

**Rinnai**

## Operation guide

# Neo

Inbuilt and freestanding models



Gas fires, like cars, require regular maintenance and servicing. For reliable operation Rinnai gas fires should be serviced every two years, including inspection of the flue system.

## **Important**

Appliance must be installed with a Rinnai approved flue system.

This appliance must be installed in accordance with:

- Manufacturer's installation instructions
- AS/NZS 5601 Gas Installations
- AS/NZS 5263 Gas appliance standards

For use with Natural Gas or Universal LPG as indicated on the appliance.

Appliance must be installed, commissioned and serviced by an authorised person, being in New Zealand a licensed gasfitter, in accordance with these instructions and all applicable local rules and regulations.

## **Warning**

Improper installation, adjustment, alteration, service and maintenance can cause property damage, personal injury or loss of life.

For more information about buying, using, and servicing of Rinnai appliances call: 0800 RINNAI (0800 746 624).

Rinnai New Zealand Limited  
105 Pavilion Drive, Mangere, Auckland  
PO Box 53177, Auckland Airport, Auckland 2150

Phone: (09) 257-3800  
Fax: (09) 257-3899  
Email: [info@rinnai.co.nz](mailto:info@rinnai.co.nz)  
Web: [rinnai.co.nz](http://rinnai.co.nz)  
[youtube.com/rinnainz](https://www.youtube.com/rinnainz)  
[facebook.com/rinnainz](https://www.facebook.com/rinnainz)



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# About your Rinnai Neo

Congratulations on the purchase of your Rinnai Neo gas fireplace. The Neo range combines modern good looks with the latest advances in technology.

## Interchangeable frames

Mix and match from a range of framing options. These can be interchanged at any time.



## Error display window

Sits on the top fold of the outer frame along with the filters.

## Infra-red remote receiver window and ignition indicator

Will beep when it receives a signal from the remote and flash green during the ignition process.

## Manual control panel on the side of the unit

The control panel is located on the top left corner of the outer frame. The control panel houses the ON/OFF button and also the LED indicator. This lets you know what the unit is doing. For example:

- Standby = LED is red
- Power disruption = LED flashes red



## Infra-red remote control

The remote emits an infra-red signal. It must be aimed at the receiver window. Normal operating range is up to 7 m. Please note; range can be affected by the angle at which you are aiming the remote.

Some fluorescent lights may interfere with the transmission of the remote signal—change your operating position if this occurs.

## Glass dress guard

Creates protection without obstructing the view.



# How the Rinnai Neo starts

By pressing the power button 'On' the fire will start the ignition sequence.

Ignition sequence:

1. When the On/Off button is pressed on the control panel, the infra-red receiver window will pulse green.
2. The ignition sparker will operate, and as soon as a spark is sensed gas will flow to the main burner.
3. When the main burner establishes a flame, the heater will automatically modulate between the burner settings to achieve and maintain the default set temperature of 22 °C\*.

Do not unplug or turn off the mains power supply to the fire as this will stop the convection fan from cooling down the unit. The convection fan operates for several minutes after the fire has been turned off.

## Power cut or power disruption

If the power is disrupted while the Neo is operating, once the power has been restored the fire will go into power failure mode and there will be flashing zeros in the error display window in the lower left hand side of the frame, refer image on p. 15. The error will show through two narrow cutouts—you will need to walk up to the fire and look down to see these.

To reset the fire, press the On/Off button on the control panel or remote control twice to turn the fire back on.

# Position of your Rinnai Neo inbuilt on a wall

The Neo Inbuilt looks and performs best when installed close to the floor. If the unit is installed higher up the wall the movement of air from the convection fan, depending on the room configuration, could create draughts.

## Wall surface above the fire

The temperature of the wall surface directly above the appliance may get warm and discolour paint finishes or distort vinyl wall coverings. For durability of surfaces, please contact the manufacturer for their specification.

