

# How to use your Space Heater

## Rinnai

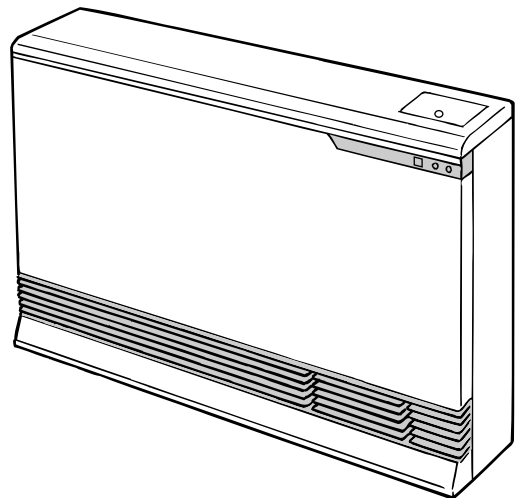
### Energysaver<sup>®</sup> Heater RHFE-1004FTR

### Customer

→ page 2

### Installer

→ page 18



This appliance must be installed correctly by an authorised person, and the installation must conform with the following local regulations (if applicable):

- Manufacturer's Installation Instructions
- Local Gas Fitting Regulations
- Municipal Building Codes
- AGA Installation Code for Gas Burning Equipment
- Any other relevant Statutory Regulation

Your 1004 FTR has been approved by the Australian Gas Association.  
AGA Approval Number:5941

**Remote Control  
Included**

**DUAL TIMER**  
Set and forget

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# FEATURES OF YOUR 1004 FTR

**Push button ignition** : Only one touch of the ON / OFF button is required to operate the heater.

**Dual Timer** : The dual timer allows you to program the heater to come on for two separate periods each day, usually one period in the morning and one period in the evening. The dual timer feature means that you can set and forget your heater. It will turn itself ON and OFF at the times you have programmed until you cancel the timer program.

**7 step automatic heat control** with electronic thermostat. The fan is also controlled by the thermostat.

**Pre-Heat** : This function will automatically operate the heater within one-hour prior to the programmed time of the timer in order to heat a room to the pre-set temperature by the programmed time.

**Economy mode** : An energy saving feature that reduces the room temperature by 3°C over a 90 minute interval.

**Memory** : The micro-computer records selected pre-set temperatures, the times programmed into Timers as well as operating the Economy and Pre-heat modes to maintain comfort levels. Even if the power cord is pulled out of the power point, the next time the unit is operated, there will be no need to re-program the Timer times (only the clock will need to be re-programmed).

**Override Function** : This temporarily changes the heater operation from ON to OFF, or vice versa, until the next programmed setting is reached.

**Remote Control** : A remote control is supplied to enable you to turn your 1004 FTR ON and OFF, and to adjust its temperature at your convenience. The remote control also comes with its own handy bracket for easy storage.

**Lockable Control Panel Lid** : The 1004 FTR has a lockable Control Panel Lid which is ideal for commercial use. This feature is great for applications where safety is paramount or when the unit is required to be set once and left alone. Two keys are also supplied with the unit.

**Function Lock** : Prevents children from altering heater settings whilst running, or from activating the heater when turned off. This feature is utilised if the Control Panel Lid is unlocked.

**Heater Filter Indicator** : When the heater filter becomes covered with dust and the temperature inside the appliance rises, the heater filter indicator will flash indicating that cleaning is necessary.

The integral **humidifier tray** can be filled with water as required to raise the humidity level in the room.

