

RENAISSANCE LINEAR 50 - RL50 INSTALLATION MANUAL

We recommend our products be installed and serviced by certified U.S. National Fireplace Institute or Canadian Wood Energy Technology Transfer Inc. professionals only.





Keep this manual for future reference.

NOTE TO THE INSTALLER

Dear Installer,

The Renaissance LINEAR 50 Fireplace is a member of the Renaissance family of luxury fireplaces. It has a contemporary design with a 50" wide opening providing an enormous linear viewing space.

Our engineers designed the LINEAR 50 to be easy to install, operate and maintain. This manual includes vital fireplace and chimney system planning, preparation and installation details. Read this manual prior to starting the installation to ensure all requirements are met. For operation and maintenance guidelines, please refer to the Owner's Manual, included with the Fireplace.

Make sure to give both manuals, installation and owner's, to the homeowner or to leave them in a visible place.

Our team holds personal safety and protection with the highest regard, and we pride ourselves with the quality of our work. We welcome comments and feedback concerning the installation of the Renaissance LINEAR 50. Contact us by phone or email.

Sincerely,

The Renaissance Fireplaces[™] Team

August 2015



Industrial Chimney Company Inc. 400 J.-F. Kennedy, St-Jerome, Quebec, Canada, J7Y 4B7 Telephone: (450) 565-6336 Email: technical@icc-rsf.com www.icc-rsf.com

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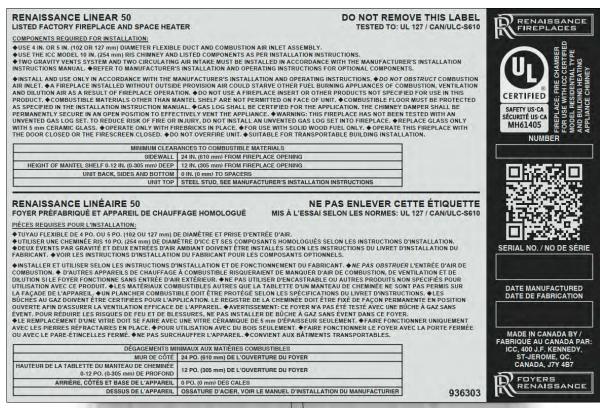
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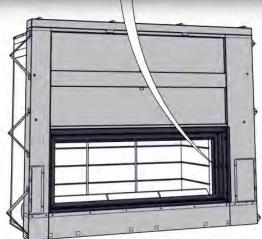
RENAISSANCE LINEAR 50 LISTING LABEL

The listing label is a thin steel plate attached to a cable, located inside the guillotine bay on the far-right side. To access it, both the fire screen and the glass door must be open.

For proper operation of the glass door and screen, ensure the label is in its original location.

The listing label is permanently attached and should not be removed.





IMPORTANT INSTALLATION SAFETY PRECAUTIONS

Carefully follow all instructions. Improper installation of this fireplace and chimney system could result in a house fire. Detailed explanations are in the sections which follow.

For information about local building code requirements or the need for a permit, contact your local municipal jurisdiction or fire department.



YES! WHAT TO DO

- 1. DO read this entire manual before starting the installation.
- 2. DO exercise caution when moving and positioning the fireplace.
- 3. DO respect the mandatory installation sections.
- 4. DO inspect the fireplace, chimney, and parts/components for damage prior to installation.
- 5. DO install all required parts and components as instructed.



NO! WHAT NOT TO DO

- 6. DO NOT modify this fireplace or install parts or components unapproved for use with this fireplace.
- 7. DO NOT install an unvented gas log set, gas lighter, wood-burning fireplace insert or other products unspecified for use with this fireplace.
- 8. DO NOT over fire this unit. Refer to operation instructions in the Owner's Manual.
- 9. DO NOT allow combustible material within the minimum clearance area of the fireplace and chimney system.
- 10. DO NOT install non-combustible materials in the required air flow spaces (e.g. do not install non-combustible insulation inside a radiation shield).
- 11. DO NOT install an insert in this fireplace.

COMBUSTIBLE VS NON-COMBUSTIBLE MATERIAL

The National Fire Protection Association (NFPA) defines <u>Non-Combustible Materials</u> as materials that if used as directed, will not ignite, burn, support combustion, or release combustible vapors when subjected to heat or flame. <u>Non-Combustible Materials</u> have passed the ASTM E136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C¹.

<u>Combustible Materials</u> are thus any materials that did not pass the ASTM E136 test such as anything surfaced or including wood, plant fibers, plywood, Oriented Strand Board (OSB),

¹ NFPA 211, Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances

compressed paper, plastic and gypsum board (often called drywall or sheetrock)² which can ignite and burn, whether it is flame-proofed or not, plastered or not plastered.

PLANNING THE INSTALLATION

RECOMMENDATIONS

Before beginning, we strongly recommend adequate planning of your installation, including the chimney, the mandatory air grille locations and hearth protection, before beginning.

Refer to Figure 1 for an installation overview including critical components and warnings. The planning process may involve your retail salesperson, installation personnel, outside contractors and local building officials.

A building permit may be required. Check with your local authority to obtain the necessary approvals before beginning. Close attention to detail and clear communication are important to be sure that your Renaissance LINEAR 50 Fireplace is installed according to the requirements in this manual and complies with local building codes.



IF THIS FIREPLACE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION INSTRUCTIONS AND CLEARANCE GUIDELINES.

CHOOSING A LOCATION AND RESTRICTIONS

When choosing a location for your fireplace, consideration should be given to best optimize the performance of your chimney.

Optimal performance is achieved when a large portion of the chimney is within the building envelope, centrally situated, allowing the chimney to terminate as close to the peak as possible.

An insulated chase enclosure may be an acceptable alternative for the fireplace and chimney.



THERE ARE LOCATIONS WHERE THE FIREPLACE IS STRICTLY PROHIBITED:

THE FIREPLACE MUST NOT BE INSTALLED OUTSIDE THE VAPOR BARRIER OF THE HOME.

THE FIREPLACE MUST NOT BE INSTALLED OUTDOORS OR WITHIN A THREE SEASON PORCH.

² Note that gypsum board, whether fire-rated or not is considered combustible.

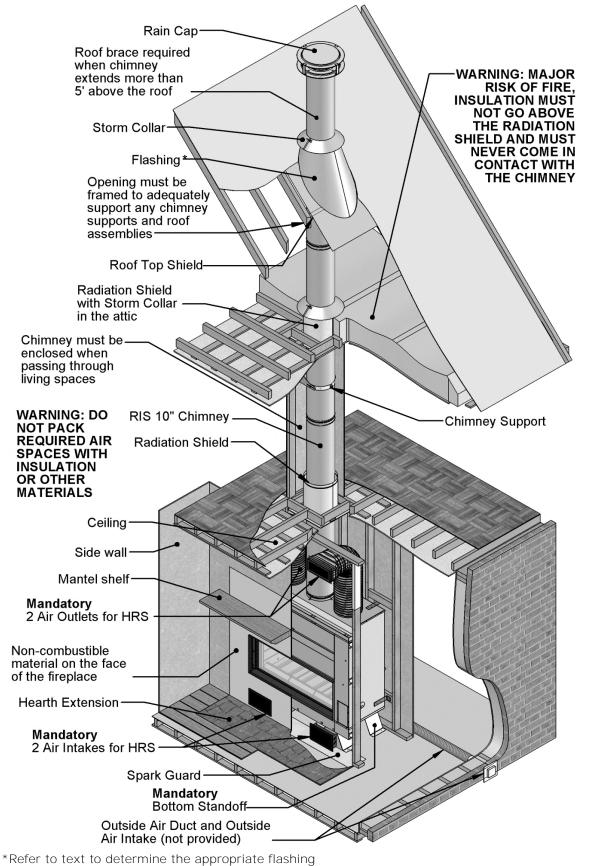


FIGURE 1 GENERAL INSTALLATION OVERVIEW

GENERAL SPECIFICATIONS

Under the 2015 U.S. EPA (Environmental Protection Agency) regulation, the Renaissance LINEAR 50 is defined as a fireplace primarily for its decorative and aesthetic prominence offering more than 500 square inches of pure fire viewing (710 square visible inches).

It comes fully equipped with a built-in guillotine glass door and a guillotine fire screen.

- Weight when crated is 1130 lb. Floor reinforcement may be required.
- Do not remove the fireplace from its skid until it is ready to be installed.
- This fireplace is designed to burn wood logs; vented gas logs sets may also be used. For gas log installation instructions, visit www.renaissancefireplaces.com.
- Gas log lighters are not permitted because they will burn out prematurely.