\* The Neo modulates the flame and heat output to try and maintain the default temperature setting of 22 °C. If the room temperature starts to climb above 22 °C the Neo will modulate to its lowest flame and fan setting, but will not turn off. Depending on the size of the room this could mean the room temperature could steadily rise.

# Operation using the remote

For the remote control functions to be available, the appliance On/Off button must be in the On position.

## Signal transmission to the unit

The unit will beep and flash to confirm the settings have been received from the remote.

## Lost or misplaced remote

If you misplace the remote the fire can still be used, albeit in a limited capacity, by using the power On/Off button on the lower right hand corner of the outer frame. The fire will automatically modulate between flame settings to maintain the default set temperature of 22 °C.

## Remote - safety



**WARNING**

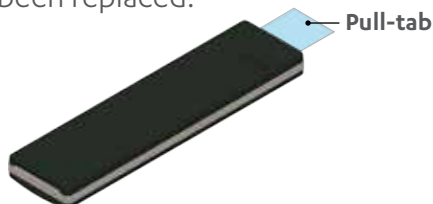
Keep the remote away from young children. Also ensure they can't access the batteries—they can become a choke hazard and potentially life-threatening if swallowed.

Breakage of the plastic housing could expose sharp edges—replace the remote if this occurs.

Avoid getting the remote wet as water entry will damage the remote.

## Batteries

The remote uses two Lithium cell CR2450 batteries. Never mix old and new batteries. The remote will be supplied with the batteries already inserted, pull the clear tab to activate (OH, meaning OK, will flash on the display). This will also occur when the batteries have been replaced.

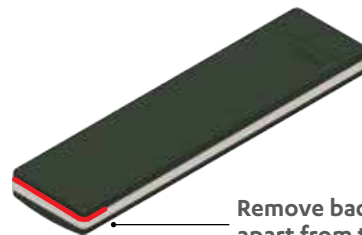


Remove the batteries if the remote is not going to be used for a long time. This will help avoid damage from leaking batteries. If leakage has occurred the remote will need to be replaced as leaking chemicals could be a risk if touched or ingested.

## Changing the batteries

### • Remove the back

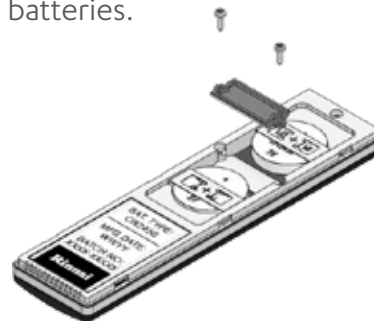
Slide your fingernail under the bottom corner and along the base, and gently pry apart. With some coaxing the cover will pop off. Patience required, remember it's designed so little fingers cannot easily access the batteries.



Remove back cover by prising apart from the bottom first

### • Unscrew the black retaining bridge

Undo the two small screws holding the black retaining bridge between the two batteries.



### • Replace the batteries

The batteries can only be inserted one way—printed side facing up as shown on the next page. The battery contact edges can be sharp, take care when replacing the batteries.

### • Replace the black bridging plate

Ensure you replace the black bridging plate as this will reduce the risk of young children getting access to the cell batteries.

### Flame and heat setting

Once the fire is turned on the flame setting defaults to level five (on high). Use the up and down buttons to control the height of the flame and heat output.

The relationship between the flame height and fan speed is preset and cannot be adjusted. The Neo has five flame and fan settings:


Flame height	Fan speed
1	low
2	low
3	low
4	high
5	high



### Turning on and off

This button switches the fire on and off. For it to work the power button on the fire must be ON.

### Room temperature display

Displays the room temperature\* (at the point of the remote) and low battery symbol if the batteries need changing. 

The back light will stay on for approximately five seconds. Constant activation will shorten battery life.

\* Checks the room temperature every minute.

### Black retaining bridge

Safety device that needs to be removed before replacing the batteries—DO NOT DISCARD, this MUST BE put back on.



### Pry point for removing the back cover

Gently pry open the back cover from the base of the remote



### Battery retainer

### Temperature sensor position

The room temperature is determined by a temperature sensor located in the bottom of the remote. Please be aware the sensor will be affected by direct sunlight, draughts, and body temperature (your hand).



