IMPORTANT:
THESE INSTRUCTIONS ARE TO REMAIN WITH THE APPLIANCE INSTRUCTIONS

These instructions are supplementary to the Installation and Operating Instructions supplied with the fireplace and should be kept together. Refer to the Installation and Operating Instructions for proper gas supply, safety requirements and operating instructions.

HIGH CAPACITY POWER VENT KIT

- Horizontal Termination Applications Only

TCVT.PVAX21
INSTALLATION AND OPERATING INSTRUCTIONS

For use with the TC54 “D” Series Town & Country Fireplaces Only

NOTE:
THIS POWER VENT KIT USES ONLY T&C 8X11 FLUE PIPE

Visit www.townandcountryfireplaces.com for the most recent version of this manual
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High Capacity Power Vent Installation

This Power Vent can only be used with the TC54 Town and Country fireplace. Locate the fireplace as per the main instructions supplied.

Make the following modifications to add the components used with the Power Vent Kits.

This installation must conform with local codes or, in the absence of local codes, with the Natural Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1.

Contents of High Capacity Power Vent

UNDER NO CIRCUMSTANCES SHALL A RHEOSTAT BE USED TO ALTER THE VOLTAGE SUPPLY TO THIS UNIT.

Any of the silicon seals on the outer box that are broken during servicing must be re-sealed using RTV silicon during re-assembly to ensure a weather-proof seal.

Minimum clearances to combustible

Vertical vent pipe:
1.75 in. (45mm)

Horizontal vent pipe:
Top 1.75 in. (45mm)
Sides 1.75 in. (45mm)
Bottom 1.75 in. (45mm)

All other clearances are as per the fireplace installation instructions.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Vent Terminal</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Venting Adaptor</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Pressure Switch Wiring</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Pressure Switch Brackets</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Pressure Switch</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Tubing, 6 inch section</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Hose Clamp</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>Module Switch Wires</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Pressure Switch Tubing Tee</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Tubing, 6 ft section</td>
<td>1</td>
</tr>
</tbody>
</table>

Minimum venting - 10’ plus one 90 degree elbow.

The vent can be installed with any combination of rise and run between the above figures including 3 ft below the unit. Ensure that the vent pipe is properly supported.

Figure 1: Venting configurations.
Vent Terminal Minimum Clearances

VENT TERMINAL

<table>
<thead>
<tr>
<th>Letter</th>
<th>Description</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>36 inches (91.5 cm) min.</td>
<td>Clearances above grade, veranda, porch, deck, or balcony</td>
</tr>
<tr>
<td>B</td>
<td>12 inches (30 cm) min.</td>
<td>Clearance to window or door that may be opened</td>
</tr>
<tr>
<td>C</td>
<td>12 inches (30 cm) min.</td>
<td>Clearance to permanently closed window recommended to prevent condensation on window</td>
</tr>
<tr>
<td>D</td>
<td>12 inches (30 cm) min.</td>
<td>Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (60 cm) from the edge of the terminal</td>
</tr>
<tr>
<td>E</td>
<td>12 inches (30 cm) min.</td>
<td>Clearance to unventilated soffit</td>
</tr>
<tr>
<td>F</td>
<td>12 inches (30 cm) min.</td>
<td>Clearance to outside corner</td>
</tr>
<tr>
<td>G</td>
<td>36 inches (91.5 cm) min.</td>
<td>Clearance to inside corner</td>
</tr>
<tr>
<td>H</td>
<td>3 feet (90 cm) min.</td>
<td>*Not to be installed above a meter/regulator assembly horizontally from the center-line of the regulator</td>
</tr>
<tr>
<td>I</td>
<td>*3 feet (90 cm) min.</td>
<td>Clearance to service regulator vent outlet</td>
</tr>
<tr>
<td>J</td>
<td>*12 inches (30 cm) min.</td>
<td>Clearance to non mechanical air supply inlet to building or the combustion air inlet to any other appliance</td>
</tr>
<tr>
<td>K</td>
<td>*6 feet (1.8 m) min.</td>
<td>Clearance to a mechanical air supply inlet</td>
</tr>
<tr>
<td>L</td>
<td>*7 feet (2.1 m) min.</td>
<td>^ Clearance above paved side-walk or a paved driveway located on public property</td>
</tr>
<tr>
<td>M</td>
<td>12 inches (30 cm) min.</td>
<td>Clearance under veranda, porch, deck, or balcony</td>
</tr>
</tbody>
</table>

