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P/N 127051-01 Rev. E 05/2017

Installation and Operation Instructions Astria® Residential and Outdoor Wood-Burning **Fireplace**

Models

Tuscan42P2 Tuscan42P3

REPORT NO. 10-078

SAVE THIS BOOK

This book is valuable. In addition to instructing you on how to install and maintain your appliance, it also contains information that will enable you to obtain replacement parts or accessory items when needed. Keep it with your other important papers.

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

This wood burning fireplace complies with

UL127 CAN/ULC-Š610-M87 standard as a FACTORY BUILT FIREPLACE.

Installateur: Laissez cette notice avec l'appareil.

Consommateur: Conservez cette notice pour consultation ultérieure.

Ce foyer au bois est conforme aux UL 127 CAN/ULC-S610-M87 norme comme une USINE CONSTRUITE CHEMINÉE.

This fireplace is approved for use as a wood burning fireplace or for use with a vented gas log approved to ANSI Z21.60 or Z21.84 standards or for use with a vent-free gas log heater approved to ANSI Z21.11.2 standard. An IHP hood must be installed when using a vent-free log heater (see Accessories, page 20).

installation to determine the need to obtain a permit. I nécessité d'obtenir un permis.

FOR CANADA: The authority having jurisdiction | POUR LE CANADA: L'autorité compétente (comme le (such as the municipal building department, fire | service municipal du bâtiment, les pompiers, etc.) doit department, etc.) should be contacted before être contacté avant l'installation afin de déterminer la

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 installation manual will enable you to obtain a safe, efficient and dependable installation of your fireplace system. Please read and understand these instructions before beginning your installation.

Do not alter or modify the fireplace or its components under any circumstances. Any modification or alteration of the fireplace system, including but not limited to the fireplace, chimney components and accessories, may void the warranty, listings and approvals of this system and could result in an unsafe and potentially dangerous installation.

IMPORTANT! TO ASSURE PROPER ALIGNMENT OF GLASS DOORS: INSTALL THIS FIREPLACE IN A SQUARE AND PLUMB CONDITION, USING SHIMS AS NECESSARY AT SIDES AND/OR BOTTOM.

Thank you for your purchase. We appreciate your business!

Please carefully read and follow all instructions in this manual. Pay special attention to all warnings and safety information.

Following these safety, care, and operation instructions will help ensure many years of dependable and enjoyable service from your fireplace.

Please read and understand these instructions before installing or operating.



NATIONAL We recommend that our woodburning FIREPLACE hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Woodburning Specialists or who are certified in Canada by Wood Energy Technical Trai Wood Energy Technical

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SAFETY

MARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury, property damage or loss of life. Refer to this manual for assistance or additional information. Consult a qualified installer or local distributor.

IMPORTANT: Check local codes before installing this fireplace.

Before beginning installation of this fireplace, read these instructions through completely.

- This INNOVATIVE HEARTH PRODUCTS, LLC (IHP) fireplace and its components are safe when installed according to this installation manual. Unless you use IHP components, which have been designed and tested for the fireplace system, you may cause a fire hazard.
- The IHP warranty will be voided by and IHP disclaims any responsibility for the following actions.
 - a. Modification of the fireplace, components, doors, air inlet system and damper control.
 - b. Use of any component part not manufactured or approved by IHP in combination with an IHP fireplace system.

Proper installation is the most important step in ensuring safe and continuous operation of the fireplace. Consult the local building codes as to the particular requirements concerned with the installation of all factory built fireplaces.

NOTICE: The firebox canopy (hood) must not be modified or replaced with a canopy that may be provided with the unvented decorative room heater.

MARNING: Do not install a fireplace insert in this box unless the manufacturer's instructions with the insert specifically state this fireplace has been tested for use with this insert.

FOR YOUR SAFETY

- Do not store or use gasoline or any other flammable vapors or liquids in the vicinity of this or any other appliance.
- Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
- Do not place clothing or other flammable materials on or near the appliance.
- Never leave children unattended when a fire is burning in the fireplace.

▲ WARNING: Use solid wood or processed solid fuel fire logs only. "Do not poke or stir the logs while they are burning. Use only firelogs that have been evaluated for the application in fireplace and refer to firelog warnings and caution markings on packaging prior to use."

This fireplace is not intended to be used as a substitute for a furnace to heat an entire home. Use for supplemental heat only.

Overfiring of a fireplace is a condition where excessive temperatures are reached, beyond the design capabilities of the appliance. The damage that occurs from overfiring is not covered under the manufacturer's limited warranty.

★ WARNING: CONTINUED OVERFIRING CAN PER-MANENTLY DAMAGE YOUR FIREPLACE SYSTEM. SOME EXAMPLES OF CONDITIONS THAT COULD CAUSE OVERFIRING ARE:

- BURNING QUANTITIES OF SCRAP LUMBER, PINE BRANCHES, PAPER OR CARDBOARD BOXES WHICH EXCEED THE VOLUME OF THE NORMAL LOG FIRE.
- BURNING TRASH, CHEMICALS OR CHEMICALLY TREATED COMBUSTIBLES.

Disposal of Ashes

Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

WHEN USING THE DECORATIVE APPLIANCE, THE FIREPLACE DAMPER MUST BE SET IN THE FULLY OPEN POSITION.

Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or 'freshen up' a fire in this fireplace. Keep all such liquids well away from the fireplace while it is in use.

Use SOLID WOOD only for fuel. It is best to use dry and well seasoned hardwood. Softwoods tend to burn very quickly. DO NOT use treated wood, charcoal, coal, trash, driftwood or woods that have been dipped in tar, pitch, pine tar, creosote, etc. Wood products made with synthetic binders, such as plywood, produce abnormally high temperatures and sputtering, smoking fires. When burning artificial logs, please read and follow the instructions provided by the manufacturer.

Never burn treated construction lumber or scraps. These woods burn excessively hot and may contain chemicals used to treat insects and fungus. When burned, these chemicals can pose a significant hazard.

IMPORTANT: See appendix A, page 21 for additional information regarding draft requirements, smoking causes and troubleshooting.

WARNING: BURNING IMPROPER FUEL (I.E. CHARCOAL) CAN RESULT IN CARBON MONOXIDE POISONING, WHICH MAY LEAD TO DEATH!

Carbon Monoxide Poisoning – Early signs of carbon monoxide poisoning resemble the flu with headaches, dizziness, or nausea. If you have these signs, get fresh air at once! Have the appliance inspected by a qualified service technician. 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.

Ventilation Requirements - Provide adequate air for combustion. The fresh air requirements of this appliance must be met within the space where it will be installed.

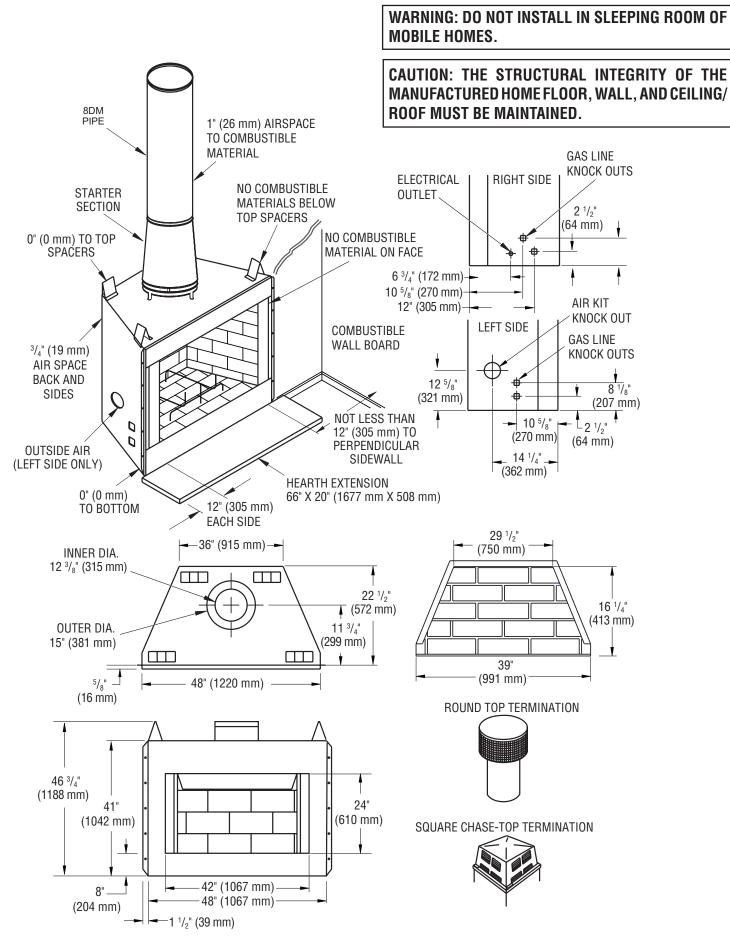
Smoke Detectors - Since there are always several potential sources of fire in any home, we recommend installing smoke detectors. If possible, install the smoke detector in a hallway adjacent to the room (to reduce the possibility of occasional false activation from the heat produced by the appliance). If your local code requires a smoke detector be installed within the same room, you must follow the requirements of your local code. Check with your local building department for requirements in your area.