# Clearances from combustibles

The clearances listed below, measured from the **edge of the inner glass**, are minimum clearances unless otherwise stated.

## While the heater is operating

The appliance must not be installed where curtains or other combustible materials could come into contact with the heater. The 400 mm side clearance includes side walls.

## Floor protection

Heat from this fire may over time affect the appearance of some materials used for flooring, such as, carpet, vinyl, cork or timber. This may be amplified if the air contains cooking vapours or cigarette smoke. To avoid this occurring, it is recommended that a mat be placed in front of this appliance.

## Hearths

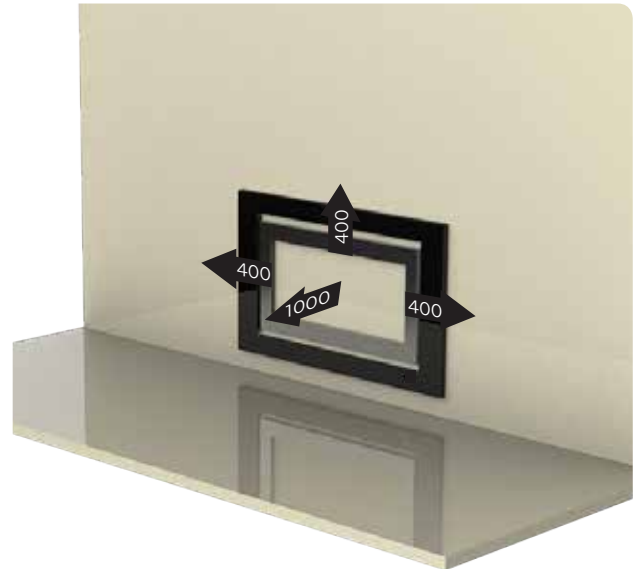
A hearth is not necessary, but can be used for decorative purposes or protection of sensitive flooring. A hearth, if installed, must not obscure the front of the fire.

## TV installation above the fireplace

The Neo has a fan that distributes warm air from the top of the appliance out into the room. As warm air is dispersed outwards, as opposed to directly upwards, installation of a TV may be an option.

Generally the bottom of the television recess should be at least 400 mm above the fire. Please check with the television supplier to check clearances. Some television manufacturers have warranty conditions that state a television is not to be installed above a fireplace.

For further information, please contact Rinnai or refer to the installation manual. This illustrates recommended minimum clearances when installing a TV directly above the unit.



