Rinnai

Energysaver® & Flued Space Heaters





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Experience Our Innovation

For 40 years Australians have been enjoying the comfort, convenience and reliability of Rinnai gas appliances. Our innovative products are designed with the environment in mind, with low emission technology and high efficiencies, as well as a host of other great features.

Rinnai is committed to ongoing innovation - delivering efficient, well designed and engineered lifestyle solutions offering a host of benefits including ambience, versatility, control and reliability. Backed with extensive warranties and after sales service teams, Rinnai is proud to be the No.1 choice for gas space heating in Australia.

Through innovation, we will endeavour to continue offering superior ranges of home appliances that provide a clear insight into what the future holds for Australian homes.

Why choose Rinnai

There are many types of heating systems available for Australian homes. Rinnai heating systems bring you the latest advanced technologies that provide you with choices that can meet individual needs. Whether relating to safety, convenience, available space, environmental needs or ongoing running costs, Rinnai will have a system that suits.





Rinnai

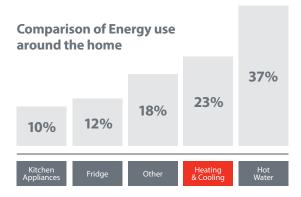
Energy Star Ratings

Energy Star ratings are an industry wide independent rating that gives an indication of how efficiently a heater operates. The more stars, the greater the efficiency. Typically Portable gas heaters have around 5.9 Stars with the majority of flued heaters around 4.0 to 4.5 Stars. Some older type heaters are not as efficient, however they still perform extremely well with large heat outputs.

Running Costs

Rinnai gas heaters are designed to be highly efficient, and when used correctly, are a very economical form of home heating. The running cost of gas heaters compare very well to other forms of heating. Straight electric heating is by far the most expensive, with both gas heaters and electric reverse cycle heaters comparatively less expensive.

When comparing differing forms of heating in relation to running costs, it is important that the comparison is based on the same kW output of heat. Once we are comparing 'apples with apples', the calculation of the running cost is then based on the energy used (kW input) to achieve that output. The actual tariffs that are charged are listed on energy bills.



Source: Department of Environmental & Climate Change NSW

The Environment

In Australian homes, heating & cooling amounts to around 23% of household energy use – second only to hot water. Gas is one of the most greenhouse friendly fuel sources available and selection of a Rinnai gas heater can assist with our global need to reduce carbon emissions. In addition, the better insulated your home, the less work the heater needs to do, the less gas you will use and the less impact on the environment.

Selecting the right heater

It is very important that careful consideration is given to selecting the correct model/size of any heater. Critical factors such as the area to be heated, along with specific design and insulation characteristics of a home must all be considered. On the next page there is a heater selector relating to correct sizing or you can use our on-line version at www.rinnai.com.au. In general, heater sizing should be based on the kW output of the heater. As a very rough guide to heating performance (based on our heating zones):

Very Cold Zone:	1 kW output will heat approx 8.5m ²					
Cold Zone:	1 kW output will heat approx 10m ²					
Cool Zone:	1 kW output will heat approx 13m ²					
Mild Zone:	1 kW output will heat approx 16m ²					
i.e. a 7.3 kW output heater in a Cool Zone will heat approx 95m²						



The MJ input of heaters should not be used for comparison. The kW output is the only true 'apples for apples' method.

As an example, a 25MJ input, 5.9 Star heater has a larger heat output than a 25MJ 3.1 Star heater.

Running cost savings of Energysaver Vs Electric Heater

Gas cost / MJ	0.020746
Electric cost / kWh	0.24222

Product	Product Output (KW) Input (KW)				Daily Usage (KWhr)	Daily Running Cost	No of Running days per year	Yearly Cost	Savings			
	High	Low	High	Low	High	Low						
Energysaver 556			23	9	2.5	2.5	80		\$1.66	100	\$165.97	= 64%
Electric Panel Heater								18.9	\$4.58	100	\$457.53	

Note

- 1. Gas and electricity tarriffs, Origin Energy for VIC metro, downloaded 4 April 2013: 24.222 c/kWh and 2.0746 c/MJ.
- 2. Daily and yearly usage based on Australian Standard AS4553 "gas space heaters".
- 3. Greenhouse gas emissions: Greenhouse gas emissions from electricity are approx 3 times greater than those for Natural Gas.