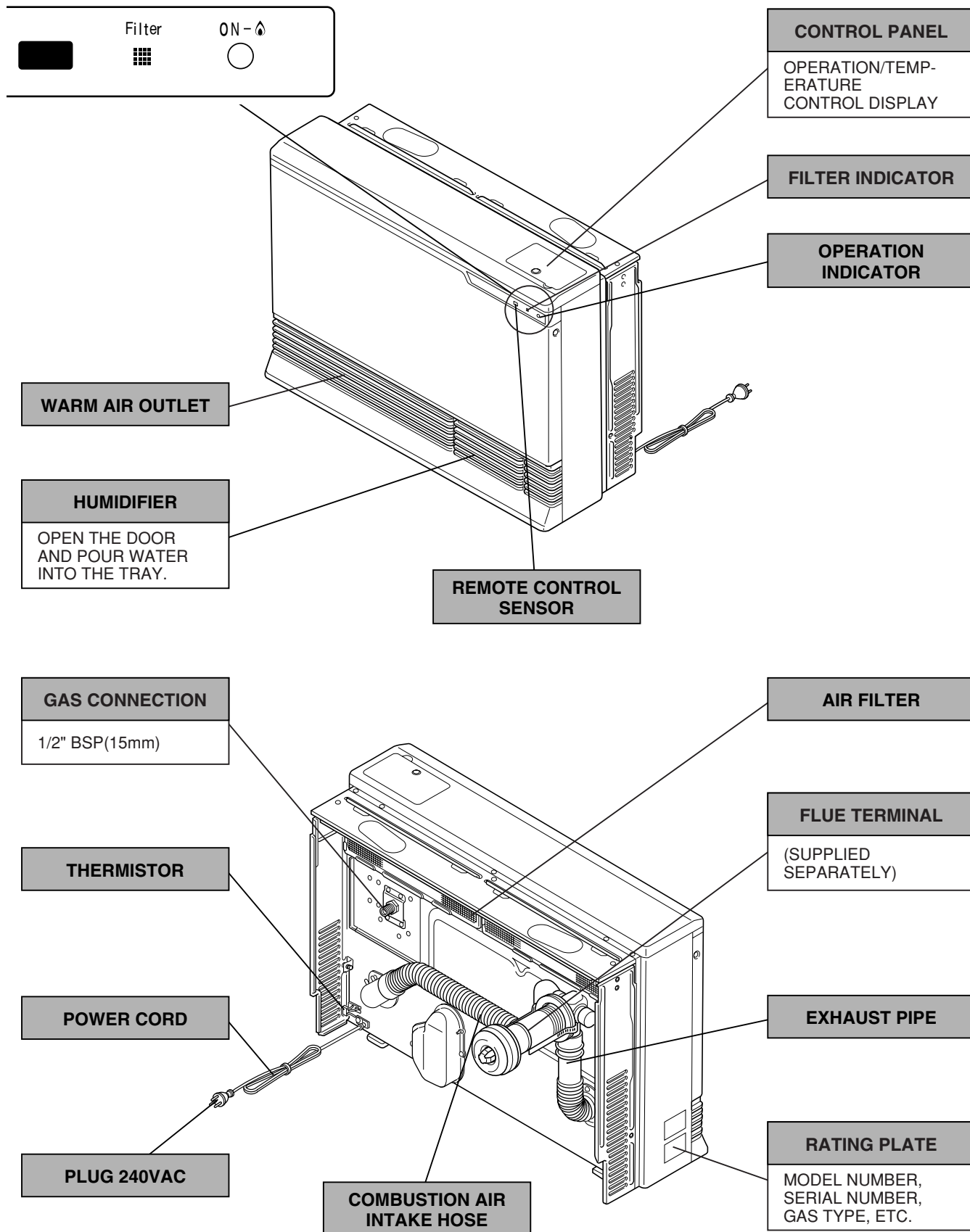
**Room Sealed** : Air for combustion is taken from the outside and the flue product is exhausted outside, keeping the room air clean.



