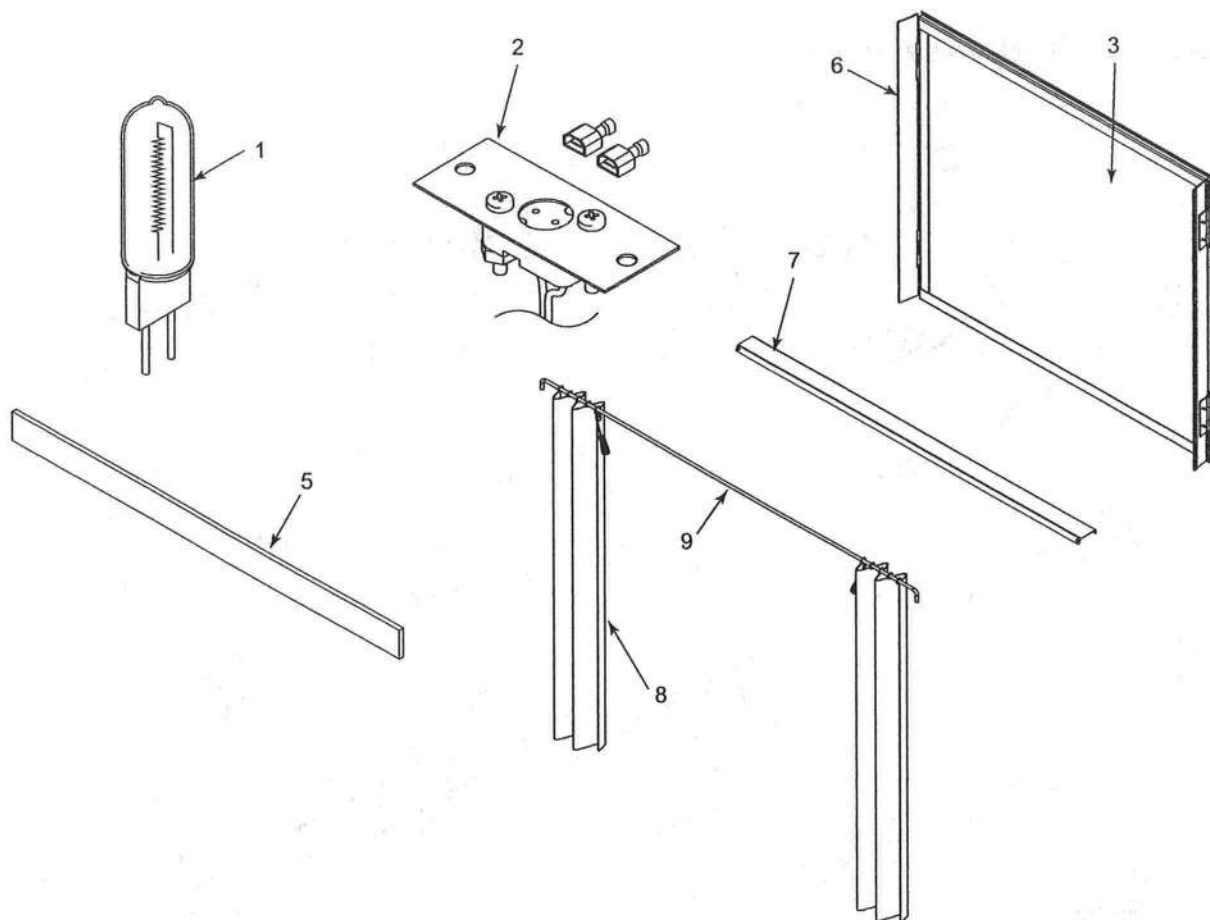
LOGS

Leave logs installed in the fireplace for cleaning. Vacuum surface of the logs with a brush attachment. If logs must be removed for cleaning, handle carefully by holding gently at each end. Gloves are recommended to prevent skin irritation from ceramic fibers. If skin becomes irritated, wash gently with soap and water. Vacuum surface of logs with brush attachment or brush logs with a soft bristle brush (i.e. clean, dry paintbrush). To place logs back in the fireplace, see "Log Placement" found in the *Final Installation* section.