Neo Inbuilt clearances



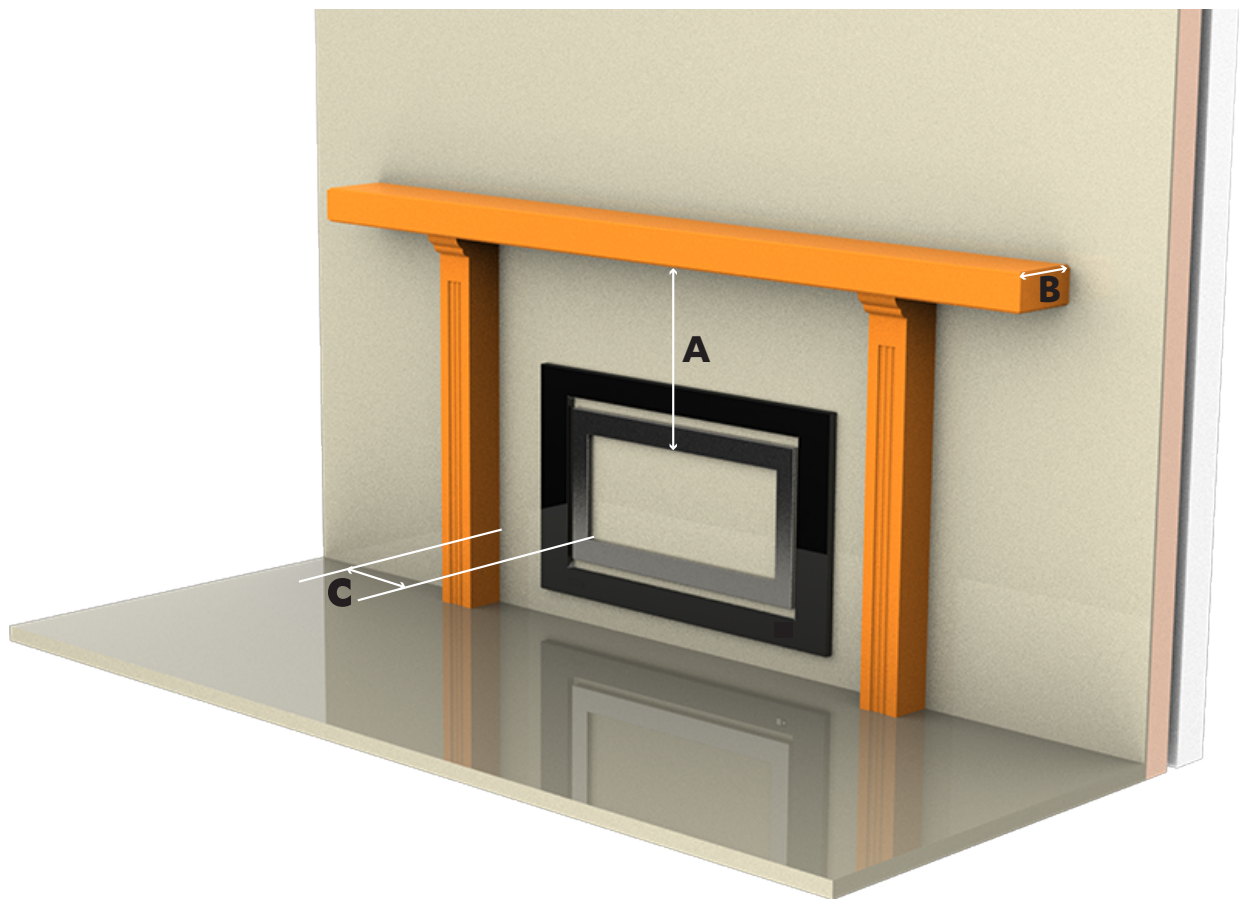
Neo Freestanding clearances



## Mantels and surrounds - inbuilt models only

Combustible mantels and surrounds require clearance from the unit to minimise the risk of fire. Mantels and surrounds, made of combustible materials such as wood, are allowed providing they are outside the minimum clearances shown.

The Neo gas fireplace is not designed to be built into bookcases.



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**A** Mantel needs to be a minimum of 400 mm away from the edge of the inner glass.

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**B** Maximum mantel depth at 400 mm (A) is 250 mm.

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**C** Surround needs to be a minimum of 400 mm away from the edge of the inner glass.

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For every 50 mm of added mantel depth there must be an additional 100 mm of clearance from the edge of the inner glass.

For example:

<b>MANTEL</b> DEPTH	<b>A:</b> CLEARANCE REQUIRED
300 mm	500 mm
350 mm	600 mm
400 mm	700 mm

# General information

Before operation please read these instructions to get an overview of how to operate, maintain and service your Rinnai gas fire.

## Care and maintenance

All external surfaces of the fire can be cleaned using a soft damp cloth and mild detergent. Do not use solvents and do not attempt to clean the fire while it is hot or operating.

## Electrical connection

The Neo is fitted with a 1.5 m power cord and 3-pin plug. The standard electrical connection is to the right hand side of the heater. If necessary this can be changed by your electrician to terminate on the left.

The connection is either direct wired\* or connected to a power point within the cavity. This must be connected to a dedicated earthed power point. The electric isolation switch must be accessible after the appliance has been installed.

The fire must not be located immediately below a socket outlet (potential fire hazard).

If the supply cord is damaged, it must be replaced by a licensed tradesperson. This must be a genuine replacement part available from Rinnai.

