Rinnai

REFERENCE GUIDE

# Heating

Experience Our Innovation

Rinnai

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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.

### About this Brochure

This 'Heater Reference Guide' is to be used in conjunction with the consumer brochure. The contents of this brochure are more of a technical nature and it has been produced in relevant technical sections rather than by specific product pages as in the consumer brochure.

It is designed to be a quick reference guide to questions that may be asked to ensure selection of the correct Rinnai heating appliance for an application. If you need to find a dimension you go to the specification tables, if you need to find what a specific feature is, you go to the features and functions pages where all features of all heaters are listed.

### Need additional help?

Please contact the Rinnai HelpLine on 1300 555 545
Monday to Friday 8.00am – 5.30pm EST

### Associations & Certificates

The Australian Gas Association

Quality System Quality Endorsed Company ISO 9001 Lic 4983 SAI Global

TELARC SAI registered ISO 9001

GAS ENERGY RATING

INDOOR GAS HEATER EMISSION RATING

N10378

Energysaver® 559F

# Range Overview - Portable Heaters

Portable Heaters are a highly efficient low cost 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 and combined Radiant and Convection heat.

## Convectors

- Convection heat
- Advanced low emission burner technology
- Fully thermostatic set'n'forget operation
- Easy to use as a manual or programmable appliance

**HANDY HINT**

**Best positioned away from you for most comfortable operation**
**Cool to touch cabinet allows it to be positioned closer to furniture**
**Fan assisted warmth circulates around the room**

## Radiants

- Radiant heat
- Ideal for spot heating - feel the warmth
- Simple battery ignition - no need for a power point
- Simple & easy to operate manual settings

**HANDY HINT**

**Must be positioned closer to you as there is no fan**
**Needs to be kept away from furniture**

## Radiant Convectors

- Radiant and Convection heating
- High efficiency powerful heaters
- Easy operation - manually adjustable for comfort

**HANDY HINT**

**Best of both heating types - Radiant & Convected warmth**
**Circulates heat throughout your room**

## Important Installation Guidelines - Portable Heaters

The installation of Portable gas heaters is restricted in some States of Australia. Restrictions sometimes include:

- Minimum room sizing (volume of room in cubic metres)
- Minimum ventilation requirements
- Limited to a certain gas type (Victoria LPG only)
- Maximum heater size 18 MJ's on Natural Gas and 25 MJ's on LPG (South Australia)
- Maximum 2.5ng/J $NO_2$ emissions (Victoria)
- Not permitted in new installations/homes (Victoria)

Some other key points that should be noted include:

- Portable gas heaters cannot be installed in bedrooms, bathrooms or hallways
- The gas hose & power cord cannot be positioned through a doorway into an adjoining room
- Portable heaters cannot be operated from an LPG gas cylinder in the same room
- It should be noted that minimum room sizing varies between thermostatically controlled Convectors and manually controlled Radiant heaters
- All installation of bayonet points, room sizing & ventilation is to be in accordance with the Australian Standard AS5601 – Gas Installations

# 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.

## Gas Log Flame Fires

- Radiant and Convection heat
- Powerful heaters that enhance the feel of a home
- Variety of styles and flueing options
- Freestanding, Inbuilt & False Fireplace options

**HANDY HINT**

**Sizing is really only critical if the Gas Log Fire is the primary heating source. If required for a decorative look only – select a model with a Flame feature only or Flame Override button**

## 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

**HANDY HINT**

**Great option for those who are sensitive to air quality**
**Humidifier tray offers the ability to enhance indoor air 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

**HANDY HINT**

**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® & Gas Log Flame Fire 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

# heaterselector

## 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).

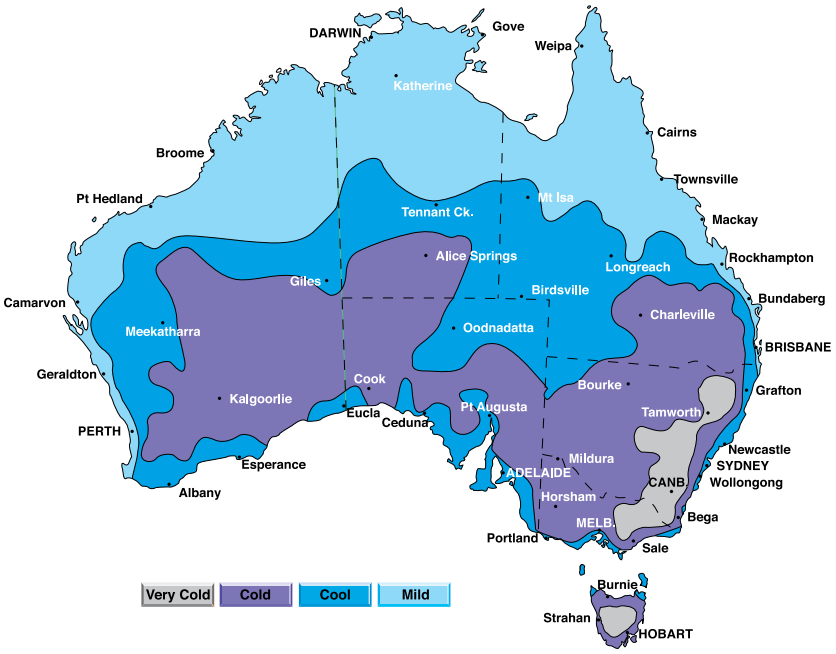
## step 3 **heat loss**

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 ✓ alongside each of the design features if they are relevant to your home. Everywhere there is a ✓, 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) | $m^2$ |
| 2. Climate/Zone | | 5. Less Heat Loss (see specifications) | % |
| 3. Total area you are going to heat (length x width) | $m^2$ | 6. Adjusted Capacity | $m^2$ |