Creosote – Formation and Need for Removal

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire.

The chimney shall be inspected at least twice a year during the heating season to determine when a creosote buildup has occurred. When creosote has accumulated (1/8" [3 mm] or more) it shall be removed to reduce the risk of a chimney fire.

SPECIFICATIONS



FIREPLACE INSTALLATION

SELECTING LOCATION

To determine safest and most efficient location for fireplace, you must take into consideration the following guidelines:

- 1. Location must allow for proper clearances (see Figures 1 and 2).
- 2. Consider a location where fireplace will not be affected by drafts, air conditioning ducts, windows or doors.
- A location that avoids cutting of joists or roof rafters will make installation easier.
- 4. An outside air kit is available with this fireplace (see Optional Outside Air Kit on page 7).

MINIMUM CLEARANCE TO COMBUSTIBLES

Back and sides of fireplace 3/4" minimum*
Floor** 0" minimum
Perpendicular wall to opening 12" minimum
Top spacers 0" minimum
Mantel clearances see Mantels, page 6
Chimney outer pipe surface 1" minimum

- * Not required at nailing flanges
- ** See step 2 of Framing

A WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIALS.

Minimum/Maximum Chimney Height

The minimum height of the chimney, measured from the base of the fireplace to the flue gas outlet of the termination, is 14.5 feet for straight flue or a flue with one elbow set. The maximum distance between elbows is 6 feet. For systems with two elbow sets, the minimum height is 22 feet. The maximum height of any system is 50 feet. This measurement includes the fireplace, chimney sections and the height of the termination assembly at the level of the flue gas outlet (see Figure 18, page 11).

Minimum/Maximum Chimney Height for Outdoor Installation

The minimum height of the chimney, measured from the base of the fireplace to the flue gas outlet of the termination, is 8 feet (minimum of 4 feet of chimney pipe sections required for outdoor installation).

FRAMING

1. Frame opening for fireplace using dimensions shown in Figures 1 and 2.

Note: When the fireplace is framed, the header has to be turned on the vertical edge to maintain proper clearance.

- 2. If fireplace is to be installed directly on carpeting, tile or any combustible material other than wood flooring, fireplace must be installed upon a metal or wood panel extending full width and depth of fireplace.
- 3. Set fireplace directly in front of this opening and slide unit back until nailing flanges touch side framing.
- 4. Check level of fireplace and shim with sheet metal if necessary.
- 5. Before securing fireplace to prepared framing, ember protector must be placed between hearth extension (not included) and under bottom front edge of fireplace to protect against glowing embers falling through. If fireplace is to be installed on a raised platform, a Z-type ember protector (not included) must be fabricated to fit your required platform height. Ember protector should extend under fireplace a minimum of 1 ½. Ember protector should be made of galvanized sheet metal (28 gauge minimum) to prevent corrosion.
- 6. Using screws or nails, secure fireplace to framing through flanges located on sides of fireplace.

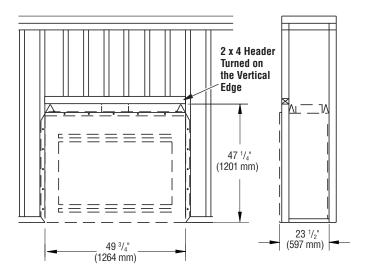


Figure 1 - Framing Dimensions

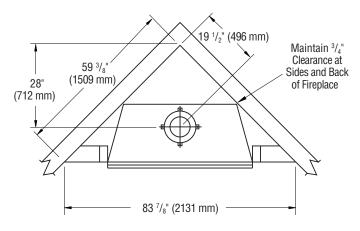


Figure 2 - Corner Installation

FIREPLACE INSTALLATION Continued

DRAIN PAN (DP42)

For outdoor installations, the fireplace enclosure must allow for adequate drainage and fresh air ventilation. It is recommended that a sealed, corrosion resistant catch pan with provision for drainage be installed under the fireplace within the fireplace enclosure (see Accessories, page 19).

HEARTH EXTENSION

A hearth extension projecting a minimum of 20" in front of and a minimum of 12" beyond each side of fireplace opening is required to protect combustible floor construction in front of fireplace. Fabricate a hearth extension using a material which meets the following specifications: a layer of noncombustible, inorganic material having a thermal conductivity of k = .84 BTU IN/FT² HR °F (or less) at 1" thick. For example, if material selected has a k factor of 0.25, such as glass fiber, the following formula would apply:

 0.25×1.0 " = 0.30" thickness required 0.84

Thermal conductivity "k" of materials can be obtained from manufacturer or supplier of noncombustible material. If hearth extension is to be covered, use noncombustible material such as tile, slate, brick, concrete, metal, glass, marble, stone, etc. Provide a means to prevent hearth extension from shifting and seal gap between fireplace frame and hearth extension with a non-combustible material such as sand-cement grout (see Figure 3).

▲ WARNING: Hearth extension is to be installed only as shown in Figure 3.

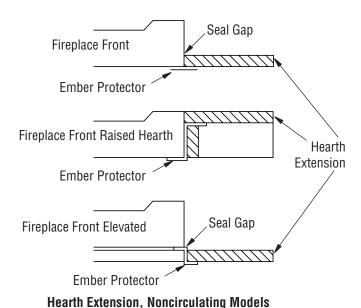
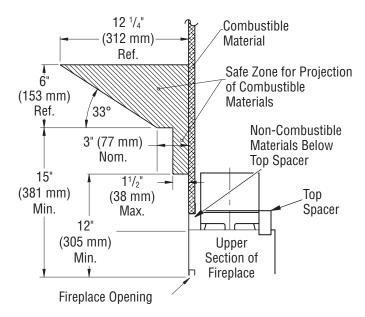


Figure 3 - Hearth Extension

MANTELS

A mantel may be installed if desired (see Figures 4 and 5). Woodwork such as wood trims, mantels or any other combustible material projecting from front face, must not be placed within 12" of fireplace opening and within 9" of top louver opening. Combustible materials above 12" and projecting more than 1 1/2" from fireplace must not be placed less than 12" from top opening of fireplace (NFPA 211, Section - Clearance from Combustible Material).

Mantels or any other combustible material may come up to side edge of black metal face of fireplace if projection from front face falls within limits shown in Figure 4.



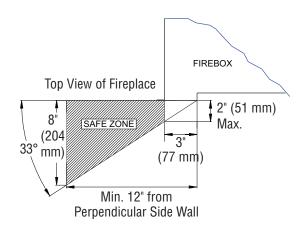


Figure 4 - Mantel Clearances to Combustible Material

VENTING INSTALLATION

OPTIONAL OUTSIDE AIR KIT (MODEL AK4/AK4F)

Installation of outside air kit should be performed during rough framing of fireplace due to the nature of it's location. Outside combustion air is accessed through a vented crawl space (AK4F) or through a sidewall (AK4). See Figure 22, page 14 for instruction of operating air kit.

A CAUTION: Combustion air inlet ducts shall not terminate in attic space.

The maximum height for the air vent can not exceed 3 feet below the flue gas outlet of the termination.

Secure to Collars with Metal Tape, Screws or Straps (Min. of 1/4" x 20" in size) Air Inlet Location Must Allow For Bushes or Snow Air Inlet Vent Hood Evebrow Required Vented Crawl Space (Check for Wall Local Codes Before Installing in Installation a Vented Crawl Space)

Figure 5- Outside Air Kit

CHIMNEY PIPE

WARNING: Label part number 900599-01 must be applied by the installer to all chimney pipe sections but is not required on sections that will be visible after the installation is complete. Label must wrap around the circumference of the pipe. See accessories, page 20 for Kit F2659.

An IHP chimney system consists of 12", 18", 24", 36" and 48" snap-lock, double-wall pipe segments, planned for maximum adaptability to individual site requirements. Actual lengths gained after fitting overlaps must be taken into consideration (lineal gain) and are given in lineal gain chart (see Figure 6).

Lineal gain is actual measurable length of a part after two or more parts are connected.

WARNING: The opening in collar around chimney at top of fireplace must not be obstructed. Never use blown insulation to fill chimney enclosure.