By switching from electric to gas space heating you could potentially reduce your yearly running costs by up to 60%*

heater**selector**®

step 1 climate

Pictured on the right is a climate map of Australia that shows four winter climate zones relevant to Rinnai Heaters; Mild, Cool, Cold and Very Cold. It is important that you choose the correct zone that suits an application, as it directly relates to the performance of the heater. Detailed State maps can be found on the 'heater selector' page of our website: www.rinnai.com.au.

step 2 heating area

It is also important that you consider the size of the heating area. This includes adjacent rooms through permanently open doorways and hallways. On pages 10-12 you will find the approximate maximum area that the unit will heat based on the climate zones (ie. Step 1).

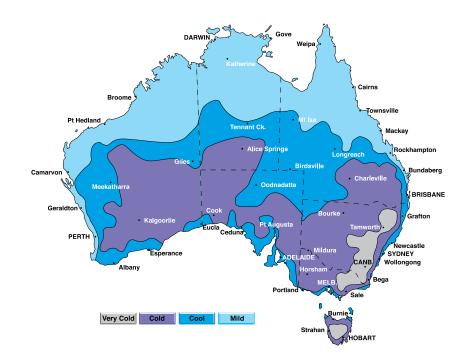
step 3 **heat loss**

Not all homes will have all of the features listed in the table to the right. Consequently, this will affect the heating capacity. Place a \checkmark alongside each of the design features if they are relevant to your home. Everywhere there is a \checkmark , an adjustment to the 'Heats up to' capacity will need to be made.

Please note that this is only a guide and individual house designs and locations may vary.

Contact the Rinnai Helpline if you require further assistance 1300 555 545.

calculate on-line in 3 easy steps



Calculate your selected Rinnai Heater's Capacity								
1. Selected Heater		4. 'Heats up to' Capacity (see specifications)	m²					
2. Climate/Zone		5. Less Heat Loss (see specifications)	%					
3. Total area you are going to heat (length x width)	m²	6. Adjusted Capacity	m²					

Your area should be less than the Adjusted Capacity

✓	Heat Loss Fac	ctors		Deduct	Example
	No Ceiling Insu	ulation	-10%	%	
	House built on	stumps (not a slab) -5%	%	-5%
	No carpets on	floors	-5%	%	-5%
	No drapes on v	windows	-5%	%	
	Uncurtained wi exceeding 15.0		-10%	%	
	Ceiling height	exceeding 2.4m			
	If Yes, height	2.5 - 2.8m	-3%	%	
		2.8 - 3.0m	-5%	%	
		3.0m +	-7%	%	
	Reversible Cei	ling Fan (positive)	+5%	%	
	HEAT LOSS F	ACTOR	TOTAL	%	-10%

As an example, you wish to purchase a Slimfire gas log flame fire, live in the 'Cool' zone, and have an area to heat of $65m^2$. The recommended 'Heats up to' capacity for this model is $68m^2$, however you also have no carpets on the floor and a house built on stumps. The heat loss total percentage is -10% (-5% + -5% = -10%) which is deducted from the $68m^2$ (the capacity of your heater) as a % to reduce it to $61m^2$. This will no longer heat your desired $65m^2$. The next model up is the Royale Inbuilt with a 'Heats up to' capacity of $93m^2$, less the 10% heat loss = $84m^2$, which will adequately heat the area.



Range Overview - Flued Heaters

Flued Heaters utilise flueing to ensure there are no indoor emissions. They can offer powerful heat output and there are many energy efficient product varieties. Flued heaters utilise 2 forms of heating - Convection heat or Radiant and Convection heat.

Energysavers

- · Convection heat
- Highly energy efficient with full set'n'forget operation
- Powerful 'room-sealed' heaters for optimum indoor air quality
- · Range of sizes with flexible power flue installation options



Great option for those who are sensitive to air quality. Humidifier tray offers the ability to enhance indoor air comfort. Add a drop of aromatherapy oil for added comfort.



Flued Space Heaters

- · Radiant and Convection heat
- · Powerful heat output in both thermostatic or manual operation models
- Suits standard 'off the shelf' flueing supplied by the installer



Offer cosy radiant warmth whilst still providing the benefit of convected heat. Ideal for replacement of older space heaters – easy changeover



Important Installation Guidelines - Flued Heaters

All Flued gas heaters must be installed by a licensed plumber/gas fitter.