Your area should be less than the Adjusted Capacity

| ✓ | Heat Loss Factors | | | Deduct | Example |
|---|---|---|---|---|---|
| ☐ | No Ceiling Insulation | | -10% | _____ % | |
| ☐ | House built on stumps (not a slab) | | -5% | _____ % | -5% |
| ☐ | No carpets on floors | | -5% | _____ % | -5% |
| ☐ | No drapes on windows | | -5% | _____ % | |
| ☐ | Uncurtained window area exceeding 15.0$m^2$ | | -10% | _____ % | |
| ☐ | Ceiling height exceeding 2.4m | | | | |
| ☐ | If Yes, height | 2.5 - 2.8m ☐ | -3% | _____ % | |
| | | 2.8 - 3.0m ☐ | -5% | _____ % | |
| | | 3.0m + ☐ | -7% | _____ % | |
| | Reversible Ceiling Fan (positive) | | +5% | _____ % | _____ |
| ☐ | **HEAT LOSS FACTOR** | | **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 65$m^2$. The recommended 'Heats up to' capacity for this model is 68$m^2$, 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 68$m^2$ (the capacity of your heater) as a % to reduce it to 61$m^2$. This will no longer heat your desired 65$m^2$. The next model up is the Royale Inbuilt with a 'Heats up to' capacity of 93$m^2$, less the 10% heat loss = 84$m^2$, which will adequately heat the area.

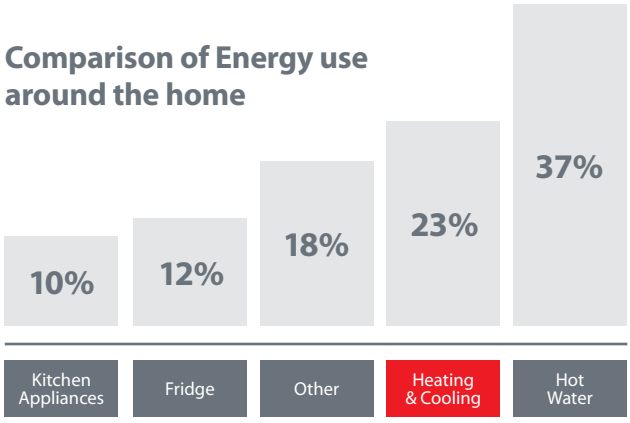
# Important Tips for heater selection

## 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.

## 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.




*Source: Department of Environmental & Climate Change NSW*

## Heating Sizing

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 opposite 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 95m$^2$**

**HANDY HINT**

**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 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.

# 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 10.

## 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

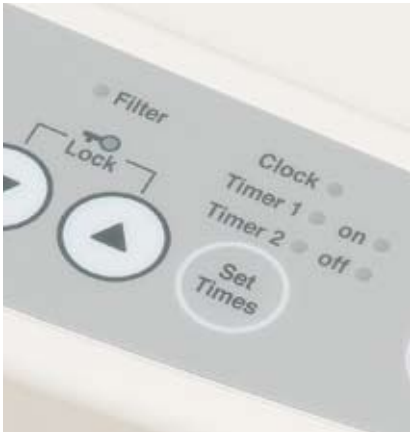
This applies to heater models that have a number of predetermined settings that you can select from. Some heaters have a Low/Med/High option while others can have up to 6 manual settings.

## 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 ON Timer**
This is a countdown timer that allows you to select in how many hours/minutes you wish the heater to switch on. It allows you to select up to 9 ½ hours in 30 minute increments or up to 24 hours in 60 minute increments. Delay ON timer is typically set before going to bed and when leaving in the morning to come on when you get up and return from work.

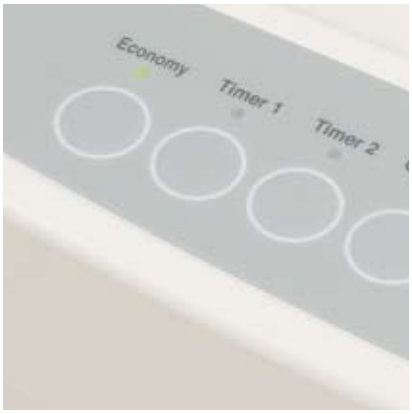
**Delay OFF Timer**
This is also a countdown timer but the set period is fixed at either 30 or 60 minutes. Once activated the heater will automatically shut off after this period. Typically used in the mornings when people get out of bed, it ensures that if they rush out the door they won't leave the heater on all day!

**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 Button

The auto-off feature found on some of our Gas Log Flame Fires, 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 button is activated, the heater would turn off rather than continue to heat the room above the set temperature. In simple terms, the auto-off needs to be activated (displayed) in order for the heater to be fully thermostatically controlled.

### 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).

### Flame Button

The Flame button is only found on selected Gas Log Flame Fires and it allows the user to override the thermostat and maintains a constant flame picture. Basically it is used when just the ambience of a fire is required.

### Child Lock or Lock Button

A feature that ensures that little wandering hands 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

### Oxygen depletion sensor

If the oxygen level in the room drops below a pre-set limit, this device cuts the gas supply to the heater. This feature is standard with all portable heaters.