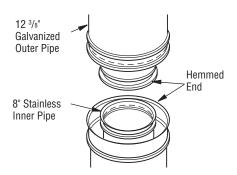


Figure 6 - Lineal Gain

| | LINEAL GAIN | | | |
|------------------|--|---|--|--|
| PART NO. | DESCRIPTION | GAIN | | |
| 42" | Fireplace | 45" | | |
| SS-8DM | Starter Section | 19'' | | |
| 12-8DM 12-8HT | Pipe Section | 10 5/8" | | |
| 18-8DM 18-8HT | Pipe Section | 16 ⁵ / ₈ " | | |
| 24-8DM 24-8HT | Pipe Section | 23 5/8" | | |
| 36-8DM 36-8HT | Pipe Section | 34 5/8" | | |
| 48-8DM 48-8HT | Pipe Section | 46 5/8" | | |
| RT-8DM | Round Termination | 6 7/8"* | | |
| RTL-8DM | Round Termination | 7 3/4"* | | |
| RLT-8DM | Round Termination | 7 1/2"* | | |
| RTT-8DM | Round Termination with Slip Section | 6 ⁷ / ₈ " to 23 ¹ / ₈ "* | | |
| RTTL-8DM | Round Termination with Slip Section | 8 ¹ / ₂ " to 21 ¹ / ₂ "* | | |
| RLTT-8DM | Round Termination with Slip Section | 7 ¹ / ₂ " to 21 ¹ / ₄ "* | | |
| ET-8DM | Square Chase-Top | 12"* | | |
| ETO-8DM | Square Chase-Top with Mesh | 12"* | | |
| ETL-8DM | Square Chase-Top with Slip Section | 7" to 15"* | | |
| ETLO-8DM | Square Chase-Top with Mesh & Slip Section | 12" to 25 ¹ / ₂ "* | | |

^{*} The lineal gain for the terminations is measured to the flue gas outlet height.

ASSEMBLY AND INSTALLATION OF DOUBLE WALL CHIMNEY SYSTEM

Each double wall chimney section consists of a galvanized outer pipe, a stainless steel inner flue pipe and a wire spacer. Pipe sections must be assembled independently as chimney is installed. When connecting chimney directly to fireplace, inner flue pipe section must be installed first with lanced side up. Outer pipe section can then be installed over flue pipe section with hemmed end up. Press down on each pipe section until lances securely engage hem on fireplace starter. Wire will assure proper spacing between inner and outer pipe sections.

Note: For Canada, use chimney parts designated HT.

• Opening in collar around chimney at top of fireplace must not be obstructed. Never use blown insulation to fill chimney enclosure.

Continue to assemble chimney sections as outlined, making sure that both inner and outer pipe sections are locked together. When installing double wall snap-lock chimney together, it is important to assure joint between chimney sections is locked. Check by pulling chimney upward after locking. Chimney will not come apart if properly locked. It is not necessary to add screws to keep chimney together (exception - see Figure 9, page 9).

The height of a vertical chimney pipe supported **ONLY** by the fireplace, must not exceed 20 feet. Chimney heights above 20 feet must be supported.

USING ELBOW OFFSET 30E-12DMO-8DMR

To clear overhead obstructions, you may offset your chimney system using 30E-12DMO-8DMR 30° Offset/return elbow.

A section or sections of chimney may be used between offsets and return elbow. Transition pipe must be used after elbow offset is attached.

- To achieve desired offset, you may install combinations of 12", 18", 24", 36" and 48" length of double wall pipe (see offset chart).
 Note: For systems with 2 elbow sets, minimum height is 22 feet. Maximum height for any system is 50 feet.
- 2. Chimney weight above offset rests on return elbow. Straps must be securely nailed to rafters or joists (see Figure 8, details A and B, page 9).
- 3. Maximum length of pipe between supports (return elbow or 12S-8DM) is 6' of angle run. Maximum of two 6' angle run sections per chimney system (see Figure 7).
- 4. All pipe connections between offset and return must be secured with two screws on outer pipe only (see Figure 9, page 9). Do not penetrate inner stainless.

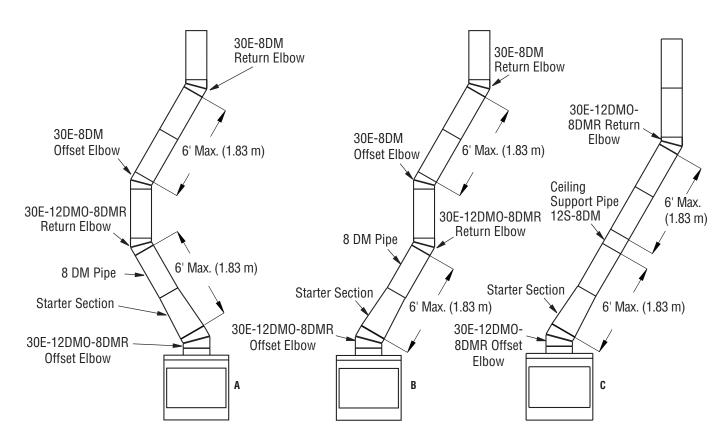


Figure 7 - Typical Offset Installation

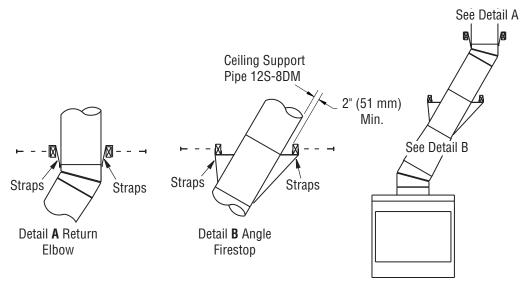


Figure 8 - Ceiling Support Pipe 12S-8DM

OFFSET CHART WITH TRANSITION PIPE

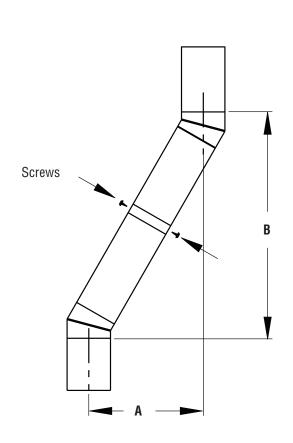


Figure 9 - Elbow Offset

| OFFSET | RISE | OFFSET/RE- | OFFSET/RE- TRANSITION (| | | LENG | TH |
|----------------------------------|-----------------------------------|------------|-------------------------|-----|-----|------|-----|
| A | В | TURN ELBOW | PIPE | 12" | 18" | 36" | 48" |
| 13 3/4" | 32 1/2" | 1 | 1 | | | | |
| 19" | 41" | 1 | 1 | 1 | | | 1 |
| 22" | 46 ³ / ₄ " | 1 | 1 | | 1 | | |
| 24 1/2" | 50 ³ / ₄ " | 1 | 1 | 2 | | | |
| 27 1/2" | 56 | 1 | 1 | 1 | 1 | | |
| 30 1/4" | 61 | 1 | 1 | | 2 | | |
| 31 | 62 1/2" | 1 | 1 | | | 1 | |
| 32 1/2" | 65" | 1 | 1 | 2 | 1 | | |
| 35 1/2" | 70 1/4" | 1 | 1 | 1 | 2 | | |
| 36 ¹ / ₄ " | 71 ¹ / ₂ " | 1 | 1 | 1 | | 1 | |
| 37 | 72 3/4" | 1 | 1 | | | | 1 |
| 38 1/2" | 75 ¹ / ₂ " | 1 | 1 | | 3 | | |
| 39 1/4" | 76 3/4" | 1 | 1 | | 1 | 1 | |
| 41 1/2" | 80 1/2" | 1 | 1 | 2 | | 1 | |
| 42 1/4" | 81 3/4" | 1 | 1 | 1 | | | 1 |
| 44 1/2" | 85 3/4" | 1 | 1 | 1 | 1 | 1 | |
| 45 ¹ / ₄ " | 87" | 1 | 1 | | 1 | | 1 |
| 47 1/2" | 91" | 1 | 1 | | 2 | 1 | |
| 48 1/4" | 92 1/4" | 1 | 1 | | | 2 | |
| 49 3/4" | 94 3/4" | 1 | 1 | 2 | 1 | 1 | |
| 52" | 98 3/4" | 1 | 1 | 1 | 4 | | |
| 53 1/2" | 101 ¹ / ₄ " | 1 | 1 | 1 | | 2 | |
| 54 ¹ / ₄ " | 102 3/4" | 1 | 1 | | | 1 | 1 |
| 55 ³ / ₄ " | 105 ¹ / ₄ " | 1 | 1 | | 3 | 1 | |
| 56 ¹ / ₂ " | 1061/2" | 1 | 1 | | 1 | 2 | |
| 58 ³ / ₄ " | 110 1/2" | 1 | 1 | 2 | | 2 | |
| 59 ¹ / ₂ " | 111 3/4" | 1 | 1 | 1 | | 1 | 1 |
| 60 ¹ / ₄ " | 113" | 1 | 1 | | | | 2 |
| 61 3/4" | 115 ³ / ₄ " | 1 | 1 | 1 | 1 | 2 | |
| 64 3/4" | 120 3/4" | 1 | 1 | | 2 | 2 | |
| 65 ¹ / ₂ " | 122 1/4" | 1 | 1 | 1 | | | 2 |
| 67" | 124 3/4" | 1 | 1 | 2 | 1 | 2 | |

FIRESTOP SPACERS (3600FS-8DM-1)

Firestop spacers are required at each point where chimney penetrates a floor space. Their purpose is to establish and maintain required clearance between chimney and combustible materials. When pipe passes through a framed opening into a living space above, firestop must be placed onto ceiling from below as shown in Figure 10.

They also provide complete separation from one floor space to another or attic space as required by most codes. When double wall pipe passes through a framed opening into an attic space, firestop must be placed into an attic floor as shown in Figure 11.