THIS FIREPLACE HAS NOT BEEN TESTED WITH AN UNVENTED GAS LOG SET. TO REDUCE RISK OF FIRE OR INJURY, DO NOT INSTALL AN UNVENTED GAS LOG SET INTO THIS FIREPLACE.

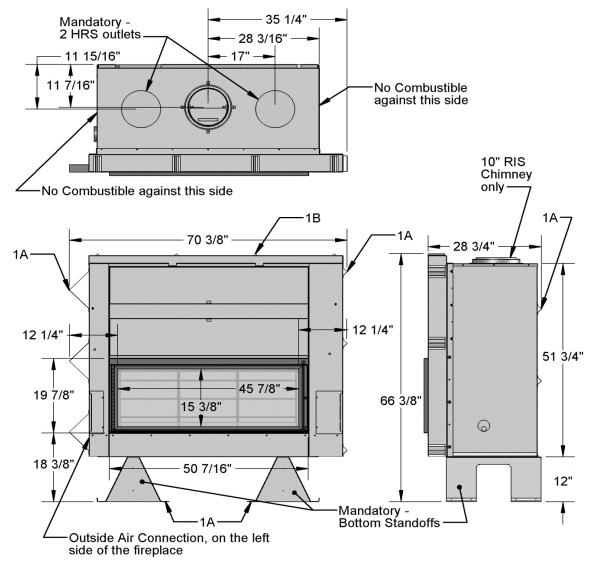
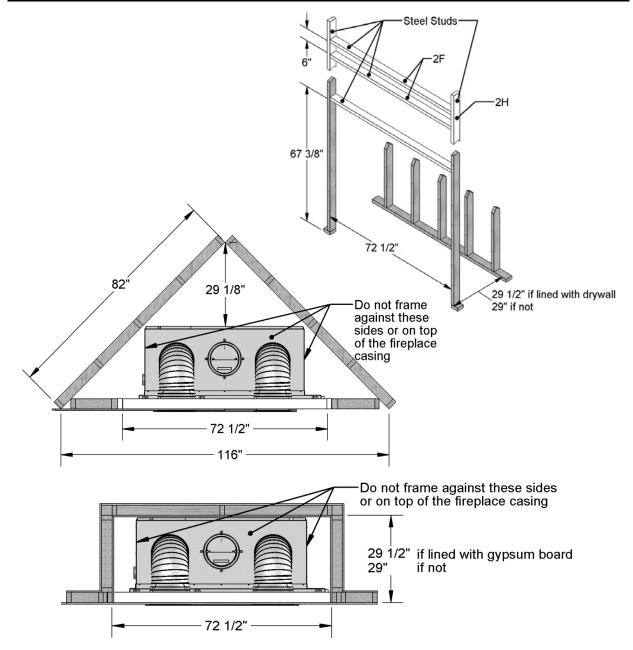


FIGURE 2 FIREPLACE DIMENSIONS

FRAMING OVERVIEW

Steel studs are required in some areas of this installation, see Figure 3.

Walls on all interior sides of the fireplace enclosure should be finished and flat. Insulation or other materials should not be placed in required clearance spaces around the fireplace.



The minimal recommended framing dimensions do not take into consideration the space required for the outside air connection and duct or the HRS Air Intakes because the location for these and the space required are specific to your installation. Take the time to plan.

FIGURE 3 MINIMAL FRAMING DIMENSIONS



IMPORTANT: A NON-COMBUSTIBLE HEARTH EXTENSION IS REQUIRED IN FRONT OF THIS FIREPLACE. REFER TO THE "HEARTH EXTENSION REQUIREMENTS" SECTION OF THIS MANUAL FOR MORE INFORMATION ON THE HEARTH EXTENSION AND ITS REQUIREMENTS.

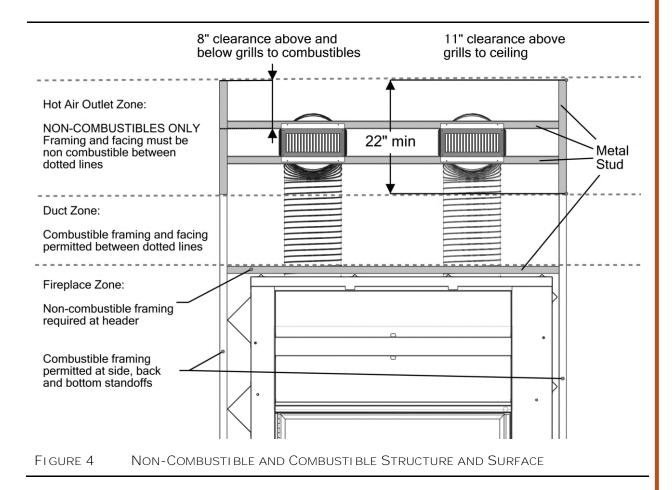
For duct clearance requirements, refer to the "Heat Redistribution system (HRS) Overview & Options" in this manual.

For finishing specifications and allowable materials, refer to the "Fireplace Facing" section in this manual.

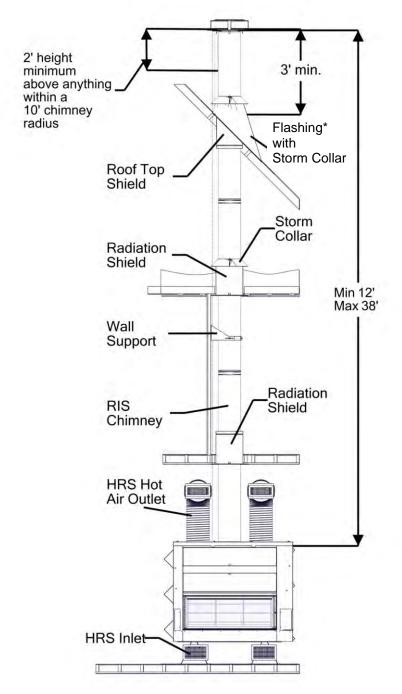
NON-COMBUSTIBLE FRAMING OVERVIEW

For specifics about the Hot Air Duct clearances and which materials are permitted for framing or finishing, refer to the "HRS Clearances" section in this manual.

For specifics about finishing the fireplace facing and which materials are permitted, refer to the "Fireplace Facing" section in this manual.



CHIMNEY OVERVIEW



^{*}Refer to text to determine the appropriate flashing

FIGURE 5 GENERAL CHIMNEY REQUIREMENTS

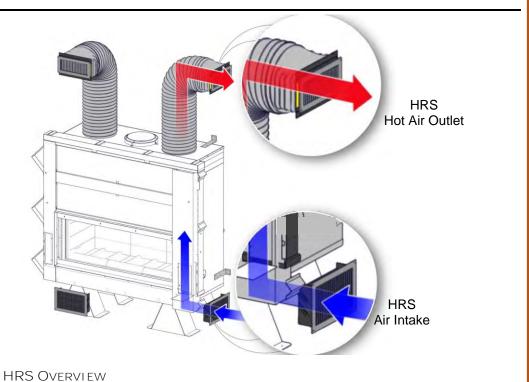
TABLE 1 CHIMNEY SPECIFICATIONS

Chimney size and type	RIS 10" only	
Minimum chimney height: from the top of the fireplace to the chimney cap	12'	(3,66 m)
Maximum chimney height from the top of the fireplace to the chimney cap	38'	(11,58m)
Maximum chimney height supported by the fireplace without additional supports	12'	(3,66 m)
Minimum clearance between the exterior of the chimney and any combustibles	2"	(51 mm)
Maximum number of offsets (2 elbows per offset)		2

HEAT REDISTRIBUTION SYSTEM (HRS) OVERVIEW & OPTIONS

The Heat Redistribution System (HRS) is mandatory and requires the installation of intakes and outlets to allow ambient air in and warmed air out of the fireplace. Included with the fireplace are two air intake grilles, two hot air outlets and two insulated flexible ducts with the outlet grille adapters. We also offer different styles of grilles in option.

The HRS system relies on the natural draft of hot air rising and does not require a blower or electricity.



STANDARD HRS SYSTEM (PROVIDED WITH THE FIREPLACE)

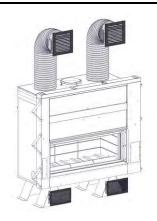
FIGURE 6

- Two rectangular AIR INTAKE GRILLES (13 ½" x 8 3/8" with front frame) for installation below the fireplace, in the bottom stand-off area.
- Two rectangular HOT AIR OUTLET GRILLES (13 ½" x 6") for installation above the fireplace. The two Hot Air Outlet Grilles are connected to the top of the fireplace with insulated ducts.

