# **City Series® CV72E-11 Gas Direct Vent Fireplace**

MODEL	CV72E-NG11	CV72E-LP11
Fuel Type	Natural Gas	Propane
Minimum Supply Pressure	5″ W.C. (1.25 kPa)	11" W.C. (2.73 kPa)
Manifold Pressure - High	3.5″ W.C. (0.87 kPa)	10″ W.C. (2.49 kPa)
Manifold Pressure - Low	1.6" W.C. (0.40 kPa)	6.4″ W.C. (1.59 kPa)
Orifice Size -Altitude 0-4500 ft	#30 DMS	#47 DMS
Minimum Input Altitude 0-4500 ft. (0- 1372m)	46,500 Btu/h (13.63 kW)	45,500 Btu/h (13.33 kW)
Maximum Input Altitude 0-4500 ft. (0- 1372m)	32,000 Btu/h (9.37 kW)	36,000 Btu/h (10.55 kW)
Vent Sizing	5" Inner / 8" Outer	5" Inner / 8" Outer
CSA P.4.1	57.81%	60.61%



REGENCY

DIMENSIONS







# **Ventilation Openings**

Regency's patented Cool Wall system releases warmth at ceiling level. This system reduces excessive radiant heat in front of the fireplace so you can enjoy your fireplace more often.

- Design your own chase vent solution to suit your home
- Use optional front or left & right side chase vent grills
- Release warmth into the room discreetly

#### **Ventilation Opening Locations**

The following are examples of how the ventilation openings may be placed above the fireplace.

The air travelling through the heat exchanger is heated by the fireplace and then directed out the back of the fireplace. The combined warmed air is then vented back into the room.

If using the optional heat wave kit, this does not reduce the size of the ventilation opening. The ventilation opening(s) must be a minimum 288 square inches regardless.

#### **Front Exit**

The ventilation opening may be placed in front ensuring it meets the 288 square inch opening & is located 0-2" (51mm) from the enclosure ceiling.



#### SIde Exit

Ventilation openings, when placed on both sides, must be of the same size. They must be have an equal split (50/50) free air opening to balance air flow. A ventilation opening may never be on one side only.

The ventilation openings cannot be any smaller than 6" (152mm) wide to equal the total area of 288 square inches of free open area.

Example: 6" (152mm) wide x 24" (610mm) High = 144 square inches per side of free open area. A second ventilation grill is installed on the other side to =100%.

The ventilation openings must be located 0-2" (51mm) from the enclosure ceiling.





#### Top Exit

The ventilation opening may be short of the ceiling as shown below. Minimum opening height must be 2-1/2" (64mm) measured from top of enclosure to the ceiling and must be in open in front and both sides to meet the minimum 288 square inches free open air requirement.



The ventilation opening may be fully open at the top of the enclosure. This type of ventilation opening would be used when the top of the enclosure is not visible from above and where the ceiling within the room is higher than normal. When creating this type of ventilation opening, measures should be into place to avoid having objects of any type falling or be thrown into the ventilation opening. Mesh screen or other preventative measures should be put into place.



The ventilation opening may be placed on top ensuring it meets the 288 square inch opening. This type of ventilation opening would be used when the top of the enclosure is visible from above and where the ceiling within the room is higher than normal.



# **Chase Enclosure**

When choosing to install the ventilation openings from the front or both sides, The top of the ventilation opening cannot be any lower than 0-2" (51mm) from the top of the chase enclosure for all installations.

Minimum height of enclosure from base of appliance is 87" (2210mm).

A minimum 288in<sup>2</sup> opening in the enclosure is required to maintain safe operating temperatures. This can be achieved in a number of ways including the examples shown in this manual.

#### IMPORTANT:

**Exterior wall/Alcove enclosure:** When installing into an exterior cavity or alcove enclosure (ceiling, back and sides), regardless of where appliance is placed within the home, requires the use of either drywall or other means such as plywood, wood studs, etc. to prevent heat from escaping anywhere above /through the enclosure other than the required grill / ventilation opening.

**Internal chase:** When installing as an internal chase framing installation ,regardless of where appliance is placed within the home, requires the use of either drywall or other means such as plywood, on the rear wall of the chase to eliminate heat escaping into the rear wall cavity. If the chase is extended to the ceiling ,the ceiling will also need to be finished in a manner to prevent heat escaping into floor joist/attic space.

One of the following methods must be used to prevent the heat from escaping.

- a. If choosing drywall, ensure that the drywall is butt up tight with no gaps.
- b. Plywood, wood studs, etc. installed tightly with no gaps.