### Tilt switch

Only found on portable heaters, the tilt switch will immediately cut the gas supply if the heater is accidentally knocked over. For additional safety, the fan will continue to operate ensuring the heater is cooled as well.

### 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.

## Portable Heating Specifications

| Model | | Avenger 25Plus (Gas & Electric) | Capella 18Plus (Gas & Electric) | Avenger 25 | Dynamo 15 | Enduro 13 | Econoheat 850 | Cosyglow 650 | Granada 252 | Titan 151 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Dimensions (mm) | H | 570 | 570 | 485 | 495 | 495 | 410 | 405 | 540 | 540 |
| | W | 610 | 610 | 610 | 490 | 490 | 505 | 440 | 620 | 620 |
| | D | 245 | 245 | 245 | 245 | 245 | 250 | 250 | 220 | 220 |
| Colours | | White or Platinum Silver | | | | | Platinum Silver | | Off White or Platinum Silver | |
| Gas Type | | Available in both Natural Gas and LPG | | | | | | | | |
| Low NOx | | Yes | Yes | Yes | Yes | Yes | No | No | No | No |
| Gas Hose Length (mm) | | 1500 | | | | | | | | |
| Electric Cord Length (mm) | | 1500 | | | | | No cord | | 1500 | |
| Gas Input MJ/h | Low | 8.5 | 8.5 | 8.5 | 6.0 | 6.0 | 7.0 | 5.5 | 8.0 | 7.5 |
| | High | 25 | 18 | 25 | 15 | 13 | 15 | 11 | 25 | 15 |
| kW Output | | 8.2 | 6.6 | 6.2 | 3.8 | 3.3 | 3.5 | 2.9 | 6.0 | 3.7 |
| 'Heats up to' Capacity ($m^2$) | Very Cold | 70 | 55 | 53 | 32 | 28 | 31 | 23 | 52 | 31 |
| | Cold | 83 | 66 | 63 | 38 | 33 | 35 | 28 | 57 | 34 |
| | Cool | 113 | 89 | 85 | 52 | 45 | 47 | 37 | 76 | 46 |
| | Mild | 128 | 102 | 97 | 59 | 51 | 54 | 42 | 87 | 53 |
| AS4553 Efficiency Star Rating | | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.9 | 5.9 | 5.9 | 5.9 |
| AS4553 Emissions Star Rating NG/LPG | | 3.8/3.5 | 4.6/4.1 | 3.8/3.5 | 3.8/3.5 | 3.6/3.5 | 2.8/3.0 | 2.1/2.1 | 2.3/2.5 | 2.0/1.6 |
| Thermostatic or Manual Control | | Thermostatic | | | | | Manual 2 Settings | Manual 2 Settings | Manual 3 Settings | Manual 2 Settings |
| Dual Weekday & Weekend Timers | | Yes | Yes | | | | | | | |
| Dual Timers | | | | Yes | Yes | | | | | |
| Delay ON Timer | | | | | | Yes | | | | |
| Delay OFF Timer (60 Minute) | | | | | | Yes | | | | |
| Preheat Feature | | Yes | Yes | Yes | Yes | | | | | |
| Economy Mode | | Yes | Yes | Yes | Yes | Yes | | | | |
| Auto Off Mode | | Yes | Yes | | | | | | | |
| Override Button | | Yes | Yes | Yes | Yes | | | | | |
| Child Lock or Lock Button | | Yes | Yes | Yes | Yes | Yes | | | | |

240V power is required with all models with the exception of Radiant only heaters. A power cord & plug are fitted.
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.

## Flued Heating Specifications

| Model | | Energysaver® | | | | | | Ultima II | | 2001 | | Spectrum | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 309FT | 556FDT | 559FT | 557FTR | 1004FTR | 1004FDT | Inbuilt | Console | Inbuilt | Console | Inbuilt | Console |
| | | | | | | | | | | | | | |
| Dimensions (mm) | H | 695 | 554 | 582 | 750 | 670 | 670 | 653 | 653 | 650 | 650 | 650 | 650 |
| | W | 465 | 750 | 760 | 550 | 930 | 930 | 910 | 910 | 910 | 910 | 910 | 910 |
| | D | 257 | 250 | 257 | 250 | 330 | 330 | 164 | 404 | 125 | 302 | 125 | 302 |
| Inbuilt Cavity Dimensions (mm) | H | - | - | - | - | - | - | 605-635 | - | 605-635 | - | 605-635 | - |
| | W | - | - | - | - | - | - | 710-805 | - | 710-805 | - | 540-805 | - |
| | D | - | - | - | - | - | - | Min. 330 | - | Min. 270 | - | Min. 270 | - |
| Colours | | White | White | White | White or Silver | White | | Beige or Gunmetal | | Beige or Brown | | | |
| Gas Type | | NG/ LPG | NG Only* | NG/ LPG | NG/ LPG | NG/ LPG | NG Only* | NG/ LPG | | NG Only* | | | |
| Gas Input MJ/h | Low | 6 | 9 | 9 | 9 | 11 | 11 | 15 | | 15 | | 7 | |
| | High | 13 | 23 | 23 | 23 | 37 | 37 | 30 | | 30 | | 28 | |
| kW Output | | 2.9 | 5.4 | 5.2 | 5.4 | 8.6 | 8.6 | 7.0 | | 5.2 | | 5.2 | |
| 'Heats up to' Capacity ($m^2$) | Very Cold | 27 | 47 | 47 | 47 | 75 | 75 | 59 | | 45 | | 41 | |
| | Cold | 32 | 56 | 56 | 56 | 89 | 89 | 70 | | 53 | | 49 | |
| | Cool | 42 | 74 | 74 | 74 | 119 | 119 | 95 | | 70 | | 65 | |
| | Mild | 49 | 85 | 85 | 85 | 138 | 138 | 109 | | 81 | | 75 | |
| AS4553 Efficiency Star Rating | | 4.6 | 4.3 | 4.3 | 4.2 | 4.3 | 4.3 | 4.4 | | 1.0 | | 2.1 | |
| AS4553 Emissions Star Rating NG & LPG | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | | 6.0 | |
| Thermostatic or Manual Control | | Thermostatic | | | | | | | | | | Manual 3 Settings | |
| Dual Timers | | Yes | | Yes | Yes | Yes | | | | | | | |
| Delay Timer (FDT) | | Yes | Yes | Yes | | | Yes | | | | | | |
| Dual Weekday & Weekend Timers | | | | | | | | 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 | Key | Yes | Yes | Yes | Key | Yes | Yes | | | | |