Other guidelines for Flued heaters include:

- It is mandatory to use Rinnai proprietary flueing for all Rinnai Energysaver® heaters. Use of unauthorised flueing will not only compromise performance and void warranty, but could have serious safety related consequences
- All Flued Space Heaters (Ultima II, Spectrum & 2001) use standard 'off-the-shelf' flueing components supplied by the installer
- Room sizing is only dependant on the heat load required
- If in doubt, it is best to slightly oversize a Flued Heater and let the thermostat do its work
- Installation of Flued Heaters is limited to the flexibility of the flueing system and therefore heaters cannot always be positioned where desired
- Some States of Australia require that a certificate of compliance is given to the end-user for both new and changeover installations
- · All installations of Flued gas heaters must comply with the Australian Standard AS5601 Gas Installations



Generic Heating Features & Functions

There are many differing features that are available with Rinnai gas heating appliances. The following pages give an overview of each feature, the benefits gained and a brief explanation of how they work. For a specific list of which features apply to a particular product, please refer to the specifications starting on page 13.

Thermostatic Heat Control

Often referred to as set'n'forget, thermostatic control means that the heater will modulate up and down to ensure a set temperature is maintained, for greater comfort.

Manual Heat Control

This applies to heater models that have a number of predetermined settings that you can select from. Some heaters have a Low/Med/High option while others can have up to 6 manual settings.

Timers

Models with timers have one of the following:

Dual Weekday & Weekend Timers

Set the heater to come on and off in the mornings & evenings for the weekdays Monday to Friday. Additionally, different times can be set for the weekend when people prefer to get up a little later.

Dual Timers

Set the heater to come on and off in the mornings & evenings (or any other selected dual periods). Timers are set separately allowing you to operate with both, just one or none at all.

Multiple Timers (4 Periods)

Where 4 periods per day can be set at varying temperatures. Ideal for mornings when waking and coming home of an evening, with the other 2 periods usually set as a minimum desired temperature during the day and overnight. In addition, each day of the week can have a different setting, making these timers the most flexible available

Delay Timer (FDT)

This feature is only available with the "FDT" range of Energysaver Power Flued heaters and is usually only used for commercial application such as schools etc. Factory ordered & preset, the delay timer automatically shuts the heater off after a predetermined (programmed) time of either 1, 2, 3, 6, 8, 10 or 12 hour intervals. As an additional feature, a central relay timer can be programmed to operate multiple heaters.

Please contact Rinnai on 1300 555 545 for further information on Delay Timer (FDT) programming

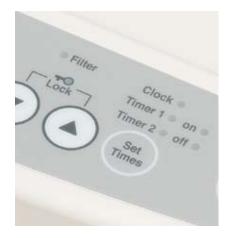
Preheat Feature

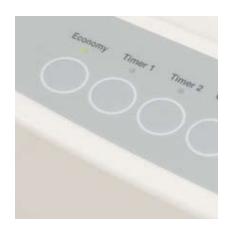
This function will automatically operate the appliance before the programmed start time of the timer, in order to heat a room to the pre-set temperature by the programmed start time. This means that the heater may activate up to 1 hour prior to the programmed start time.

Economy Button

The Economy (ECON) function is an energy saving feature. It gradually reduces the heat settings once the room has maintained the set temperature for a period of 1 hour. Many people operate heaters at a higher temperature initially when they are cold, but forget to turn them down later.







Auto Off Feature

The auto-off feature found on some of our Energysavers® and Space Heaters is only relevant when the minimum heat setting of the heater still has too much heat output to maintain the set temperature. If the auto-off feature is activated, the heater would turn off rather than continue to heat the room above the set temperature.

Override Button

The override button is only used when a heater has programmed timers set. It allows you to manually activate the heater outside of the programmed times without disruption to the settings (i.e: if someone comes home early from work/school).

Child Lock or Lock Button

A feature that ensures that children cannot activate or play with the heater. If the lock is activated when the appliance is turned OFF then all functions are locked. If the lock is activated when the heater is in operation, then only the OFF button will function. There are two types of child lock activations:

- 1. Single button which must be held down for about 3 seconds until there is a beep
- 2. Some models require the user to push 2 buttons simultaneously to lock and unlock the feature

Either method is difficult for young children to accidently activate.

Lockable Panel

The commercial Energysaver® FDT models have a key lockable control panel lid. This is primarily to ensure that programmed times and/or temperature settings are not adjusted by the public.

Filter Indicator Light

When the fan filters become covered with dust, the filter indicator will flash. The filters on all heaters should be vacuumed at regular intervals to optimise heating effectiveness.