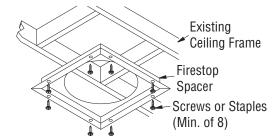


Figure 10 - Firestop Spacer with Living Space Above Ceiling

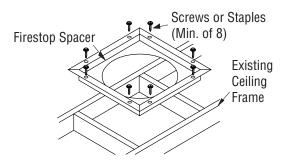


Figure 11 - Firestop Spacer with Attic Space Above Ceiling

IMPORTANT NOTICE

When penetrating a ceiling into an attic, a firestop thimble (38FST or FST30) is required to avoid intrusion by insulation and recommended to negotiate a joist (see Figure 11a).



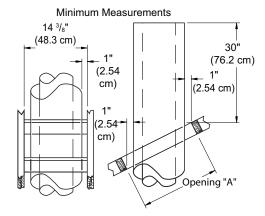
Figure 11a - Firestop Thimble

PENETRATING ROOF

To maintain a 1" clearance to pipe on a roof with a pitch, a rectangular opening must be cut.

- 1. Determine center point where pipe will penetrate the roof.
- 2. Determine center point of the roof. Pitch is the distance the roof drops over a given span, usually 12". A 6/12 pitch means that the roof drops 6" for each 12" measure horizontally down from roof rafters.
- 3. Use roof opening chart (Figure 12) to determine correct opening length and flashing required.

- 4. Remove shingles around opening measured. Cut out this section.
- 5. Add next sections of pipe until end penetrates roof line. Check to see that proper clearances are maintained. Extend chimney by adding sections of double wall pipe until pipe is minimum of 30" above highest point of roof cutout. Termination and chimney must extend a minimum of 36" above highest point where it passes through roof.



| Pitch | Slope | Opening "A" Max. | Used Flashing Model No. |
|-------------|-------|----------------------------------|----------------------------|
| Flat | 0° | 15" | V6F-8DM |
| 0-6/12 | 26.6° | 16 ¹ / ₈ " | V6F-8DM |
| 6/12- 12/12 | 45.0° | 20 3/8" | V12F-8DM |

Figure 12 - Roof Opening Measurements

FLASHING INSTALLATION (V6F-8DM OR V12F-8DM)

Determine flashing to be used with roof opening chart. Slide flashing over pipe until base is flat against roof. Replace as many shingles as needed to cover exposed area and flashing base. Secure in position by nailing through shingles (see Figure 13). DO NOT NAIL THROUGH FLASHING CONE.

Installing Flashing on a Metal Roof

When installing flashing on a metal roof, it is required that putty tape be used between flashing and roof. Flashing must be secured to roof using #8 \times 3/4" screws and then sealed with roof coating to prevent leakage through screw holes. A roof coating must also be applied around perimeter of flashing to provide a proper seal.

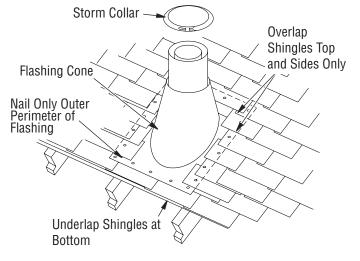
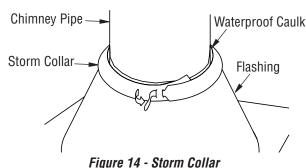


Figure 13 - Flashing Installation

Storm Collar Installation (SC1)

Place storm collar over pipe and slide down until it is snug against open edge of flashing (see Figure 14). Use SC1 for all round terminations. Apply waterproof caulk around perimeter of collar to provide a proper seal.



rigure 14 - Storin Co

Terminations/Spark Arrestor

Fireplace system must be terminated with listed round top or chase terminations. In any case, refer to installation instructions supplied with termination. Terminations approved for this fireplace are RT-8DM and RLT-8DM that can be used for flashing or chase and ET-8DM, ETO-8DM, ETL-8DM and ETLO-8DM for chase style termination only. Figure 18 shows an RLT-8DM round top termination.

A CAUTION: Do not seal openings on the rooftop flashing. Follow the installation instructions provided with the termination being used.

Terminations with 16" slip pipe sections are available. RTT-8DM, and RLTT-8DM are approved for flashing installations. When needed, these adjustable terminations may be used in combination with pipe assembly to achieve correct chimney height.

Note: In the rare instance there is a problem with side driven rain or wind or chimney is not drafting properly, an ADS-8DM (Anti-Draft Shield) can be used with round terminations.

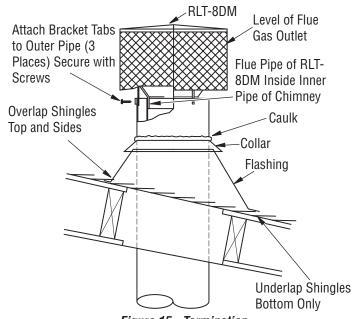


Figure 15 - Termination

CHASE INSTALLATIONS

Instructions for chase installations are included with chase style termination chosen. In a multiple chase installation, be sure to provide adequate distance between terminations to prevent smoke spillage from one termination to another. We suggest that terminations be separated at least 24", center to center and stacked at a vertical height difference of 18" (see Figure 16).

Note: If a decorative shroud is to be installed, contact manufacturer for specifications.

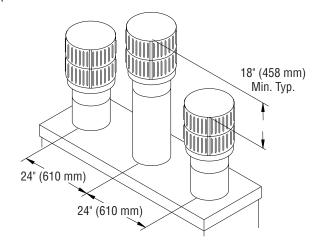


Figure 16 - Multiple Chase Installation

10 FOOT RULE

All flue gas outlet chimney terminations must extend a minimum of 3 feet in height above highest point where it passes through roof and must be at least 2 feet above highest point of the roof that is within a horizontal distance of 10 feet (see Figure 17).

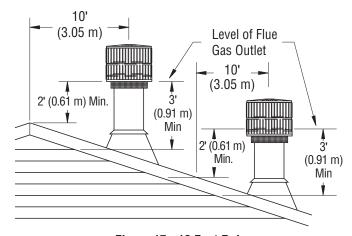


Figure 17 - 10 Foot Rule

FINISHING FIREPLACE

Combustible materials, such as wallboard, sheet rock, drywall, plywood, etc., may make direct contact with sides and top around fireplace face. It is important that combustible materials do not overlap face itself. Brick, glass, tile or other noncombustible materials may overlap front face provided they do not obstruct essential openings such as louvered slots. When overlapping with a noncombustible facing material, use only noncombustible mortar or adhesive.

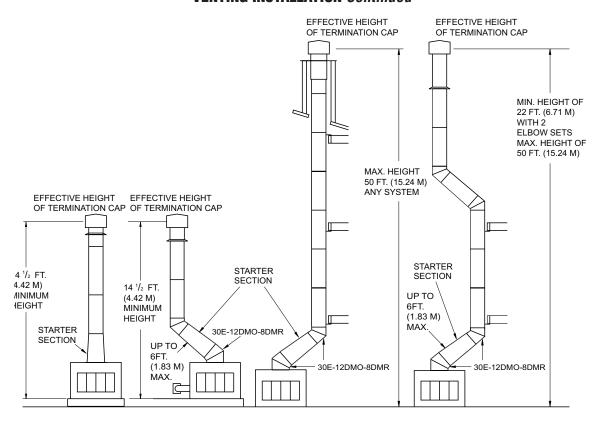


Figure 18 - Typical Residential Installations

OPTIONAL GAS LINE INSTALLATION

A gas line or gas log lighter may be installed for the purpose of installing a vented or vent-free decorative gas appliance incorporating an automatic shutoff device and complying with the Standard for Decorative Gas Appliances for Installation in Vented Fireplaces, ANSI Z21.60 or American Gas Association draft requirements for Gas Fired Log Lighters for Wood Burning Fireplaces, Draft NO. 4 dated August, 1993.

If you wish to install an unvented (vent-free) gas log set, only unvented gas log sets which have been found to comply with the standard for unvented room heaters, ANSI Z21.11.2 are to be installed in this fireplace.

Gas line hook up should be done by your supplier or a qualified service person.

Note: Before you proceed, make sure your gas supply is turned off. Use only a 1/2" black iron pipe and appropriate fittings.

- 1. Remove knockout indentation on refractory or firebrick wall located above refractory hearth floor. Knockout indentation must be firmly tapped with any solid object, such as a 1/2" dowel, until it is released. Remove fragmented portions of refractory (see Figure 19, page 13).
- 2. Remove gas line cover plate located on either side of fireplace and pull out insulation from gas line conduit sleeve. Save insulation for reuse.
- 3. Run a 1/2" black iron gas line into fireplace through rear at gas line conduit sleeve (if using a raised platform, add height). Provide sufficient gas line into fireplace chamber for fitting

connection (see Figure 20, page 13).

Note: Secure incoming gas line to wood framing to provide rigidity for threaded end.

4. Repack insulation around gas line and into sleeve opening. Seal any gaps between gas line and refractory knockout hole with refractory cement or commercial furnace cement. Install gas appliance or cap off gas line if desired.

