HeatShift™ System

Planning and Installation: H3 with HeatShift®
For use with 1000K Valor Heaters ONLY (not compatible with Series J)

Application
The HeatShift™ convection duct kit redistributes the warm air flow away from the fireplace to a position higher up the wall using natural convection, without the use of a fan.

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

Approvals
The LDK8 kit is 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.

4-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.

NOTE
RC Backing Plates 1035BPB-RC, 1036BPB-RC or 1040BPB-RC are NOT compatible with HeatShift.

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

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

Note:
The use of this kit will permit lower mantel clearances to be used—see “Mantel Clearances” in the H3 Installation Manual.

These lower mantel clearances must ONLY be used when the HeatShift system is installed and the internal convection baffle has been removed.
Kits

The LDK8 HeatShift kit is required for use with the H3 fireplace if HeatShift is to be implemented.

The LDK10 and LDK11 are optional accessories, but some approved liner and clamps are required. See “Approvals” on the previous page for size and ratings details.

• LDK8 - 30” HeatShift plenum and (2) dual collar plates (4” diameter)
• LDK10 - 30” finishing frame to use with LDK8
• LDK11 - (2) 10’ lengths of 4” liner and (8) clamps
Configuration H3 with LDK8

The LDK8 plenum is typically installed directly above the H3 unit, connected by the LDK11 (or approved 4”) liners. It may be offset from center, or vented to the rear if desired.

Note: Coaxial vent can be routed vertically through the cutout in the HeatShift plenum. If the plenum must be offset to the rear, the vent must also be offset to accommodate.

Dimensions

Front View

30” [762 mm]

39” [991 mm]

11” [280 mm]

Side View

3” [76 mm]

2” [51 mm]

6” [153 mm]

Bottom View

4” [102 mm] Ø

1/2” [13 mm]

9” [229 mm]

8 1/2” [216 mm]

Notch dimensions:
Depth 2-7/8” [74 mm]
Width 6-3/4” [172 mm]

WARNING

The plenum duct kits are approved for horizontal discharge ONLY. DO NOT install plenum 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!
Overview - LDK8 Kit

Flexible or rigid 4" Ø, UL-181, Class 1 Air Duct (4). Use LDK11 kit or equivalent.

Top of plenum opening must be minimum 7' and maximum 12' off the floor

Min 2-1/2" clearance to ceiling

Min. 1" clearance to combustibles around pipes.

Stratco 28-7/16" [722 mm]

Min. 42" [1067 mm]

Top of plenum opening must be minimum 7' and maximum 12' off the floor.

Min 2-1/2" clearance to ceiling.

Min. 1" clearance to combustibles around pipes.

Ceiling

3-9/16" [91.9 mm]

28-7/16" [722 mm]
<table>
<thead>
<tr>
<th>Y Vertical Rise</th>
<th>X Max. Allowable Horizontal Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>42&quot;</td>
<td>48&quot;</td>
</tr>
<tr>
<td>48&quot;</td>
<td>60&quot;</td>
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<tr>
<td>54&quot;</td>
<td>72&quot;</td>
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<tr>
<td>60&quot;</td>
<td>84&quot;</td>
</tr>
<tr>
<td>66&quot;</td>
<td>96&quot;</td>
</tr>
<tr>
<td>12'-0&quot;</td>
<td>96&quot; Max.</td>
</tr>
</tbody>
</table>

- **Vertical Rise**: Y
- **Maximum allowable Horizontal Offset**: X

- Minimum slope 4:12
- Min. bend radius 4"
- DO NOT RUN pipe horizontal.
- Minimum bend radius 4"
- Support horizontal sections of pipe using strapping every 24"
- Min. 2-1/2" clearance to ceiling from top of opening
- Min. 1" clearance to combustibles around pipes
- Maximum allowable Horizontal Offset "X" (offset for take-off that's furthest away)
- Top of fireplace

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*Note: Diagram and text are specific instructions for installing a pipe system.*
**Typical Framing - LDK8 Kit**

Min. 1" [26 mm] clearance required to combustibles around pipes and to sides and rear of plenum.

36" [914 mm]

Framing on edge

39" [991 mm] Min 32-15/16" [837 mm]

36" [914 mm]

Minimum 7' [2.13 m] - Maximum 12' [3.66 m]

8-1/2" [216 mm]

8-1/2" [216 mm]

15" [381 mm]

No combustible in this area

No combustible in this area

Combustible finishing materials allowed

Top of stand-offs

See installation manual for minimum non-combustible cavity dimensions

Non-combustible cement board or equivalent; see appliance installation for allowable finishing over cement board

Vertical vent will pass by the plenum without need to offset the vent
Remove Convection Baffle

To be effective, the HeatShift system requires that an internal convection baffle located above the firebox inside the appliance case be removed to allow the hot air flow to convect upwards into ducts installed on the fireplace.

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

Top of fireplace shown transparently for clarity.

Install HeatShift Take-Off Collars

1. Remove the two cover plates on top of the appliance case (8 screws each).

2. Install the take-off collars on the holes on top of the appliance’s case (8 screws each).

⚠️ WARNING

The H3 fireplace requires the removal of the internal convection baffle for the HeatShift system to function properly—read instructions carefully!

⚠️ WARNING

All FOUR (4) takeoffs MUST BE CONNECTED TO PLENUM(S).
Install Plenum Kit (LDK8)

1. Frame a rough opening at the desired location—see earlier sections of this manual for detail.

2. Install the plenum into the front of the frame opening, maintaining minimum clearances to combustibles as previously listed.

3. Fix the plenum to the front of the framing using screws through the faceplate (16 screws).

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 (see *Allowable Rise and Offset* on page 74). 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 LDK10 finishing frame to the plenum after the wall finish is completed.

**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.

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**Repair Parts List**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDK8 30” Quad Hot Air Plenum Kit</td>
<td>4007873</td>
</tr>
<tr>
<td>30” x 2” quad plenum</td>
<td>4007864</td>
</tr>
<tr>
<td>LDK10 30” Outlet Frame Kit for LDK4</td>
<td>4007951</td>
</tr>
<tr>
<td>Aux Frame-SPL 30” x 2” white</td>
<td>4007953</td>
</tr>
<tr>
<td>LDK11 4” Aluminum 2-ply Flex Kit</td>
<td>4007955</td>
</tr>
<tr>
<td>4” dia 10’ (uncompressed) aluminum chimney liners (2)</td>
<td>4007955</td>
</tr>
<tr>
<td>2.5”-4.5” ss gear clamps (8)</td>
<td>4007955</td>
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</tbody>
</table>

Each kit is sold separately.