^ a vent shall not terminate directly above a side-walk or paved driveway which is located between two single family dwellings and serves both dwellings*  
** only permitted if veranda, porch, deck, or balcony is fully open on a minimum of 2 sides beneath the floor**  
* as specified in CGA B149 Installation Codes, Note: local Codes or Regulation may require different clearances  
* for U.S.A. Installations follow the current National Fuel Gas Code, ANSI Z223.1
Horizontal (Side Wall) Venting

This kit uses Town and Country direct vent pipe with a 8” inner pipe and an 11” outer pipe. For part numbers see the table of venting components on page 12 & 13 of this manual.

1. Locate the power vent termination following the clearance to combustible table, venting configuration diagram (Figure 1) and terminal location diagram (Figure 3).

2. Cut and frame a 14” x 14” opening. The centre of the square hole should line up with the centre line of the horizontal pipe.

3. Install the Town and Country firestop in the opening to retain any insulation in the wall and maintain proper clearances. If the wall being penetrated is constructed of non-combustible material only (i.e. Masonry block or concrete) the wall thimble is not required and a hole with zero clearance is acceptable. (11” hole)

4. Attach the terminal to the outside wall. Ensure that the terminal is the right way up and that only the outer flanges that are used to secure the terminal to the building are covered by the exterior wall or siding (Figure 4). Note: No other part of the terminal can be recessed into the exterior wall or siding.

5. Attach the vent adapter directly to the appliance with three screws and seal outer pipe with aluminium tape provided. Note: The inner pipe does not need to be sealed.

6. Connect the high temperature silicone tube to the vacuum pressure tap on the adaptor, secure with the hose clamp provided and route the tube through any hole back to control box (Figure 5). Tube may touch unit and be trimmed if required.
   Note: Ensure that there are no blockages in this tube, as this will cause the control to malfunction.

7. Run the required pipe from the adaptor to the terminal assembly.
Wiring Diagram

**DIGITAL I/O FLAME ON / OFF**
- Solid Brown

**DIGITAL I/O SPARE**
- White Brown

**DIGITAL I/O LIGHTS ON / OFF**
- Solid Green

**COMMON**
- White Blue

**ANALOG 0 - 10V FLAME LOW / HIGH**
- Solid Blue

**ANALOG 0 - 10V SPARE**
- White Green

**ANALOG 0 - 10V LIGHTS LOW / HIGH**
- Solid Orange

**COMMON**
- White Orange

**GND**

**OPTIONAL HOME AUTOMATION**

**WALL SWITCH**
- PGM
- ON
- REMOTE
- OFF

**CAT 5 ETHERNET CABLE (NOT SUPPLIED)**

**LIGHTS**

**AIR PRESSURE SWITCH**

**TRANSFORMER**

**REGULATOR BOARD**

**VALVE**

**WALL SWITCH**
- PGM
- ON
- REMOTE
- OFF

**VALVE CONTROL BOX**

**JUNCTION BOX**

**MODULE**

**OPTIONAL POWER VENT**

**POWER VENT**
- Black
- White
- Blue

**110 VAC 60 Hz NUETRAL**

**GND**

**POWER VENT\**
- Black
- White
- Blue

**SELECTOR**
- NATURAL VENT
- POWER VENT

**CAT 5 ETHERNET CABLE (SUPPLIED)**

**D Series instructions**
The gas control system is located on the right hand side of the firebox behind an access panel and the decorative firebox panel (if installed). The fireplace is operated via a wall control and a hand held remote control unit.

The wall control is connected to the fireplace by a 40 ft. communication cable supplied with the fireplace.

**Installation**

1. Place the fireplace in the desired location.
2. Remove the window from the fireplace.
3. Remove access panel from right hand side of the firebox (Figure 6).
4. Connect 110 V. AC electrical supply to the wires installed inside the junction box (Figure 7). The fireplace is rated at 110 volts, 60Hz, 0.25A. The optional power vent kit is rated at 115 volts, 60Hz, 1.8A.