As this appliance has been designed with all hot air escaping through the chase enclosure ventilation/grill openings only, if hot air is trapped as a result of the hot air escaping through joints, crevasses, open studs, or other openings within the enclosure above, this will change the clearances within the enclosure causing the enclosure to overheat. It is vital that all the hot air from within the enclosure exits through the ventilation openings only. Ensure that the ventilation openings are made as such to prevent debris, objects from falling into the enclosure.

Warning: DO NOT cover or place objects in front of the ventilation opening air outlet(s).



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# **CLEARANCES**

### The clearances listed below are Minimum distances unless otherwise stated:

A major cause of chimney related fires is failure to maintain required clearances (air space) to combustible materials. It is of the greatest importance that this fireplace and vent system be installed only in accordance with these instructions.

Clearance: single sided	Dimension	Measured From:		
A: Mantel Height (min.)	**	Top of Fireplace Opening		
B1:From Floor	min. 0"	Bottom of Fireplace Opening		
B2: Opening Height	15-1/16" (383mm)	Bottom/Top of Fireplace Opening		
C: Sidewall (on one side)	8" (203mm)	Side of Fireplace Opening		
D: Mantel Depth (max.)	**			
E: Alcove Width	88" (2135mm)	Sidewall to Sidewall (Minimum)		
F: Alcove Depth	36" (914mm)	Front to Unit (Maximum)		
G: Ceiling (in front of fireplace)	61-3/4" (1568mm)	Top of Fireplace Opening		
H: Convection Air Outlet	*288 square inches			
J: Convection Air Outlet Opening Offset	*0-2" (0-51mm)	Max. offset from top of chase enclosure		
K: Chase Enclosure (Min.)	87" (2210mm)	From base of unit/floor		
L: Clearance to Sprinkler Head (Min.)	36" (914mm)	Perpendicular from chase grill		
Hearth	0"	No hearth required		
** See mantel clearances chart in this manual.				

Flue Clearances to Combustibles				
Horizontal - Top	3"			
Horizontal - Side	2"			
Horizontal - Bottom	2"			
Vertical	2"			
Passing through wall/ floor/ceiling - when 1-1/2" firestop is used.				
Note: This appliance uses 5" x 8" venting.				

\*A minimum of 288 square inches of open area, not lower than 0-2" from top of enclosure, required for all installations





Alcove



Fire hazard is an extreme risk if these clearances (air space) to combustible materials are not adhered to. It is of greatest importance that this fireplace and vent system be installed only in accordance with these instructions.



# MANTEL CLEARANCES

Combustible mantel clearances from top of front facing are shown in the diagram on the right.



# **Mantel Leg Clearances**

Combustible mantel leg clearances as per diagram:



# FRAMING

#### NOTE: Framing may be constructed of combustible material (ie. 2 x 4)and does not require steel studs.

Framing Dimensions	Description	CV72E	
A	Framing Height	51" (1295mm)	
В	Framing Width	78" (1981mm)	
С	Framing Depth	20-5/8" (524mm)	
D	Minimum Height to Combustibles	87"(2210mm)	
E	Corner Wall Depth	82-1/8" (2086mm)	
F	Corner Facing Wall Width	116-3/16" (2951mm)	
G	Vent Centerline Height	55-1/4" (1403mm)	
I	Gas Connection Opening Height	2" (51mm)	
J	Gas Connection Height	3-7/8" (98mm)	
К*	Gas Connection Inset-Centre Opening	36-1/4" (921mm)	
L	Gas Connection Opening Width 5" (127mm)		
* See next page for alternate Gas/ Electrical connection options			

With the lift handles adding approximately 4 inches to the overall width of the appliance, In cases where the appliance would need to be raised off the ground in order to slide it into the framed opening, it is suggested that either the framing width change from 78" to 82" so that the appliance could be easily slid into position with the handles remaining on the appliance, or alternatively create a platform in front of the framed opening where the lift handles could be removed prior to sliding the appliance into its final position. Alternatively, If raised off the ground, the framing could be installed afterwards once appliance has been put into place and lift handles removed in order to keep the framing width at 78". Ensure that the wood base that the appliance will sit on is strong enough to support the full weight of this appliance. The overall weight of this appliance is 529 pounds (shipping weight).





# **CHASE VENTING**

Note: The enclosure opening cannot be any lower than 0-2" from the top of the enclosure for all installations. Minimum height of enclosure from base of appliance is 87".

A minimum 288in<sup>2</sup> opening in the enclosure is required to maintain safe operating temperatures. This can be achieved in a number of ways including the examples shown below.