Additional Safety features

Over heat switch

When the heater gets too hot during operation (for example when the filters or air outlet louvres are blocked) this device turns the gas off automatically

Flame failure sensor

This device automatically cuts off the gas supply to the heater in the event of a gas failure

Power failure

In the event of a power failure or power cut, the gas valves on thermostatic models will automatically close and shut off the gas supply.



The Rinnai **Energysaver**® is the perfect choice if you want the best in comfort, safety and efficiency in heating

- Efficiency rating between 4.3 4.8 Stars amongst the highest available for flued space heaters, reducing your heating costs
- Superior indoor air quality with zero emissions into the room perfect for those who may be susceptible to allergies or respiratory problems
- Power Flue* design allows for with multiple installation options
- Full Electronic Thermostatic Control. Select a desired temperature which is then maintained by the heater
- Dual Digital Timers allow for on and off programming for both mornings and evenings
- Pre-heat Mode ensures your room is pre-heated by the time programmed
- Economy Mode allows the heater to modulate down after 1 hour when set temperature is reached. Reduces running costs with no noticeable change in temperature
- Inbuilt Humidifier Tray, easy way to humidify indoor air for greater comfort
- Child Lock prevents unwanted access
- Remote Control for simple on/off and temperature control for added convenience (1004 FTR only)
- · Available in both Natural Gas and LPG



Energysaver 559





Control Panel

Inbuilt Humidifier



309FT in White



559FT in White



561FT in White



1004FTR in White

Options

Models

Small - 309FT

Medium - 561FT & 559FT

Large - 1004FTR

Colours

White

Note

Separate flueing required with all models. Please refer to page 13

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^{*}A power flue is a flue using a fan to assist in removing combustion products from an appliance, thus allowing only small dimension flue components for heat and easy installation.



Rinnai **Flued Space Heaters** combine cosy radiant warmth with superior quality and reliability

Ultima II

- Energy efficient and stylish alternative to your old space heater
- Full Electronic Thermostatic Control select a desired temperature which is then maintained by the heater (select auto off function on control panel)
- Dual Digital Timers allows for on and off programming for both mornings and evenings (weekday and weekend)
- Gentle 2 speed fan, allowing for even heat distribution
- · Easy to use one-touch electronic ignition as well as a child lock
- · Available in both Natural Gas and LPG



Ultima II Control Panel

2001 & Spectrum models

- · Suitable for large living areas
- 2001 select from 6 thermostatically controlled temperature settings
- Spectrum 3 easy push button heat selections
- 2 speed fan allowing for even heat distribution
- Electronic Ignition, lights first time
- · Available in Natural Gas only



2001 Control Panel



Spectrum Control Panel



Ultima II in Beige



2001 in Brown



Spectrum in Beige

Options

ULTIMA II

Models Inbuilt or Console

Colours Beige or Gunmetal Silver

······

2001

Models Inbuilt or Console
Colours Beige or Brown

SPECTRUM

ModelsInbuilt or ConsoleColoursBeige or Brown

Note

• All flueing components supplied by installer

1

Select Heater

Use our easy heater selector guide to choose the correct sized heater to suit your heating needs. Choose from any of the six Rinnai Energysavers or from any of the four Rinnai Flued Space Heaters.

2

Select Installation Type

Depending on the location of your heater and gas connection, the type of install will vary accordingly. Use our easy guide to find the best install solution to suit your needs. Make sure you also consult an installer.

3

Order Components (as required)

Depending on the installation type, you will need to order relevant flueing components accordingly. Use our guide for easy reference.

4

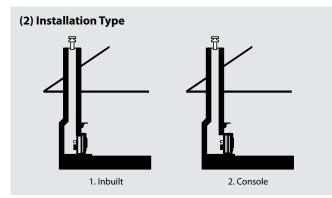
Select Accessories (as required)

Last but not least, depending on the installation type, separate accessories may be required to complete your install.