HRS OPTIONS

- If you would prefer one long linear grille for the hot air outlet (above the fireplace) instead of two rectangular outlet grilles, we offer the Long Linear Outlet Grille (EO-LLG-OUT). Please refer to the installation instructions of the option for installation restrictions compared to the hot air outlet grilles provided.
- You can also change the two rectangular intake grilles for one Long Linear Intake Grille (EO-LLG-IN). Please refer to the installation instructions of the option for installation restrictions compared to the rectangular grilles provided.
- Installations in an 8' ceiling require specific Air Outlet Grilles to ensure adequate heat is vented from the fireplace. The Square Grilles for 8' Ceiling (EO-SG) includes two 13" square grilles and two outlet grille adapters that are required when the ceiling is only at 8'. Please refer to the installation instructions of the option for installation restrictions compared to the rectangular grilles provided.







Standard with the fireplace

Optional for 8' ceiling

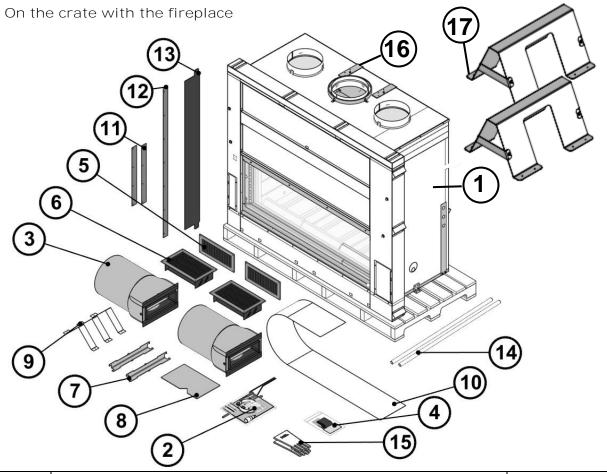
Optional Linear Grills

Rectangular or long linear grilles, both intakes and outlets, MUST be installed horizontally as shown.

FIGURE 7 HRS OPTIONS

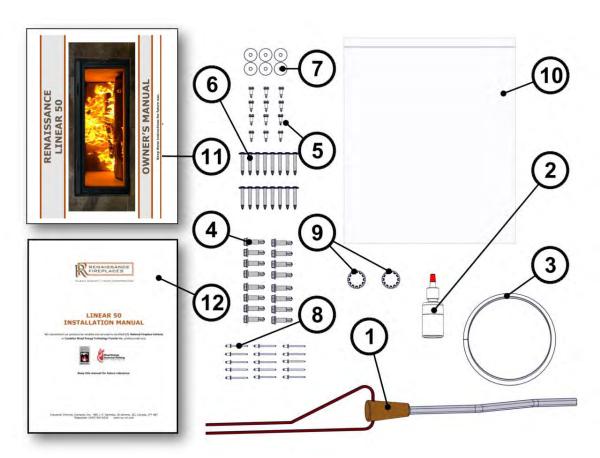
FIREPLACE INSTALLATION

INCLUDED WITH THE RENAISSANCE LINEAR 50



Item	Description	Quantity
1	Renaissance LINEAR 50 Fireplace	1
2	Manual bag (see list for contents)	1
3	Hot air outlet ducts with pre-installed grille adapters	2
4	Chimney safety labels for each length of chimney in the attic	1
5	Hot air outlet grilles (6" x 13 ½")	2
6	Air intake grilles (8 3/8" x 13 ½")	2
7	Baffle support bracket	2
8	Metal baffle	1
9	Left side fireplace standoffs	3
10	Spark guard (74 ½" x 9 ¾")	1
11	Lintel - side finishing trim	2
12	Lintel - top finishing trim	1
13	Lintel - bottom finishing trim	1
14	Lifting handles	2
15	Pair of protective fireplace gloves	1
16	Anti-tip brackets	4
17	Bottom stand-offs	2

In the bag with the manuals



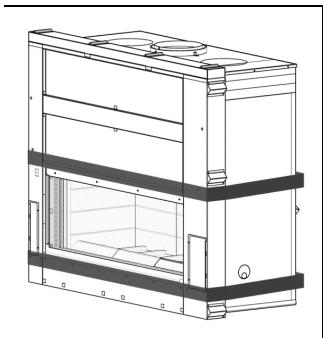
Item	Description	Quantity
1	Removable door handle	1
2	Bottle of high temperature door grease	1
3	Collar for 5" outside air connection (if necessary)	1
4	Screw - self tapping 1" long hex head	16
5	Screw - self tapping 1/2" long hex head	12
6	Screw - sheetrock 1 1/4" long Philips head black	16
7	Washer - 3/4" OD	6
8	Rivets	15
9	Door cover button - round black	2
10	Bag for manuals and small hardware	1
11	Owner's manual (English and French)	1
12	Installation manual (English and French)	1

MOVING THE LINEAR 50

The LINEAR 50 weighs 1130 lb crated. Careful attention must be taken when moving the fireplace with or without its shipping crate. Whenever possible move the fireplace while it is still crated. We recommend using an Escalera or equivalent dolly to move the fireplace, however, use caution when placing the dolly holding strap, see Figure 8. Misplacement of the holding straps could result in damage to the quillotine system.

- NEVER lean the fireplace on its side; doing so may damage the guillotine system which is wider than the rest of the fireplace.
- NEVER lift the fireplace by the front or by the guillotine door opening; always handle the fireplace by its casing or by the lifting handles provided. See Figure 9.

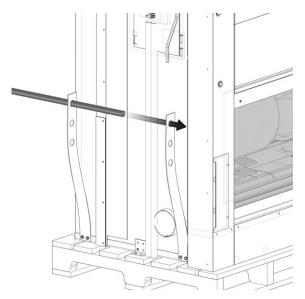
To prepare the LINEAR 50, locate it as close as possible to its final installation position.



The upper strap must be level with the reinforcement above the firebox opening.

The lower strap must be level with the metal front step.

FIGURE 8 ATTACHMENT STRAPS



There are three lift positions for the two lifting handles supplied.

The straps ship flat against the face of the fireplace. Insert the Lifting Handle through one of the strap openings and bend the strap to face the other one.

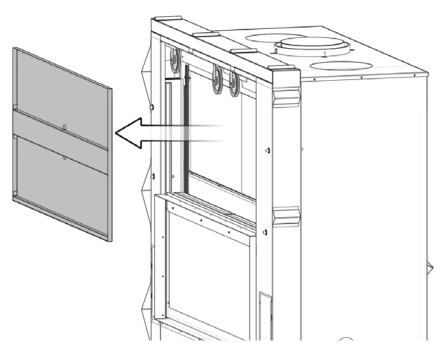
FIGURE 9 LIFTING HANDLES

ACCESSING THE INSIDE OF THE FIREPLACE

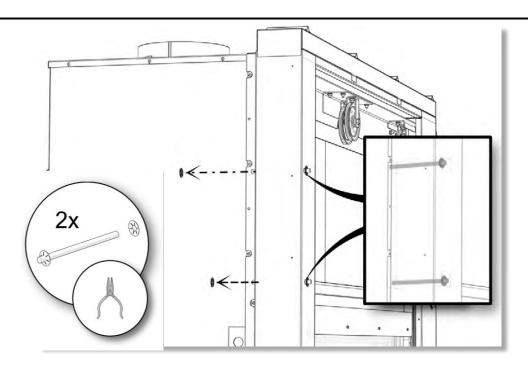
Accessing the inside of the fireplace is recommended before final placement of the fireplace. There are mandatory components inside the fireplace which are easier to install prior to final positioning. Additionally, the weight of the fireplace can be greatly reduced for the final lift into place onto its bottom standoffs if all the components and the refractory bricks are removed from the firebox.

