Don’t orphan water heaters in oversized chimneys on direct vent furnace upgrades

Assure proper draft with the CSA1 Chimney Stack Assist Kit.

- For all gas chimney vented residential millivolt water heaters with 3” & 4” vents.

- Protect against condensation callbacks and flue gas spillage liabilities. Callbacks are expensive both in dollars and to your reputation.

- No need for two-person chimney liner crews. The CSA1 installs easily with one person and doesn’t require an electrician.

- Eliminate roof fall liabilities. Keep yourself and your techs on the ground.

**CSA1 Features:**

- Quiet, 35 watt fan provides instant draft and reduces chimney condensation.

- Easy plug-in power and low voltage electrical connections.

- Linear Limit Safety locks out water heater if sustained flue gas spillage is detected.

**Typical Installation**

*Step 1:* Use template to cut slot in vent connector and install CSA1.

*Step 2:* Attach Gas Pressure Switch to heater casing and connect to pressure tap on heater gas valve.

*Step 3:* Attach Linear Limit Safety Switch to draft hood and Thermocouple Junction Adapter or Thermopile ECO Safety Circuit.

*Step 4:* Route 2-wire control cable from CSA1 to Gas Pressure Switch.

*Step 5:* Plug power cord into 115 volt outlet.
Sequence of Operation:
1. Water heater thermostat calls for heat.
2. CSA1 activates and burner fires simultaneously.
3. Burner shuts down when thermostat is satisfied. CSA1 will shut down simultaneously.

If sustained flue gas spillage is detected by Linear Limit Safety, the water heater safety circuit is opened and gas valve is de-energized. Linear Limit must be reset and pilot must be relit to reestablish burner operation.

Safety & Interlock Controls:
Linear Limit Spillage Safety Switch
Opens at 185°F, manual reset

Gas Pressure Switch
Max. Operating Pressure: 14” W.C.
MOR @ 2.7” W.C. ± .30” W.C.
Suitable for Natural or LP gas

Electrical Specifications:
Volts 115
HZ 60
RPM 1550
Watts 35
Amps .43
Thermally protected

Dimensions:

Sizing Chart
<table>
<thead>
<tr>
<th>Pipe Diameter</th>
<th>Water Heater Capacity</th>
<th>Maximum Equivalent* Horizontal Vent Connector Length</th>
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</thead>
<tbody>
<tr>
<td>3”</td>
<td>Up to 45,000 BTU/hr.</td>
<td>15’</td>
</tr>
<tr>
<td>4”</td>
<td>Up to 65,000 BTU/hr.</td>
<td>20’</td>
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* 3” 90° elbows are equivalent to 3 ft.
4” 90° elbows are equivalent to 4 ft.
Use on vertically terminated chimneys only.

Also available from Tjernlund:
MILLIVOLT GAS WATER HEATER SIDE WALL VENTING PACKAGES MODELS VP-2F & VP-3F
For Side Wall venting millivolt gas water heaters. Excellent for electric-to-gas conversions, renovations, new construction or for replacing old chimneys. Vents up to 75 equivalent feet and includes: Post-Purge Relay/Timer, Gas Pressure Switch, Thermocouple Junction Adapter, Linear Limit Spillage Switch, and Vent Hood. Factory prewired electrical box and 24V Control Cables eliminate need for an electrician.