



CSA INTERNATIONAL

# Certificate of Compliance

**Certificate:** 1374461 (113206)

**Master Contract:** 189893

**Project:** 1691616

**Date Issued:** 2005/07/28

**Issued to:** Rinnai America Corporation

103 International Dr  
Peachtree City, GA 30269  
USA  
Attention: Don Emen

*The products listed below are eligible to bear the CSA Mark shown*



**Issued by:** Michael Sharkey

**Authorized by:** Richard Fort, Manager of  
Certification Services

## **PRODUCTS**

**CLASS 2901 84** - DOMESTIC HEATERS (GAS) - Vented Fireplace-Certified to U.S.  
Standards

For Use With Natural Gas

Vented Gas Fireplace Heater

Trade Name: Timberflame

Model Number

FS35N/US



**Certificate:** 1374461 (113206)

**Master Contract:** 189893

**Project:** 1691616

**Date Issued:** 2005/07/28

---

FS35ETRN/US

IB35RN/US

IB35ETRN/US

For Use With Liquefied Petroleum Gases

Vented Gas Fireplace Heater

Trade Name: Timberflame

Model Number

FS35L/US

FS35ETRL/US

FS35ETRLC/US

IB35RL/US

IB35ETRL/US

IB35ETRLC/US

**APPLICABLE REQUIREMENTS**

ANSI Z21.88-2002 · CSA 2.33-2002, ANSI Z21.88a-2003 · CSA 2.33a-2003, ANSI Z21.88b-2003 · CSA 2.33b-2003  
Vented Gas Fireplace Heaters

**MARKINGS**

All marking and printed instructions are in compliance with the above mentioned requirements. Samples are contained in the main certification report.



## *Supplement to Certificate of Compliance*

**Certificate:** 1374461

**Master Contract:** 189893

*The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

---

<b>Project</b>	<b>Date</b>	<b>Description</b>
1691616	2005/07/28	Update report to Z21.88a-2003 and b-2003 changes. Print Numbers 088D, 088E, 092B & 094B.
1686597	2005/07/12	Increased Input Rate for LP Gas to match Natural Gas Rate. Print Numbers 11A, 11B, 88B, 88C, 92A & 94A.
1658338	2005/04/07	Alternate construction approval: New Flame Rods (Electrodes), Honeywell's Model # C7009A. The flame rods are located in the front and rear of the ETR version fireplace heaters.
<b>History</b>		
1374461	2003-04-15	Original Certification. New Models FS-Series and IB-Series.



# Descriptive and Test Report

**MASTER CONTRACT:** 189893

**REPORT:** 1374461

**PROJECT:** 1691616

- Edition 1:** 2003-04-15; Project 1374461 - Cleveland  
Issued by James BeHarry
- Edition 2:** 2005-04-07; Project 1658338 - Cleveland  
Issued by Jerome Sims
- Edition 3:** 2005-07-12; Project 1686597 - Cleveland  
Issued by: Michael Sharkey; Reviewed by: Richard Fort
- Edition 4:** 2005-07-28; Project 1691616 - Cleveland  
Issued by: Michael Sharkey; Reviewed by: Richard Fort

Contents: Certificate of Compliance - Page 1 to 2  
Supplement to Certificate of Compliance – Page 1  
Description and Tests – Pages 1 to 11  
Drawings, Markings and Instructions – Pages 1 to 104

## **PRODUCTS**

2901-84 Vented Gas Fireplace Heaters

## **APPLICABLE REQUIREMENTS**

ANSI Z21.88-2002 • CSA 2.33-2002, ANSI Z21.88a-2003 • CSA 2.33a-2003, ANSI Z21.88b-2003 •  
CSA 2.33b-2003

## **MARKINGS**

All marking and printed instructions are in compliance with the above mentioned requirements. Samples are contained in the main certification report.

## **ALTERATIONS**

No alterations were required.

The test report shall not be reproduced, except in full, without the approval of CSA International.

## **FACTORY TESTS**

The submitter shall ensure that the following factory tests are conducted at the frequency specified and the results are documented and made available for review by CSA field services representatives.

<u>Test</u>	<u>Frequency</u>
Test Fire Burner, Manifold & Control Assy. – Proper Operation	100%
Manifold and Control Assembly – Gas Tightness	100%
Test Electrical Components – Proper Operation	100%
Dielectric Withstand Test	100%
Burner Operating Characteristics	1 per month/production
Ignition Systems	1 per month/production
Combustion	1 per month/production
Discharge Air Temperatures	1 per month/production
Surface Temperature	1 per month/production
Dielectric Withstand	1 per month/production
Vent Safety Shutoff System	1 per month/production
Combustion System Leakage	1 per month/production
Impact	1 per month/production
Thermal Shock	1 per month/production
Impact of Glazing	1 per month/production
Thermal Shock of Glazing	1 per month/production

## **DESCRIPTION**

Refer to main report.

## **TEST REPORT**

See main archive for details of testing.