ENGAGING THE GUILLOTINE SYSTEM

FIRESCREEN INSTALLATION

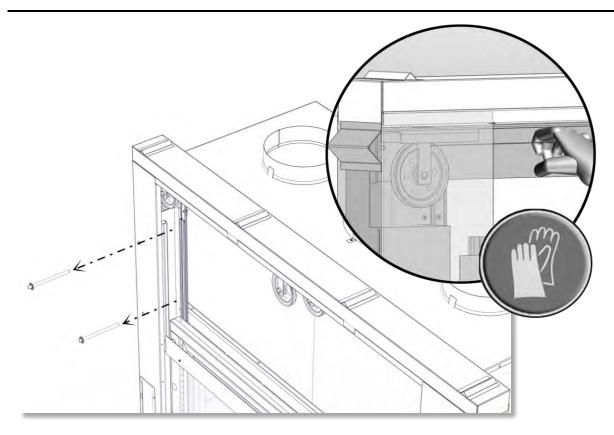


1. Remove the front finishing cover. Keep all screws for re-installation.



2. Remove the two rod end caps located on the back-left side of the unit. Do not remove the rods at this point.

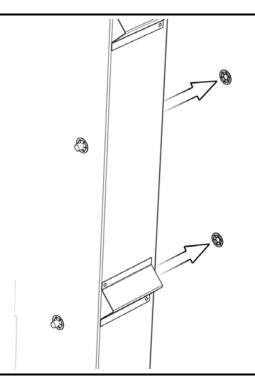
3. Before removing the left blocking rods, gently pull down on the cable to lift the 10lb counterweight. Then remove the left blocking rods and gently lower the counterweight so that the cable is taut. Make certain that the cable is centered in both pulleys and moves freely.



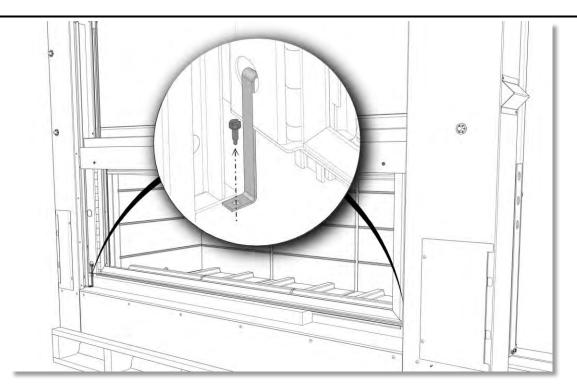
4. Check the movement of the fire screen by slowly moving it up and down. The cable should remain centered on the pulleys.

GLASS DOOR INSTALLATION

1. Remove the two rod end caps located on the back-right side of the unit. Do not remove the blocking rods at this point.



2. As with the firescreen, gently pull down on the cable to lift the 50lb counterweight. Remove the right blocking rods and gently lower the counterweight so that the cable is taut. Do not attempt to lift the door at this point and make certain that the cable is centered in both pulleys.



3. The guillotine glass door is held closed by two transportation blocking brackets, located at the bottom of the door on each side. Remove the ¼" hex head screws and the blocking brackets.

- 5. Lift the glass door to check the movement of the guillotine glass door. Make sure the cable is centered in the pulleys and moves freely. Close both the guillotine glass door and the fire screen.
- 6. Reinstall the front finishing cover.



WE RECOMMEND BOTH THE GUILLOTINE GLASS DOOR AND THE FIRESCREEN REMAIN CLOSED WHILE COMPLETING THE FIREPLACE AND CHIMNEY INSTALLATION.

REDUCING THE FIREPLACE WEIGHT

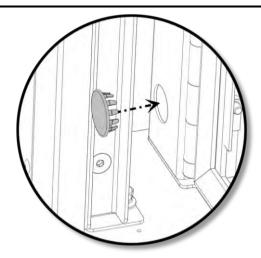
The refractory bricks (260 lb) can be removed to facilitate lifting and moving the fireplace.

The firescreen and guillotine door must be operational to remove the firebricks. The refractory bricks and the insulation panel are installed in the factory.

The bricks should be removed in the reverse installation order explained under the "Firebox Lining installation" section on page 39. Be careful not to damage the firebox insulation.



THE FIREPLACE SHOULD NEVER BE USED WITHOUT THE FIREBOX INSULATION AND REFRACTORY BRICKS PROPERLY INSTALLED.



4. Locate the two door cover buttons in the manual bag and push them into the holes in the door frame.

MANDATORY INSTALLATIONS

MANDATORY - LEFT SIDE STANDOFFS

For the three side standoffs, align the pre-punched holes with the pre-drilled holes on the left side of the fireplace. To fasten, use six of the $\frac{1}{2}$ " self-tapping screws provided as shown in Figure 10.

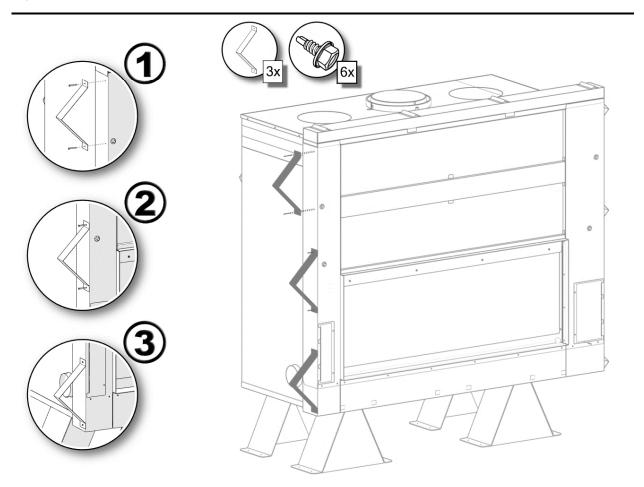


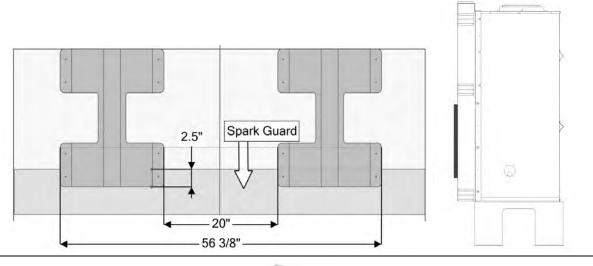
FIGURE 10 POSITIONING THE LEFT SIDE STANDOFF

MANDATORY - BOTTOM STANDOFFS AND SPARK GUARD

Installation of the LINEAR 50 directly on the floor or on an elevated platform are acceptable. All installations require the bottom standoffs, even if installed on concrete. This is because air flow into the HRS ducts is drawn into the LINEAR 50 through the bottom.

The fireplace must be installed on a level surface. Standard framing will require reinforcement to distribute the weight of the fireplace.

- 1. Establish the centerline of the fireplace's final location and mark a line on the floor.
- 2. Position the two bottom standoffs 10" (254 mm) on either side of the centerline. The back of the bottom standoffs should be aligned with the back of the fireplace. The bottom standoffs will thus be recessed from the front facing.
- 3. If the floor is made of combustible materials, a spark guard is required. One is provided for you. It is packaged on the back of the fireplace for transport. Place the spark guard under the bottom standoffs. It should be 2½" (64 mm) underneath the front of the bottom standoffs.
- 4. Secure standoffs to the floor using 16 wood screws of 1½" (38 mm).



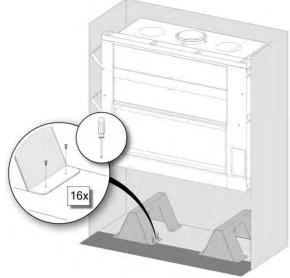


FIGURE 11 BOTTOM STANDOFFS INSTALLATION

LIFTING THE FIREPLACE ONTO THE BOTTOM STANDOFFS

Close both the guillotine door and screen before lifting the fireplace onto the bottom standoffs.

NEVER lay the fireplace on one side, or damage to the guillotine system may result.

NEVER lift the fireplace by the front or by the guillotine door opening; always handle the fireplace by its casing or by the lifting handles provided.

The recommended method for lifting the fireplace onto the bottom standoffs is to raise the fireplace using a pallet jack and wood blocks. Gradually elevate the fireplace to the height of the standoffs; then transfer the fireplace to the standoffs using the lifting handles on either side.

MANDATORY - ANTI-TIP BRACKETS

The LINEAR 50 fireplace MUST be securely fastened to the back wall. Four anti-tip brackets have been provided. They are attached to the top of the fireplace. The brackets can be removed and repositioned as needed to ensure they align with framing (see Figure 12). Two anti-tip brackets MUST be attached to the top of the fireplace and two to the sides.

Use eight of the 1" self-tapping screws provided to attach each bracket to the fireplace. Use eight wood screws (not included) to secure each bracket to framing as shown in Figure 12.