* LPG conversions are available at an additional cost and are made to order
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.

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.

## Gas Log Flame Fire Specifications

| Model | | Aspiration | | Symmetry | Royale ETR | | Slimfire | Sapphire | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Style | | Slimline Metal | Radius Glass | Inbuilt | Free-standing | Inbuilt | Inbuilt | Masonry | Zero Clearance | Console | Plinth |
| Visual Dimensions (mm) | H | 675 | 675 | 640 | 755 | 695 | 645 | 660 | 660 | 760 | 837 |
| | W | 900 | 900 | 1110 | 650 | 910 | 750 | 865 | 865 | 865 | 865 |
| | D | 90 | 126 | 13 | 560 | 167 | 335 | 462 | 462 | 425 | 425 |
| Inbuilt Cavity Dimensions (mm) | H | 660 | 660 | 845 | N/A | 595-675 | 550-630 | 600 | 650 | N/A | N/A |
| | W | 860 | 860 | 1100-1125 | N/A | 600-800 | 595-700 | 695 | 800 | N/A | N/A |
| | D | 450* | 450* | Min 600 | N/A | Min. 405 | Min. 360 | 370 | 420 | N/A | N/A |
| Colours | | Metallic Black or Stainless Steel | Black | Black | Metallic Black | Metallic Black | Metallic Black or Stainless Steel | Black outer frame with Stainless Steel inner frame | | | |
| Gas Types | | NG Only# | | NG Only# | NG/LPG | | | NG/LPG | | | |
| Gas Input MJ/h | Low | 8 | 8 | 19 | 8 | 8 | 7.7 | 14 | 14 | 14 | 14 |
| | High | 31.5† | 31.5† | 33 | 35 | 33 | 25 | 30 | 30 | 30 | 30 |
| kW Output | | 6.0 | 6.0 | 7.5 | 7.4 | 6.6 | 5.0 | 6.97 | 6.97 | 6.97 | 6.97 |
| 'Heats up to' Capacity ($m^2$) | Very Cold | 47 | 47 | 67 | 66 | 58 | 42 | 60 | 60 | 60 | 60 |
| | Cold | 56 | 56 | 80 | 79 | 69 | 50 | 70 | 70 | 70 | 70 |
| | Cool | 74 | 74 | 108 | 106 | 93 | 68 | 95 | 95 | 95 | 95 |
| | Mild | 85 | 85 | 124 | 122 | 109 | 77 | 108 | 108 | 108 | 108 |
| AS4553 Efficiency Star Rating | | 4.0†† | 4.0†† | 4.2 | 2.5 | 2.6 | 2.8 | 4.1 | 4.1 | 4.1 | 4.1 |
| AS4553 Emissions Star Rating NG & LPG | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Thermostatic or Manual Control | | Thermostatic | | | | | Manual 3 Settings | Manual/Remote Thermostat* | | | |
| Dual Timers | | Yes | Yes | | Yes | Yes | | | | | |
| Multiple Timers (4 Periods) | | | | Yes | | | | Yes, with optional remote control | | | |
| Preheat Feature | | Yes | Yes | | Yes | Yes | | | | | |
| Auto Off Mode | | Yes | Yes | Yes | Yes | Yes | | Yes** | Yes** | Yes** | Yes** |
| Override Button | | Yes | Yes | | Yes | Yes | | | | | |
| Flame Function | | Yes | Yes | | Yes | Yes | | Yes** | Yes** | Yes** | Yes** |
| Child Lock or Lock Button | | Yes | Yes | | Yes | Yes | | | | | |

**Please note:**

# Lpg conversions are available at an additional cost and are made to order

*Suitable for direct, vertical or horizontal flueing. 500mm required for down and out flue applications. See installation instructions for full details

†31.5 MJ/h when installed with a direct flue. Gas input 28MJ/h when installed with an extended flue

††4.0 Stars when installed with a direct flue. Increases to 5.2 Stars when installed with an extended flue

°4.0 Star Rating when installed in a sound brick or masonry fireplace without a flue

240V power is required with all models and a power cord & plug is fitted. In most cases this cord is standard on the right hand side of the appliance. The Royale & Slimfire Flame Fires also allow you to have the electrical cord on either the right or left hand side.