## Installation by a licensed tradesperson

Only a licensed tradesperson can install, adjust, maintain, and service this gas fire. Any work carried out by a non-licensed tradesperson is illegal and will void any warranty.

## Installer handover

Ensure your installer talks to you about the use and care of this appliance, and that you understand these instructions. The installer also needs to complete the appliance installation checklist and installer details, and leave this guide with you.

\* Consult a qualified electrician if direct wiring is required as it must comply with AS/NZS 5601 and AS/NZS 3000 and other relevant local regulations

## Safety devices

### - Overheat switches

If the Neo gets too hot during operation, for example if the air outlet louvres get blocked, the overheat safety switches will turn off the gas and will only allow the fire to restart when it has cooled down.

### - Electrical fuse

The electrical circuits are protected by a fuse.

### - Flame failure sensing system

This device automatically cuts off the gas supply to the heater in the event the fire does not ignite after several attempts—this is to prevent gas building up inside the unit.

### - Power failure

In the event of a power failure or power cut, the gas valves will automatically close and shut down the unit.

## Soot deposits

Small soot deposits inside the heater or glass is normal. Significant soot build-up however is not normal and will require a service call. Refer to the troubleshooting section for further information.

## Environmental

The Neo is manufactured from a number of recyclable materials. At the end of its useful life please consider what parts could be recycled, for example scrap metal.



# Servicing

Rinnai has maintenance, service and spare parts network with personnel who are fully training and equipped to give the best advice on your Rinnai appliance.

Servicing and repair should only be carried out by authorised personnel. If your appliance needs maintenance or servicing, please call Rinnai (0800 746 624).

For reliable operation Rinnai gas fireplaces should be serviced every two years, including inspection of the flue system. If they are in a particularly dusty environment or subject to excess lint, for example dog hair, or where there are newly laid carpets, then annual servicing would be beneficial.

Regular maintenance and servicing is not covered by the Rinnai warranty.

Do not attempt to carry out any service work other than that mentioned in the troubleshooting section. If you have any other faults or problems, please refer to your installer or contact Rinnai.



# Limited Warranty

**Rinnai brings you peace of mind with a:**

## 2 Year minimum warranty



### Terms and conditions

1. During the 24 month period from date of purchase and subject to clauses 2 and 3 below, Rinnai New Zealand Limited ("Rinnai") will, at its own discretion, either replace or repair any defective product at no charge to the customer.
2. This warranty covers manufacturing defects only. This warranty will not apply if (for example) the product has been improperly installed or is otherwise installed contrary to manufacturer's recommendations, has been damaged during or after installation, has not been

operated in accordance with operating instructions, or has been subjected to damage or abuse beyond that expected from conditions of normal use.

3. Warranty claims may be invalid if not accompanied by details of the installing or supervising gas fitter's registration number and the gas fitting certification number.
4. This warranty commences from the date of purchase. Proof of purchase is required at the time of any warranty claim.

5. Servicing of the product is to be carried out by a Rinnai authorised service centre.

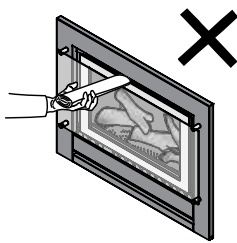
All Rinnai appliances meet or exceed the safety standards required by New Zealand gas and electrical regulations. The company is constantly improving its products and as such specifications are subject to change or variation without notice.

# Safety

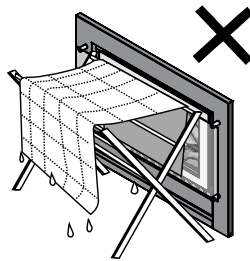
## Important

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

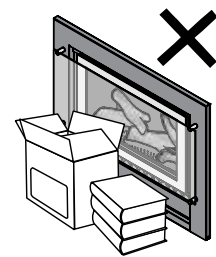
- The heater must not be used if the glass or panels are damaged
- Do not place articles on or against this appliance
- Do not use or store flammable materials near this appliance
- Do not modify this appliance
- Do not spray aerosols in the vicinity of this appliance while it is in operation



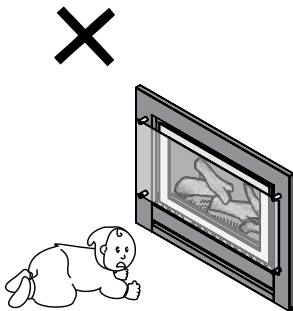
Do not allow anyone to post articles through into the heater.