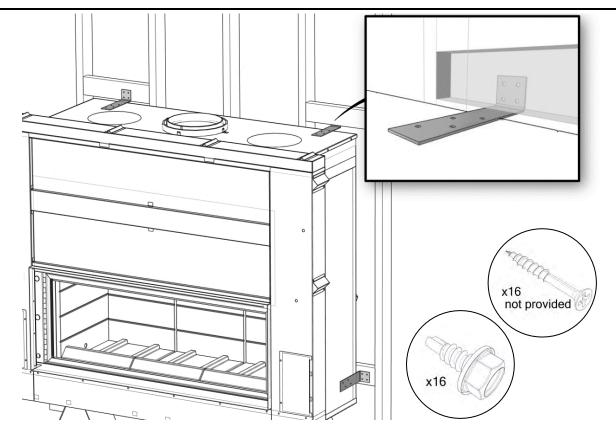


FIGURE 12 ANTI-TIP BRACKET INSTALLATION



Option: install the anti-tip brackets to the front or back of framing as illustrated. see FIGURE 12.

MANDATORY CLEARANCES

FIREPLACE CLEARANCES

Clearance to combustibles are critical to the safe operation of this fireplace.

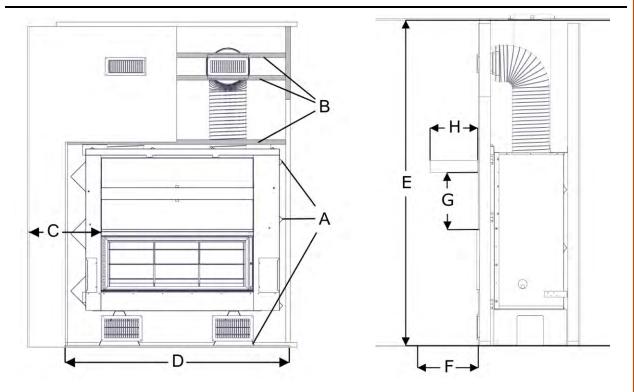


FIGURE 13 FIREPLACE CLEARANCES (SEE TABLE 2)

TABLE 2 FIREPLACE CLEARANCES

Α	Distance to combustible material from side and back standoffs.	0"	0 mm
В	HRS Outlet framing and Fireplace Header	Meta	al Studs
С	Minimum distance from the guillotine bay opening to a side wall.	24"	610 mm
D	Minimum width of non-combustible hearth extension and spark guard, centered on the fireplace opening.	74.5"	1,89 m
E	Minimum ceiling height: measured from the base of the bottom standoffs of the fireplace to the lowest point of the ceiling above the fireplace. Applies both to the inside and outside of the fireplace enclosure.	9'	2,7 m
F	Minimum depth of non-combustible hearth extension: measured from the front of the fireplace.	20"	508 mm
G	Minimum height of a combustible mantel shelf above the top of the fireplace opening: measured from the lowest point/bottom of the combustible mantel shelf.	12"	305 mm
Н	Maximum depth of a combustible mantel shelf above the fireplace opening.	12"	305 mm



COMBUSTIBLE FRAMING IS NOT PERMITTED IN THE SPACE DIRECTLY ABOVE THE FIREPLACE. THE ONLY EXCEPTION IS FOR FRAMING USED TO SUPPORT THE FACING MATERIAL AND MANTEL BUT SOME RESTRICTIONS APPLY, SEE FIGURE 13, FIGURE 17, TABLE 2 AND TABLE 3.

THE AREA ABOVE THE FIREPLACE MUST BE FREE OF COMBUSTIBLES FOR AT LEAST THE HEIGHT PROVIDED IN TABLE 2 (E).

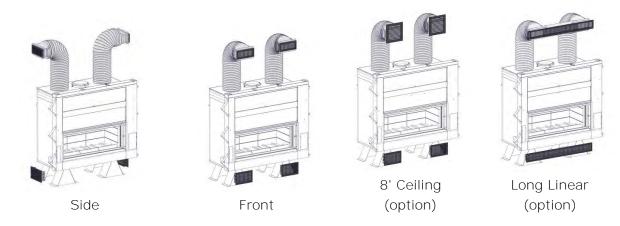
CEILING HEIGHT REQUIREMENTS

Using the components included with the LINEAR 50, the minimum ceiling height measured from the base of the bottom standoffs to the ceiling is 9'. The 9' requirement applies to ALL ceilings above the fireplace (room ceiling, enclosure ceiling).

REDUCED CEILING HEIGHT

The minimum ceiling height may be reduced to 8' with the installation of the optional Square Hot Air Outlet Grilles for 8' Ceilings (EO-SG).

MANDATORY INSTALLATION - HEAT REDISTRIBUTION SYSTEM (HRS)



Rectangular or long linear grilles, both intakes and outlets, MUST be installed horizontally as shown.

FIGURE 14 HRS LOCATIONS' EXAMPLES

HRS AIR INTAKES (BOTTOM)

The HRS Air Intake Grilles (see Figure 15) allow for a safe operating temperature by drawing in room air to circulate around the firebox, inside the fireplace casing and then return warmed into the room. The Air Intake grilles can be installed in a front facing, side facing or rear facing installation and must be open to the fireplace enclosure. It is very important that room air be able to circulate freely between the outlets and the inlets of the HRS. Air must be drawn from the same level as the fireplace and cannot be drawn from the level below (e.g. the basement). The Air Intake grilles can be located on a side wall or back wall, provided that air circulates freely with same room as the fireplace.

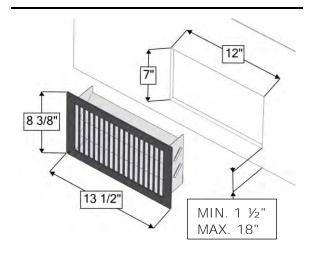


FIGURE 15 HRS AIR INTAKE ROUGH
OPENING



AIR INTAKE GRILLES CANNOT BE INSTALLED HIGHER THAN 18" ABOVE THE BASE OF THE FIREPLACE.

NEVER BLOCK AIR FLOW INTO THE HRS AIR INTAKE GRILLES.

HRS HOT AIR OUTLETS (TOP)

The HRS Hot Air Outlet Grilles diffuse the hot air from the fireplace enclosure into the living space. The Outlets consist of two 10" diameter insulated flexible ducts that are 5' long with grille adapters pre-installed and two 6" \times 13 $\frac{1}{2}$ " outlet grilles (see Figure 16).

The Hot Air Grilles can be installed on any side of the fireplace enclosure, but room

air MUST be able to circulate freely, without obstruction (i.e.door), between the outlets and the inlets of the HRS. The Hot Air Grilles cannot be installed on an upper level.

Additional 5' lengths can be ordered (EO-DUCT). The maximum total length of duct is 15'.

Only use the grilles provided. Substituting with other grilles could be a fire risk and will void the warranty.

BOTH Hot Air Outlet Grilles must terminate at the same height and MUST NEVER face up. The hot air ducts MUST NEVER slope down, they should always maintain a minimum slope up of 4° (1/2" elevation for each foot of horizontal travel).

Framing for the grilles and wall finish material around the Hot Air Outlet Grilles must be non-combustible (e.g. metal studs and cement board). Refer to Figure 17.

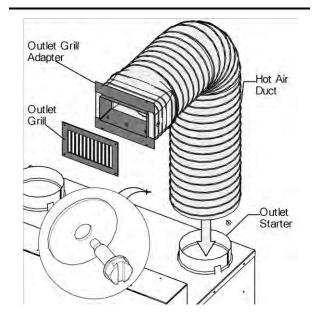


FIGURE 16 HOT AIR OUTLET ASSEMBLY

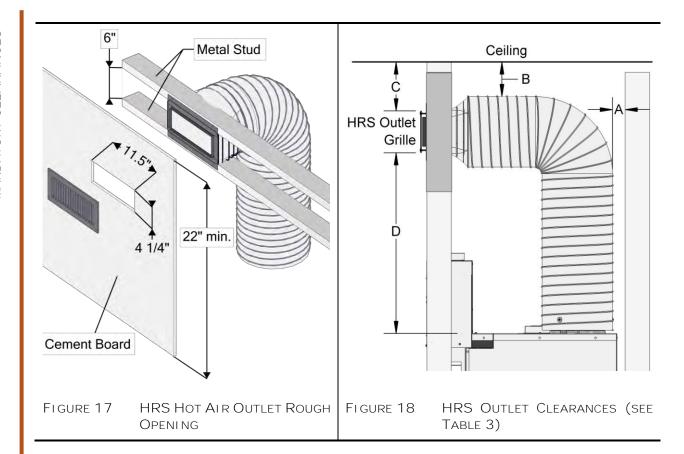


TABLE 3 HRS HOT AIR OUTLET CLEARANCES

А	Minimum horizontal clearance from the hot air outlet duct to any combustible material.	2"	51 mm
В	Minimum vertical clearance from the hot air outlet duct to any combustible material.	6"	152 mm
С	Minimum clearance from the hot air outlet grille to the ceiling: measured from the top of the outlet grille to the ceiling above.	11"	279 mm
D	Minimum height of the hot air outlet grille above the top of the fireplace: measured from the bottom edge of the hot air outlet grille to the top of the casing of the fireplace main body.	26"	660 mm
E	Minimum clearance to side wall: measured from the outside edge of the grille to the wall	6"	152 mm

HOT AIR OUTLET INSTALLATION

- 1. Attach the round end of the insulated flexible ducts to the outlet starters on top of the fireplace (see Figure 16). Ensure the insulated flexible duct completely covers the outlet starters protruding above the top of the fireplace. Use three of the ½" self-tapping screws and three of the flat washers provided to secure each flexible duct to the outlet starter.
- 2. Extend the flexible insulated duct to its maximum 5'. Additional 5' lengths can be ordered (EO-DUCT). The maximum total length of duct is 15'.
- 3. Using metal studs, frame the location you wish to mount the hot air outlets (see Figure 17). Make sure to respect all required clearances, see Figure 18 and Table 3.