CAUTION: All gas piping and connections must be tested for leaks after installation is completed. After ensuring that gas valve is on, apply soap and water solution to all connections and joints. Bubbles forming show a leak. Correct all leaks at once. DO NOT USE AN OPEN FLAME FOR LEAK TESTING AND DO NOT OPERATE ANY APPLIANCE IF A LEAK IS DETECTED. LEAK TESTING SHOULD BE DONE BY A QUALIFIED SERVICE PERSON.

Note: An IHP hood must be installed when using an unvented gas log set (see <u>Accessories</u> on page 20).

▲ WARNING: Do not operate an unvented gas log set in this fireplace with chimney removed.

OPTIONAL GAS LINE INSTALLATION Continued

If you install a decorative gas appliance (vented gas log), decorative gas appliance must comply with the Standard for Decorative Gas Appliance for Installation in Solid Fuel Burning Fireplaces, ANSI Z21.60/CSA 2.26 or Z21.84 and shall also be installed in accordance with ANSI Z223.1/NFPA 54 National Fuel Gas Codes (USA) and CAN/CGA-B149.1 National Gas And Propane Installation Code (Canada).

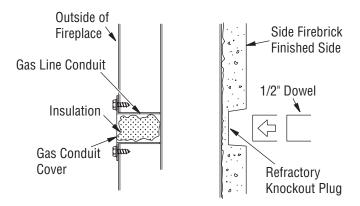


Figure 19 - Gas Line Knockout

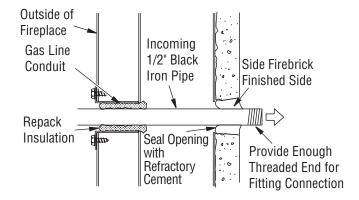


Figure 20 - Gas Line Installation

WARNING: To avoid the risk of damaging fireplace materials and increasing the risk of spreading a fire, do not use fireplace to cook or warm food.

WARNING: If the fireplace has been used for wood burning, firebox and chimney must be cleaned of soot, creosote and ashes be a qualified chimney cleaner. Creosote will ignite if heavily heated.

WARNING: When using a decorative vented gas log, damper must be removed or permanently locked in fully open position and glass doors must be in fully open position.

OPERATION AND MAINTENANCE

GLASS DOORS

Glass doors are optional with this fireplace. When fireplace is in operation, doors must be fully opened or fully closed position only or a fire hazard may be created (see Figure 21).

A fireplace equipped with glass doors operates much differently than a fireplace with an open front. A fireplace with glass doors has a limited amount of air for combustion. Excessive heat within fireplace can result if too large a fire is built or if combustion air gate is not completely open.

The following tips should be used to assure that both fireplace and glass door retain their beauty and function properly. Both the flue damper and glass doors must be fully opened before starting a fire. This will provide sufficient combustion air and maintain safe temperatures in firebox.

IMPORTANT: The glass must be allowed to warm slowly and evenly. Tempered glass will withstand a gradual temperature rise to 550° F, which is more than a normal fire will generate. Such materials as pitch/wax laden logs, very dry mill end lumber and large amounts of paper or cardboard boxes can create an excessively hot fire and should not be burned in this fireplace. Always keep fire back from doors and never allow flames to contact glass.

WARNING: FIREPLACES EQUIPPED WITH DOORS SHOULD BE OPERATED ONLY WITH DOORS FULLY OPEN OR DOORS FULLY CLOSED. IF DOORS ARE LEFT PARTLY OPEN, GAS AND FLAME MAY BE DRAWN OUT OF THE FIREPLACE OPENING, CREATING RISKS OF BOTH FIRE AND SMOKE.

WARNING: Discontinue use of the appliance immediately if doors are damaged and contact a qualified installer for repair. Only doors certified with the appliance shall be used.

MARNING: Do not slam or strike doors. Damage can result in a hazardous condition.

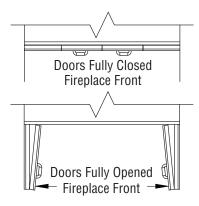


Figure 21 - Glass Doors

Cleaning Glass

Clean glass with any commercial glass cleaner or soap and water. Do not use any abrasive material to clean the glass. Do not clean glass with any cool water if glass is still hot from fire and smoke.

OPERATION AND MAINTENANCE Continued

WARNING: Risk of fire! Replace grate with IHP cat. no. J4513 only. This grate has been designed to keep the operation of your fireplace safe and efficient.

OUTSIDE AIR AND DAMPER HANDLE OPERATION

The damper handle, which opens and closes the damper blade, is located in upper front face of fireplace. Pushing handle into the left of keyway slot will free damper blade to automatically open. Pushing handle into the right will lock damper blade closed (see Figure 22).

Outside air kit handle is located at left hand side of fireplace (see Figure 22). Pulling handle out will free outside air door to open. Pushing handle in will lock door closed.

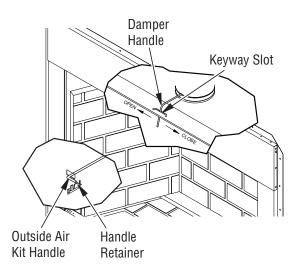


Figure 22 - Damper and Air Kit Handle

LOCATING ACCESS COVER PLATE

Sheet metal cover plates located underneath front hearth refractory may have shifted or moved out of place while fireplace was in transit. These cover plates must be kept in the proper location prior to using the fireplace (See Figure 23).

For further operating guidelines, instructions and warranty information, please refer to your homeowner's guide or contact your dealer.

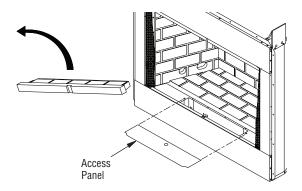


Figure 23 - Locating Access Cover Plate

REPLACEMENT PARTS

See Pages 16 to 18 for a complete replacement parts list. Use only parts supplied from the manufacturer.

Normally, all parts should be ordered through your IHP distributor or dealer. Parts will be shipped at prevailing prices at time of order.

When ordering repair parts, always give the following information:

- 1. The model number of the fireplace.
- 2. The serial number of the fireplace.
- 3. The part number.
- 4. The description of the part.
- 5. The quantity required.
- 6. The installation date of the fireplace.

If you encounter any problems or have any questions concerning the installation or application of this fireplace, please contact your dealer.

IHP 1508 Elm Hill Pike, Suite 108 Nashville, TN 37210 Visit us at Astria.us.com

TECHNICAL SERVICE

You may have further questions about installation, operation, or troubleshooting. Please contact your IHP dealer for any questions or concerns. When contacting your dealer please have your model and serial numbers of your fireplace ready. You can also visit our web site at **Astria.us.com**

IMPORTANT NOTICES - CANADA

Canadian code CAN/ULC-S610-M87 and other pertinent codes require stainless steel chimney for the installation of this fireplace. A Cold Air Climate Kit is also required in Canada and is recommended for cooler regions in the United States. Below, find a list of approved stainless steel parts.

Chimney Parts List for Canada

| | Omminioy i c | into Elot for Guillada | |
|---|--------------|---|--|
| Catalog No. | Model No. | 8" Hi-Temp Wood burning Chimney | |
| F0881 | 12-8HT | 12" Section Hi-Temp Double Wall Pipe Snap Lock | |
| F0882 | 18-8HT | 18" Section Hi-Temp Double Wall Pipe Snap Lock | |
| F0883 | 24-8HT | 24" Section Hi-Temp Double Wall Pipe Snap Lock | |
| F0884 | 36-8HT | 36" Section Hi-Temp Double Wall Pipe Snap Lock | |
| F0885 | 48-8HT | 48" Section Hi-Temp Double Wall Pipe Snap Lock | |
| F0886 | 30E-8HT | 30 Degree Hi-Temp Offset and Return | |
| F0887 | 12S-8HT | Hi-Temp Chimney Support (For Use With Chimney Heights In Excess of 30') | |
| F0888 | RT-8HT | Hi-Temp Round Top with Mesh Screen | |
| F0889 | RTT-8HT* | Hi-Temp Round Top with Mesh Screen and Slip Sec- tion | |
| F0890 | RLT-8HT | Hi-Temp Round Top with Louvered Screen | |
| F0891 | RLTT-8HT* | Hi-Temp Round Top with Louvered Screen and Slip Section | |
| F0892 | ET-8HT* | Hi-Temp Pyramid Top with Slip Section | |
| F0893 | ETL-8HT* | Hi-Temp Large Pyramid Top with Slip Section (use with all 8" systems) | |
| F0894 | AP-8HT | Hi-Temp Anchor Plate/Collar Assembly (for masonry fireplaces) | |
| F0929 | CAK-8 | Cold Air Collar Kit - 8" Chimney | |
| *When ordered alone, this part cannot ship via parcel | | | |

delivery services.

IMPORTANT NOTICE

A manufactured shroud which has been approved by a national testing agency for use with this fireplace may be used if installed in accordance with the instructions by its manufacturer. A locally fabricated shroud may be used with IHP Shroud Leg Spacer Kit (SLK) in accordance with instructions provided with the shroud.

NOTICE: The firebox canopy (hood) must not be modified or replaced with a canopy that may be provided with the unvented decorative room heater.

CAUTION: THE STRUCTURAL INTEG-RITY OF THE MANUFACTURED HOME FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED.

