

Linear Series

HeatShift™ System

Planning Installation: Linear with HeatShift™

Instructions for use with the following **Valor Heater Models: 1500, 1600, 1700 and 1800 J or K**
Incompatible with earlier models: 1500I, 1600I, and 1700I

Application

The HeatShift™ system redistributes the warm air flow away from the fireplace opening to a more desirable location using natural convection without use of a fan.

Plenums LKD1, LDK3, LDK4 or LDK9: the warm air flow is relocated to a position higher up the wall, out the sidewalls, or even to an adjacent room.

Termination Plates LDK7: the warm air flow is discharged through a gap (min. 2-1/2") between the wall above the fireplace and the ceiling. **LDK7's discharge opening must be located in the same room as the fireplace.**

The result is much cooler wall temperatures above the fireplace opening for locating televisions, artwork, etc.

The 1595CFK or 1595CFKV2 Circulating Fan Kit are not recommended when installing the HeatShift system.

Any kit, LDK1, LDK3, LDK4, LDK7 or LDK9 may be used with compatible model fireplaces L1, L2 or L3 listed above.

As a further option, the warm airflow may be extracted away from the duct kit plenum (**LDK1 and LDK4 ONLY**) by connecting a 1270RBK Remote Blower Kit to the duct kit plenum.

This kit is compatible with the listed fireplaces only. Earlier version fireplaces will not accept the addition of this kit.

Note: These instructions are to be used in conjunction with instructions regarding fireplace installation in this manual.

WARNING

All fireplaces listed above require the removal of the internal convection baffle for this system to function properly—read instructions carefully!

The use of this kit will permit lower mantel clearances to be used—see *Combustible Mantel Clearances* in this Appendix. These lower mantel clearances **must ONLY be used when the HeatShift system is installed and the internal convection baffle has been removed.**

Approvals

The LDK1, LDK3, LDK4, LDK7 and LDK9 duct kits are CSA approved for use only with Valor Series fireplaces listed above—DO NOT use with any other models.

This HeatShift system may also be used to reduce wall surface temperatures on approved outdoor installations.

5-inch diameter duct used with this kit must be metal and meet requirements of UL-181 Class 1 Air Duct. Flexible aluminum duct is acceptable provided it meets the UL-181 Class 1 requirements.

WARNING

DO NOT cover or place objects in front of or on top of air outlet(s). AVOID locating outlet within 7 feet above floor level as discharge temperatures are hot!

WARNING

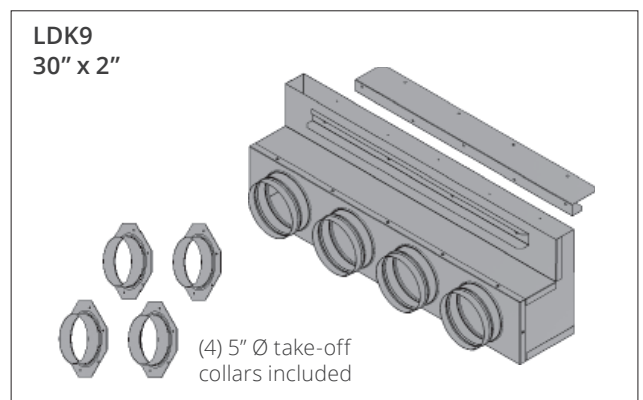
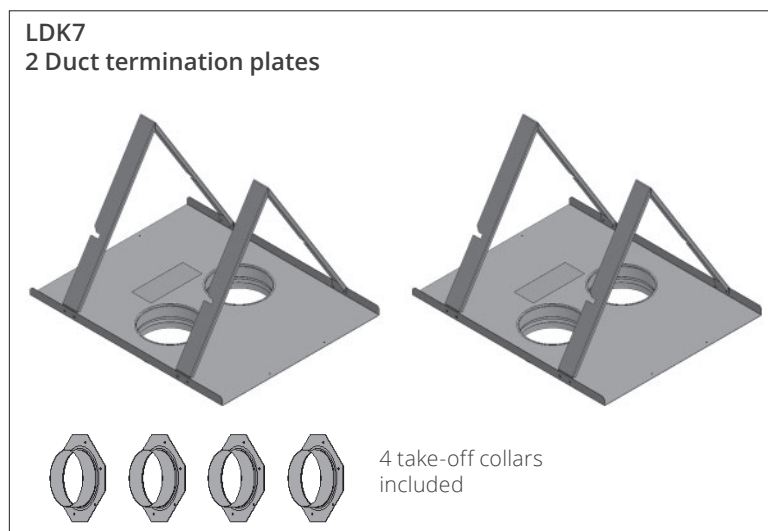
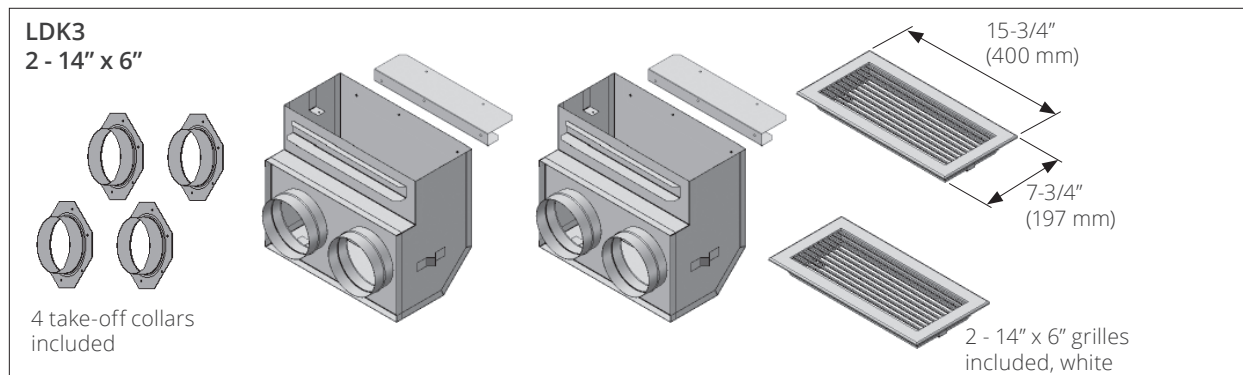
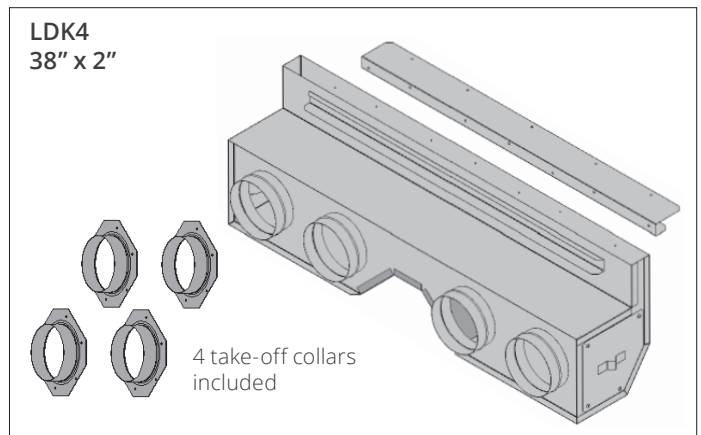
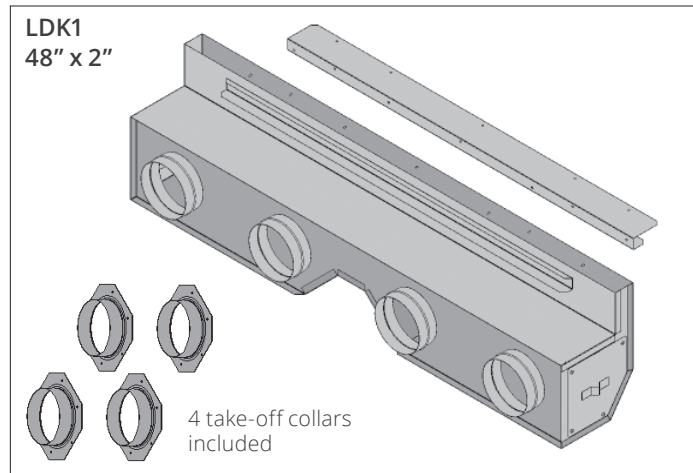
When placing discharge close to ceilings, staining or streaking may occur on light colored ceilings due to any dust, etc. in air flow; placing plenum(s) lower on the wall will help reduce the possibility of staining or streaking.

Kits

There are 5 kits to choose from:

- LDK1—48" Plenum
- LDK3—14" Plenums (2), includes grilles
- LDK4—38" Plenum
- LDK7—Duct Termination Plates (2)—for wall valance discharge ONLY
- LDK9—30" Plenum

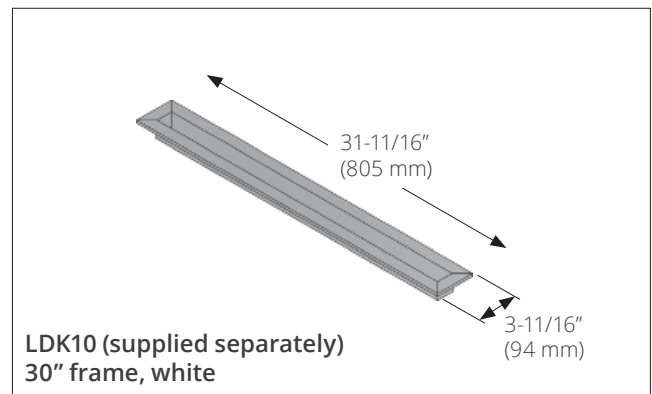
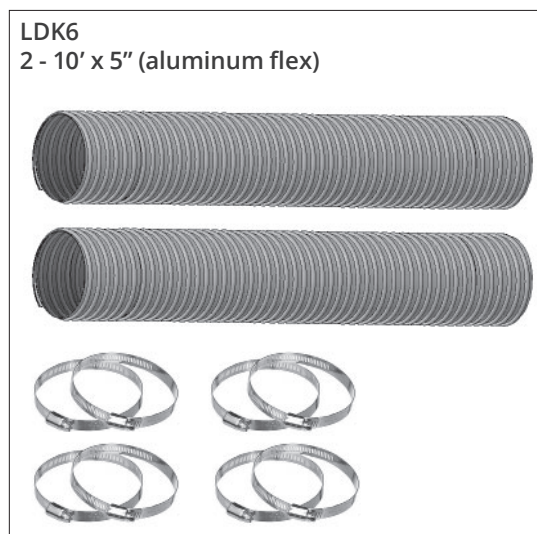
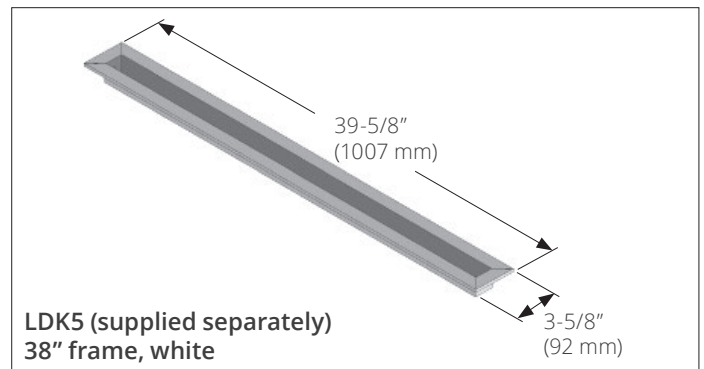
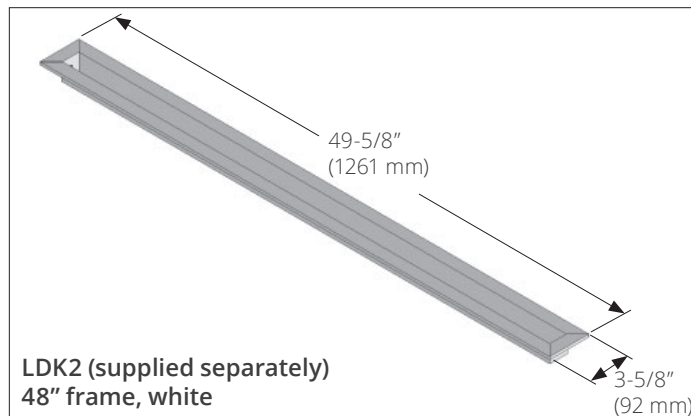
Kits Contents