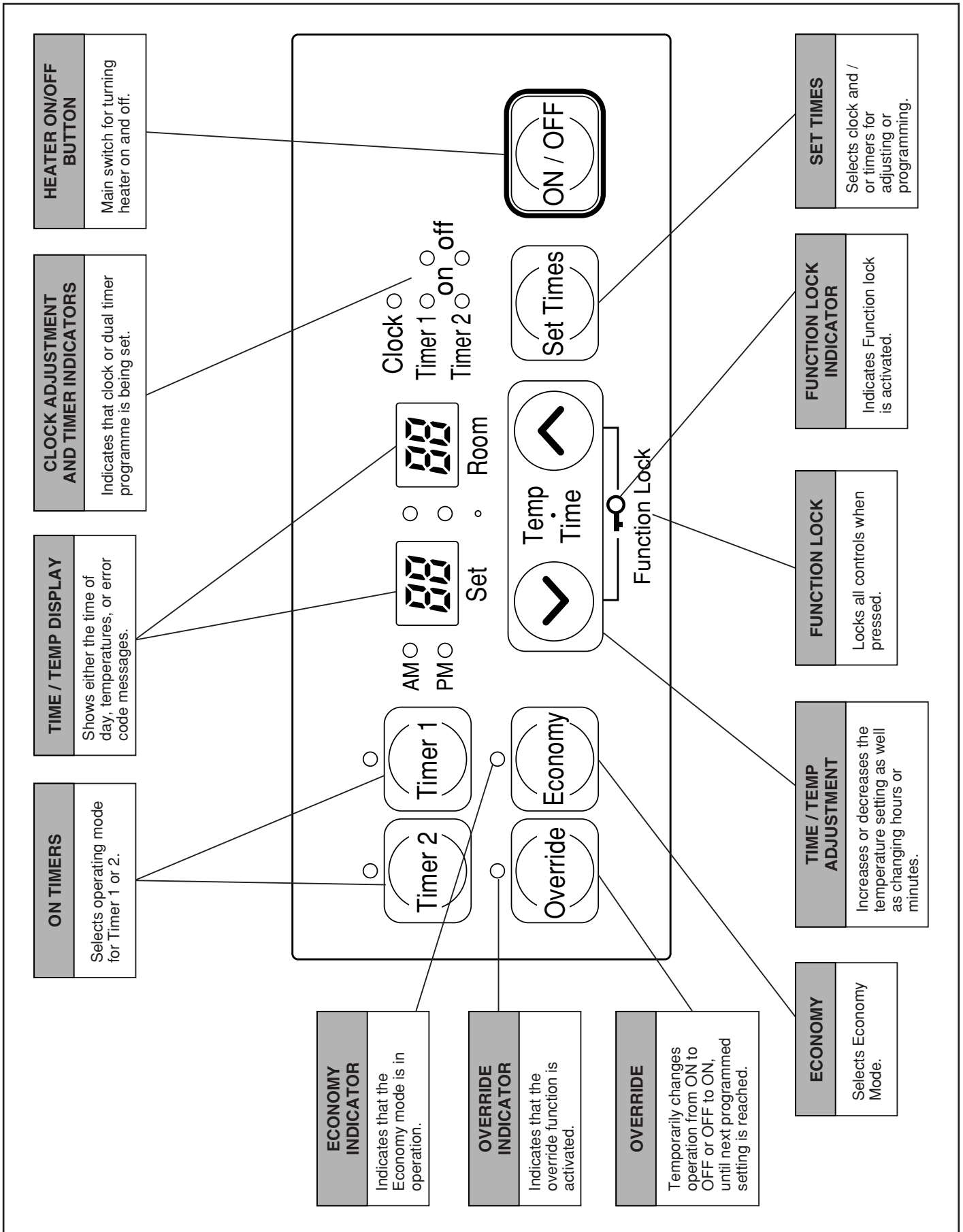
The Australian  
Gas Association

Proudly a member of the AGA  
All of our gas products are AGA  
tested and approved.