WARNING: DO NOT INSTALL IN SLEEPING ROOM OF MOBILE HOMES.

| MODEL NO. | CATALOG NO. | <u> </u> | O.F. | |
|------------|---------------------------|--|--------------------------------|------------|
| Tuscan42P2 | F0542 | 31 | 25 | |
| Tuscan42P3 | F0543 | 2. | | |
| | 35 36 4 28 16 | 1 21 8 15 17 26 20 26 23 30 29 29 | 24 24 11 7 10 6 | 8 33/34 33 |

PARTS

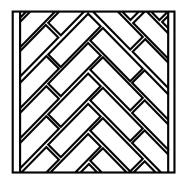
WOOD BURNING FIREPLACE MODELS TUSCAN42P2 (F0542) AND TUSCAN42P3 (F0543)

This list contains replaceable parts used in your fireplace.

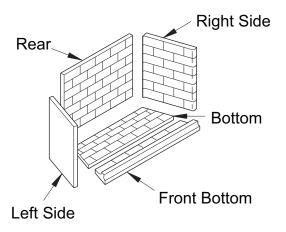
MARNING: Contact an IHP dealer to obtain any of these parts. Never use substitute materials not approved by IHP. Use of non-approved parts can result in poor performance and safety hazards.

| KEY NO. | CATALOG NO. | DESCRIPTION | QTY. |
|---------|-------------|-------------------------------------|------|
| 1 | ** | Insulation Pan | 1 |
| 2 | ** | Fireplace Top | 1 |
| 3 | ** | Fireplace Surround | 1 |
| 4 | J3946 | Air Rod Retainer | 1 |
| 5 | J3947 | Damper Rod Retainer | 1 |
| 6 | ** | Firebox Bottom | 1 |
| 7 | ** | Firebox Surround | 1 |
| 8 | ** | Air Separator | 1 |
| 9 | See Page 18 | Left Refractory Brick Liner | 1 |
| 10 | See Page 18 | Right Refractory Brick Liner | 1 |
| 11 | See Page 18 | Rear Refractory Brick Liner | 1 |
| 12 | See Page 18 | Bottom Rear Refractory Brick Liner | 1 |
| 13 | See Page 18 | Bottom Front Refractory Brick Liner | 1 |
| 14 | J3972 | Firebox Support Leg | 4 |
| 15 | ** | Damper Can Collar | 1 |
| 16 | J8013 | Kit, Screen Assembly | 1 |
| 17 | ** | Firebox Top Assembly | 1 |
| 18 | J3980 | Air Kit Door Assembly | 1 |
| 19 | ** | Face Weldment | 1 |
| 20 | J4471 | Air Deflector | 1 |
| 21 | ** | Fireplace Top Insulation | 1 |
| 22 | ** | Access Panel | 1 |
| 23 | J4513 | Grate | 1 |
| 24 | ** | Collar Insulation | 1 |
| 25 | J8014 | Chimney Starter Collar | 1 |
| 26 | J6895 | Refractory Retainer | 2 |
| 27 | J3939 | Grate Retainer | 2 |
| 28 | J4504 | Door Stop | 1 |
| 29 | J4523 | Pivot Clip | 2 |
| 30 | J6905 | Spring Clip | 2 |
| 31 | J6918 | Top Spacer | 4 |
| 32 | J6934 | Conduit Plate Cover | 4 |
| 33 | J6951 | Gas Conduit | 2 |
| 34 | J6952 | Gas Conduit | 2 |
| 35 | F1907 | SS-8DM STARTER SEC 12-8"DMC-12 | 1 |
| | | PARTS AVAILABLE NOT SHOWN | |
| | 127004-01 | Home Owner's Guide | 1 |
| | J6906 | Ember Protector | 2 |

^{**} Not a field replaceable part



| MODEL NO. | CATALOG NO. |
|------------|-------------|
| Tuscan42P2 | F0542 |
| Tuscan42P3 | F0543 |



| KEY No. | CATALOG NO. | DESCRIPTION | Tuscan42P2 | Tuscan42P3 | OTY. |
|------------|-------------|--|------------|------------|------|
| 9 | J4063 | Left Refractory, Textured White Brick | • | | 1 |
| J | J4141 | Left Refractory, Textured White Herringbone | | • | 1 |
| 10 | J4068 | Right Refractory, Textured White Brick | • | | 1 |
| | J4144 | Right Refractory, Textured White Herringbone | | • | 1 |
| 11 | J4073 | Rear Refractory, Textured White Brick | • | | 1 |
| | J4147 | Rear Refractory, Textured White Herringbone | | • | 1 |
| 12 | J4506 | Bottom Rear Refractory, White Brick | • | • | 1 |
| 13 | J4508 | Bottom Front Refractory, White Brick | • | • | 1 |

ACCESSORIES

| Kit includes | ractory stain kits to foam roller handle | give white refractory panels a new look. , paint tray, and one can of stain. Available stain colors a cotta), and Cappuccino (rosy taupe). | Creamer Rust Cappuccino |
|--------------|---|--|-------------------------|
| CAT NO. | MODEL | DESCRIPTION | |
| H8176 | BSK-CR | Stain Kit (Rfry) 1 Qt. Creamer | |
| H8177 | BSK-RT | Stain Kit (Rfry) 1 Qt. Rust | |
| H8178 | BSK-CP | Stain Kit (Rfry) 1 Qt. Cappuccino | |

ACCESSORIES Continued

| | | BI-FOLD GLASS DOORS | |
|-----------------|--------------------|--|-----|
| CAT NO. | MODEL | DESCRIPTION | |
| F0990 | BD042 | 42" Outdoor Bi-Fold Glass Door - Black finish | |
| F0991 | BD042B | 42" Outdoor Bi-Fold Glass Door - Brushed Brass finish | |
| F0992 | BDO42P | 42" Outdoor Bi-Fold Glass Door - Platinum finish | |
| | | DOUBLE WALL PIPE | w / |
| F0895 | 12-8DM | 12" Section Double Wall Pipe Snap Lock | |
| F0896 | 18-8DM | 18" Section Double Wall Pipe Snap Lock | |
| F0897 | 24-8DM | 24" Section Double Wall Pipe Snap Lock | |
| F0898 | 36-8DM | 36" Section Double Wall Pipe Snap Lock | |
| F0899 | 48-8DM | 48" Section Double Wall Pipe Snap Lock | |
| F0881 | 12-8HT | 12" Section Hi-Temp Double Wall Pipe Snap Lock | |
| F0882 | 18-8HT | 18" Section Hi-Temp Double Wall Pipe Snap Lock | |
| F0883 | 24-8HT | 24" Section Hi-Temp Double Wall Pipe Snap Lock | |
| F0884 | 36-8HT | 36" Section Hi-Temp Double Wall Pipe Snap Lock | |
| F0885 | 48-8HT | 48" Section Hi-Temp Double Wall Pipe Snap Lock | |
| | 3 | 80° OFFSET AND RETURN | |
| F0900 | 30E-8DM | 30 Degree Offset and Return | |
| F0886 | 30E-8HT | 30 Degree Hi-Temp Offset and Return | |
| F1908 | 30E-12DMO- 8DMR | 30 Elbow Set 12" to 8" Craftsman 42 | |
| F2199 | 30E-12HT0-8HTR | Elbow Set 12"" Offset 8" Return HT | |
| | OPTIONAL OUTS | SIDE AIR KIT FOR FLOOR INSTALLATION | |
| F1091 | AK4 | Complete Outside Air Kit w/Collars Hood & 3' Flex | |
| | OPTIONAL OUTSI | DE AIR KIT FOR SIDEWALL INSTALLATION | |
| F1093 | AK4F | Outside Air Kit Collar, Hood & 3' Flex for Floor Venting | |
| STORM COLLAR | | | |
| F0915 | SC1-1 | Storm Collar | |
| F0946 | SC2-1 | Storm Collar | |
| FIRESTOP SPACER | | | |
| F0904 | FS-8DM | 2" Clearance Firestop Spacer | |