NOTE: Do not use fluids to clean ceramic fiber logs.

ROCK WOOL

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

**FIREBOX COMPONENTS AND ACCESSORIES**

Item	Description	Qty.	KSTDV500
1.	Bulb (100 Watt)	2	73D0020
2.	Bulb Socket	2	73D4521
3.	Glass Frame Assembly	2	73D0159
4.	Junction Box Assembly (not shown)	1	26D2128
5.	Light Lens	2	73D4057K
6.	Access Doors	4	73D3258
7.	Front Cover	2	73D4524
8.	Screens	4	73D0017
9.	Screen Rod	2	73D0010

SIGNATURE COMMAND SYSTEM

Item	Description	Qty.	KSTDV500NTSC	KSTDV500PTSC
1.	Gas Valve Assembly	1	80D0001	80D0002
2.	Pilot Assembly	1	80D0039	80D0040
3.	Control Box	1	80D0037	80D0038
4.	AC Module	1	SCSACM	SCSACM
5.	Command Center	1	80D0005	80D0005
6.	Tube, Tee to Front Burner	1	73D4062	73D4062
7.	Tube between Tees	1	73D4063	73D4063
8.	Tube, Solenoid to Mid. Burner	1	73D4061	73D4061
9.	Tube, Solenoid through Wall	1	73D4165	73D4165
10.	Tube, Tee to Solenoid	1	73D3529	73D3529
11.	Flexhose w/Shutoff Valve	1	69D0030	69D0030
12.	Injector, Middle Burner	1	57D0565	57D0680
13.	Injector, Front Burners	2	20H3150	57D0679
14.	Burner Assy., Middle	1	73D4527	73D4527
15.	Burner Assy., Front 1	1	73D4528	73D4528
16.	Burner Assy., Front 2	1	73D4529	73D4529
17.	Venturi, Front Burner	2	73D4537	73D4537
18.	Venturi, Middle Burner	1	73D4537	69D1026
19.	Wire Valve/Control (not shown)	1	80D0010	80D0010
20.	Wire AC Module (not shown)	1	80D0009	80D0009
21.	Wire Command Ctr. (not shown)	1	80D0008	80D0008
22.	Remote Transmitter (full function)	1	TSFRSC	TSFRSC
23.	Solenoid	1	20301204	20301204
24.	Flex Line (Manifold)	1	20H0022	20H0022
25.	Tube, Solonoid to Mid. Burner	1	73D4061	73D4061
26.	Tube between Tees	2	73D4063	73D4063
27.	Tube, Tee to Front Burner	2	73D4062	73D4062
28.	Tube, Tee to Solonoid, 2"	1	73D3529	73D3529
Accessories				
29.	Forged Andiron 13"	1	FA113	
30.	Cast Andiron 12½"	1	CAI121/2	
31.	Decorative Door Kit (Interior only)	1	KHL500ADBT	
32.	Outdoor Facing Kit	1	KST500SSDK	
33.	SCS Blower Kit (1 blower)	1	BLOTKSTSC	
34.	SCS Wall Extension Kit (15' Wire, Rough-in Box, Wall Cover)	1	SCSWEK	