# GETTING TO KNOW YOUR NEW 1004FTR

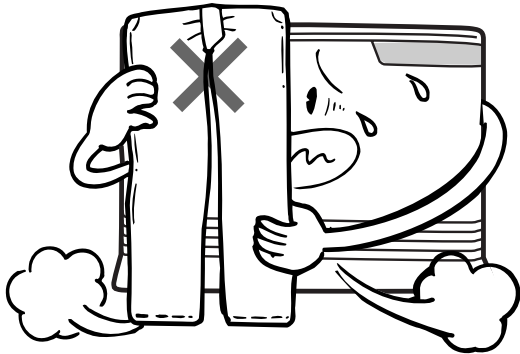


# CONTROL PANEL LAYOUT

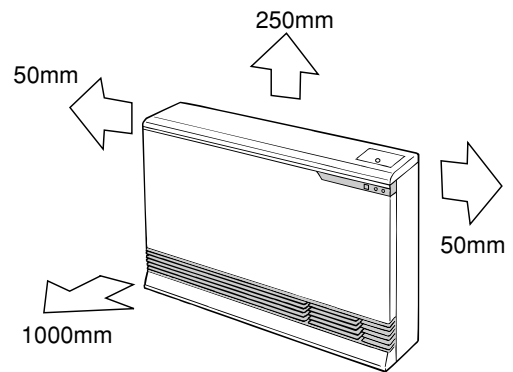


# IMPORTANT POINTS

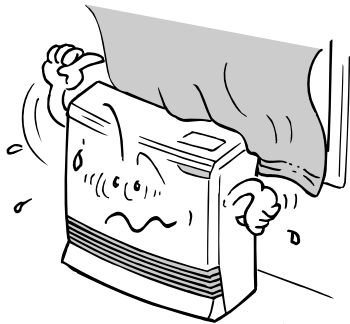
Do not use for any other purpose except heating.



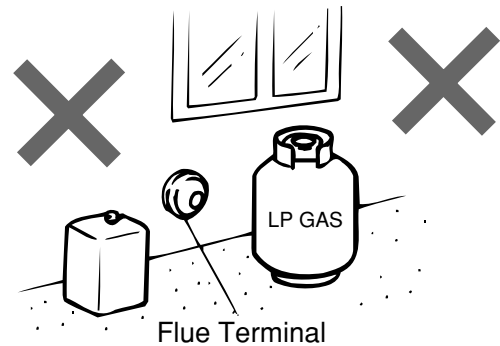
These clearances should be maintained at all times.



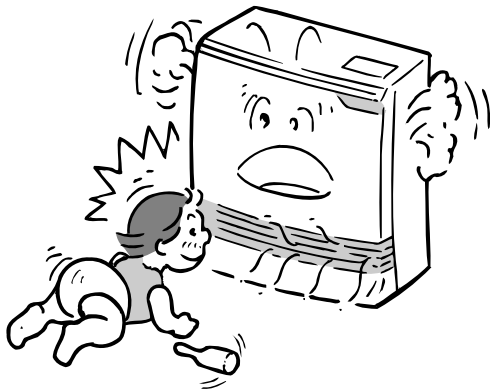
Do not allow curtains or other flammable materials to come into contact with the heater.



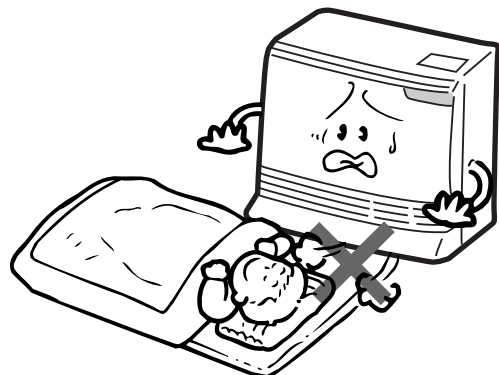
Do not store flammable products near the unit.



Supervise children near heater.