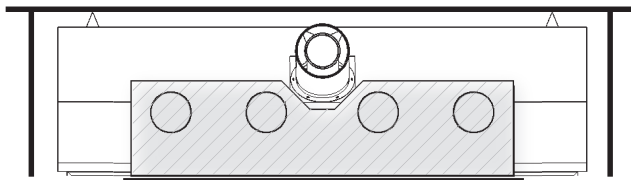
Optional accessories

- LDK2—48" Finishing Frame, to use with LDK1
- LDK5—38" Finishing Frame, to use with LDK4
- LDK6— 5" dia Aluminum 2-ply Flex Kit—
2 x 10'-0" lengths, may be cut to required length
- LDK10—30" Finishing Frame, to use with LDK9

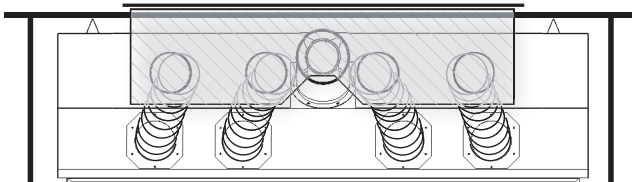
Kits Contents



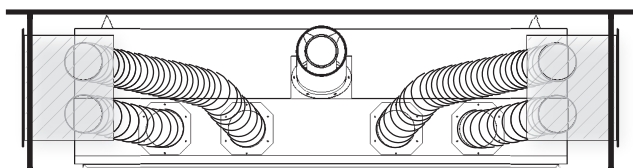
Suggested Configurations Not to scale



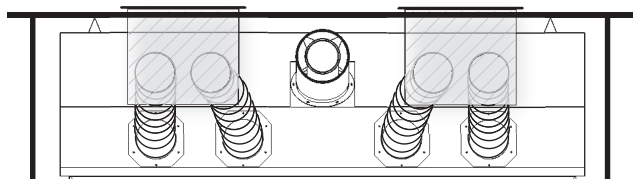
Front wall outlet using LDK1, LDK4 or LDK9



Rear wall outlet using LDK1, LDK4 or LDK9
Note: Fireplace vent may conflict with plenum.
Offset vent around plenum.



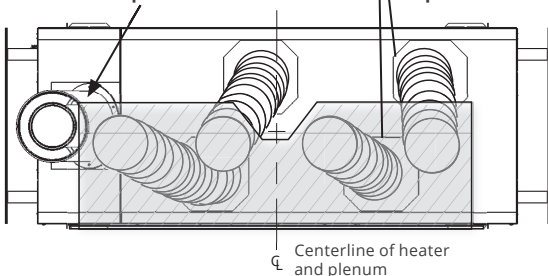
Side wall outlets using LDK3



Rear wall outlets using LDK3

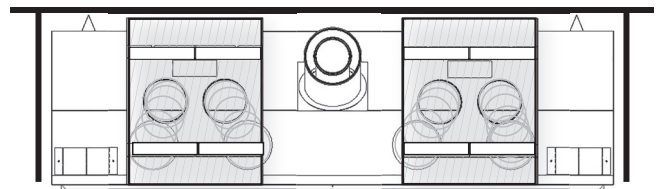
Note: Vertical venting straight off 1600K heater will NOT clear 38" (LDK4) or 48" (LDK1) plenums without offsetting vent around plenum.

Note: Take-off collars staggered, 2 per side



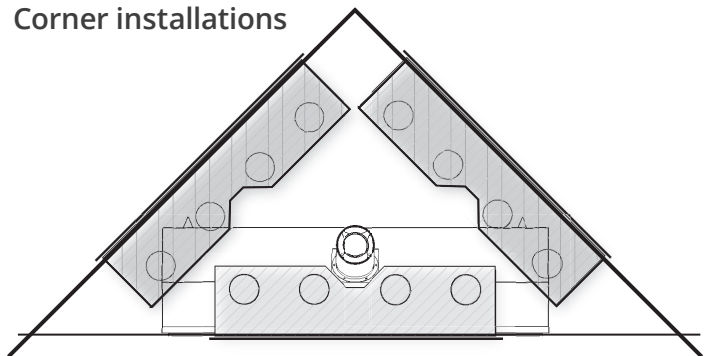
1600K L1 see-thru using LDK1, LDK4 or LDK9

Note - When using LDK7, the discharge opening must be located in the same room as the fireplace.



With LDK7

Corner installations



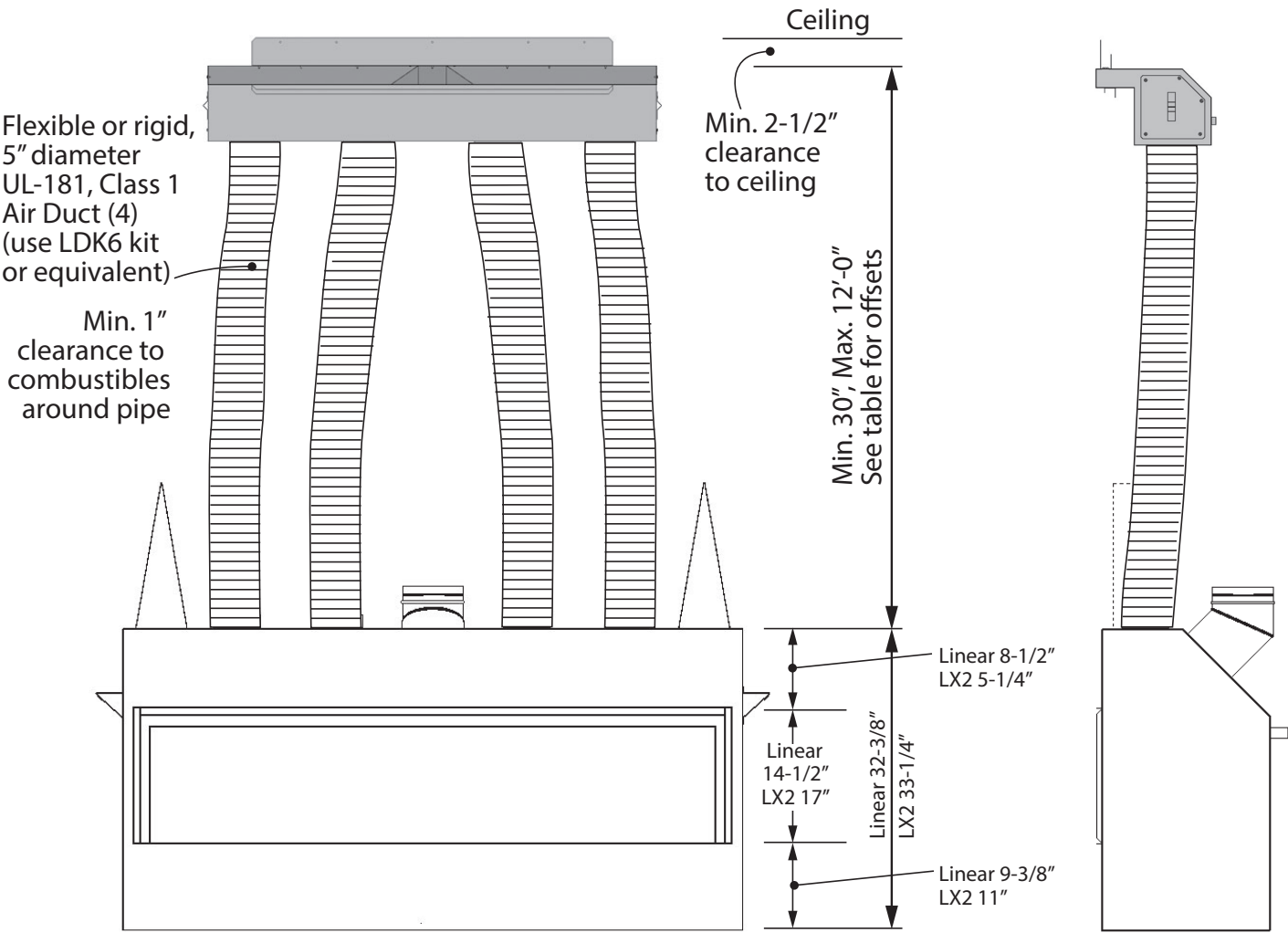
⚠ WARNING

The plenum duct kits are approved for horizontal discharge ONLY. The termination duct plates are approved for vertical upward discharge ONLY. DO NOT install plenum or termination plates in floor or ceiling. DO NOT COVER OR PLACE objects in front of or on top of air outlet(s). AVOID locating outlet within 7 feet of the floor level as discharge air temperatures are hot!

DO NOT DISCHARGE THROUGH EXTERIOR WALLS!