Warning: DO NOT cover or place objects in front of the air outlet(s).





Regency Chase Vent Dimensions: 4"x72" (288in<sup>2</sup>)

Custom chase vent Example dimensions: 2.5"x116" (290in<sup>2</sup>)



Reveal at the chase top Example dimensions: 2"x160" (320in<sup>2</sup>)



# **Typical Installations**

# Flush Install



1/2" drywall directly onto unit.

### **Recessed Install**



3 -<sup>1/2"</sup> framing in front of unit plus finishing material.



# **Typical Installations**

## **Maximum TV Recess**



4 <sup>5/8"</sup> maximum TV recess using 1/2" drywall

## Flush TV with Hearth



Flush wall TV install using 1/2" (13 mm) drywall.

Note: The TV mounting bracket can not be secured directly to the appliance. It must be secured to framing. The TV depicted in the picture may need to be higher depending on the style of TV mounting bracket used. The mounting bracket shown is a simple single strip TV secured to framing.



# HORIZONTAL TERMINATIONS

#### Flex Vent 5" x 8"

These venting systems, in combination with the CV72E Direct Vent Gas Fireplace, has been tested and listed as a direct vent heater system by Intertek. The location of the termination cap must conform to the requirements in the Vent Terminal Locations diagram in "Exterior Vent Termination Locations" section.

Regency® Direct Vent (Flex) System Termination Kits include all the parts needed to install the CV72E using a flexible vent.

FPI Kit #	Length	Contains:	
#946-615	4 Feet	<ol> <li>8" flexible liner (Kit length)</li> <li>5" flexible liner (Kit length)</li> <li>spring spacers</li> </ol>	
#946-618	6 Feet	<ul> <li>4) thimble</li> <li>5) <i>AstroCap XL</i> termination cap</li> <li>6) screws</li> </ul>	
#946-616	10 Feet	<ul> <li>7) tube of Mill Pac</li> <li>8) plated screws</li> <li>9) S.S. screws #8 x 1-1/2" drill point</li> <li>10) vinyl siding standoff</li> </ul>	

#### Notes:

- 1. Liner sections should be continuous without any joints or seams.
- Only Flex pipe purchased from Regency<sup>®</sup> may be used for Flex installations
- 3. Horizontal vent must be supported every 3 feet.
- 4. Regency<sup>®</sup> Direct Vent System (Flex) is only approved for horizontal terminations.
- 5. Flex system can only be used up to a maximum continuous vent length of up to 10 feet. If longer runs are required, rigid pipe must be used.





# **VENTING - HORIZONTAL TERMINATIONS**

### Venting Introduction

The CV72E uses the "balanced flue" technology Co-Axial system. The inner liner vents products of combustion to the outside while the outer liner draws outside combustion air into the combustion chamber thereby eliminating the need to use heated room air for combustion and losing warm room air up the chimney.

#### Note: These flue pipes must not be connected to any other appliance.

The gas appliance and vent system must be vented directly to the outside of the building, and never be attached to a chimney serving a separate solid fuel or gas burning appliance. Each direct vent gas appliance must use it's own separate vent system. Common vent systems are prohibited.

### **Venting Arrangement for Horizontal Terminations**

The diagram shows all allowable combinations of vertical runs with horizontal terminations, using one 90° (two 45° elbows equal one 90° elbow).

Note: Must use optional rigid pipe adapter (Part# 770-994) when using Rigid Pipe Venting Systems)



#### VENT RESTRICTOR SETTING:

*Vent restrictor factory set at Set 0.* Refer to the "Vent Restrictor Position" section for details on how to change the vent restrictor from the factory setting of Set 0 to Set 2 if required.

# *Note:* For horizontal terminations the Regency Direct Vent Flex System may be used for installations with a maximum continuous vent length of up to 10 feet. If longer runs are required, rigid pipe must be used.

- Maintain clearances to combustibles as listed in "Clearances" section
- Horizontal vent must be supported every 3 feet.
- Firestops are required at each floor level and whenever passing through a wall.
- A vent guard should be used whenever the termination is lower than the specified minimum or as per local codes.

# HORIZONTAL TERMINATIONS

### Rigid Pipe 5" x 8"

The minimum components required for a basic horizontal termination are:

- 1 Horizontal Termination Cap
- 1 Rigid Pipe Adaptor (770-994)
- 1 Wall Thimble
- 1 Length of pipe to suit wall thickness (see chart)

Wall thickness is measured from the back standoffs to the inside mounting surface of termination cap. For siding other than vinyl furring strips may be used, instead of the vinyl siding standoff, to create a level surface to mount the vent terminal. The Terminal must not be recessed into siding. Measure the wall thickness including furring strips.