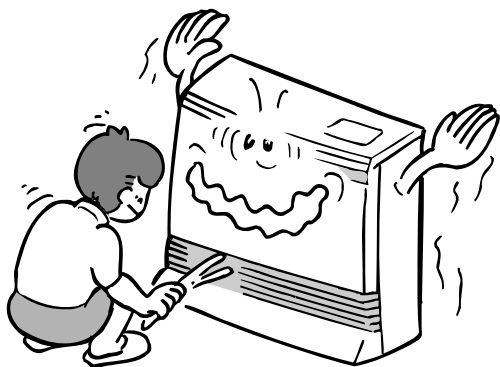


Do not allow young children or the infirm to sleep directly in front of the heater.

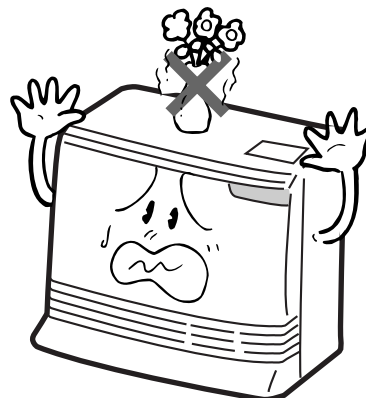


# IMPORTANT POINTS

Don't allow children to 'post' articles in the louvres.

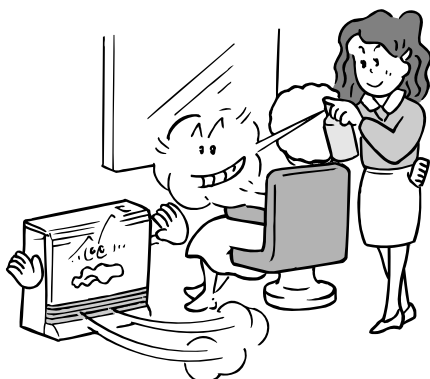


Don't place any articles containing liquids on top of the heater.

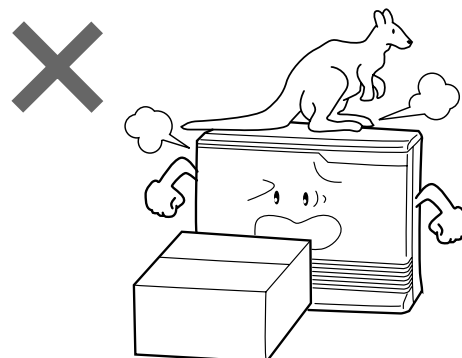


Don't spray aerosols on the heater whilst it is in operation.

Most aerosols contain butane gas and can be a fire hazard if used near this heater when in use.



Do not place articles on or against the heater.



Do not sit on this heater.

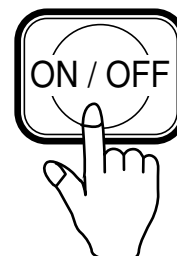
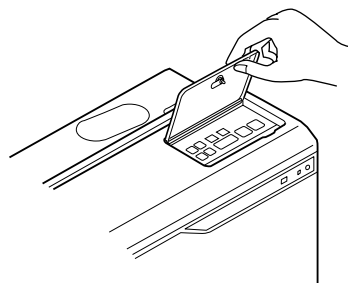


# HOW TO OPERATE THE HEATER

## ■ Turning ON

### ● Press the ON/OFF button

- The ON indicator will illuminate green.
- The convection fan will rotate.
- Ignition will take 5~10 seconds and the ON/Combustion indicator will change from green to red to let you know that the burner has ignited.



### Note :

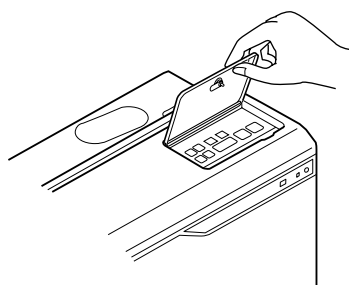
- When using the unit for the first time or after long periods of disuse, ignition may not occur the first time it is operated as there may be air in the gas pipes. If ignition does not occur after approximately 30 seconds the unit will cease operation automatically. Try operating the unit again if this occurs.