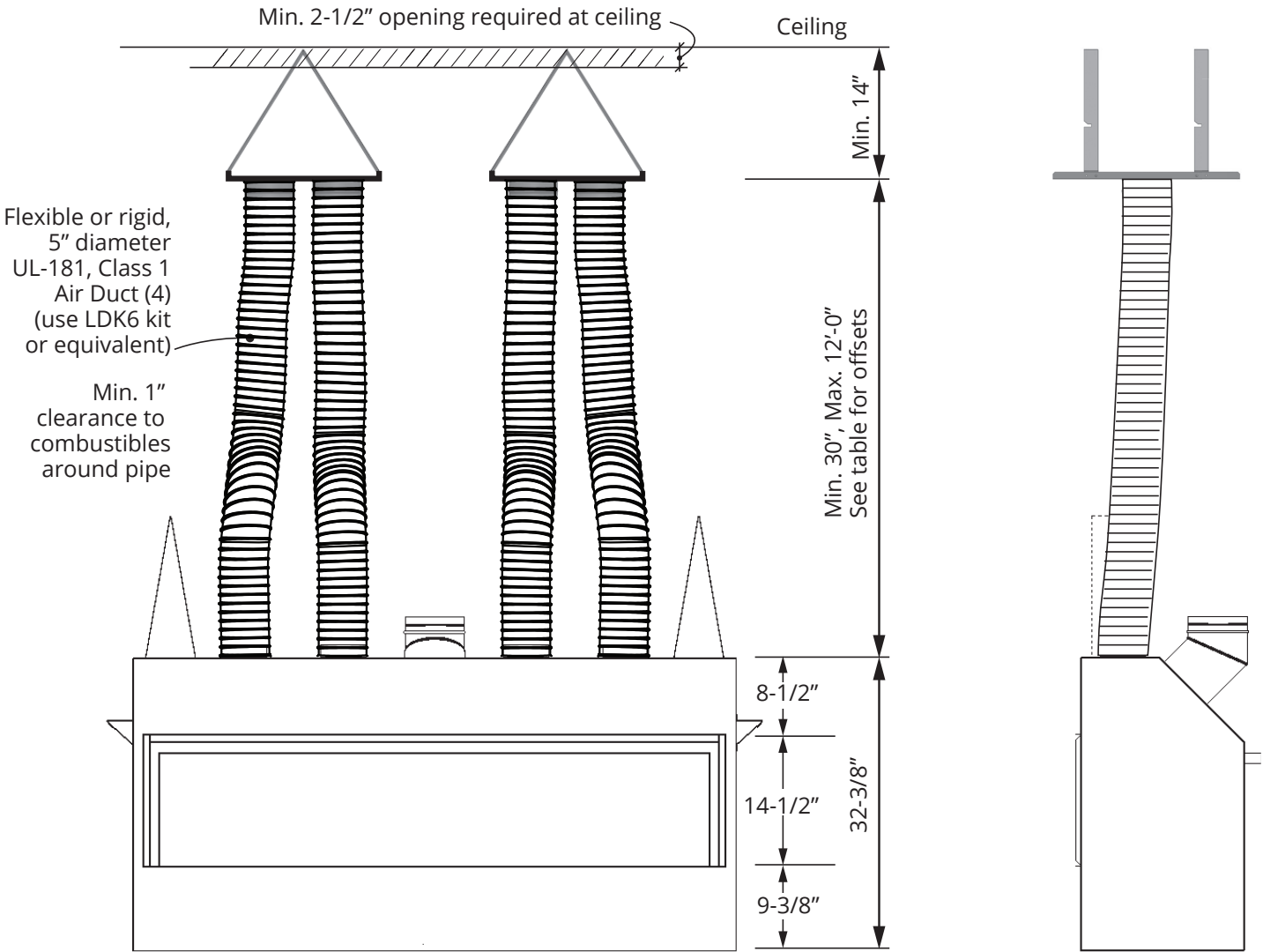
NOTE This duct kit may also be used for outdoor installations where reduced wall surface temperatures above the unit are desired. The discharge grilles must be located under the weatherproof enclosure described in the GV60CKO Outdoor Fireplace Conversion Kit instructions.

Overview (applies to LKD1, LDK3, LDK4 and LDK9 kits)



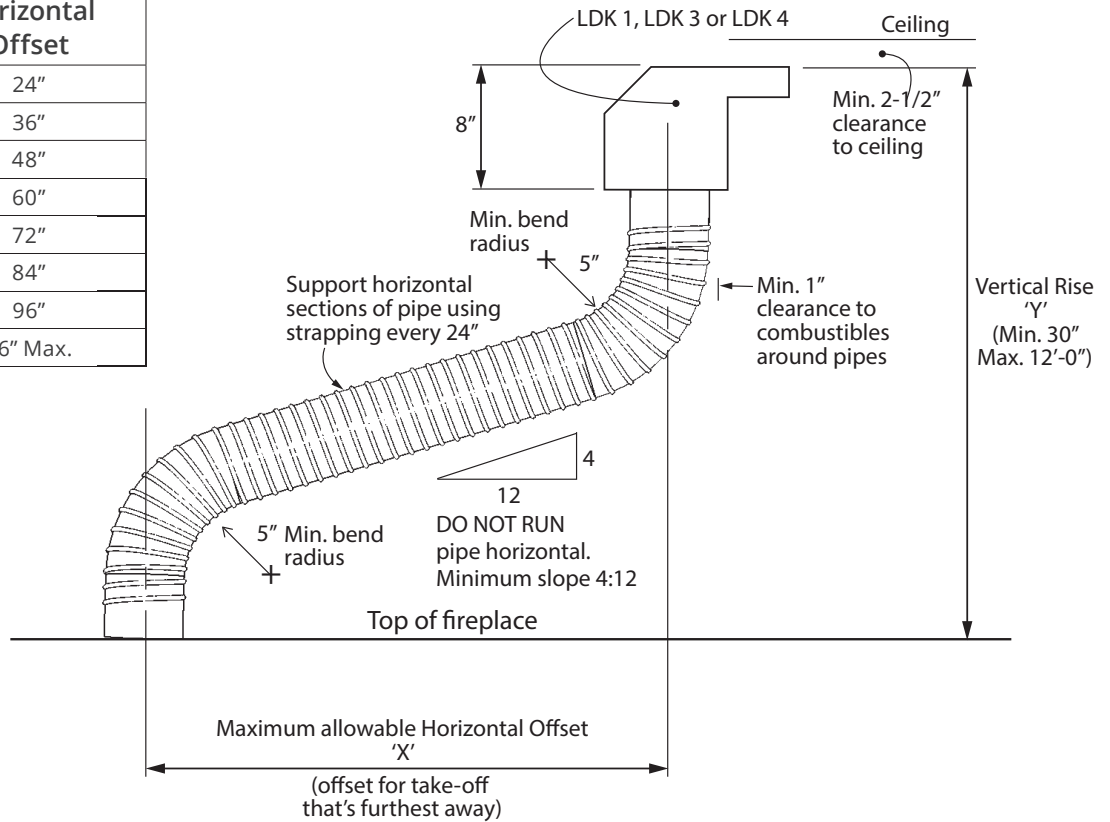
Overview (applies to LDK7)

NOTE Discharge opening must be located in the same room as fireplace when using LDK7.

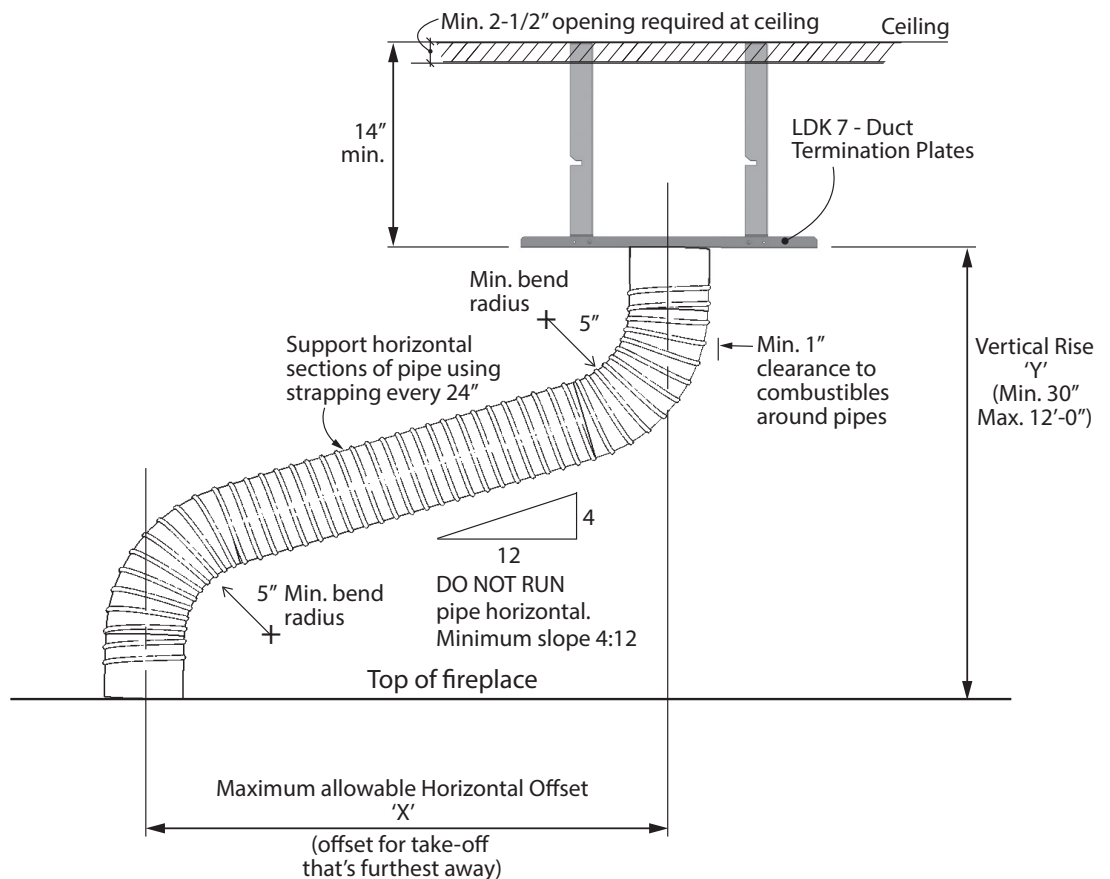


Y Vertical Rise	X Max. Allowable Horizontal Offset
30"	24"
36"	36"
42"	48"
48"	60"
54"	72"
60"	84"
66"	96"
12'-0"	96" Max.