This appliance must not be used for any other purpose other than heating



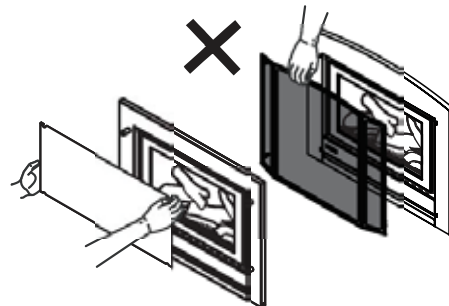
Do not restrict warm air discharge by placing articles in front of the appliance.



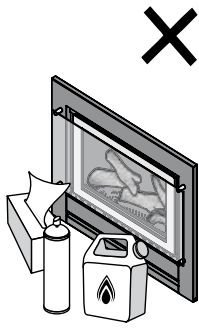
Children should be supervised at all times to ensure they do not play with the appliance. Hand or body contact with the appliance must be avoided.



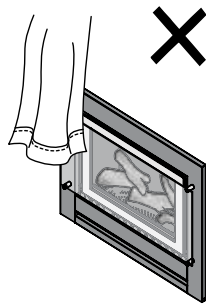
Do not allow anyone to sit, lean or sleep directly in front of the appliance.



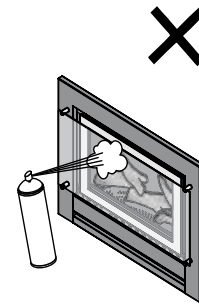
The glass dress guard must be fitted to this appliance to reduce risk of serious burns and no part of it should be permanently removed.



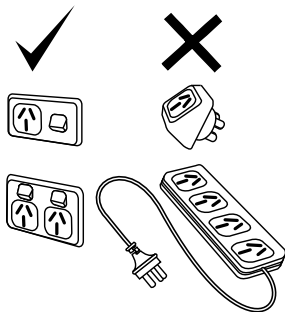
Do not use or store flammable materials near this appliance.



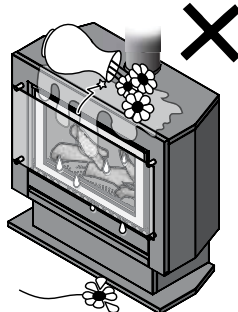
Combustible materials must not be placed where the heater could ignite them.



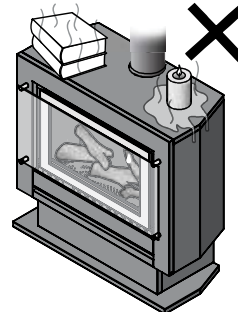
Do not spray aerosols while the appliance is operating. Most contain butane gas which can be a fire hazard if used near the appliance.



A dedicated 240 V earthed 10 A power point must be used with this appliance. Do not use power boards or double adaptors to operate this appliance.



Do not place containers of liquid on top of the appliance. Water can cause extensive damage and create an electrocution hazard.



Do not place articles on or against this appliance.

# Abnormal flame pattern

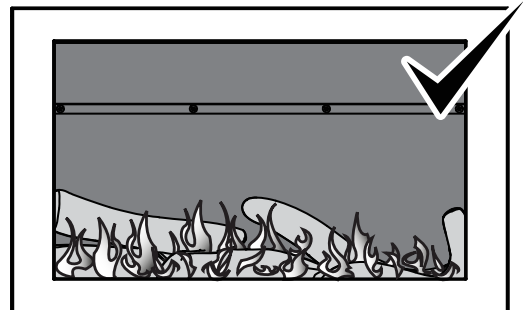
Each Rinnai Flame Fire has a distinct flame pattern. This should look the same every time you start your fire, after an initial warm up period of approximately 20 minutes.