If a Vinyl Siding Standoff is required (it must be used with vinyl siding), measure to outside surface of wall without siding and add 2 inches.

Flat Wall Installation			
Wall Thickness (inches)	Vent Length Required (inches)		
4" - 5-1/2"	6"		
7" - 8-1/2"	9"		
10" - 11-1/2"	12"		
9" - 14-1/2'	11" - 14-5/8" Adj. Pipe		
15" - 23-1/2"	17" - 24" Adj. Pipe		

### WARNING:

Do not combine venting components from different venting systems.

However use of the the  $\mathsf{AstroCap}^{\mathbb{M}}$  and  $\mathsf{FPI}$  Riser is acceptable with all systems.

This product has been evaluated by Intertek for using a Rigid Pipe Adaptor in conjunction with Duravent Direct-Vent, Selkirk Direct-Temp, Ameri Vent Direct Venting, ICC Excel Direct, Olympia Ventis DV, and Security Secure Vent systems. Use of these systems with the Rigid Pipe adaptor is deemed acceptable and does not affect the Intertek WHI listing of components.



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#### When using Rigid Vent other than Simpson Dura-Vent, 3 screws must be used to secure rigid pipe to adaptor.

The FPI AstroCap<sup>™</sup> and FPI Riser Vent terminal are certified for installations using FPI venting systems as well as Simpson Dura-Vent<sup>®</sup> Direct Vent, American Metal Products Ameri Vent Direct Vent, Security Secure Vent<sup>®</sup>, ICC Excel, Olympia Ventis DV, Selkirk Direct-Temp. AstroCap<sup>™</sup> is a proprietary trademark of FPI Fireplace Products International Ltd. Dura-Vent<sup>®</sup> and Direct Vent are registered and/or proprietary trademarks of Simpson Dura-Vent Co. Inc.



# HORIZONTAL TERMINATIONS

### Rigid Pipe 5" x 8"

The diagrams below show examples of horizontal termination arrangements using one, two, or three 90° elbows (two 45° elbows equal one 90° elbow).

- 1. A maximum of three 90° elbows are permitted.
- 2. Minimum distance between elbows is 1 ft. (305mm).
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal vent must be supported every 3 feet.
- Firestops are required at each floor level and whenever passing through a wall.
- Must use optional rigid pipe adaptor (Part# 770-994) when using rigid pipe vent systems.
- A vent guard should be used whenever the termination is lower than the specified minimum or as per local codes.
- Flex system can only be used up to 10 feet otherwise rigid venting must be used.

### Horizontal Venting with Two (2) 90° Elbows

### One 90° elbow = Two 45° elbows.

Option	v	H + H1	
A)	1' Min.	2' Max.	With these options, maximum total pipe length
B)	2' Min.	4' Max.	is 30 feet with minimum
C)	3' Min.	5' Max.	of 6 feet total vertical and maximum 8 feet total
D)	4' Min.	6' Max.	horizontal.
E)	5' Min.	7' Max.	Please note minimum
F)	6' Min.	8' Max.	1 foot between 90° elbows is required.
Restrictor Set 0 - Factory Setting		eibows is required.	

# Horizontal Venting with Three (3) 90° Elbows

#### One 90° elbow = Two 45° elbows.

Option	V	Н	V + V1	H + H1	
A)	1' Min.	1' Max.	2' Min.	2' Max.	With these options, max.
B)	1' Min.	2' Max.	3' Min.	3' Max.	total pipe length
C)	2' Min.	2' Max.	5' Min.	4' Max.	is 30 feet with min. of 12 feet
D)	3' Min.	2' Max.	7' Min.	5' Max.	total vertical and
E)	4' Min.	3 Max.	9' Min.	6' Max.	max. 9 feet total horizontal.
F)	5' Min.	4' Max.	10' Min.	7' Max.	Please note
G)	6' Min.	5' Max.	11' Min.	8' Max.	min. 1 foot
H)	7' Min.	6' Max.	12' Min.	9' Max.	between 90° elbows is
Restrictor Set 0 - Factory Setting					required.