- 4. Secure the outlet grille adapters to the metal studs.
- 5. Mount cement board over the outlet grille adapter. The cement board can butt directly against the ½" lip of the outlet grille adapters.
- 6. Secure the outlet grilles with the black screws provided.

HEARTH EXTENSION REQUIREMENTS

If the flooring immediately in front of the fireplace is COMBUSTIBLE, it must be protected. The minimum size of a non-combustible hearth for the LINEAR 50 is 74.5" wide X 20" deep centered in front of the fireplace glass door opening.

Every LINEAR 50 installed on a combustible floor must have a Spark Guard installed. One is provided for you. The spark guard must extend 2 $\frac{1}{2}$ " under the bottom standoffs and 2 $\frac{1}{2}$ " in front of the front face of the fireplace. Combustible materials are NOT allowed in the hearth area.



CONSIDER THE LOCATION OF THE HRS AIR INTAKE GRILLES WHEN PLANNING YOUR HEARTH EXTENSION. SEE THE " MANDATORY INSTALLATIONS" AND "MANDATORY CLEARANCES" FOR DETAILS.

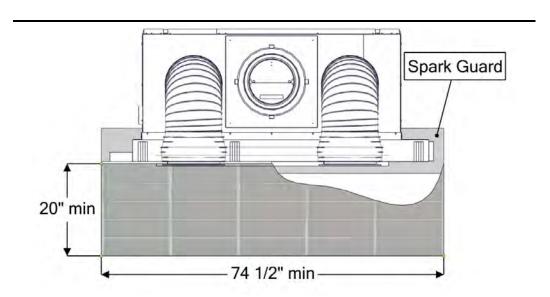


FIGURE 19 HEARTH EXTENSION MINIMAL DIMENSIONS

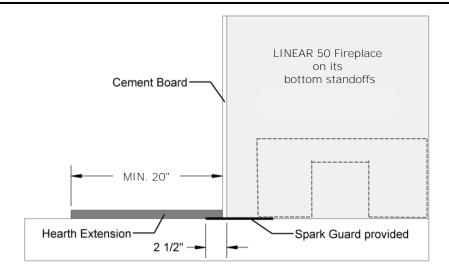


FIGURE 20 STANDARD HEARTH EXTENSION

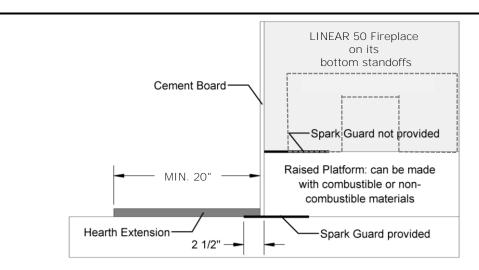


FIGURE 21 RAISED FIREPLACE

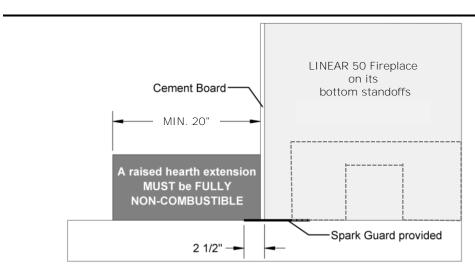


FIGURE 22 RAISED HEARTH EXTENSION

OUTSIDE AIR INTAKE

The use of outside air is not required unless specified by local building codes. The fireplace only accepts outside air on the left side of the fireplace and comes standard with a 4" connection collar on the fireplace.

For outside air runs of 10' or less, the Renaissance FO-INT outside air kit is recommended. The kit includes 10' of 4" flexible duct with insulation and an inlet hood. For outside air runs of 20' or more it is recommended to increase the duct size to 5", an optional 5" collar is also provided.

The outside air intake should not exceed 12' of vertical rise and can NOT terminate within 5' of the chimney top. It should also not terminate in an attic or crawl space.



WHEN RUNNING THE DUCT AROUND CORNERS, AVOID CRUSHING THE DUCT WHICH CAN RESTRICT AIRFLOW.

You can make a cold air trap by looping the outside air duct between its two extemities.

- 1. Find a convenient location for the outside air inlet hood.
- 2. Make a 4 ¼" (5 ¼" if using a 5" diameter duct) hole in the outside wall of the house. Push the round sleeve of the outside air inlet hood in from the outside. Seal the joint between the inlet hood and the outside wall with silicone sealant.
- 3. Pull back the insulation to expose the aluminum duct and slide the duct over the round sleeve on the outside air inlet hood. Attach the duct with metal screws to the Inlet Hood sleeve. Carefully push the insulation and plastic cover back over the duct and tape in place with 2" aluminum duct tape (not provided).
- 4. Follow the same procedure to connect the flex pipe to the air intake flange of the fireplace.

CHIMNEY

For the best chimney performance, we recommend an interior chimney installation over an exterior chimney installation. In climates with temperatures below 32°F (0°C) the use of an exterior chimney may adversely affect how the fire burns and how well smoke is vented through the chimney. Flue creosote accumulation may increase more rapidly due to a cold chimney. If the fireplace and chimney are installed within an exterior chase, the chase should be insulated. See Outside Chase Enclosure section.

Read the RIS Chimney installation manual concerning requirements for supports, bracing, anchors, etc. It can be found: www.icc-rsf.com/en/installation-instructions-model-ris-canada-and-usa.

CHIMNEY REQUIREMENTS

Refer to Table 1 to see the complete chimney specifications with your fireplace, including the height of chimney the fireplace can support.

See Table 4 below to determine the minimum chimney height specific to your installation, elevation and offsets required increased chimney heights.

TABLE 4 RECOMMENDED MINIMUM FLUE HEIGHT

		Number of Offsets						
Elevation (ft)	Straight Chimney	1 x 15°	2 x 15°	1 x 30°	2 x 30°	1 x 45°	2 x 45°	
0 - 10	00	minimum 12'	13'	14'	15'	18'	16'	20'
1001 - 2	2000	12'6"	13'6"	14'6"	15'6"	19'	16'6"	20'6"
2001 - 3	3000	13'	14'	15'	16'	19'6"	17'	21'6"
3001 - 4	1000	13'6"	14'6"	15'6"	17'	20'	18'	22'6"
4001 - 5	5000	14'	15'	16'	17'6"	21'	18'6"	23'
5001 - 6	5000	14'6"	15'6"	17'	18'	21'6"	19'	24'
6001 - 7	7000	15'	16'	17'6"	18'6"	22'6"	20'	25'
7001 - 8	3000	15'6"	16'6"	18'	19'	23'	20'6"	25'6"
8001 - 9	9000	16'	17'	18'6"	20'	24'	21'	26'6"
9001 - 1	0000	16'6"	17'6"	19'	20'6"	24'6"	22'	27'

Flue height is measured from the top of the fireplace to the top of the chimney before installing the rain cap.

If you have two different offsets (two pairs of different elbows), simply use the column for two offsets of the biggest pair of elbows at your elevation to get your Minimum Flue Height.

OFFSETTING THE CHIMNEY

Use an elbow to offset the chimney to avoid cutting the roof and/or floor joists. An elbow may be installed directly on top of the fireplace. Use the 10" RIS offset chart to correctly offset the chimney.

An offset requires additional chimney support in the form of an offset support, roof support, or wall support to prevent the chimney from leaning.

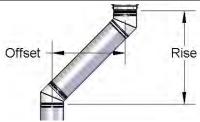
Maximum offset angle:

In USA: 30°In Canada: 45°

The maximum number of elbows per system is four, resulting in two offsets and returns.