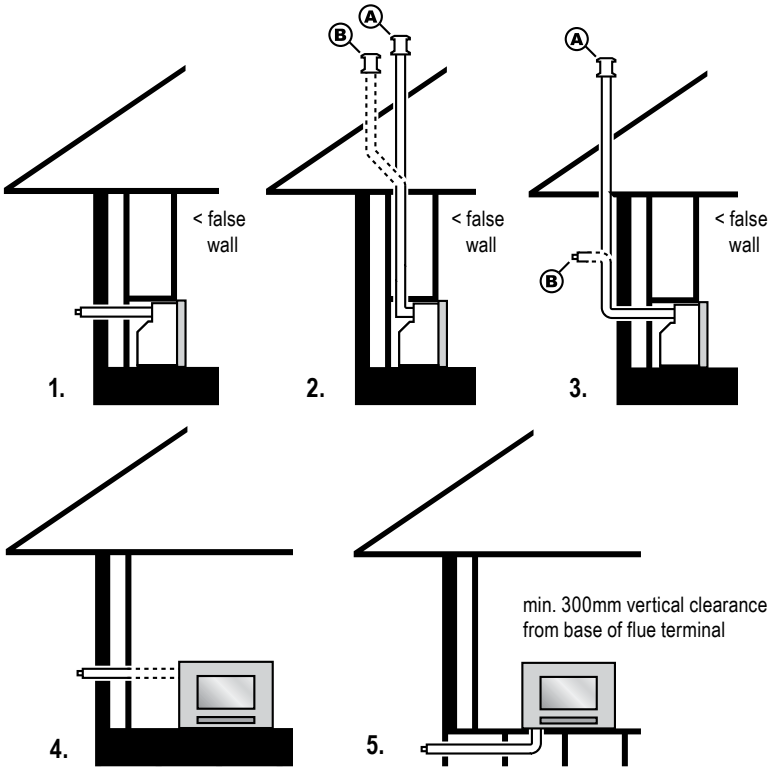
To hide the power cord, it is permissible to have the unit 'hardwired' behind wall cavities as long as it is in accordance with the Standard AS/NZS3000 and done by a qualified electrical tradesperson such as an electrician. In short, this means that it must be wired with an accessible double pole isolation switch.

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.

# Flueing

## Aspiration Gas Log Flame Fire Power Flueing

| | Description | Order Code |
|---|---|---|
| **1** | Direct Flue Kit | ASPDFK |
| **2A** | Vertical 'On Wall' Kit*<br>Co-Ax Pipe 900mm#<br>Roof Cowl | ASPKIT03<br>ESPIPE900<br>ESROOFCOWL |
| **2B** | Vertical 'On Wall' Kit*<br>Co-Ax Pipe 900mm#<br>Bend (2 x 45º)<br>Roof Cowl | ASPKIT03<br>ESPIPE900<br>ESBEND<br>ESROOFCOWL |
| **3A** | Direct Flue Kit<br>Co-Ax Pipe 900mm#<br>Bend (2 x 45º)<br>Condensate Trap<br>Roof Cowl | ASPDFK<br>ESPIPE900<br>ESBEND<br>ESCONDK<br>ESROOFCOWL |
| **3B** | Direct Flue Kit<br>Co-Ax Pipe 900mm#<br>2 Sets of Bends (2 x 45º)<br>Condensate Trap<br>Wall Terminal Kit | ASPDFK<br>ESPIPE900<br>ESBEND x 2<br>ESCONDK<br>ESWTKIT |
| **4** | Vertical 'On Wall' Kit*<br>Co-Ax Pipe 900mm#<br>Wall Terminal Kit | ASPKIT03<br>ESPIPE900<br>ESWTKIT |
| **5** | Vertical 'On Wall' Kit*<br>Co-Ax Pipe 900mm#<br>Bend (2 x 45º)<br>Wall Terminal Kit | ASPKIT03<br>ESPIPE900<br>ESBEND<br>ESWTKIT |




| Fascias | Order Code |
|---|---|
| Slimline Metallic Black Fascia | FLFASPFFB |
| Slimline Stainless Steel Fascia | FLFASPFFSS |

| Fascias | Order Code |
|---|---|
| Radius Glass Black Fascia | FLFASPFRBG |

| Installation Clearances | |
|---|---|
| Sides of appliance | 100mm |
| Above appliance | 250mm |
| In front | 1000mm |

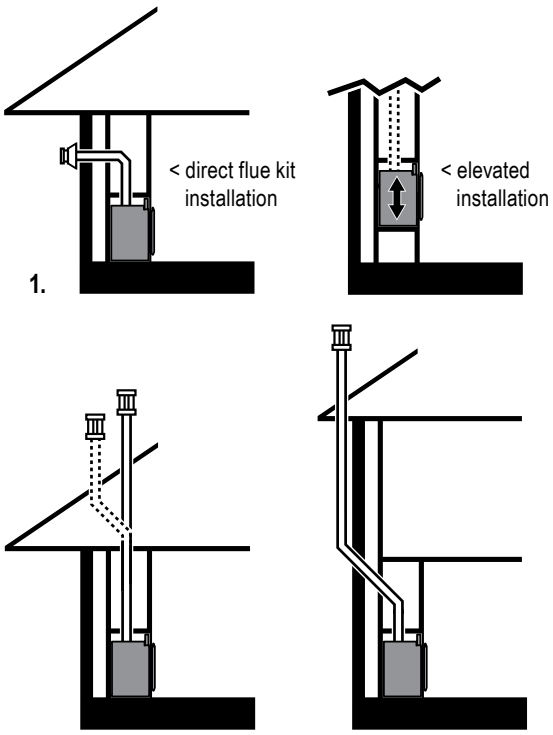
*includes condensate trap #order lengths as required