Specification Guide

Rinnai

(1) Flued Space Heaters - Ultima II, Spectrum, 2001



(3) Order Components*

Inbuilt Sound Masonry Fireplace only Chimney Plate & 100mm Flue Terminal

Sound Masonry

Chimney Plate & 100mm Flue Terminal

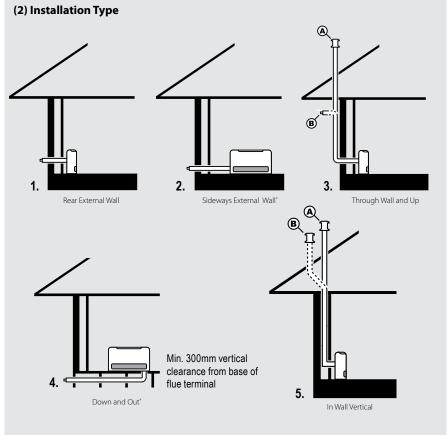
Console -Against a Wall

10 x 2 Elbow 10 x 2 in Wall Flue Squared Round Adaptor 100mm Round Flue 100mm Flue Terminal

(4) Accessories	Model	Order Code		
2001/Spectrum Inbuilt Surround 75mm	Beige	S312801		
2001/3pectrum inbuilt 3urround 75mm	Metallic Brown	S312802M		
2001/5	Beige	S412801		
2001/Spectrum Inbuilt Surround 100mm	Metallic Brown	S412802M		

Accessories	Model	Order Code		
Ultima II Inbuilt Surround 75mm	Beige	S31311B		
	Gunmetal	S31311G		
Ultima II Inbuilt Surround 100mm	Beige	S41311B		
	Gunmetal	S/1311G		

(1) Energysaver® - Power Flueing - 309FT, 556FDT, 559FT, 561FT, 1004FTR, 1004FDT



(4) Accessories - Back Cover Kits									
Model	Order Code								
Energysaver 309	White	ESBSKE							
Energysaver 559	White	ESBSKF							
Energysaver 561	White	ESBSKG							
Energysaver 1004	White	ESBSKD							
Optional Flue Guard		ESWFG							

*A Back Spacer Kit is required in all
installations that are either sideways
or down and out (2 & 4)
Horizontal Termination only

Installation ClearancesSides of appliance 50

Above appliance

In front

50mm

300mm

1000mm

(3)	Order Components	Order Code
1	Direct Flue Kit	ESDFK
2	Direct Flue Kit Co-Ax Pipe 900mm* Wall Plate Back Spacer Kit	ESDFK ESPIPE900 ESPLATE See below left
3A	Direct Flue Kit Co-Ax Pipe 900mm* 90° Bend (2 x 45°) Condensate Trap Roof Cowl	ESDFK ESPIPE900 ESBEND ESCONDK ESROOFCOWL
3B	Direct Flue Kit Co-Ax Pipe 900mm* 2 x 90° Bends (4 x 45°) Condensate Trap Wall Terminal Kit	ESDFK ESPIPE900 2 X ESBEND ESCONDK ESWTKIT
4	Direct Flue Kit Wall Terminal Kit Co-Ax Pipe 900mm* 90° Bend (2 x 45°) Back Spacer Kit	ESDFK ESWTKIT ESPIPE900 ESBEND See below left
5A	In Wall Flue Kit Includes: Condensate Trap Roof Cowl 4 x Co-Ax Pipe 900mm	ESFKITIW
5B	Bends (2 x 45°) In Wall Flue Kit Includes: Condensate Trap Roof Cowl 4 x Co-Ax Pipe 900mm	ESBEND ESFKITIW

^{*} To be supplied by installer.