Abnormal flame performance and/or pattern can indicate a problem with your fire, such as blocked gas injectors, or shifting of burn media.

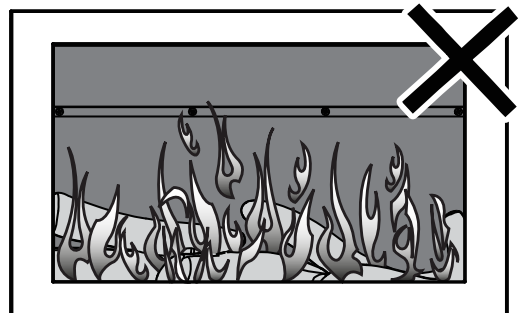
There are some warning signs that could indicate a problem.

- Unusual smell from the appliance
- Continued difficulty or delay in establishing a flame
- Either very short or very long flames
- Flame only burns part way across the burner
- Severe soot building up on the inside of the glass<sup>1</sup>

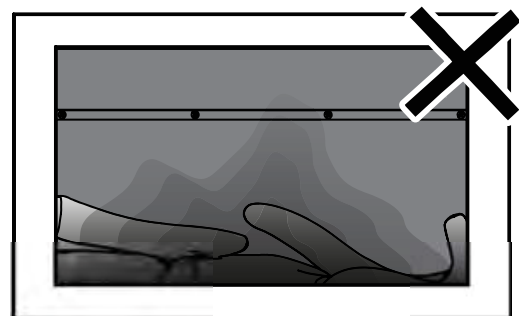
If any of the above signs occur, please contact Rinnai.



**Normal flame pattern**



**Abnormal flame pattern**



**Soot build up**

<sup>1</sup> Appliances incorporating a live fuel effect, and designed to operate with luminous flames, may exhibit slight carbon deposits—this is normal.

## Error codes

The Neo has self diagnostic electronics that monitor the appliance during start up and operation. Should a fault occur the heater will shut down. The fault that has caused the shut down will be indicated by a pair of flashing numbers in the error display window in the lower left hand side of the frame. The error will show through two narrow cutouts—you will need to walk up to the fire and look down to see these.

Error code	Likely cause	Suggested solution
00	Mains power failure	Reset the fire, press the On/Off button on the control panel or remote control twice to turn the fire back on.
11	Ignition failure	Check the gas supply is turned on. Turn the heater OFF then ON again. If the problem continues a service call will be required.
12	Incomplete combustion	As above.
14	Overheat safety device	Service call.
16	Room overheat	Lower room temperature to below 40 °C.
31	Room temperature sensor faulty	Service call.
32	Overheat temperature sensor faulty	Service call.
33	Overheat temperature sensor faulty	Service call.
53	Spark sensor faulty	Service call.
61	Combustion fan motor faulty	Service call.
70	Model error	Incorrect PCB for model, service call.
71	Solenoids faulty	Service call.
72	Flame detection circuit fault	Service call.
73	Communication error	Service call.

Neo - top view of frame, looking down



Error codes will show through these slots in the frame

Infra-red remote receiver window and ignition indicator



# Troubleshooting

*Uh-oh!*

Check the following information before making a service call as some performance characteristics of the Neo are a normal part of operation. If you are still unsure or concerned after reading this section, please contact Rinnai.

During installation there will be an initial burning in period where some smoke and smell may be experienced. This is a normal part of the operation.

The appliance is fitted with an overheat safety switch which will shut off the appliance. If the appliance shuts off repeatedly servicing may be required.

## Using the heater for the first time, or after a long period of non use

Ignition may not occur the first time it is operated due to air in the gas pipes. If ignition does not occur the unit will switch off automatically. Try operating the heater again if this occurs.