ACCESSORIES Continued

| | | ROOF FLASHING | |
|-------|----------------------|--|--|
| F0909 | V6F-8DM | Roof Flashing 0 to 6/12 Pitch (30" Base) | |
| F0910 | V12F-8DM | Roof Flashing 6/12 to12/12 Pitch | |
| | (R | ANTI-DRAFT SHIELD ound Top Termination Only) | |
| F0927 | ADS-8DM | Anti-Draft Shield for Round Top Only | |
| | MES | H ROUND TOP TERMINATIONS | |
| F0916 | RT-8DM | Round Top with Mesh Screen | |
| | MESH ROUND | TOP TERMINATIONS WITH SLIP SECTION | |
| F0917 | RTT-8DM | Round Top with Slip Section & Mesh | |
| | ROUND T | OP TERMINATIONS WITH LOUVERS | |
| F0918 | RLT-8DM | Round Top with Louvered Screen | |
| F0890 | RLT-8HT | Hi-Temp Round Top with Louvered Screen | Viiiniiily |
| | ROUND TOP TERM | INATIONS WITH LOUVERS W/SLIP SECTION | 2011/11/10 |
| F0919 | RLTT-8DM | Round Top with Slip Section & Louvers | |
| | SQUARE | TOP TERMINATION WITH LOUVERS | |
| F0920 | ET-8DM | Square Top | _ |
| F0922 | ETO-8DM | Square Top with Mesh | |
| S | QUARE TOP TERM | INATION WITH LOUVERS AND SLIP SECTION | |
| F0921 | ETL-8DM | Square Top with Slip Section | |
| F0923 | ETLO-8DM | Square Top with Mesh and Slip Section | |
| | | H SQUARE TOP TERMINATION | |
| F0922 | ETO-8DM | Square Top with Mesh | |
| | - | TOP TERMINATION WITH SLIP SECTION | |
| F0923 | ETLO-8DM | Square Top with Mesh and Slip Section | |
| | Required when ir | STAINLESS STEEL HOOD installing a vent-free gas log in this fireplace. | |
| F1053 | HS42 | 42" Stainless Steel Hood w/4" Brow | |
| | | DRAIN PAN | |
| F1090 | DP42 | Drain Pan | |
| | | FIRESTOP THIMBLE | |
| F0911 | 38FST | Firestop Thimble (Use when penetrating a joist) | |
| F0912 | FST30 | Firestop Thimble (Use when offsetting through a joist) | |
| | | LABEL-UL127-50PK | A WARNING A WARNING |
| F2659 | LABEL-UL127- 50PK | UL127 Venting Label - 50 PK | HOT OF THE PROPERTY OF THE PRO |

APPENDIX A

Draft Requirements

Your wood-burning appliance is dependent upon a properly functioning chimney for optimum performance. It is important to match the wood-burning appliance to the chimney. The chimney has two functions:

- It draws combustion air into the appliance (without air, no fuel will burn) and
- 2. It exhausts combustion by-products. Your new appliance is what is known as a "natural draft" appliance.

The appliance depends solely on the natural draft of the chimney system to draw combustion air into the unit. Draft is the force that moves air from the appliance up into the chimney. The amount of draft in your chimney depends on the length of the chimney, local geography, nearby obstructions and other factors. Too much draft may cause excessive temperatures in the appliance (overfiring). Slow or inadequate draft equals poor combustion and possible smoking problems. The following are some conditions that may contribute to poor chimney draft:

- 1. A chimney too large for your appliance.
- 2. A chimney with not enough height to produce adequate draft.
- 3. A chimney with excessive height (this may allow exhaust to cool too much before exiting, which will stall the rate the exhaust exits).
- 4. Offsets in the venting system are too restrictive (see Chimney Guidelines).

Inadequate draft will cause the appliance to leak smoke into the room through the wood-burning appliance and the chimney connector joints. Excessive draft may cause an uncontrollable burn or a glowing red appliance or chimney part.

Overfiring Damage - If the appliance or chimney connector glows, you are overfiring. Other symptoms may include: Cracking, warping or burning out of components, plated accessories may turn color, appliance glass may develop a haze, which will not come off with cleaning.

Overfiring of a appliance is a condition where excessive temperatures are reached, beyond the design capabilities of the appliance. The damage that occurs from overfiring is not covered under the manufacturer's limited warranty.

Also see Troubleshooting on Page 22.

A WARNING

Neither the manufacturer nor the seller warrants "smoke free" operation nor are we responsible for inadequate system draft caused by mechanical systems, general construction conditions, inadequate chimney heights, adverse wind conditions and/or unusual environmental factors or conditions beyond our control.

Selecting the Proper Venting System

The appliance is merely one component of a larger system. The other equally important component is the venting system. This is necessary for achieving the required flow of combustion air to the fire chamber and for safely removing unwanted combustion by products from the appliance.

If the venting system's design does not promote these ends, the system may not function properly. Poorly functioning venting systems may create performance problems as well as be a safety hazard. A draft test should read greater than .04' W.C. (inches water column) and less than .08" W.C. As per NFPA-211 standard, the installer must

take into account all variables within the installation and install the appliance in such a manner that satisfies the draft requirements of the appliance. See Chimney Guidelines to assist you in selecting the proper venting system for your installation.

American National Standards Institute ANSI/NFPA 211, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances - See Draft Section: A chimney or vent shall be so designed and constructed to develop a flow sufficient to completely remove all flue and vent gases to the outside atmosphere. The venting system shall satisfy the draft requirements of the connected appliance in accordance with the manufacturer's instructions.

Chimney Guidelines:

- Most wood-burning appliances requires approximately 12 feet minimum of "effective draw" provided by the venting system. As a rule of thumb, every 90 degree total direction change in the venting will result in a loss of approximately 5 feet of "effective draw." Example: If two 45 degree offsets are used, subtract 5 feet from the actual vertical vent height to determine your "effective draw." In this case if you had 14 feet of vertical vent, the effective draw would only be approximately 9 feet (14 ft. 5 ft. = 9 ft.), therefore it may be necessary to add additional height to the venting system.
- Do not install an offset within the first two feet above the flue outlet on the appliance.
- In well insulated and weather tight homes, it may be difficult to establish a good draft up your chimney. The poor draft is caused by a shortage of air in the house. In this situation an Outside Air Kit may need to be installed (See Negative Pressure Warning below and Outside Combustion Air in the Installation and Operation manual).

Negative Pressure Warning

These appliances are not designed to be operated in a negative pressure. In very airtight homes with large kitchen exhaust fans, furnace cold air returns, fresh air exchange systems and any other air system in close proximity to the heating appliance may create a negative pressure in the same room as the heating appliance. This can create dangerous back drafting of the appliance and chimney joints, drawing combustion by-products into the home. Be sure your home has adequate makeup air to eliminate negative pressures caused by the above-mentioned sources. Outside air connected to the appliance probably will not resolve such a problem as the appliance is not the source of negative pressure. IHP accepts no liability for damages resulting from negative pressures described here.

Ventilation Requirements - Provide adequate air for combustion. The fresh air requirements of this appliance must be met within the space where it will be installed. Ventilation is essential when using a solid-fuel-burning appliance. In well insulated and weather tight homes, it may be difficult to establish a good draft up the chimney (caused by a shortage of air in the home). The lack of air is caused by many common household appliances which exhaust air from the home (such as a furnace, heat pump, air conditioner, clothes dryer, exhaust fans, fireplaces, and other fuel burning appliances). Also, the combustion process of this appliance uses oxygen from inside the dwelling. If the available fresh air delivery in the dwelling is insufficient to support the demands of these appliances, problems can result (i.e. excessive negative pressure can develop in the dwelling which will affect the rate at which this appliance can draft thus resulting in performance problems or smoking. To correct this problem it may help to open a window (preferably on the windward side of the house) or install an outside air kit.

APPENDIX A Continued

Smoking - Causes And Troubleshooting

To reduce the likelihood of smoking when opening the door, open the combustion air control or damper before opening the door. Your appliance has been designed and tested to provide smoke free operation. Occasionally, there may be a small amount of smoking upon lighting the fire, until the chimney heats up but this should not continue. If the appliance continues to smoke it is probably for one of the following reasons:

A. Negative pressure in the house -

As the fire burns, air goes up the chimney. This air must be replaced through leakage into the house or through the outside air duct. When operating the appliance, open a nearby window temporarily to check if there is adequate replacement air supply.

- **B. Blowers operating (e.g.: range hood)** These blowers draw air out of the house and may actually cause a negative pressure in the house. Turn off all blowers and open a nearby window to determine if this is the cause of the problem.
- **C. Wet wood -** Wet or tarred wood will smoulder and smoke instead of burning properly. Your dealer can help you determine if you have properly seasoned wood for burning.
- **D. Dirty or blocked chimney -** Check to make sure the chimney is clear and clean. If dirty call a certified chimney sweep or use a properly sized chimney brush to clean.
- **E. Chimney not long enough -** The minimum chimney height is twelve (12) feet (3.7 m) not including the appliance height. The chimney must extend at least three (3) feet (915 mm) above its point of contact with the roof and at least two (2) feet (610 mm) higher than any roof or wall within ten (10) feet (3 m) of it. When installed with offsets, the minimum chimney height is fifteen (15) feet. Additional height will increase draft and will decrease the tendency to smoke.
- F. Poor chimney draft With no fire, there should be sufficient draft to exhaust cigarette smoke introduced under the baffle or flue baffle. Chimneys installed against an outside wall without protection may generate back draft problems which will cause start-up problems. To prevent this, open a nearby window, roll up a piece of paper and light it. Then, hold it in the upper part of the firebox to warm up the chimney. Wait until the draft is sufficient, then start the fire.
- **G. Blower for forced air kit operating (some models)** Make sure that the blower is in the "off" position when you open the appliance door for reloading.

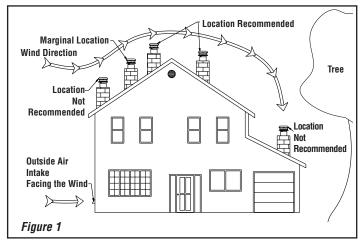
Locating The Appliance

The best location to install your appliance is determined by considering the location of windows, doors, and the traffic flow in the room where the appliance is located, allowing space in front of the unit for the hearth extension and the mantel, and taking into consideration the location of the hot air ducts (some models), outside air kit and chimney.