- The unit may make noises after ignition / extinction. This is the inside of the unit expanding and contracting and is normal.
- The heater will not ignite if the "ON / OFF" button is pressed straight after extinction. After approximately 20 seconds has passed, the unit will automatically go into ignition mode.

## ■ Turning OFF

### ● Press the ON/OFF button

- The ON / Combustion indicator will go out.
- After the indicator has gone out, the convection fan will continue to rotate for several minutes, then stop. This is to lower the temperature within the unit. Do not pull out the power cord during this time.



## CAUTION !

- Do not pull out the power cord or disconnect the power during combustion to cause extinction, or straight after extinction, as this may cause damage to the unit.

- When the Function Lock is set, the Function Lock indicator will continue to illuminate even when the unit is OFF and the Function Lock will not be cancelled.



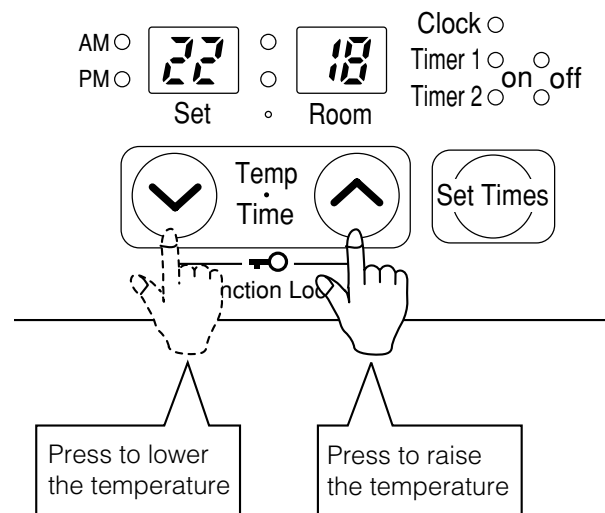
# ADJUSTING TEMPERATURE

Displaying, setting and adjusting the room temperature can only be done when the heater is operating.

- When the unit is first operated, the room temperature is set at 22°C.
- Set the desired room temperature with the up and down buttons while looking at the display section.
- The “Set Temp” can be set to “L” or between “16” ~ “26”, or “H” (continuous combustion on High).
- The “Room Temp” will display “L” (when lower than 1°C), “1” ~ “30” (at intervals of 1°C), or “H” (when higher than 30°C).
- Once a temperature is set, it will be stored in the microcomputer's memory.

## Note :

- Rooms may not arrive at the set temperature due to the construction of the room, the location of the unit, or external temperatures.



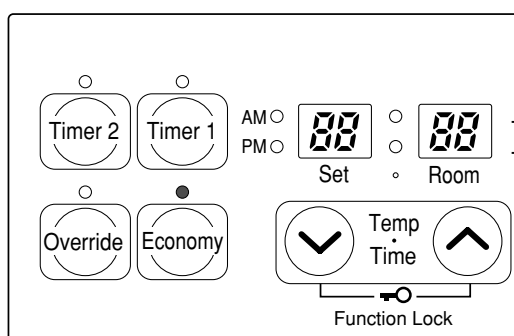
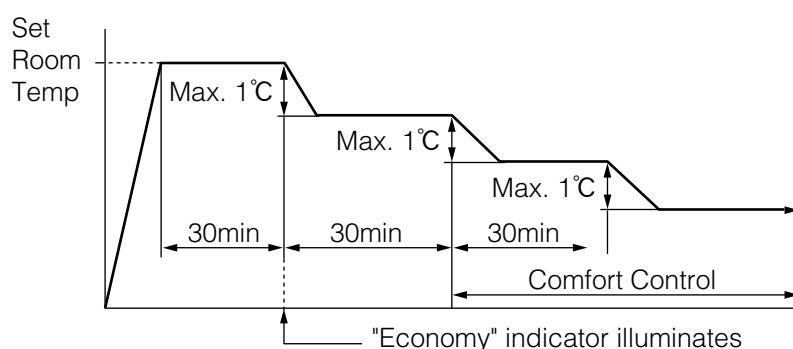
If the heater does not ignite then the pre-set temperature may not be set to a setting which is higher than the actual room temperature.