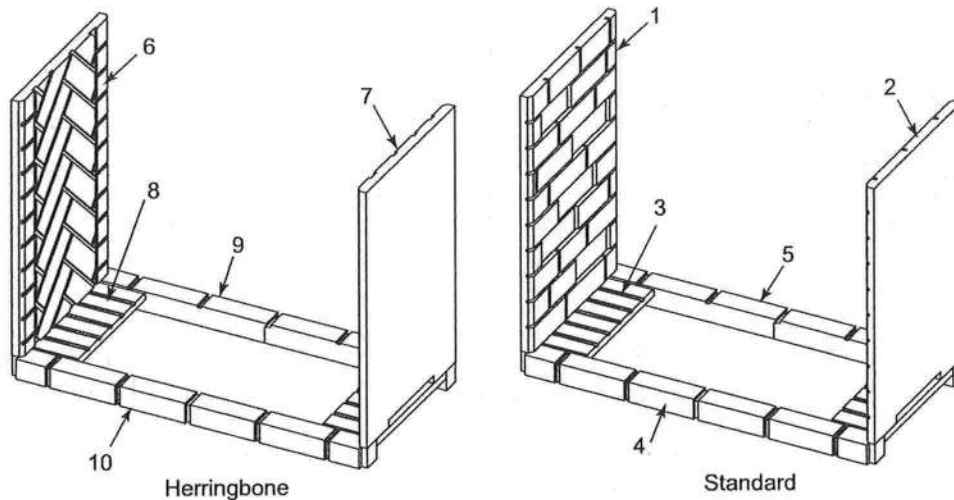
Fuel Conversion Kits - Signature Command System**Natural Gas to LP**

KSTDV500 Kit #KHL500CKPS

LP to Natural Gas

KSTDV500 Kit #KHL500CKNS

ACCESSORIES



Ref.	Description	Qty.	Cottage Clay	Cottage Red	Tavern Brown	Herringbone	
						Vintage Brown	Old English
1.	Brick, Wall Eng. Side	1	73D4127	73D4132	73D4149	--	--
2.	Brick, Wall Air Side	1	73D4128	73D4133	73D4150	--	--
3.	Brick, Floor	2	73D4129	73D4134	73D4151	--	--
4.	Brick, Front, Left	2	73D4130	73D4135	73D4152	--	--
5.	Brick, Front, Right	2	73D4131	73D4136	73D4153	--	--
Herringbone Pattern							
6.	Brick, Wall Eng. Side	1	--	--	--	73D4137	73D4143
7.	Brick, Wall Air Side	1	--	--	--	73D4138	73D4144
8.	Brick, Floor	2	--	--	--	73D4139	73D4145
9.	Brick, Front, Left	2	--	--	--	73D4140	73D4146
10.	Brick, Front, Right	2	--	--	--	73D4141	73D4147

VENT COMPONENTS FOR 5" x 8"

Item	Qty./ Box	Description	Current Simpson Duravent or MHSC Part no.	Old Simpson Duravent or MHSC Part no.	Selkirk Part no.	Metal-Fab Part no.
1	1	Horizontal Termination Cap Built-In Vinyl Siding Standoff, Heat Deflector, Firestop, 90° Elbow and Adjustable Pipe 11" to 14" 24" Section of Pipe		KHLBHS58TK		--
1	1	Horizontal Termination Cap w/Built-In Vinyl Siding Standoff Heat Deflector, Firestop and Adjustable Pipe 11" to 14 ⁵ / ₈ "		BHR58TK9		--
1	1	Horizontal Termination Cap Built-In Vinyl Siding Standoff, Heat Deflector, Firestop, 90° Elbow and Adjustable Pipe 11" to 14 ⁵ / ₈ "		BHS58TK		--
1	1	Horizontal Termination Cap w/Built-In Vinyl Siding Standoff, Heat Deflector, Firestop, Flexible Pipe 20" to 48", Adapter		BHSF58TK		--
1	8	Horizontal Termination w/ 1" Firestop		BHR58T/8		
1	1	Horizontal High Wind Termination Cap	58DVA-HC	1285	5DT-HC	--
1	1	Horizontal Termination Cap				5DHT
2	1	Vertical Termination	*see below	*see below	5DT-VC	5DVT
2	1	Extended Vertical Termination	58DVA-VCE	1283	--	--
2	1	High Wind Vertical Termination	58DVA-VCH	1291	--	--
3	4	6" Pipe Length	58DVA-06	1208	5DT-06	5D6
3	4	9" Pipe Length	58DVA-09	1207	5DT-09	--
3	4	12" Pipe Length	58DVA-12	1206	5DT-12	5D12
3	4	24" Pipe Length	58DVA-24	1204	5DT-24	5D24
3	4	36" Pipe Length	58DVA-36	1203	5DT-36	5D36
3	4	48" Pipe Length	58DVA-48	1202	5DT-48	5D48
4	4	8 ¹ / ₂ " Pipe Extension	58DVA-08A	--	5DT-AJ	--
4	4	16" Pipe Extension	58DVA-16A	--	--	--
5	4	45° Elbow	58DVA-E45	1245	5DT-EL45	5D456
5	4	45° Swivel Elbow	--	--	5DT-EL45	--
6	4	90° Elbow	58DVA-E90	1290	5DT-EL90S	5D906
6	4	90° Swivel Elbow	--	1290G	5DT-EL90S	--
7	6	Flashing, 0/12 to 6/12 Roof Pitch	58DVA-F6	1243	5DT-AF6	5DF
7		Steep Roof Flashing	58DVA-F12	1243S	--	--
8	6	Storm Collar	58DVA-SC	1253	5DT-SC	5DSC
9	4	Firestop	58DVA-FS	1263	5DT-FS	5DFS
9		3" Firestop	FS38	FS38	--	--
10	1	Vinyl Siding Standoff	58DVA-VSS	1250	5DT-VS	5DVS
11		Attic Insulation Shield (not shown)	58DVA-IS	--	--	--