With Plenum

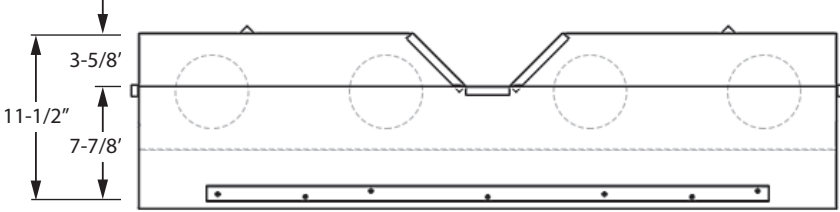


With Plates

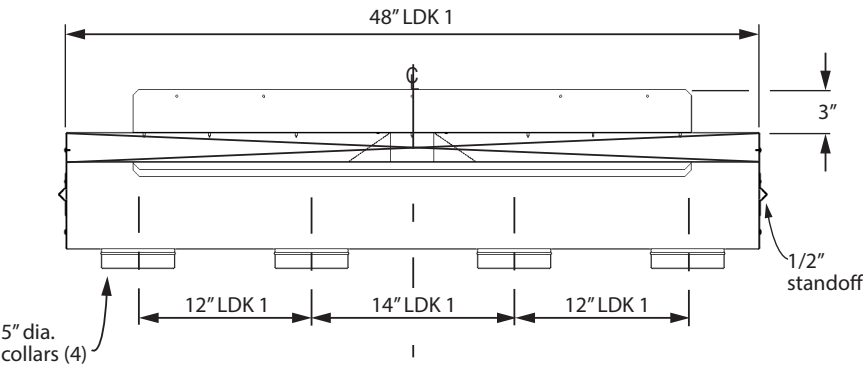


Plenum Dimensions

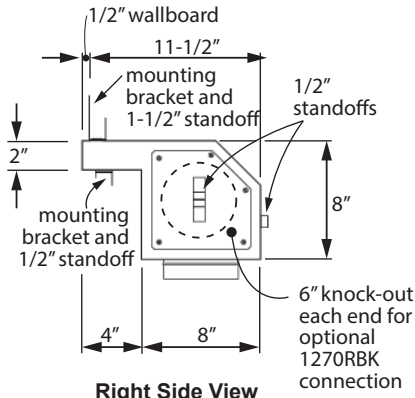
LDK 1



Top View

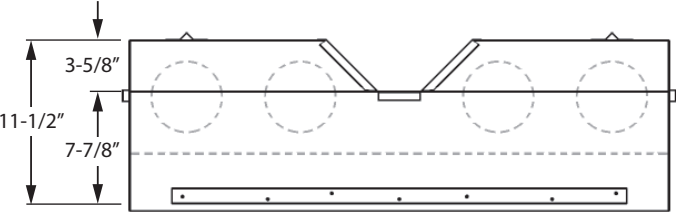


Front View

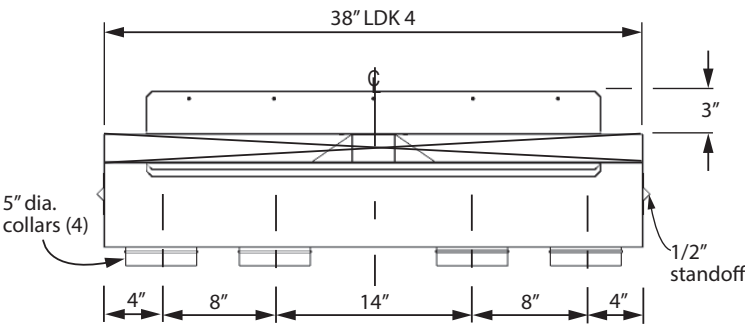


Right Side View

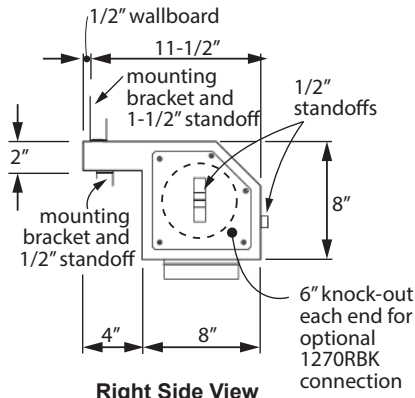
LDK 4



Top View



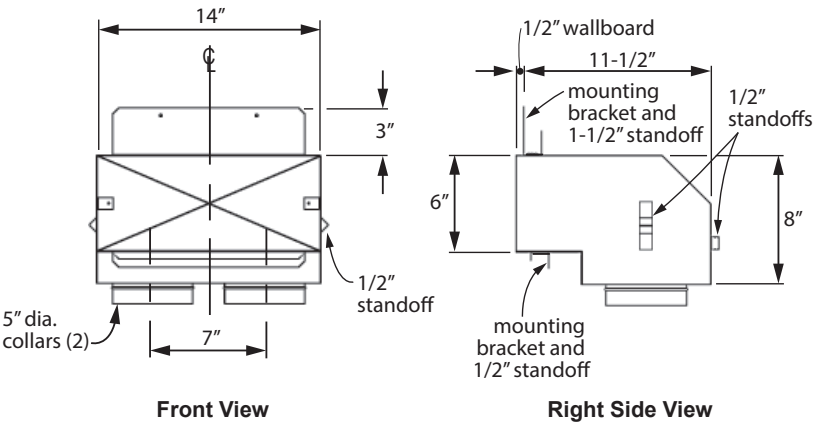
Front View



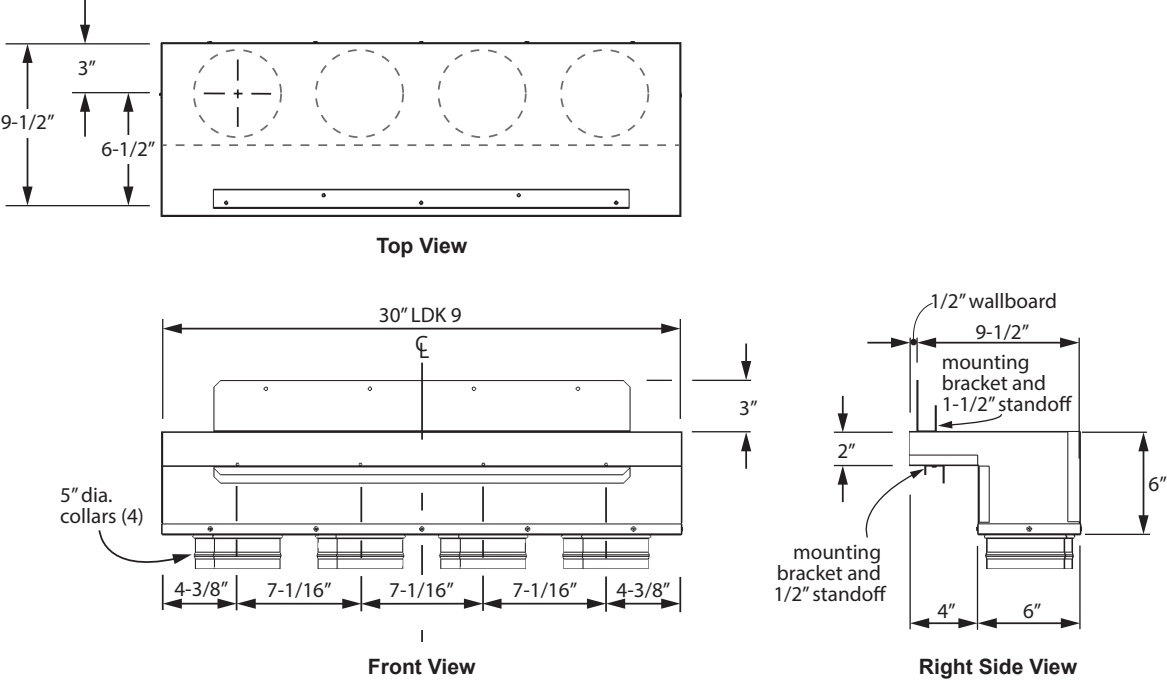
Right Side View

Plenum Dimensions (cont'd)

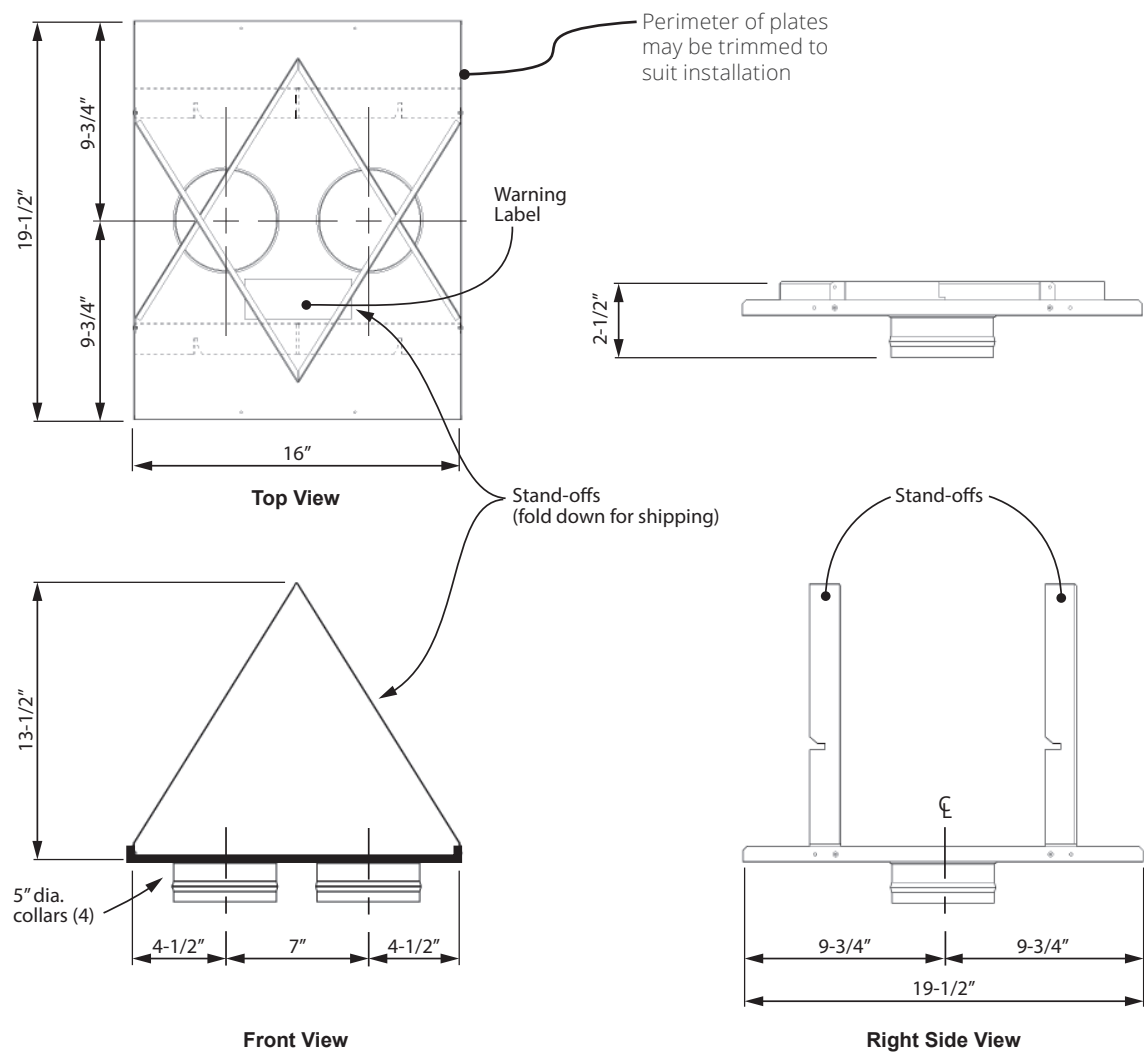
LDK 3



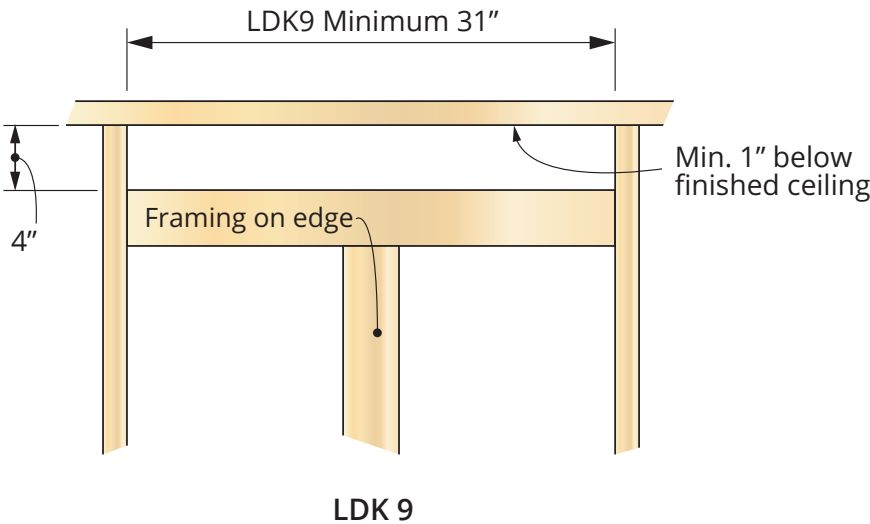
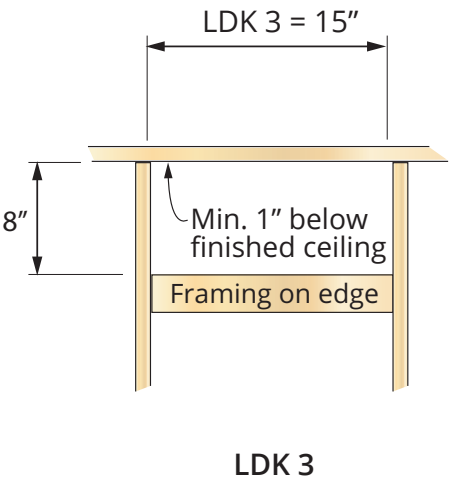
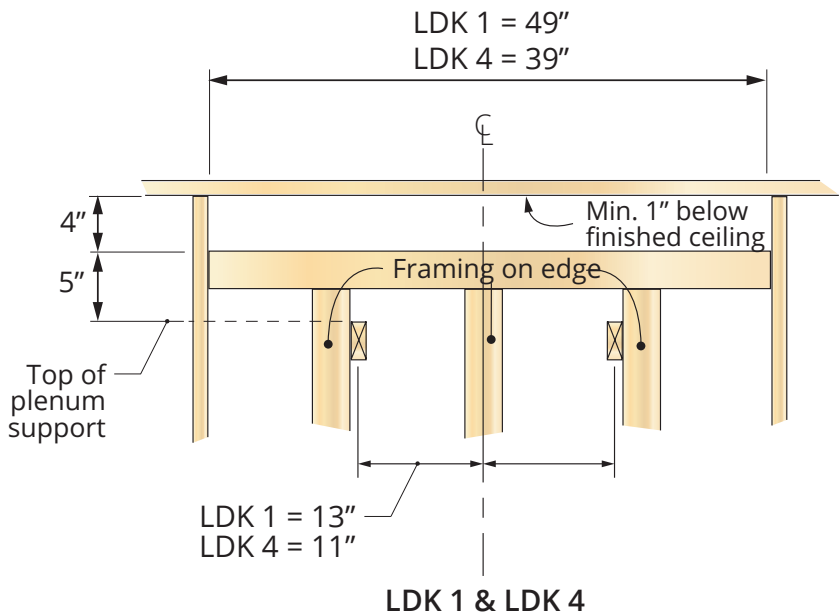
LDK 9