## Symmetry Gas Log Flame Fire

The Direct Flue Kit covers the majority of installations. Separate components are available for other installations as shown.

| Description | Order Code |
|---|---|
| **1.** Direct Flue Kit | SYMDFK |
| **Individual Components** | |
| 90mm Flue Length | RDV903 |
| 230mm Flue length | RDV907 |
| 300mm Flue length | RDV906 |
| 600mm Flue length | RDV904 |
| 1200mm Flue length | RDV902 |
| 275-370 (adjustable) Flue length | RDV911B |
| 90º Elbow | RDV990G |
| 45º Elbow | RDV945G |
| High Wind (Roof) Terminal Cap | RDV991 |
| Square Horizontal (Wall) Cap | RDV984 |

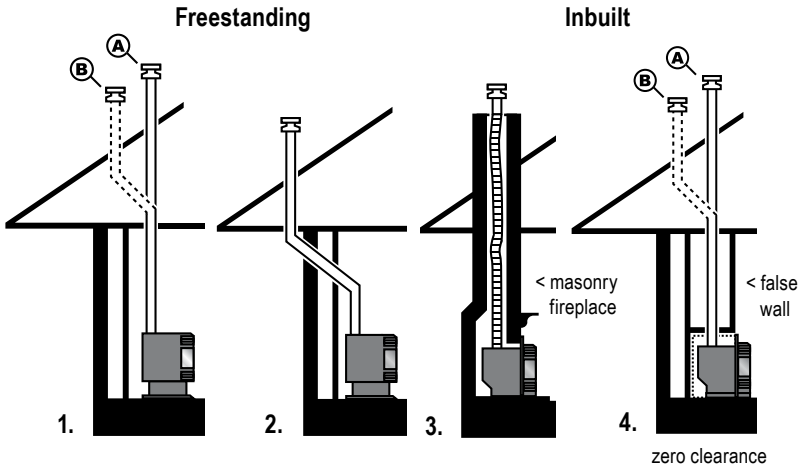
| Installation Clearances | |
|---|---|
| Sides of appliance | 400mm |
| Above appliance | 400mm |
| In front | 1000mm |




Symmetry flueing combinations vary for each installation. Please refer to the installation instructions or online at www.rinnai.com.au

## Royale ETR Gas Log Flame Fire

| | Description | Order Code |
|---|---|---|
| **1A** | Vertical Twin Skin Flue Kit (3.6m) | FLFKIT05* |
| **1B** | Vertical Twin Skin Flue Kit (3.6m)<br>Twin Skin Offset | FLFKIT05*<br>FLFBEND* |
| **2** | Thru-wall Twin Skin Flue Kit (3.6m) inc. 1x900mm Powder Coated & 3x900mm Galvanised Twin Skin Flues, Cowl & Wall Penetration Kit | FLFKIT03* |
| **3** | Flexiliner Flue Kit (5.0m) | FLEXLINER05 |
| **4A** | Vertical Twin Skin Flue Kit (3.6m) | FLFKIT05B |
| **4B** | Vertical Twin Skin Flue Kit (3.6m)<br>Twin Skin Offset | FLFKIT05B<br>FLFBENDB |




| | | | |
|---|---|---|---|
| **Inbuilt Zero Clearance Frame Dimensions**<br>(See installation instructions for full details) | 745mm H x 810mm W x 440mm D (min.) | Metallic Black Zero Box | ZEROR1 |
| | | Titanium Zero Box | ZEROR2T |

| **Freestanding Accessories** | **Order Code** |
|---|---|
| 450mm Twin Skin Flue | FLF0450M* |
| 900mm Twin Skin Flue | FLF0900M* |
| 45˚ Twin Skin Offset | FLFBEND* |
| 900mm Galvanised Flue Ext Twin Skin | FLFEXT03 |

For Thru-Wall double storey applications, please order the 3.6 metre Thru-Wall Twin Skin Kit (FLFKIT03) and additional lengths of 900mm Galvanised Flue Extensions (FLFEXT03) as required

| **Inbuilt Accessories** | **Order Code** |
|---|---|
| Flue Adaptor Plate | FLFAD |
| 50mm Plinth | FLFRP* |
| 45˚ Twin Skin Offset | FLFBENDB |
| 40mm External Top Surround (Black Only) | FLFRSEXTB |

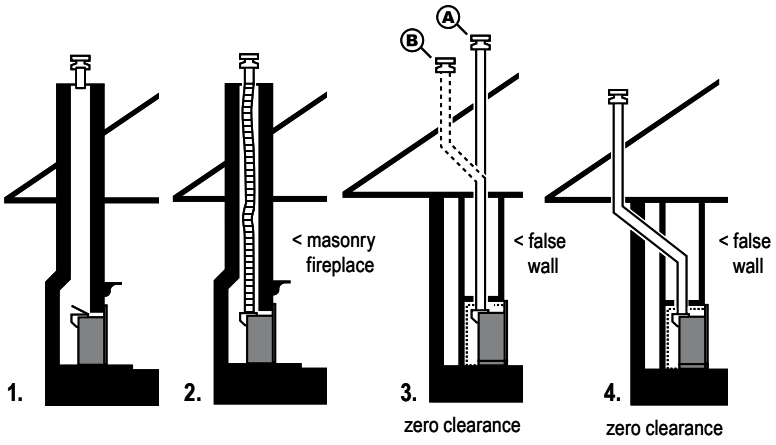
**Installation Clearances**

| | |
|---|---|
| Sides of appliance | 400mm |
| Above appliance | 400mm |
| Back of draft diverter | 100mm |
| In front | 1000mm |