# ECONOMY MODE

The Economy Mode, when selected, has the ability to reduce gas consumption and ultimately save energy. Once a room has reached the desired temperature, the unit will automatically begin reducing the set temperature gradually. This reduction is normally not noticeable, however, it is purely your choice whether to select this mode.

## How it works :

- After a room reaches the set temperature, the set room temperature will decrease 3 times automatically, each time, dropping by a maximum of 1°C in 30 minute blocks. From the second time onwards, the comfort control will automatically operate. (The comfort control alters combustion and fan speed more frequently to counteract the feeling of cold air. )
- The Economy indicator will illuminate to let you know that the Economy Function is selected.
- The Economy function will not operate when the set room temperature is less than 16°C or above 26°C.
- When the Economy function is operating, the current room temperature may be shown as being lower than the set room temperature, however, this is normal.

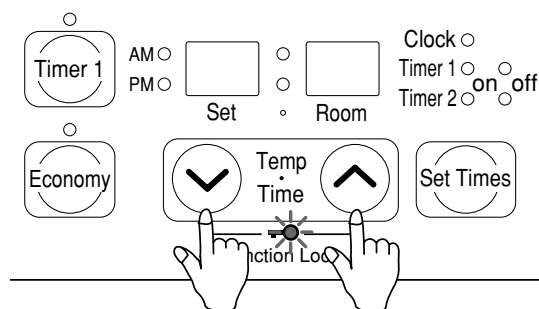


# FUNCTION LOCK

The Function Lock will help to prevent accidental operation as well as small children from altering the heater settings.

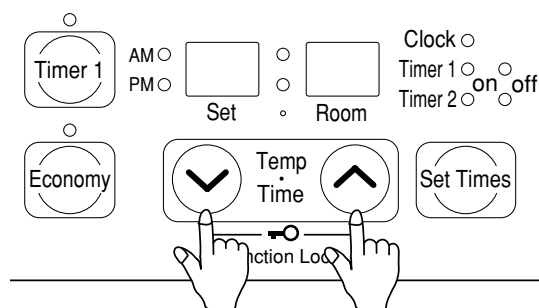
1

The Function Lock can be operated either when the heater is running, or in the “stand by” mode, by pressing the up and down buttons simultaneously. The Function is activated and the Function Lock indicator will glow.



2

To de-activate the Function Lock, simply press both arrow buttons simultaneously for 2 seconds and the Function Lock indicator will go out. The lock can be de-activated at any time in this way.



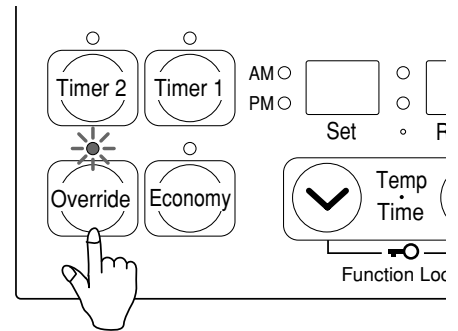
When the Function lock is activated during normal operation all heater controls other than the OFF switch will be locked. Deactivating the lock releases the controls. If the lock is activated whilst the heater is turned OFF, then all heater functions will be locked. If the heater is turned OFF whilst the Function lock is activated, it cannot be turned ON again until the lock is deactivated.

# OVERRIDE FUNCTION

This function is used to manually override the current operation of the heater. For example ; if the heater is in standby mode (ie. between finishing time and starting time of a Timer) and the Override button is selected, then the heater will begin to operate, and heat the room.