The electrical wires can be accessed from both inside and outside the junction box by removing one of the two small access panels (Figure 7) & (Figure 8).

5. Connect the gas supply to the valve (Figure 8).
6. **Attach one end of the wall switch control cable to the wall control.** (not shown), and the other end to the interface board (Figure 8).
7. If not already installed, install the burner using the instructions supplied with the burner kit.
8. Turn on the gas supply and check that all connections are tight and leak free.
Pressure Switch Installation

Attach the silicone tube from the upper pressure tap on the power vent adaptor (Figure 5) to the “low” port of the pressure switch. (Figure 9).

![Image of Switch Sides]

Figure 9: Switch sides.

Selecting Natural Vent & Power Vent Modes

The NV / PV (Natural Vent / Power Vent) switch (Figure 10) on the interface board (Figure 8) is set according to which type of evacuating vent system is present. If the fireplace is vented without the assistance of a power vent, the switch should be set to “NV”. If using a power vent, “PV” should be selected.

![Image of Switch Board]

Figure 10: Vent mode selection switch.

Important Note:

When switching between NV and PV, both the electrical power supply to the fireplace must be turned off and the backup batteries removed to properly re-set the module.
## KIT CONTENTS:

**#1*** HIGH CAPACITY POWER VENT KIT

- 1a. TOP COVER (1)
- 1b. SIDE COVER (1)
- 1c. EXHAUST CHAMBER WELD (1)
- 1d. INLET AIR CHAMBER WELD (1)
- 1e. 1/4” LDF PAPER (HI TEMP GASKET) (2)
- 1f. BLOWER POWER VENT (2)
- 1g. OUTLET AIR ASSEMBLY (2)
- 1h. EXHAUST SHIELD (2)
- 1i. TUBE, 5/16” OD, 6FT LENGTH (1)
- 1j. HOSE CLAMP (1)
- 1k. HOSE CLAMP (5)

**#2*** VENTING ADAPTER (1)

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<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>PART NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>HIGH CAPACITY POWER VENT KIT</td>
<td>TCVT.PVAX21</td>
</tr>
<tr>
<td>#2</td>
<td>VENTING ADAPTER</td>
<td>PVAX.25096861</td>
</tr>
</tbody>
</table>
Venting Components

WALL SHIELD/CEILING FIRESTOP THIMBLE TCVT.THIMA

TCVT.811XLB90

TCVT.811XLB45

TCVT.811X12ADJ

TCVT.811XLB45

TCVT.811XLB90
**Vent Offset Chart**

**Adding an Adjustable Section to Pipe Will Increase Offset by 2 1/8" to 6 3/4"**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
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<tr>
<td>12&quot; PIPE</td>
<td>18 5/8&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td>18&quot; PIPE</td>
<td>22 7/8&quot;</td>
<td>22 3/8&quot;</td>
</tr>
<tr>
<td>24&quot; PIPE</td>
<td>27 1/8&quot;</td>
<td>26 1/2&quot;</td>
</tr>
<tr>
<td>48&quot; PIPE</td>
<td>44 1/16&quot;</td>
<td>43 1/2&quot;</td>
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</tr>
<tr>
<td>18&quot; PIPE</td>
<td>17 9/16&quot;</td>
<td>27 5/8&quot;</td>
</tr>
<tr>
<td>24&quot; PIPE</td>
<td>21 7/8&quot;</td>
<td>31 3/4&quot;</td>
</tr>
<tr>
<td>48&quot; PIPE</td>
<td>38 3/4&quot;</td>
<td>44 7/8&quot;</td>
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**Adding an Adjustable Section to Pipe Will Increase Offset by 2 1/8" to 6 3/4"**

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</tr>
<tr>
<td>48&quot; PIPE</td>
<td>44 1/16&quot;</td>
</tr>
</tbody>
</table>

**Adding an Adjustable Section to Pipe Will Increase Offset by 3" to 9 1/2"**

<table>
<thead>
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<tr>
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<td>35&quot;</td>
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<tr>
<td>24&quot; PIPE</td>
<td>41&quot;</td>
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<tr>
<td>48&quot; PIPE</td>
<td>65&quot;</td>
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</table>
For technical support, contact your retailer.

Web site:  www.townandcountryfireplaces.com
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