^{*}includes condensate trap #order lengths as required

Flued Heating Specifications

				Ener	gysaver®			Ultima II 2001			Spectrum		
Specs		309FT	556FDT ⁽²⁾	559FT	561FT	1004FTR	1004FDT ⁽²⁾	Inbuilt	Console	Inbuilt	Console	Inbuilt	Console
		Name of Street						anic:	1040				
Visual	Н	695	554	582	750	670	670	653	653	650	650	650	650
Dimensions (mm)	w	465	750	760	545	930	930	910	910	910	910	910	910
(11111)	D	257	250	257	262	330	330	164	404	125	302	125	302
lah di Cade	Н	-	-	-	-	-	-	605-635	-	605-635	-	605-635	-
Inbuilt Cavity Dimensions	W	-	-	-	-	-	-	710-805	-	710-805	-	540-805	-
(mm)	D	-	-	-	-	-	-	Min.330	-	Min.270	-	Min.270	-
Colours Gas Type		White	White	White	White NG	Wh i/ LPG	nite	Beige or	Gunmetal		·····	or Brown	
Gas Input	Low	6	9	9	9	11	11	1	5	1	5		7
MJ/h	High	13	23	23	23	37	37	3	10	3	0	2	.8
kW Output		2.9	5.4	5.2	5.0	8.6	8.6	7	.0	5	.2	5	.2
	Very Cold	27	47	47	47	75	75	5	i9	4	5	4	1
'Heats	Cold	32	56	56	56	89	89	70		53		49	
up to' Capacity (m²)	Cool	42	74	74	74	119	119	g	5	70		65	
	Mild	49	85	85	85	138	138	1	09	81		75	
AS4553 Efficienc Star Rating	У	4.6	4.3	4.3	4.8	4.3	4.3	4.4 1.0		.0	2.1		
AS4553 Emission Star Rating NG 8		6.0	6.0	6.0	6.0	6.0	6.0	6.0 6.0			.0	6.0	
Thermostatic or Manual Control			Thermostatic							[Manual 3	Settings
Dual Timers		Yes		Yes	Yes	Yes							
Delay Timer (FD)	Γ)	Yes	Yes	Yes			Yes						
Dual Weekday & Timers	Weekend							Yes	Yes				
Preheat feature		Yes		Yes	Yes	Yes		Yes	Yes				
Economy Mode		Yes		Yes	Yes	Yes		Yes	Yes				
Auto Off Mode		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Override Button	•	Yes		Yes	Yes	Yes		Yes	Yes				
Child Lock or Lock Button		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
	Heat Exchanger		10 years Pro Rata ⁽³⁾						10 years Pro Rata ⁽³⁾				
Warranty	Fan			2 y	ears			2 years					
Domestic	All Other Parts			1)	ear .					1 y	ear		
	Free Labour			1 y	ear ear					1 y	ear ear		

⁽¹⁾ LPG conversions are available at an additional cost and are made to order.
(2) FDT models catered to commercial applications.
(3) Full replacement costs in the first year, reducing 10% per year thereafter. Dimensions are subject to production tolerances and may vary slightly from those given.
Rinnai Australia Pty. Ltd. Reserves the right to make modifications and change specifications without notice. We will however endeavour to communicate any

major changes well before implementation.

²⁴⁰V power is required with all models and a power cord & plug is fitted. In most cases this cord is on the right hand side. To hide the power cord, it is permissible to have the unit 'hardwired' behind wall cavities as long as it is in accordance with the Standard AS/NZS3000 and done by a qualified electrical tradesperson such as an electrician. In short, this means that it must be wired with an accessible double pole isolation switch.

Additional Rinnai Gas Appliances

In addition to the heating products in this brochure, Rinnai have many other great appliances to compliment both indoor and outdoor lifestyle solutions.

Gas Boosted Solar Hot Water

Gas Boosted Systems are powered with the same technology as the Rinnai INFINITY. This means you can enjoy the benefits of Continuous Flow hot water, pre-heated with energy from the sun. For further information on applicable rebates, please refer to our on-line estimator at rinnai.com.au

Gas Continuous Flow Hot Water

Australia's No.1, the Rinnai INFINITY offers the convenience of temperature controlled hot water that never runs out. Compact and highly efficient, these units all boast a 5+ Star energy rating

Portable Gas Space Heating

The Rinnai range of Portable Heaters are a highly efficient and flexible home heating alternative. They require no installation and can be stored away when not used. There are 3 forms of heating available - Radiant heat, Convection heat gently circulated with a fan and a combination of both Radiant and Convection heat.

Gas Log Flame Fires

Rinnai has an extensive range of Gas Log Flame Fires that have the ambience of a real fire without the hassle or mess. Not only do they look great for those formal or romantic occasions, they are also a powerful source of heating. Additionally, Rinnai have a range of purely decorative Flame Fires including a model that is designed to compliment outdoor entertaining areas.

Need help with an installation?

In most situations Rinnai retailers can assist with the installation of our appliances. Should this not be the case, Rinnai has an installation service available direct to the end-user. Any installation of a Rinnai appliance is a specialist process and requires trained professional installers to ensure safe and efficient operation of the appliance. This is particularly relevant for connection to gas, electrical changeovers and the installation of Solar Collectors. Our Rinnai installers are not only very familiar with our products, but are fully insured and OH&S compliant. Be confident in your installation by employing Rinnai Service.

For further information, please call 1300 555 545

Request a brochure

If you would like a brochure from any of product ranges you can call 13 14 19 or view and download online at **rinnai.com.au**







Gas Boosted Solar Hot Water



INFINITY 26Plus Continuous Flow Hot Wate



Portable Gas Space Heating



Gas Log Flame Fire



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