Model Number	Maximum Input Rating	Minimum Input Rating
<b>For Use With Natural Gas Vented Gas Fireplace Heater</b>		<b>Trade Name: Timberflame</b>
FS35N/US	34,000	16,000
FS35ETRN/US	32,000	11,000
IB35RN/US	34,000	15,000
IB35ETRN/US	32,000	11,000

<b>For Use With Liquefied Petroleum Gases Vented Gas Fireplace Heater</b>		<b>Trade Name: Timberflame</b>
FS35L/US	31,000	15,000
FS35ETRL/US	29,000	9,000
FS35ETRLC/US	32,000	11,000
IB35RL/US	31,000	15,000
IB35ETRL/US	29,000	9,000
IB35ETRLC/US	32,000	11,000

**MODEL NUMBER BREAKDOWN**

Character	Description
FS	Freestanding
IBR	Inbuilt Radius Front
35	Input Rate BTUH
N	Natural Gas
L	Liquefied Petroleum Gases
ETR	Electronic, Timer and Remote Control
C	Unit with Increased Input Rate
US	USA Model

**CLEARANCES**

Minimum clearances from combustible and non-combustible construction:

Ceiling	36 inches
Mantel	12 inches
Vent	24 inches
Enclosure	0 inches for non-combustible installation, zero clearance box provided for combustible installations.
Left	12 inches
Right	12 inches
Front	36 inches
Floor	0 inches Freestanding, vertical hearth inbuilt

**GAS PRESSURES**

**Manifold Pressure**

Natural Gas	FS35N/US	3.0 inches w.c.
	FS35ETRN/US	3.4 inches w.c.
	IB35RN/US	3.0 inches w.c.
	IB35ETRN/US	3.4 inches w.c.
Liquefied Petroleum Gases	FS35L/US	10.0 inches w.c.
	FS35ETRL/US	5.5 inches w.c.
	FS35ETRLC/US	7.4 inches w.c.
	IB35RL/US	10.0 inches w.c.
	IB35ETRL/US	5.5 inches w.c.
	IB35ETRLC/US	8.0 inches w.c.

**Maximum Supply Pressure**

Natural Gas	10.5 inches w.c.
Liquefied Petroleum Gases	13.0 inches w.c.

**Minimum Supply Pressure**

Natural Gas	6.0 inches w.c.
Liquefied Petroleum Gases	10.5 inches w.c.

**ELECTRICAL RATING**

120 Volts / 1.25 Amps / 60 Hertz / Single Phase

**GAS CONTROL ASSEMBLIES**  
**INTERMITTENT/INTERRUPTED IGNITION SYSTEMS**

Read columns vertically  
For complete assemblies

Used on Models: (FS,IB)35ETR(N,L)/US

TYPE OF CONTROL	MFR. OF CONTROL	MFR. MODEL NUMBER	SIZE OF CONTROL	
			NATURAL	PROPANE/LP
<b>Combination Control</b>	Rinnai	C23H-3		
	Rinnai	C23H-9-4		
<b>Pressure Regulator</b>	Maxitrol	RV20 *	3/8	3/8
<b>Ignition Module</b>	Rinnai	EI-145	X	X
<b>Pilot/Ignitor</b>	SIT	190 Series 2FL (2)	0997165NG(51)	0977168LP(35)
<b>Flame Sensor</b>	SIT	0915036	X	X
	SIT	0915044	X	X

\* Units without a "C" in their model number have regulators with a 2.8" – 5.2" w.c. range.  
Units with a "C" in their model number have regulators with a 4.0" – 12.0" w.c. range.



**GAS CONTROL ASSEMBLIES  
STANDING PILOT IGNITION SYSTEMS**

Read columns vertically  
For complete assemblies

Used on Models: (FS,IB)35 (N,L)/US

TYPE OF CONTROL	MFR. OF CONTROL	MFR. MODEL NUMBER	SIZE OF CONTROL	
			NATURAL	PROPANE/LP
Combination Control	Rinnai	C28A-6-4	X	X
Pressure Regulator	Rinnai	C28A-6-4	X	X
Pilot Burner	SIT	190 Series 2FL(1)	0977165NG(51)	0977168LP(35)
Thermocouple	Rinnai	CP-80670	X	X
Electrode	SIT	0915036	X	X
	Honeywell	C7009A	X	X

**ELECTRICAL EQUIPMENT**

**Circulating Air Motor:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
MVL	QLN65	120Volt/60Hertz/Single Phase, 0.2 HP, 1340 RPM (High), 920 RPM (Low), 0.8A FLA

**Circulating Fan Control:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
NGT Rinnai	B60 03PN0467 (Manual) ETR – Built into PCB	250V 7 min. time delay (Max.) 12V 3 min. time delay (Max.)

**Transformer:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
Rinnai	ET-277	125V, Class H

**Switches:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
Swann	Series 40	6 Amp, 125/250VAC

**Wiring:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
Style UL 1569	18AWG	300 Volts

**Fan Switch:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
Nihon GT	ES-01050	UL 43273

**Overheat Switch:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
Asahi Keiki	BF6-401	UL 52529

**Thermal Fuse:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
NEC	RC-251B-89x01	

**MASTER CONTRACT:** 189893

**REPORT:** 1374461

**PROJECT:** 1691616

**Page No:** 8

**Date Issued:** 2005-07-28

---

**Overheat Thermister:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
Tateyama Kagaku	RC-241-70	

**Flue Block Thermistor:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
Tateyama Kagaku	RC-241-70	

**Room Temperature Thermistor:**

<b>Manufacturer</b>	<b>Model Number</b>	<b>Ratings</b>
Tateyama Kagaku	RC-215-75	