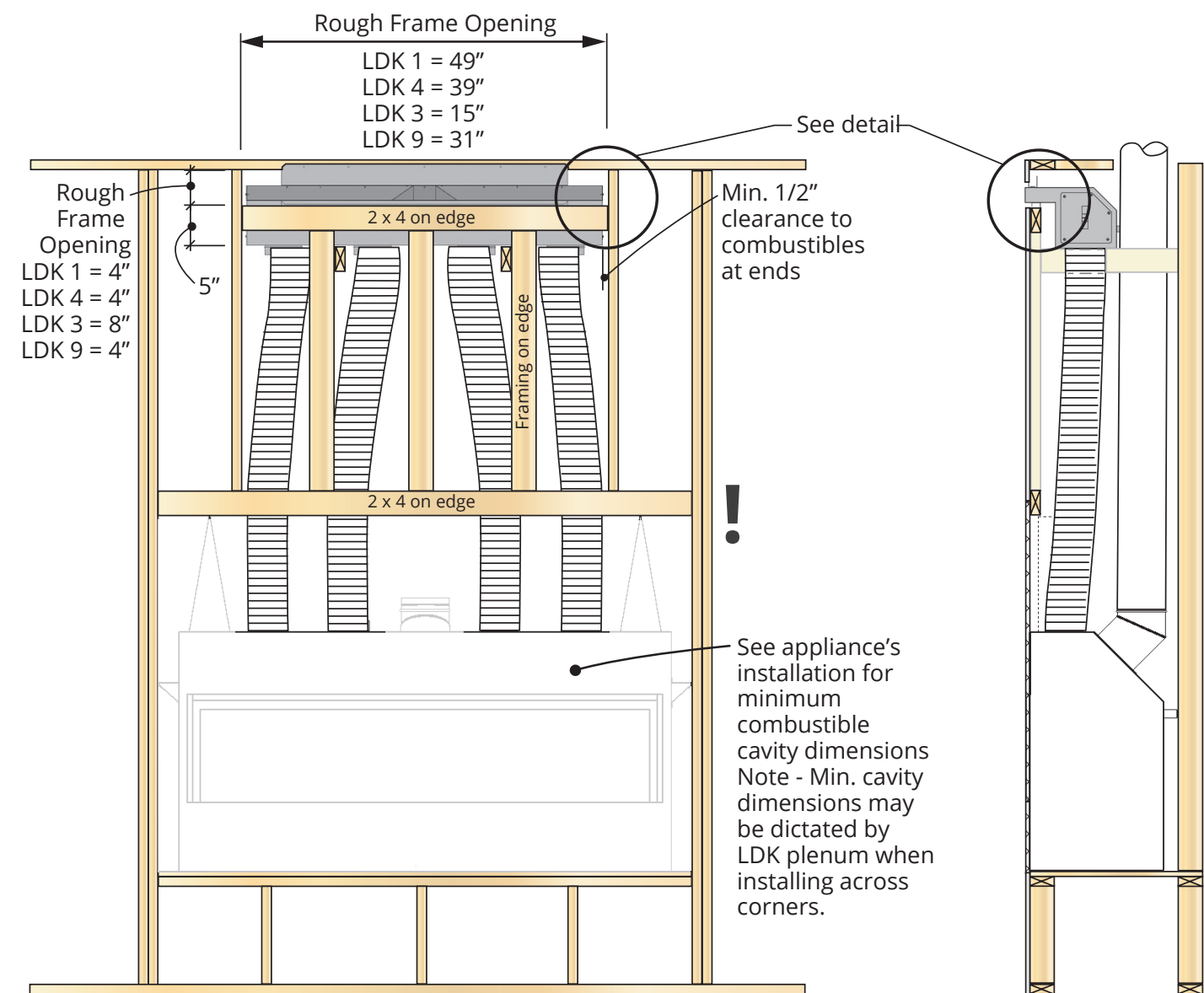
LDK7 Plates Dimensions



Rough Frame Openings

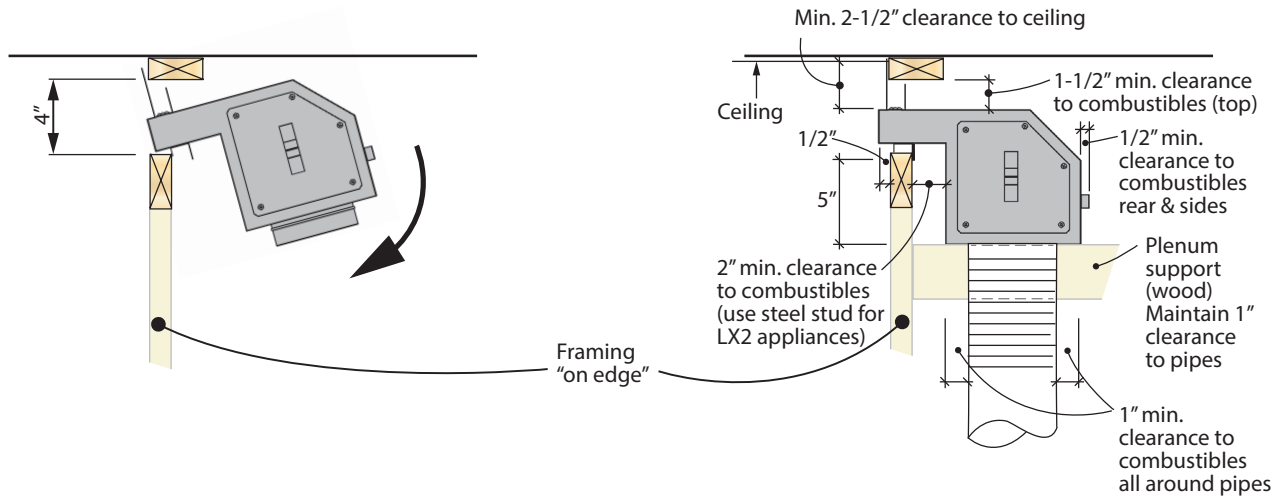


Framing and Clearances—Plenums, front view

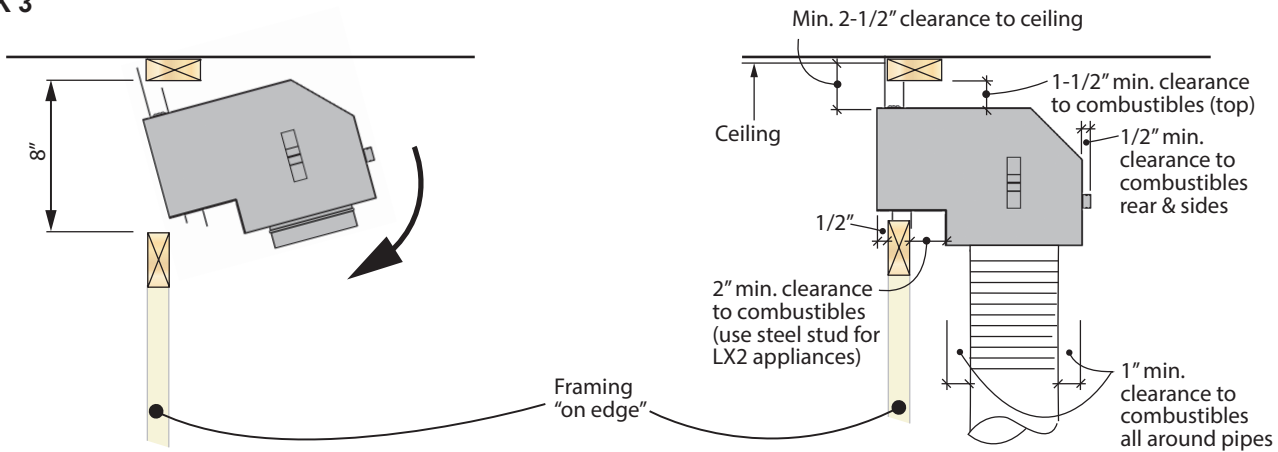


Framing and Clearances—Plenums, side view

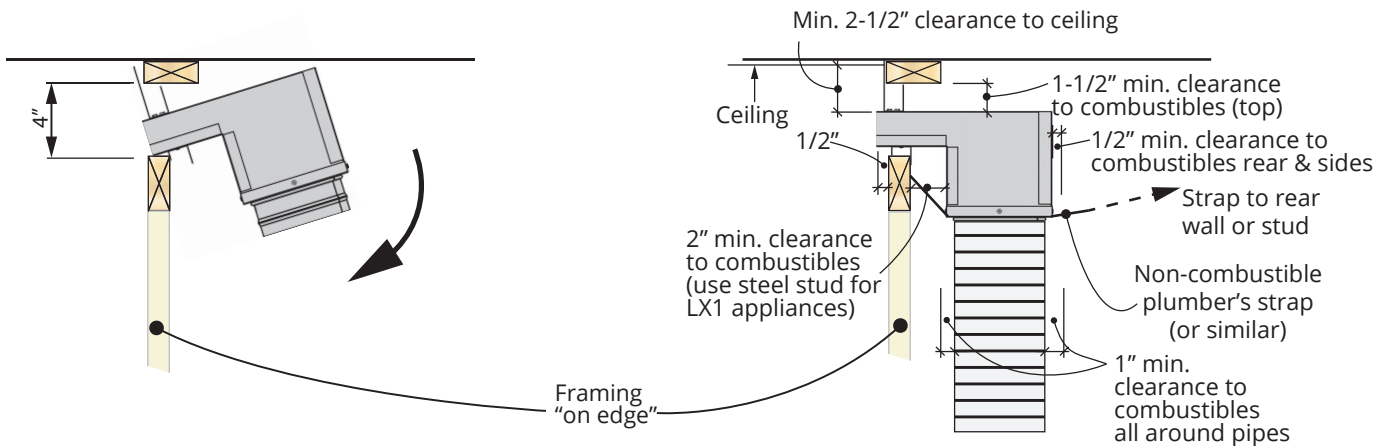
LDK 1 & 4