The heater may make noises after ignition or switching off. This is due to the expansion and contraction of the internal components—this is normal. The heater will not ignite if the On/Off button is pressed straight after the heater has turned off. It will take approximately 20 seconds before the unit will switch on again.

What's happening	Explanation and/or possible solution
<b>Unusual smells</b>	
Smoke or strange smells are produced when first operating the appliance after installation.	This is caused by grease, oil, or dust within the appliance. This will stop after a short time.
Smell of gas	Have you been painting? Have new carpets been laid? Have you been cooking with spices? If yes to any of the above, then this is normal as these odours will mix with the warm air to emit an unusual smell—this will dissipate over time.  There could be a leak. Turn off the gas at the meter or LPG cylinder and call your installer.
<b>Unusual sounds</b>	
Clicking noises when the heater starts or stops, or changes to a higher or lower setting.	This is expansion and contraction of the heat exchanger and is a normal part of operation.
Clunking noise when the thermostat operates.	This is the sound of the gas valve opening and closing to regulate the flow of gas.
<b>Soot marks and condensation on the glass</b>	
Small soot deposit on logs or stones.	Normal operation, no action required.
Severe soot deposits forming on logs, stones, or glass	Inadequate flue system, incorrect gas pressure or incorrect installation of burn media. Contact a Rinnai Service Centre.
Condensation and/or water marks on the glass	Normal operation. Condensation should disappear once the fire has warmed up.

<b>What's happening</b>	<b>Explanation and/or possible solution</b>
<b>Performance problems</b>	
Warm air not coming from heater when it starts	The fan starts automatically after a short delay. This is to allow the appliance to warm up, helping avoid cold draughts.
Fan continues to run after the heater is turned off.	This is to remove residual heat from within the appliance. This stops once the unit cools down.
Fire will not light when switched on	Ensure the power cord is plugged in and turned on. Ensure gas supply is turned on.
Unit stops during operation	Possible power failure, or gas supply may have been turned off.
<b>Remote problems</b>	
Remote control doesn't work	Unit not plugged in properly or has been turned off—plug in power cord or press On/Off button.  Remote lock-up due to signal being out of range, incorrectly aimed at unit or obstructed.
No display on remote.	Batteries may be flat, change batteries.
<b>Possible error codes* on remote when batteries are activated or changed:</b>	
F1 displays on remote	Assembly fault, remote will not respond to movement—accelerometer not communicating with the main processor correctly. Contact Rinnai.
F2 displays on remote	Room temperature outside 5-45 °C, or temperature sensing circuit has failed, which may indicate an assembly fault. Contact Rinnai.

\* Unlikely to occur, but possible if there has been an assembly fault or failure with the remote.

# Commissioning

The installer must complete the installation and commissioning checklist below and leave this guide with you. They must also instruct you in the use and care of the Neo, and make sure you understand the safety instructions and operation of the appliance.



The glass dress guard fitted to this appliance reduces the risk of fire and injury and no part of it should be permanently removed.

## Checklist

- Appliance positioned in a suitable location (clearances, mantels and surrounds etc.).
- Rinnai flue system installed and tested to ensure effective draw.
- Gas pressures checked and set.
- Burn media installed as per instructions.
- Glass dress guard fitted and customer advised not to remove.
- Appliance tested for correct operation and to ensure no gas leaks.
- Customer instructed on operating procedure and safety requirements.
- Customer advised to service the heater every two years.

# Purchase details

RECORD YOUR DETAILS  
OF PURCHASE BELOW:

ATTACH YOUR PROOF OF  
PURCHASE HERE:

Retailer:

---

Retailer address:

---

---

Date of purchase:

---

Product details:

---

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**Please keep these details in a safe place for future reference.**

# Installer details

Company name:

---

Installer name:

---

Address:

---

---

Phone:

Mobile:

---

Certificate of compliance number for installation:

Signed:

Date:

*a touch.  
of magic*



Experience our innovation

**Rinnai.co.nz** | **0800 746 624**

<http://www.youtube.com/rinnainz>

Neo RIB2312 Operation Guide: 12149-A 01-17