***SIMPSON DURAVENT 58DVA-VC/1280 VERTICAL CAP CANNOT BE USED WITH THIS FIREPLACE.**

For more information about, or instructions for, the venting components referenced above, please contact the component manufacturer:

Selkirk Corporation: www.selkirkcorp.com or 800-992-8368

Simpson Duravent: www.duravent.com or 800-835-4429

Metal-Fab, Inc.: www.metal-fabinc.com or 316-943-2351

Requirements for the Commonwealth of Massachusetts

This product must be installed by a licensed plumber or gas fitter when installed within the Commonwealth of Massachusetts.

Note Regarding Vented Products

Flex line installation must not exceed 36 inches and must have a T shutoff valve.

Any residence with a direct vent product must have a CO detector installed in the residence.

Installation of the fireplace or vented gas log in the State of Massachusetts requires the damper to be permanently removed or welded in the fully open position.

In addition, neither a naturally vented gas log nor a vent-free product may be installed in a bedroom or bathroom in the State of Massachusetts.

All gas fitting and installation of this heater shall only be done by a licensed gas fitter or licensed plumber.

For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

Installation of Carbon Monoxide Detectors

At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gas fitter shall observe that a hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors.

In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

Approved Carbon Monoxide Detectors

Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and ANSI/UL 2034 listed and IAS certified.

Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height

of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, "**GAS VENT DIRECTLY BELOW, KEEP CLEAR OF ALL OBSTRUCTIONS**".

Inspection

The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

Exemptions

The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

- The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
- Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

MANUFACTURER REQUIREMENTS

Gas Equipment Venting System Provided

When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

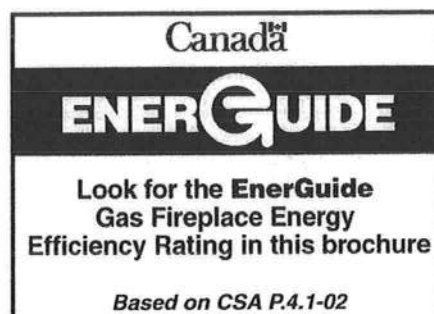
- Detailed instructions for the installation of the venting system design or the venting system components; and
- A complete parts list for the venting system design or venting system.

Gas Equipment Venting System NOT Provided

When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:

- The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
- The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.



Efficiency Ratings		
Model	EnerGuide Ratings Fireplace Efficiency (%)	D.O.E. (AFUE%)
KSTDV500NTSC	77.30	67.40
KSTDV500PTSC	74.30	66.35

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