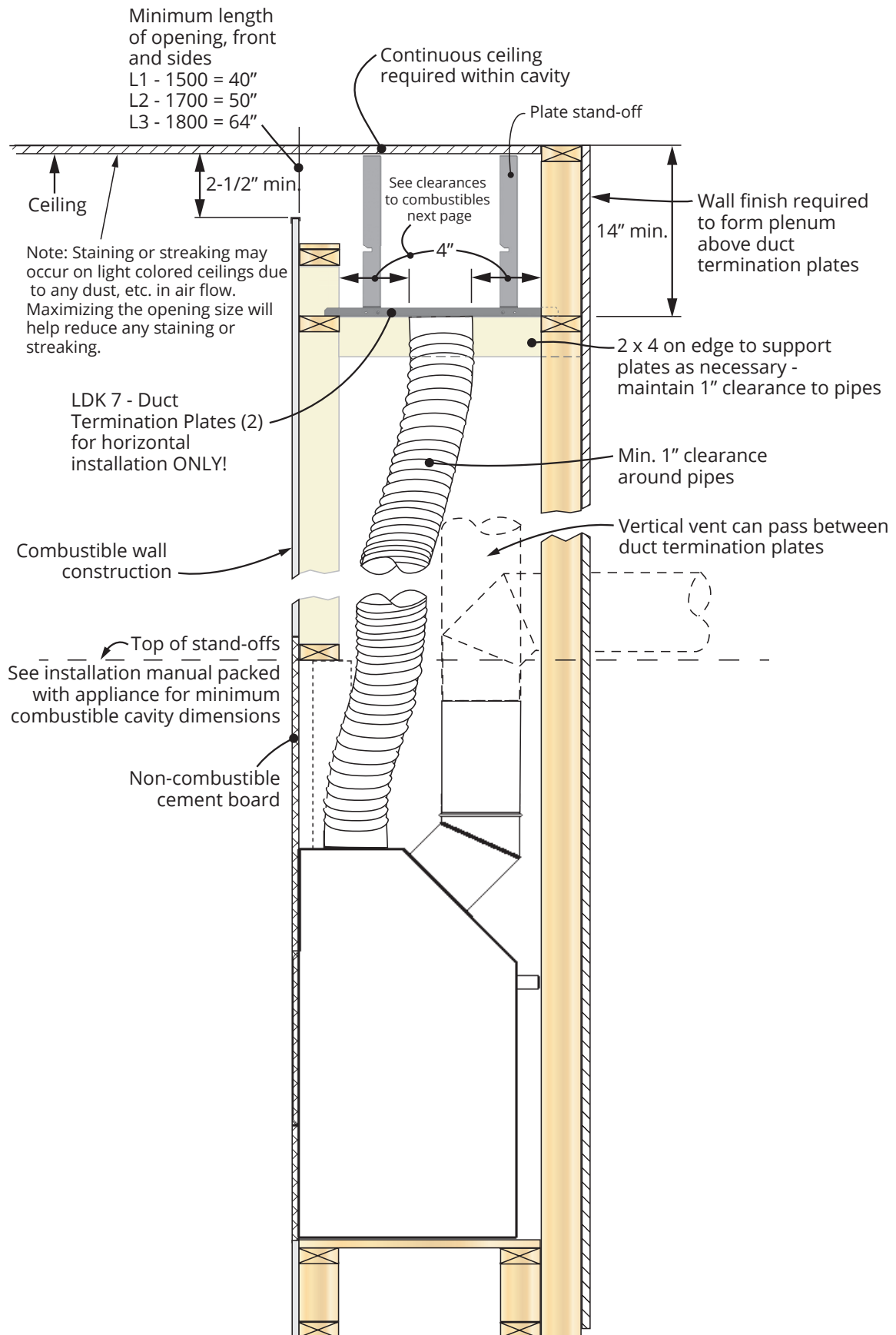
LDK 3



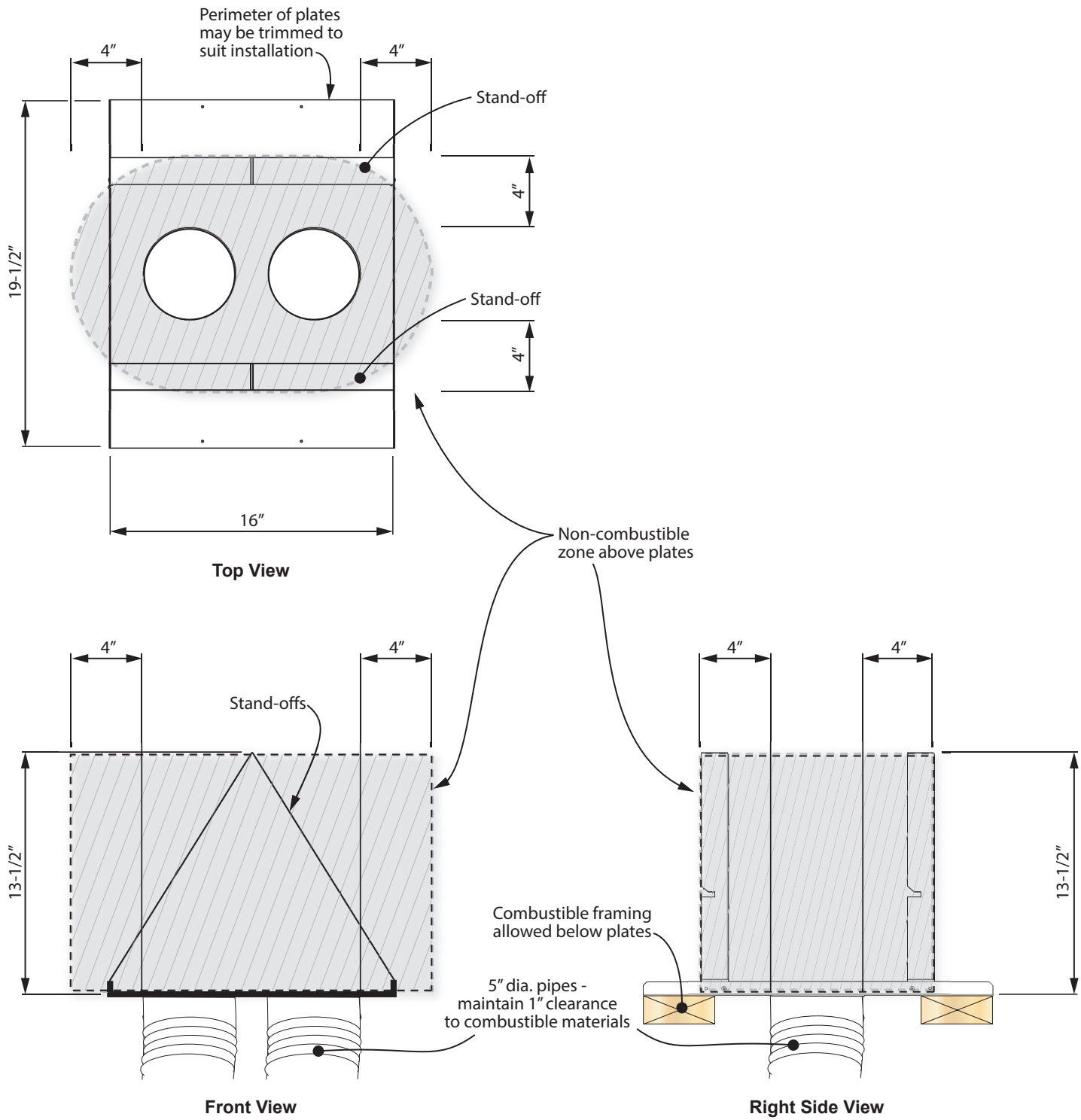
LDK9



Wall Valance Discharge Opening using LDK7—Duct Termination Plates

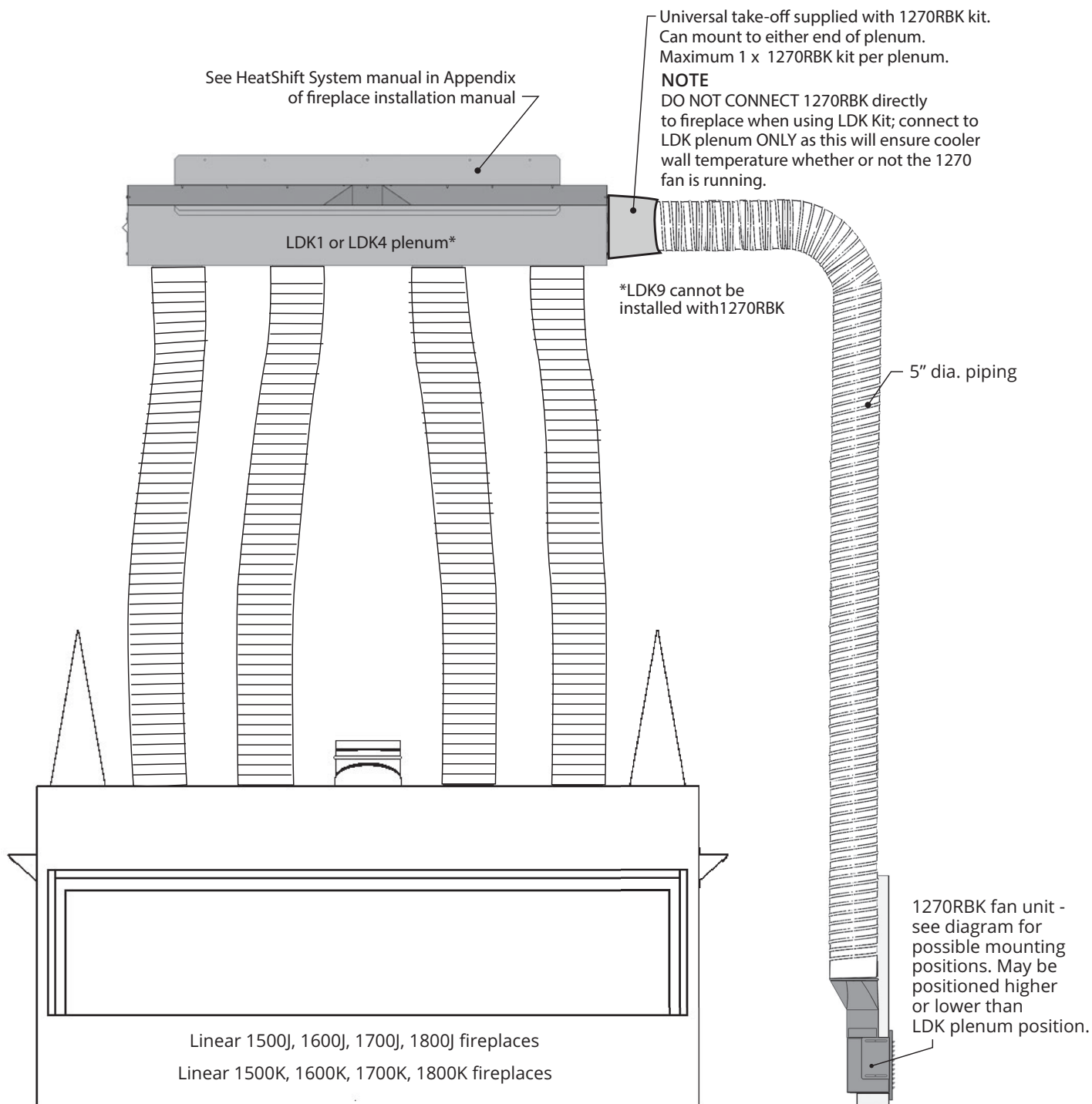


LDK7 Clearances to Combustibles



LDK Duct Kit LDK 1, LDK 4 with optional 1270RBK Remote Blower Kit

(not approved with outdoor installations)