TABLE 5 10" RIS OFFSET

Length between	15° Offset		30° C	Offset	45° Offset		
elbows	Rise	Offset	Rise	Offset	Rise	Offset	
No length	11 7/8"	1 5/8"	14 1/8"	3 3/4"	15 7/8"	6 5/8"	
12" length	22 1⁄4"	4 3/8"	23 3/8"	9 1/8"	23 ½"	14 1/8"	
24" length	33 7/8"	7 ½"	33 ¾"	15 1/8"	32"	22 5/8"	
48" length	57"	13 5/8"	54 5/8"	27 1/8"	48 7/8"	39 5/8"	
48" + 12"	67 3/8"	16 ½"	63 7/8"	32 ½"	56 ½"	47 1⁄4"	
48" + 24"	79"	19 ½"	74 1/4"	38 ½"	65"	55 ¾"	
48" + 24" + 12"	89 3/8"	22 3/8"	83 5/8"	43 7/8"	72 5/8"	63 3/8"	
48" + 48"	102 1⁄4"	25 ¾"	95"	50 ½"	82"	72 ¾"	



THROUGH THE WALL OFFSET

If necessary, the chimney can go through a wall at an angle as shown in Figure 23. You will need to use an Insulated Angled Wall Radiation Shield (RM-10WRSI30 or RM-10RWSI45) to protect the combustible wall structure from the heat of the chimney.

Ensure there is adequate ceiling height for your installation. If the ceiling height is too low for the planned installation, you may consider installing the fireplace in an outside chase.

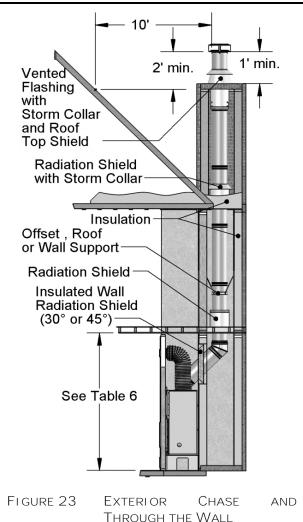
Table 6 assumes that the offset begins directly on the fireplace.

TABLE 6 THROUGH THE WALL INSTALLATION DIMENSIONS

	30° Offset Through the Wall			Offset n the Wall	
	US and	Canada	Canada Only		
Minimum required ceiling height	10' 3,05 m		8' 6"	2,59 m	
Height of the center of the hole in the wall	7' 11"	2,41 m	7' ½"	2,13 m	
Minimum height of the hole	47 ½"	1,19 m	32 ¾"	812 mm	
Minimum width of the hole	16"		406	406 mm	

OUTSI DE CHASE ENCLOSURE

If the chimney runs up the outside of the house, we recommend that it be enclosed in a chase. The chase should be constructed in such a way that it is an extension of the home (see Figure 23). It should be well insulated between the footings and the floor of the home to prevent heat loss.



THROUGH THE WALL



LOCAL **CODES** CONCERNING INSTALLATION REQUIREMENTS AND RESTRICTIONS FOR AN OUTSIDE CHASE.

CHIMNEY INSTALLATION

1. Cut and frame the required holes in the floor(s), ceiling(s) and roof where the chimney will pass through. The rough opening in the framing is 16" square (the opening can be slightly bigger, up to 16 ½", but NEVER smaller).



THE CLEARANCE BETWEEN THE CHIMNEY AND COMBUSTIBLES MUST BE 2" OR MORE. DO NOT FILL THIS AREA WITH INSULATION.

- 2. At each floor where the chimney passes through, you must install a radiation shield. At the attic level, install a radiation shield and a storm collar as shown in Figure 5 and Figure 23.
- 3. Install the first chimney length on top of the flue adapter of the fireplace and secure it with the screws provided with the chimney.
- 4. Add additional lengths by lining up the seams and screwing into the pre-punched holes. Also add supports as required until the chimney penetrates the roof deck or on top of the chimney chase.

The chimney must extend at least 3' above its highest penetration of the roof and at least 2' higher than any wall, roof, or building within 10' horizontally of it. If the chimney extends higher than 5' above the roof, it must be secured using a roof brace (RM-10RRB)

- 5. At the roof, install the mandatory roof top shield (RM-10RTS).
- 6. A vented flashing (RF-10RVF) MUST be used if the chimney is in a chase or is enclosed to the roof. The ventilated openings must permit air flow. Do not seal the ventilated openings with caulk. If the chimney passes through an open attic, a regular, unvented flashing is then allowed.
- 7. Seal the joint between the roof and the flashing with roofing tar. For sloping roofs, place the flashing under the upper shingles and on top of the lower shingles. Secure the flashing to the roof with roofing nails or screws.
- 8. Place the storm collar over the chimney and flashing (see Figure 24). Seal the collar to the chimney with silicone (high temperature not required).

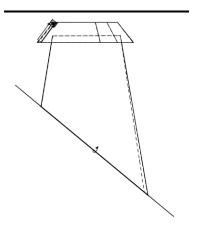


FIGURE 24 STORM
COLLAR
POSITION

9. RIS Chimney requires the use of a Rain Cap (RM-10RRC) or Rain Cap Base (RM-10RRCB). Secure either to the chimney using the screws provided.

FINISHING

BAFFLE INSTALLATION

The baffle is composed of two baffle support brackets and a metal baffle. The parts should be mounted onto existing rails inside the fireplace that are located above the firebox. Position the parts as shown in Figure 25.

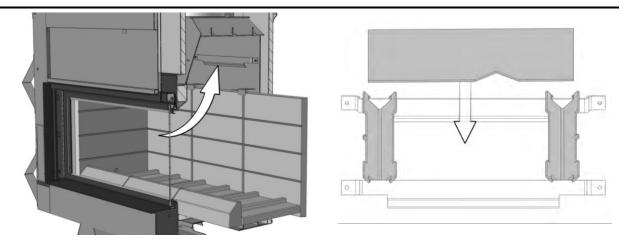


FIGURE 25 BAFFLE LOCATION AND INSTALLATION

LINTEL INSTALLATION

Lintels are provided with the fireplace to finish the border of the front opening. They are wrapped in brown paper and packaged on the side of the fireplace. Use the rivets provided to attach the lintels to the fireplace around the door opening, as shown in Figure 26.

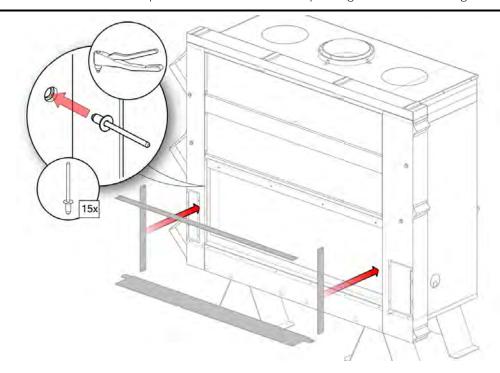


FIGURE 26 LINTEL INSTALLATION

These lintels protrude past the front of the fireplace by 1" allowing $\frac{1}{2}$ " for the cement board panels that must cover the front and $\frac{1}{2}$ " for your non-combustible finishing materials.

If thicker lintels are required, you can use these lintels as a template to have custom lintels made.

FIREPLACE FACING

The facing MUST be covered with cement board panels that are at least ½" thick. Only fully non-combustible panels such as James Hardie HardieBacker® or USG Durock® cement board are acceptable. Both products will allow for face finishing with any non-combustible material and will allow you to create a seamless joint to the Durarock.

Only screw into the panels where allowed, see Figure 25.

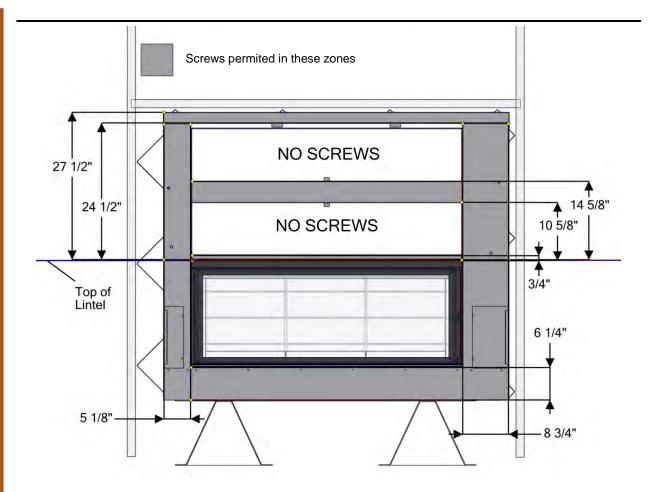
Using longer screws may damage the guillotine system or impede operation.