# **VERTICAL TERMINATIONS**

### Rigid Pipe 5" x 8"

The minimum components required for a basic vertical termination are:

- 1 Vertical Termination Cap
- 1 Rigid Pipe Adaptor (770-994)
- 1 Ceiling Firestop
- 1 Flashing
- 1 Storm Collar
- 1 Length of pipes to suit wall thickness & vent run (see chart)

Galvanized pipe is desirable above the roofline due to its higher corrosion resistance. Continue to add pipe sections through the flashing until the height of the vent cap meets the minimum height requirements specified in table below or local codes. Note that for steep roof pitches, the vertical height must be increased. A poor draft, or down drafting can result from high wind conditions near big trees or adjoining roof lines, in these cases, increasing the vent height may solve the problem.

Roof Pitch	Minimum Vent Height	
	Feet	Meters
flat to 7/12	2	0.61
over 7/12 to 8/12	2	0.61
over 8/12 to 9/12	2	0.61
over 9/12 to 10/12	2.5	0.76
over 10/12 to 11/12	3.25	0.99
over 11/12 to 12/12	4	1.22
over 12/12 to 14/12	5	1.52
over 14/12 to 16/12	6	1.83
over 16/12 to 18/12	7	2.13
over 18/12 to 20/12	7.5	2.29
over 20/12 to 21/12	8	2.44





When using Rigid Vent other than Simpson Dura-Vent, 3 screws must be used to secure rigid pipe to adaptor.

# WARNING:

Do not combine venting components from different venting systems.

#### However use of the the AstroCap<sup>™</sup> and FPI Riser is acceptable with all systems.

This product has been evaluated by Intertek for using a Rigid Pipe Adaptor in conjunction with Duravent Direct-Vent, Selkirk Direct-Temp, Ameri Vent Direct Venting, ICC Excel Direct, Olympia Ventis DV, and Security Secure Vent systems. Use of these systems with the Rigid Pipe adaptor is deemed acceptable and does not affect the Intertek WHI listing of components.

The FPI AstroCap<sup>™</sup> and FPI Riser Vent terminal are certified for installations using FPI venting systems as well as Simpson Dura-Vent<sup>®</sup> Direct Vent, American Metal Products Ameri Vent Direct Vent, Security Secure Vent<sup>®</sup>, ICC Excel, Olympia Ventis DV, Selkirk Direct-Temp. AstroCap<sup>™</sup> is a proprietary trademark of FPI Fireplace Products International Ltd. Dura-Vent<sup>®</sup> and Direct Vent are registered and/or proprietary trademarks of Simpson Dura-Vent Co. Inc.

# **VENTING ARRANGEMENTS - VERTICAL TERMINATIONS**

#### **Inline Power Vent**

Vertical venting with straight vertical venting and or with a max. of six (6)  $90^{\circ}$  Elbows (1 -  $90^{\circ} = 2 - 45^{\circ}$ )

The shaded area in the diagram shows all allowable combinations of straight vertical and offset to vertical terminations, using two 90° elbows, with **Rigid Pipe Venting Systems**.

- Two 45° elbows equal to one 90° elbow.
- Vent must be supported at offsets.
- Minimum distance between elbows is 1 ft. (305mm).
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal vent must be supported every 3 feet.
- Firestops are required at each floor level and whenever passing through a wall.
- Must use optional rigid pipe adaptor (Part# 770-994) when using rigid pipe vent systems.
- Refer to the "Vent Restrictor Position" section for details on how to change the vent restrictor from the factory setting of Set 0 through to Set 3 if required.



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# **VERTICAL TERMINATIONS**

#### Rigid Pipe 5" X 8"

- Two 45° elbows equal to one 90° elbow. Maximum of six 45° elbows allowed.
- Vent must be supported at offsets.
- Minimum distance between elbows is 1 ft. (305mm).
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal vent must be supported every 3 feet.
- Firestops are required at each floor level and whenever passing through a wall.
- Must use optional rigid pipe adaptor (Part# 770-994 when using rigid pipe vent systems)

### Vertical Venting with Three (3) 90° Elbows

### One 90° elbow = Two 45° elbows.

Option	V	H + H1	V + V1	
A)	1' Min.	2' Max	3' Min.	With these options, max.total pipe length
B)	2' Min.	3' Max	4' Min.	is 30 feet with min. of
C)	3' Min.	4' Max	6' Min.	10 feet total vertical and max. 8 feet total
D)	4' Min.	5' Max	7' Min.	horizontal.
E)	5' Min.	6' Max	8' Min.	Please note min.
F)	6' Min.	7' Max	9' Min.	1 foot between 90° elbows is
G)	7' Min.	8' Max	10' Min.	required.
Lengths do not include elbow				
indicated - Restrictor Set 0 - Factory				
Setting				



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