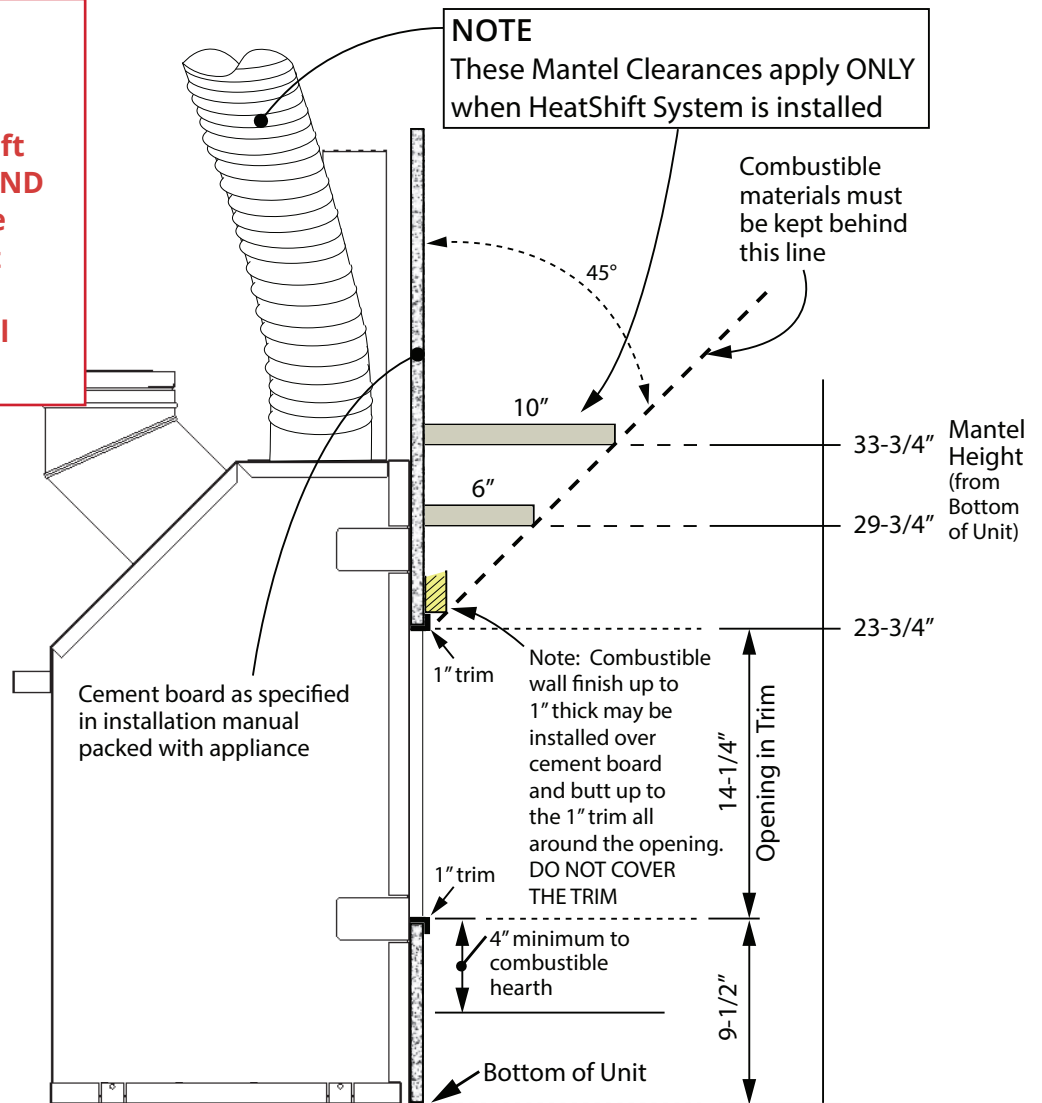


COMBUSTIBLE Mantel Clearances Linear appliances (when using HeatShift System ONLY)

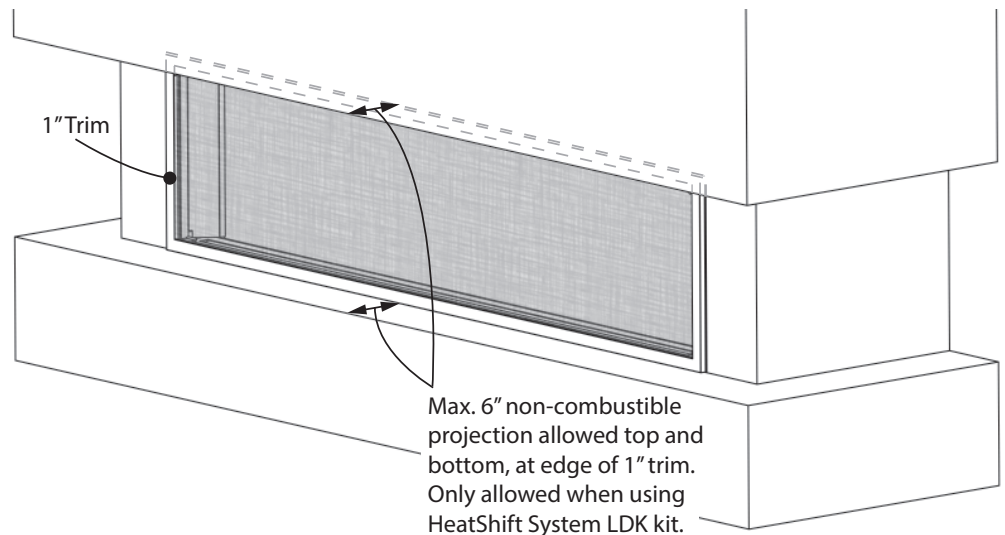
Sidewall clearances remain as stated in this installation manual.

WARNING

RISK OF OVERHEATING AND FIRE! Ensure HeatShift installation is complete AND internal convection baffle is removed (see HeatShift installation) when using these combustible mantel clearances.

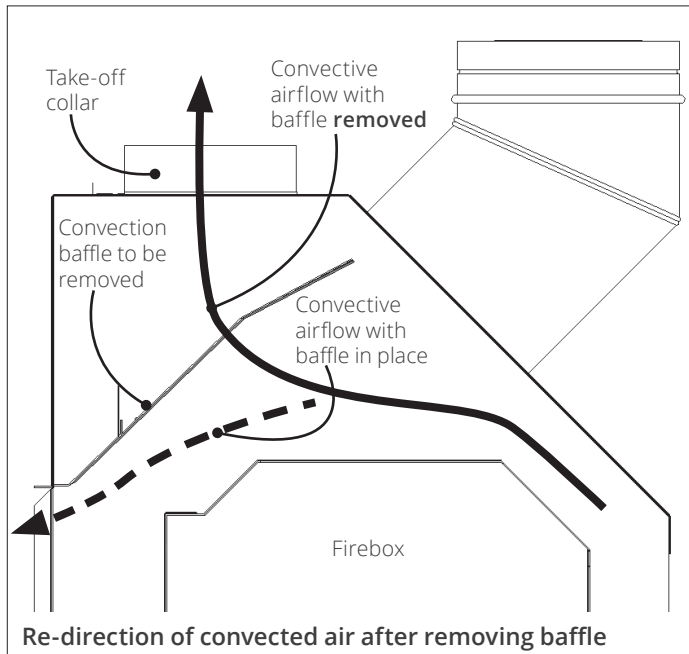


NON-COMBUSTIBLE Flush Hearth/Mantel Projections (when using HeatShift System ONLY)

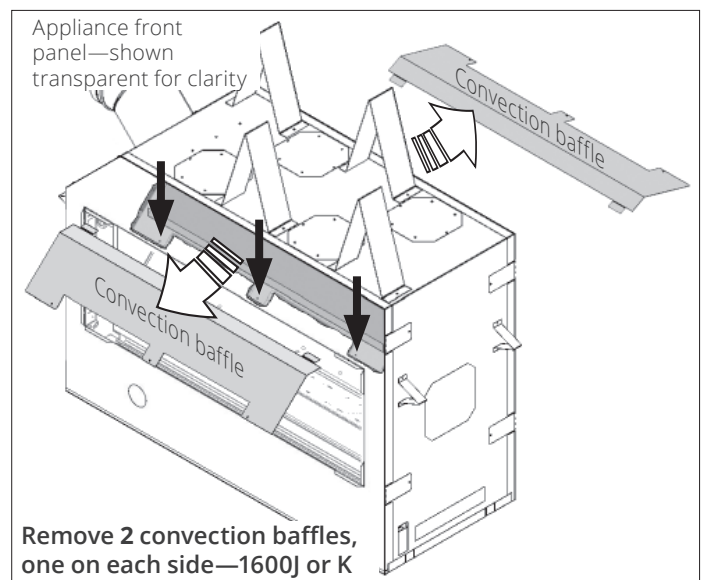
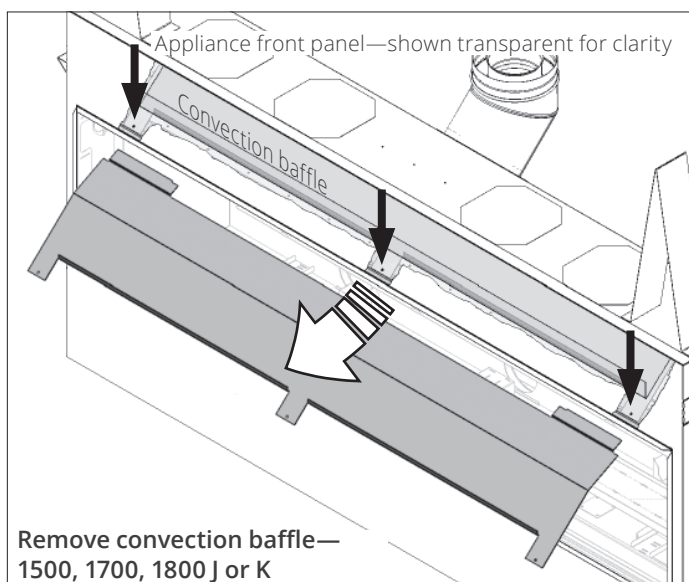


Remove Convection Baffle

To be effective the LDK Duct Kit requires that a convection baffle located above the firebox inside the appliance case be removed to allow the hot airflow to convect upwards into ducts installed on the fireplace.