DO NOT USE GYPSUM BOARD TO COVER THE FIREPLACE, IT IS CONSIDERED A COMBUSTILE MATERIAL, REGARDLESS OF THEIR FIRE RATINGS.

ENSURE THE GUILLOTINE GLASS DOOR AND FIRESCREEN ARE CLOSED BEFORE INSTALLING THE CEMENT BOARD PANELS.

IF ANY MATERIAL NEEDS TO BE SECURED TO THE FRONT OF THE FIREPLACE AFTER THE CEMENT BOARD HAS BEEN INSTALLED – use screws which penetrate the thickness of the cement board and which will not exceed the back of the panels by more than ½". Deeper penetration of the screw tip will prevent the proper operation of the fire screen and/or the guillotine glass door and may eventually cause difficulty dismantling the guillotine system. Confirm that you have not impeded the normal operation of the fire screen and the guillotine glass door by moving them slowly as you proceed with installing the screws.



SCREWS ALLOWED areas:

Screws can penetrate the fireplace facing at these locations by no more than $\frac{1}{2}$ ". If using one $\frac{1}{2}$ " sheet of cement board, 1" long screws are the maximum length permitted. Longer screws may damage the guillotine system.

NO SCREWS areas:

Do not screw into this area with any length or type of screw.

FIGURE 27 PERMISSIBLE SCREWS AREAS

DECORATIVE FACING FINISH

Facing materials must be NON-COMBUSTIBLE such as metal, brick, slate or ceramic tile. Gypsum board and sheet rock are NOT acceptable facing material. The only combustible material accepted on the facing of the fireplace is a mantel shelf when following the minimum installation distances as outlined.

The cement board can be painted, textured or tiled just as you would over gypsum board or sheet rock. The lintels provided with the fireplace are appropriate for thin facing materials. A wider steel lintel may be required for heavy rock facing. If so, contact your local metal contractor for a custom steel lintel.

MANTEL

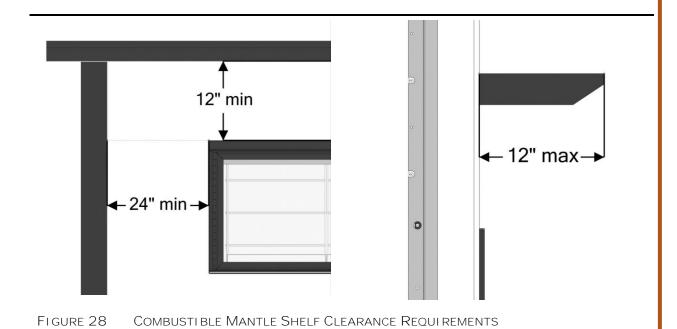
NON-COMBUSTIBLE or masonry mantels (shelf and posts) can be placed anywhere around the guillotine bay opening. To prevent damage to the guillotine door or firescreen, fasten

screws only in the acceptable locations provided in the "Fireplace Facing" section of this manual.

For COMBUSTIBLE mantels and mantel posts, see Figure 28 below for installation restrictions, requirements and clearances.

- The only combustible material accepted on the facing of the fireplace is for a mantel shelf and posts.
- Televisions are considered combustible materials. Before installing a television above your fireplace, consult your television owner's manual for requirements.

Refer to the "Fireplace Facing" section for the permissible screw area.



FIREBOX LINING INSTALLATION

The refractory bricks and insulation panels of the LINEAR 50 fireplace are placed in the fireplace at the factory. If, for any reason, they should need to be replaced, the following order should be observed. To remove any of the refractory bricks, just follow the installation procedure in the reverse sequence. Refer to Figure 29 to adequately identify each component at each step of the installation.

If you have removed the refractory bricks and the insulation panel to facilitate moving the fireplace, you must make sure they are properly installed inside the firebox before making your first fire. This is easily accomplished with the following instructions.

- 1. First install the left-side refractory brick (1). Position it as far forward as possible.
- 2. Then install the right-side refractory brick (2). Again, position it as far forward as possible.
- 3. Continue by installing the three back refractory bricks (3) by carefully sliding them under the supports at the top-back of the firebox. Take the time to center them, leaving a small gap between each.
- 4. Place the soft insulation (4) towards the front then push it down towards the back. It will fit snuggly in between the back and side refractory bricks.
- 5. Then install the three bottom refractory bricks (5). Center the bricks leaving a small gap between each.

6. Finish by installing the three ash step refractory bricks (6). The angled side of the bricks face toward the room.

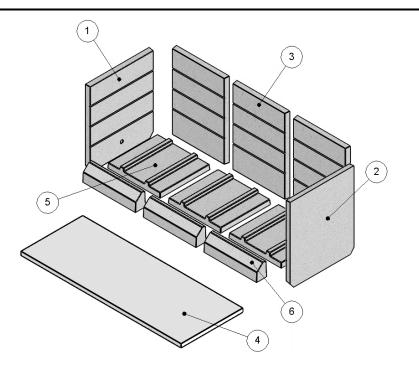


FIGURE 29 REFRACTORY BRICKS AND INSULATION PANEL



THE FIREPLACE SHOULD NEVER BE BURNED WITHOUT THE FIREBOX INSULATION AND REFRACTORY BRICKS PROPERLY INSTALLED.

GLASS CLEANING

If the glass needs cleaning after installation is complete, use a glass cleaner specifically formulated for wood stove ceramic glass. Do not use an abrasive cleaner and do not clean the glass while it is hot. You may want to recommend a wood stove glass cleaner to the owner.

REPLACEMENT PARTS

A complete list of replacement parts are available at: www.renaissancefireplaces.com

30 YEAR LIMITED WARRANTY

All **Renaissance Fireplaces™** models are warranted against defects in material and workmanship for a period of 30 years, subject to the following conditions:

During the first year Renaissance Fireplaces™ will repair or replace, at our option, any parts which upon examination by an authorized **Renaissance Fireplaces™** representative, are found to be defective, except the parts listed in the EXCLUSIONS portion of this warranty. Renaissance Fireplaces™ will also pay reasonable labor costs for the repair work.

During the second through fifth years **Renaissance Fireplaces™** will repair or replace, at our option, any parts which upon examination by an authorized **Renaissance Fireplaces™** representative, are found to be defective, except the parts listed in the EXCLUSIONS portion of this warranty. **Renaissance Fireplaces™** shall not be responsible for any labor costs associated with this repair work.

During the sixth through thirtieth years Renaissance **Fireplaces[™]** will provide replacement parts, if available, at 50% of the published retail price, except for the parts listed in the EXCLUSIONS portion of this warranty. **Renaissance Fireplaces[™]** shall not be responsible for any labor costs associated with this repair work.

EXCLUSIONS:

- 7. Glass.
- 8. Damage due to normal wear and tear, such as paint discoloration, worn gaskets, eroded or cracked rigid insulation panels or firebox lining components.
- 9. Repairs or replacements necessitated by vandalism, neglect, abuse, over-firing, improper fuel or fuel loads, or failure to adequately service the unit, as stated in the owner's manual.
- 10. Repairs or replacements (particularly charges for travel and labor) not authorized by **Renaissance Fireplaces™** in advance.

LIMITATIONS:

- 11. All items found to be defective will be replaced or repaired upon return of the defective part to an authorized **Renaissance Fireplaces™** dealer. **Renaissance Fireplaces™** will not be responsible for freight costs related to shipping replacement parts.
- 12. Any complete fireplace, or part thereof, that is replaced or serviced under this warranty, will be warranted for a period not exceeding the remaining term of the original warranty.
- 13. This warranty is not transferable.
- 14. This warranty does not apply to damage to the appliance while in transit.
- 15. This warranty does not apply if the installation does not conform to the installation requirements in the installation and owner's manuals.
- 16. **Renaissance Fireplaces™** is free of liability for any damages caused by the appliance, as well as material and labor charges incurred in the removal or reinstallation of any **Renaissance Fireplaces™** fireplace under this warranty. Incidental or consequential damages are not covered by this warranty.
- 17. The remedies set forth herein are exclusive, and the liability of the seller shall not exceed the price of the fireplace or part thereof upon which the liability is based.
- 18. This warranty is expressly in lieu of all other warranties expressed or implied, including the warranties of merchantability and fitness for use and all other obligations or liabilities on the part of **Renaissance Fireplaces™.**