If possible, you should choose a location where the chimney will pass through the house without cutting floor or roof joists.

When selecting the location, the chimney outlet position and the direction of the wind are important factor affecting the chimney performance. To allow a maximum draft and to reduce wind turbulence, the chimney must:

- Penetrate the highest part of the roof.
- Be installed as far as possible of roof offsets, trees or any other obstructions that may cause wind turbulence and back drafts in the chimney.
- The least amount of offsets (elbows) possible. NOTE: A maximum of 2 offsets is allowed.



Prohibited Fuels

These appliances are designed to burn natural well-seasoned wood. The wood fuel should be air dried seasoned hardwoods, as compared to softwoods or to green or freshly cut hardwoods. Burning artificial logs, in some model appliances is allowed (see Installation and Operation manual); please read and follow the instructions provided by the manufacturer. DO NOT BURN:

- Garbage:
- Lawn clippings or yard waste;
- Materials containing rubber, including tires;
- Materials containing plastic:
- Waste petroleum products, paints or paint thinners, or asphalt products;
- Materials containing asbestos:
- Construction or demolition debris;
- Railroad ties or pressure-treated wood; woods that have been dipped in tar, pitch, pine tar, creosote, etc.

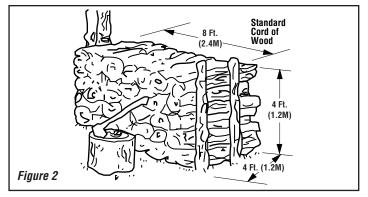
- Manure or animal remains;
- Salt water driftwood or other previously salt water saturated materials;
- Unseasoned wood:
- Christmas tree branches:
- Paper products, colored paper, cardboard, plywood, or particleboard;
- Gasoline:
- Naphtha;
- Engine Oil:
- Flammable Liquids:
- Solvents:
- · Grease; or
- Charcoal or Coal

NOTE: The use of a firewood moisture meter is recommended to ensure the firewood contains less than 20% moisture.

Seasoning Guide

Softwoods - 6 months to 18 months Hardwoods - 12 months to 24 months

Logs that are 5" diameter across or larger should be split in half, three pieces if over 8 inches, and four pieces when over a foot across. If a tree has been dead for 2 - 4 years it still needs to be cut, split, and seasoned for 6 to 24 months depending on the wood.



Innovative Hearth Products Astria® Brand Wood-Burning Fireplace 20 Year Limited Warranty

THE WARRANTY

Innovative Hearth Products ("IHP") 20 Year Limited Warranty warrants your Astria® brand wood burning fireplace ("Product") to be free from defects in materials and workmanship at the time of manufacture. The Product body, firebox and ceramic glass carry the 20 Year Limited Warranty. Ceramic glass carries the 20 Year Limited Warranty against thermal breakage only. After installation, if covered components manufactured by IHP are found to be defective in materials or workmanship during the 20 Year Limited Warranty period and while the Product remains at the site of the original installation, IHP will, at its option, repair or replace the covered components. If repair or replacement is not commercially practical, IHP will, at its option, refund the purchase price or wholesale price of the IHP product, whichever is applicable. IHP will also pay IHP prevailing labor rates, as determined in its sole discretion, incurred in repairing or replacing such components for up to five years. THERE ARE EXCLUSIONS AND LIMITATIONS to this 20 Year Limited Warranty as described herein.

COVERAGE COMMENCEMENT DATE

Warranty coverage begins on the date of purchase. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the Product by an independent IHP dealer/distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from IHP, regardless of the installation or occupancy date.

EXCLUSIONS AND LIMITATIONS

This 20 Year Limited Warranty applies only if the Product is installed in the United States or Canada and only if operated and maintained in accordance with the printed instructions accompanying the Product and in compliance with all applicable installation and building codes and good trade practices.

This warranty is non-transferable and extends to the original owner only. The Product must be purchased through a listed supplier of IHP and proof of purchase must be provided. The Product body and firebox carry the 20 Year Limited Warranty from the date of installation. Vent components, trim components, paint and applied stains are excluded from this 20 Year Limited Warranty. The following do not carry a 20 Year Limited Warranty but are warranted as follows:

Air tubes, baffles and brick retainers - Repair or replacement for one year from the date of installation

Cast iron parts – Replacement for one year from date of installation

Electrical components – Repair or replacement for one year from the date of installation

Fireplace screens, refractory and side shields (metal or refractory) - Repair or replacement for two years from date of installation. Excludes hairline cracks.

Fuel grates -These parts are considered consumable accessories and therefore are not warranted, with the exception of defects in material or workmanship which are covered for 90 days from the date of installation

Gaskets - Replacement for one year from date of installation

Gold & nickel plating – Replacement for two years from date of installation. Excludes tarnishing Optional glass doors – Repair or replacement for 90 days from the date of installation

Labor coverage - Prevailing IHP labor rates apply for the warranty period of the component.

Parts not otherwise listed carry a 90 day warranty from the date of installation.

Whenever practicable, IHP will provide replacement parts, if available, for a period of 10 years from the last date of manufacture of the Product.

IHP will not be responsible for: (a) damages caused by normal wear and tear, accident, riot, fire, flood or acts of God; (b) damages caused by abuse, negligence, misuse, or unauthorized alteration or repair of the Product affecting its stability or performance. (The Product must be subject to normal use with approved fuels listed in the Operation Manual provided with the product. This includes burning such fireplace fuels as wood and natural or propane gas. Fuel products with abnormal burning characteristics, including but not limited to fuel such as driftwood, coal or plywood and wood products using a binder may burn at excessive temperatures and may cause damage to the Product or may cause it to function improperly.); (c) damages caused by failing to provide proper maintenance and service in accordance with the instructions provided with the Product; (d) damages, repairs or inefficiency resulting from faulty installation or application of the Product.

Coverage of this 20 Year Limited Warranty is conditional upon use of an adequate fuel grate on factory-built fireplaces only, when applicable.

IHP is not responsible for inadequate fireplace system draft caused by air conditioning and heating systems, mechanical ventilation systems, or general construction conditions which may generate negative air pressure in the room in which the appliance is installed. Additionally IHP assumes no responsibility for smoking conditions caused by inadequate chimney height, adjoining trees or buildings, adverse wind conditions or unusual environmental factors and conditions. Certain IHP Products are listed for use with Security Chimneys International, Ltd. or IHP chimney systems only. Use of chimney components other than that specified in the Product manual will void the Product warranty.

This 20 Year Limited Warranty covers only parts and labor as provided herein. In no case shall IHP be responsible for materials, components or construction which are not manufactured or supplied by IHP or for the labor necessary to install, repair or remove such materials, components or construction. Additional utility bills incurred due to any malfunction or defect in equipment are not covered by this 20 Year Limited Warranty. All replacement or repair components will be shipped F.O.B. from the nearest stocking IHP factory.

LIMITATION ON LIABILITY

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

In no event shall IHP be liable for any incidental or consequential damages caused by defects in the Product, whether such damage occurs or is discovered before or after replacement or repair, and whether such damage is caused by IHP's negligence. IHP has not made and does not make any representation or warranty of fitness for a particular use or purpose, and there is no implied condition of fitness for a particular use or purpose.

IHP makes no expressed warranties except as stated in this 20 Year Limited Warranty. The duration of any implied warranty is limited to the duration of this expressed warranty.

No one is authorized to change this 20 Year Limited Warranty or to create for IHP any other obligation or liability in connection with the Product. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. The provisions of this 20 Year Limited Warranty are in addition to and not a modification of or subtraction from any statutory warranties and other rights and remedies provided by law.

INVESTIGATION OF CLAIMS AGAINST WARRANTY

IHP reserves the right to investigate any and all claims against this 20 Year Limited Warranty and to decide, in its sole discretion, upon the method of settlement.

To receive the benefits and advantages described in this 20 Year Limited Warranty, the appliance must be installed and repaired by a licensed contractor approved by IHP.

Contact IHP at the address provided herein to obtain a listing of approved dealers/distributors. IHP shall in no event be responsible for any warranty work done by a contractor that is not approved without first obtaining IHP's prior written consent.

HOW TO REGISTER A CLAIM AGAINST WARRANTY

In order for any claim under this warranty to be valid, you must contact the IHP dealer/distributor from which you purchased the product. If you cannot locate the dealer/ distributor, then you must notify IHP in writing. IHP must be notified of the claimed defect in writing within 90 days of the date of failure. Notices should be directed to the IHP Warranty Department at 1508 Elm Hill Pike, Suite 108; Nashville, TN 37210 or visit our website at WWW.ASTRIA.US.COM.

Astria.us.com

Record the following important information about your fireplace:

| Fireplace model number | |
|------------------------------|--|
| Fireplace serial number | |
| Date fireplace was Installed | |
| Dealer name | |



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Innovative Hearth Products reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and also to discontinue colors, styles and products. Consult your local distributor for fireplace code information.

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