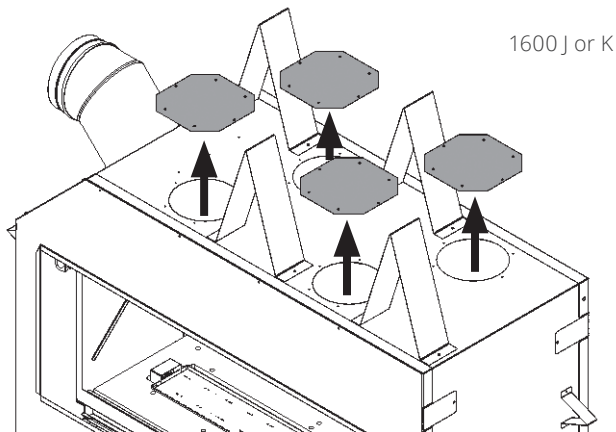
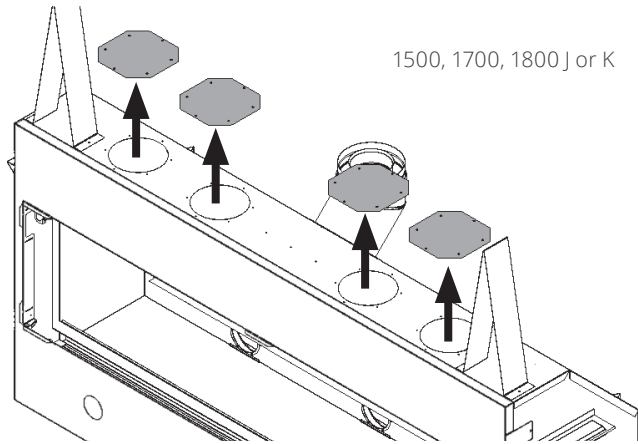


! Remove the convection baffle from the appliance. It is held in place by screws located right behind the upper edge of the fireplace opening (3 screws/baffle). Recycle this panel as it is no longer needed.

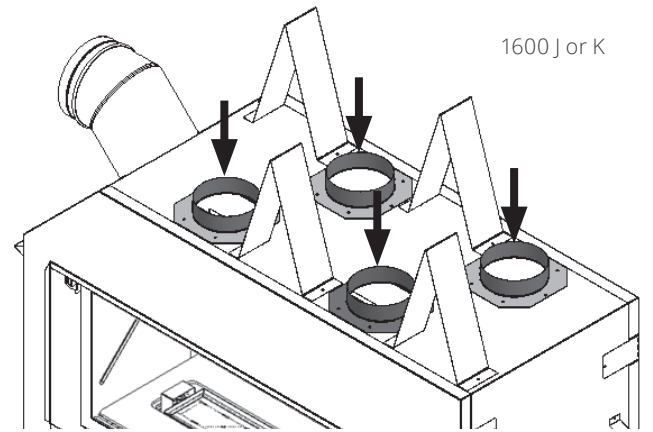
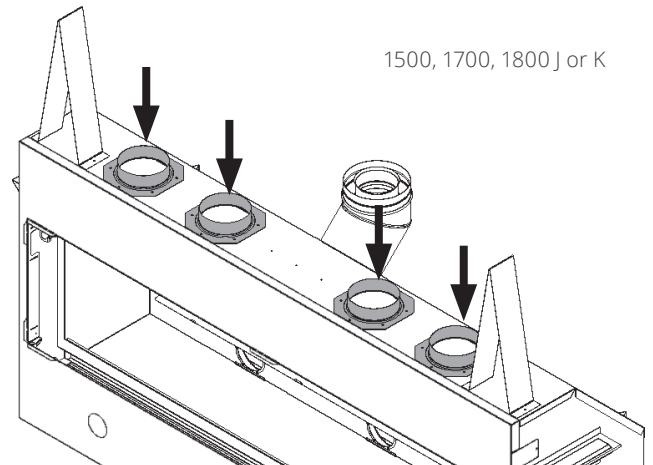


Install HeatShift collars

1. Remove the four cover plates on top of the appliance case (6 screws each).



2. Install the collars on the holes on top of the appliance's case (6 screws each).



WARNING

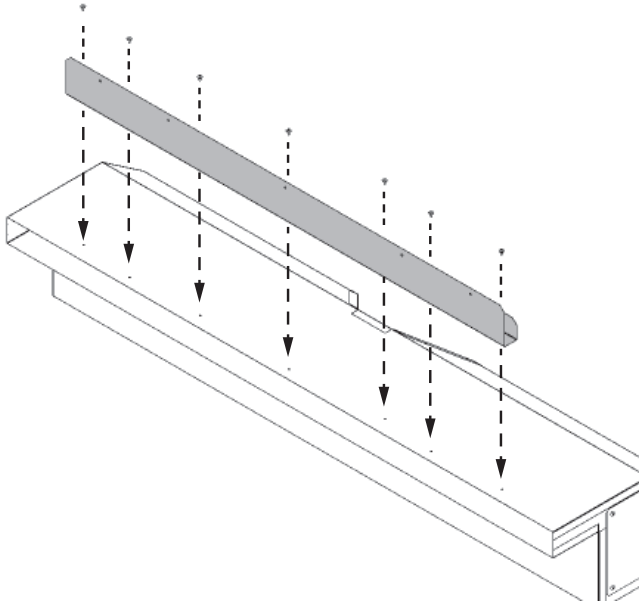
All FOUR (4) takeoffs MUST BE CONNECTED TO PLENUM(S).

WARNING

DO NOT INSTALL 1270RBK Remote Blower Kit to any of these 4 takeoffs.

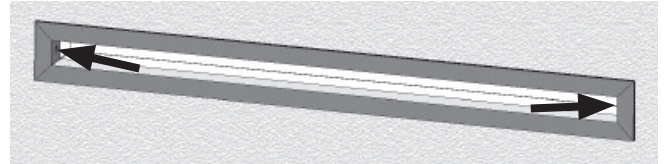
Install Plenum Kits (LDK1, LDK3, LDK4 & LDK9) —see next page for LDK7 Duct Termination Plates

1. Frame a rough opening at the desired location—see earlier sections of this manual for allowable plenum positions and rough frame opening sizes.
2. Install top mounting bracket(s) to the plenum using screws provided (use the short sheet metal screws provided otherwise the screw tails (ends) will interfere with the finishing frame when installed).

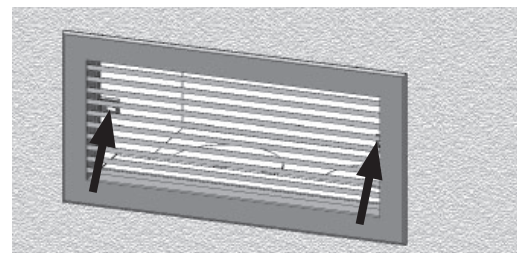


3. Install the plenum(s) into the rough frame opening maintaining minimum clearances to combustibles as listed—see Rough Frame Openings. Fix the plenum to the framing using nails or screws through the top mounting bracket. **Note that the mounting brackets are not intended to carry the weight of the plenum and pipes. Provide support to the underside of the plenum and ensure the plenum is level and its outlet is not distorted—see Framing and Clearances.** Use metal strapping (all-round, not supplied) as required to further secure the plenum to framing.
4. Attach one section of UL-181, Class 1 approved air duct to each of the collars and secure it with gear clamps provided. **DO NOT SPLICE DUCTS!**
5. Attach the top of the pipe sections to the plenum securing them with the gear clamps provided. An upward slope must be maintained in horizontal sections of pipes for proper convection. Use straps as necessary to maintain the pipes positions. Support horizontal sections every 24 inches.

6. Paint the inside surfaces of the plenum using high-temperature flat black spray paint for installations where the inside of the plenums may be visible.
Note: The flanges of the white finishing frame (when used) will insert approximately 1-1/4" into the plenum covering the shiny sheet metal.
7. Install the finishing frame or louver to the plenum after the wall finish is completed:
LDK1, LDK4, LDK9: Use the LDK2, LDK5 or LDK10 depending of the length of the plenum.



LDK3: Use the grilles provided with the kit.

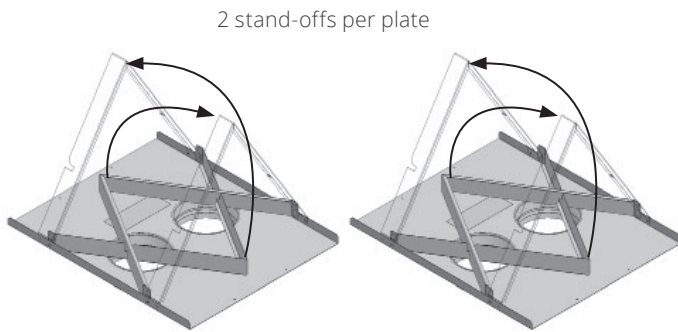


Note: The frame/louver are finished white but may be painted another color if desired; use high temperature paint (250°F). You may also finish up to the perimeter of the plenum opening with your material of choice and not use the frame or louver. Do not finish over any of the opening in the plenum outlet.

8. Continue with the fireplace installation.

Install Duct Termination Plates (LKD7) —see previous page for LDK1, LDK3, LDK4 & LDK9 Plenum kits

1. Frame a rough opening and platform at the desired location—see earlier sections of this manual for allowable duct termination plates positions and rough frame opening sizes.
2. On each duct termination plate, rotate both stand-offs to the vertical position and secure in place using screws provided.



3. Install the termination plates into the framing ensuring collars/pipes on underside of plates maintain 1 inch clearance to combustibles and clearance to combustible above the plates are maintained as listed in Wall Valance Discharge Opening. The termination plates perimeter may be trimmed as necessary to accommodate framing. Secure the termination plate to framing using screws or nails to avoid movement.
4. Attach one section of UL-181, Class 1 approved air duct to each of the collars and secure it with gear clamps provided. **DO NOT SPLICE DUCTS!**
5. Attach the top of the pipe sections to the duct termination plates securing them with the gear clamps provided. An upward slope must be maintained in horizontal sections of pipes for proper convection. Use straps as necessary to maintain the pipes positions. Support horizontal sections every 24 inches.
6. Continue with the fireplace installation.

Repair Parts List

	Description	Part no.
LDK1	48" Quad Hot Air Plenum Kit	
	48" x 2" quad plenum	4005476
	5" take-off collars (4)	4005478
	Top mounting bracket/standoffs	4007211
	#8 slotted drive screws 1/4" (7)	798601
LDK2	48" Outlet Frame Kit for LDK1	
	Aux Frame-SPL 48" x 2" white	4005612
LDK3	14" Double Hot Air Plenums Kit	
	14" x 6" double plenums (2)	4005464
	5" take-off collars (4)	4005478
	DABL-00-C-SPL 14" x 6" Grilles white (2)	4005614
	Top mounting bracket/standoffs (2)	4005566
	#8 slotted drive screws 1/4" (6)	798601
LDK4	38" Quad Hot Air Plenum Kit	
	38" x 2" quad plenum	4005477
	5" take-off collars (4)	4005478
	Top mounting bracket/standoffs	4007213
	#8 slotted drive screws 1/4" (7)	798601
LDK5	38" Outlet Frame Kit for LDK4	
	Aux Frame-SPL 38" x 2" white	4005613
LDK6	5" Aluminum 2-ply Flex Kit	
	5" dia 10' (uncompressed) aluminum chimney liners (2)	4005635
	4.5" - 6.5" ss gear clamps (8)	4005642
LDK7	Duct Termination Plates	
	Plate and collar assembly (2)	4006747
	5" take-off collars (4)	4005478
	Screws 8 x 3/8 tap PN HD PH (12)	100A757
LDK9	30" Quad Hot Air Plenum Kit	
	30" x 2" quad plenum	4007903
	5" take-off collars (4)	4005478
	Top mounting bracket/standoff	4007601
	#8 slotted drive screws 1/4" (5)	798601
LDK10	30" Outlet Frame Kit for LDK9	
	Aux Frame-SPL 30" x 2" white	4007951

Each LDK kit is sold separately.