*Nominate Metallic Black or Titanium

## Slimfire Gas Log Flame Fire

| | **Description** | **Order Code** |
|---|---|---|
| **1** | No Flue | N/A |
| **2** | Flexiliner Flue Kit | FLEXLINER03 |
| **3A** | Vertical Twin Skin Flue Kit | FLFKIT05 |
| **3B** | Vertical Twin Skin Flue Kit<br>Twin Skin Offset | FLFKIT05<br>FLFBEND |
| **4** | Vertical Twin Skin Flue Kit<br>Thru-wall Twin Skin Flue Kit | FLFKIT05<br>FLFKIT03 |




| | | | |
|---|---|---|---|
| **Inbuilt Zero Clearance Frame Dimensions**<br>(See installation instructions for full details) | 675mm H x 685mm W x 370mm D (min.) | Metallic Black Zero Box | ZEROS |
| | | Titanium Zero Box | ZEROS2 |

| **Fascias** | **Order Code** |
|---|---|
| Metallic Black Fascia | FLFSFB |
| Stainless Steel Fascia | FLFSFSS |
| **Sided Fascia** | |
| Inspiration 3 Sided Fascia - Duracote | INSP3FD |
| Inspiration 3 Sided Fascia - Black | INSP3FD |
| Inspiration 4 Sided Fascia - Duracote | INSP4FD |
| Inspiration 4 Sided Fascia - Black | INSP4FB |
| **Mantles** | |
| Inspiration Mantle - Cherry | INSPMC |
| Inspiration Mantle - Beech | INSPMB |

| **Accessories** | **Order Code** |
|---|---|
| Fluebox Adaptor | FLFAD1 |
| 50mm Plinth (Masonry Fireplaces only) | FLFSP# |
| 90mm Ext Top 3-sided Surround (Black only) | FLFSBEXT |

**Console Kit**
Extends protrusion of the Slimfire by 300mm.
Kit includes sides, top and base plinth.
All other components supplied by installing plumber

| | |
|---|---|
| Metallic Black Console Kit | FLFSCB |
| Stainless Steel Console Kit | FLFSCSS |

**Installation Clearances**

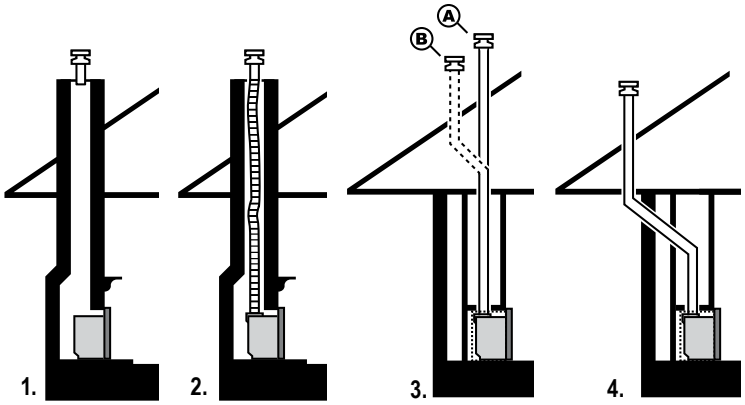
| | |
|---|---|
| From top of glass | 300mm |
| From sides of glass | 300mm |
| In front | 1000mm |

#Nominate Metallic Black or Stainless Steel

## Sapphire Gas Log Flame Fire

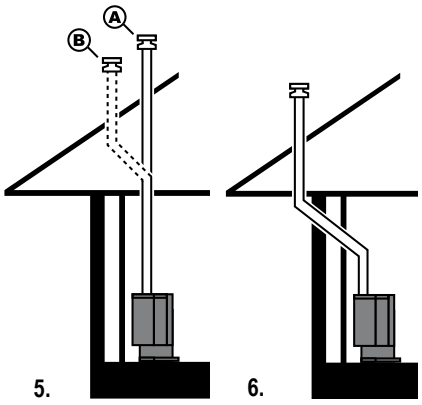
| | | Description | Order Code |
|---|---|---|---|
| Inbuilt | 1 | No Flue | N/A |
| | 2 | Flexiliner Flue Kit (5.0m) | FLEXILINER05 |
| | 3A | Vertical Twin Skin Flue Kit (3.6m) | FLFKIT05G |
| | 3B | Vertical Twin Skin Flue Kit (3.6m)<br>Twin Skin Offset | FLFKIT05G<br>FLFBENDG |
| | 4 | Vertical Twin Skin Flue Kit<br>Thru-wall Twin Skin Flue Kit | FLFKIT05G<br>FLFEXT03BG |
| Freestanding | 5A | Vertical Twin Skin Flue Kit (3.6m) | FLFKIT05G |
| | 5B | Vertical Twin Skin Flue Kit (3.6m)<br>Twin Skin Offset | FLFKIT05G<br>FLFBENDG |
| | 6 | Vertical Twin Skin Flue Kit<br>Thru-wall Twin Skin Flue Kit | FLFKIT05G<br>FLFEXT03BG |

| Accessories | Order Code |
|---|---|
| 450mm Twin Skin Flue | FLF0450MG |
| 900mm Twin Skin Flue | FLF0900MG |
| 1200mm x 145mm Twin Skin Flue | FLFEXT03 |
| Remote Control Accessory | SAPRM |
| Spigot Assembly<br>(Zero Clearance & Freestanding) | SAPFSSA |



Inbuilt Masonry

Inbuilt Zero Clearance



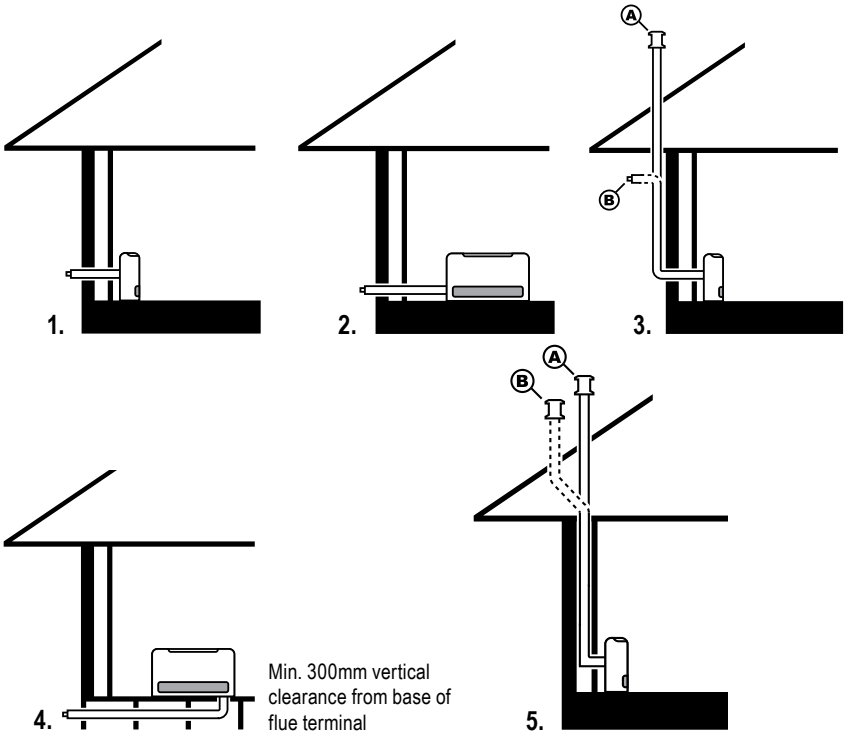
Freestanding (Console & Plinth)

| Inbuilt Zero Clearance Cavity Dimensions | 650mm H x 800mm W x 420mm D (min.) | Zero Box | SAPZEROCLR |
|---|---|---|---|

## Energysaver® - Power Flueing

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

*includes condensate trap #order lengths as required



Min. 300mm vertical clearance from base of flue terminal

| Back Spacer Kits# | | |
|---|---|---|
| **Model** | **Colour** | **Order Code** |
| Energysaver 308 | White | ESBSKA |
| Energysaver 556 | White | ESBSKB |
| | Platinum Silver | ESBSKSB |
| Energysaver 557 | White | ESBSKC |
| | Platinum Silver | ESBSKSC |
| Energysaver 1004 | White | ESBSKD |
| Optional Flue Guard | | FGM01 |

| Installation Clearances | |
|---|---|
| Sides of appliance | 50mm |
| Above appliance | 300mm |
| In front | 1000mm |

*Order lengths as required

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

## Rinnai Service - Need help with 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 gas installation, and in particular where flueing is also required, is a specialist process and requires trained professional installers to ensure safe and efficient operation of the appliance. 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**

## Rinnai Heating Products Warranty

| Table 1 | | Flued Heaters | Portable Radiant Heaters | Portable Convector Heaters |
|---|---|---|---|---|
| | | Ultima II, 2001 Spectrum Energysaver® Aspiration Sapphire Royale Slimfire Symmetry | Titan 151 Granada 252 Cosyglow 650 Econoheat 850 | Avenger 25 Avenger 25Plus Capella 18 Capella 18Plus Dynamo 15 Enduro 13 |
| Domestic Use | Heat Exchanger | 10 years pro rata (1) | 10 years pro rata (2) | 10 years pro rata (3) |
| | Fan | 2 years | 3 years | 5 years |
| | All other parts | 1 year | 3 years | 5 years |
| | Free Labour | 1 year | 3 years | 5 years |
| Commercial Use | Heat Exchanger | 1 year | 1 year | 1 year |
| | Fan | 1 year | 1 year | 1 year |
| | All other parts | 1 year | 1 year | 1 year |
| | Free Labour | 1 year | 1 year | 1 year |

(1) Full replacement costs in the first year, reducing 10% per year thereafter
(2) Full replacement costs in the first 3 years, reducing 15% per year thereafter
(3) Full replacement costs in the first 5 years, reducing 20% per year thereafter

### DEFINITIONS

**Domestic use:**
The warranty periods in the table above that are allocated under "Domestic Use" are based on the heating requirements of a typical domestic dwelling.

**Commercial use:**
The warranty periods that are allocated under "Commercial Use" are for applications other than domestic use and include premises such as commercial and industrial buildings, hotels, motels, caravan parks, cafes, schools and sporting complexes, but not limited to these.

Full warranty conditions including exclusions, are available with each appliance and can be viewed online at rinnai.com.au

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