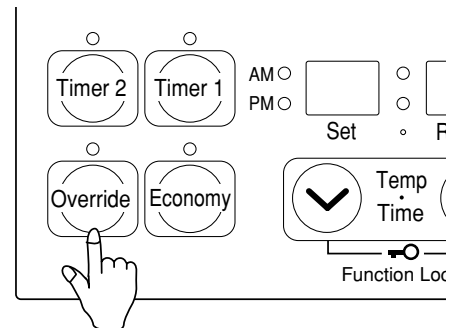
1

To operate the Override simply press the Override button. The Override indicator will flash.



2

To manually de-activate the Override simply press the Override button again. The Override indicator will go out, and the heater will return to standby mode.



The heater will continue to operate on Override until the Override button is pressed again, or one of the Timers takes over operation of the appliance.

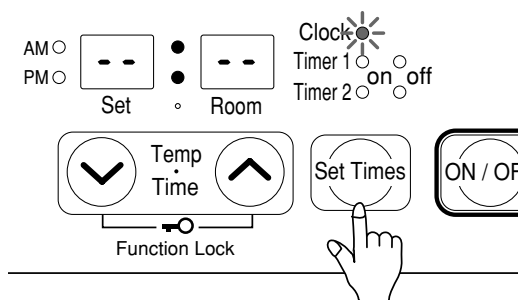
This means that the Override mode will automatically drop out if a programmed starting time is reached. The appliance will then return to operating at times programmed into the Timer(s).

# SETTING CLOCK

When the appliance is first plugged in and then turned on, the Digital Display will show --:-- .  
As an example let's set the clock to 10:35am.  
(See page 4 for complete Control Panel Layout.)

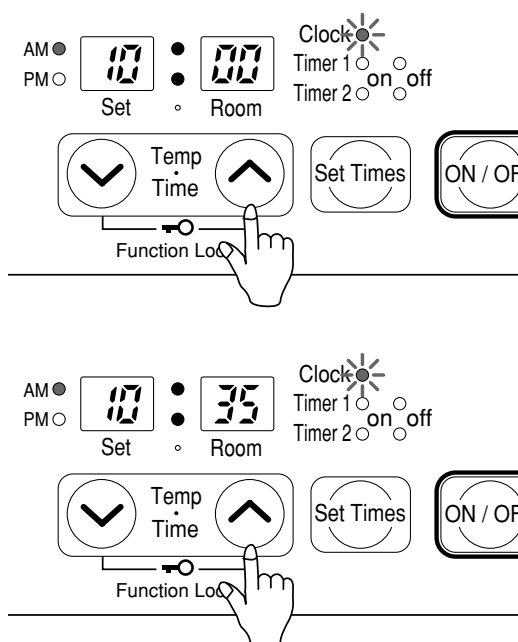
1

When the appliance is first plugged in or after a power failure, the Digital Display will show --:-- .  
Press the Set Times button once. The Clock Indicator will flash.



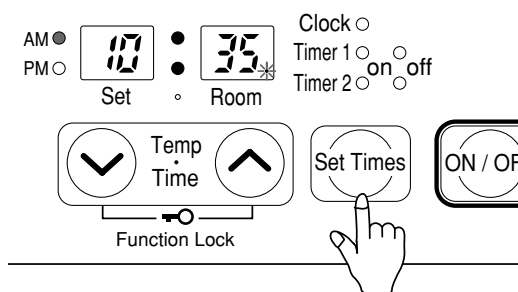
2

Press and hold the “^” button ; the minutes will begin to change first, then the time will change by whole hours. Release the button when AM10:00 shows on the Digital Display. Confirm that you have selected AM. A small indicator on the left hand side of the Digital Display indicates the AM setting.  
Press and hold the “^” button again, release the button when AM10:35 shows. If you go past AM 10:35, then the “v” button can be used to change the time settings in reverse.



3

Press the Set Times button five times to lock in and complete setting the time. The Clock and Timer indicators will go out. A small indicator on the Digital Display will flash to show that the clock is operating.



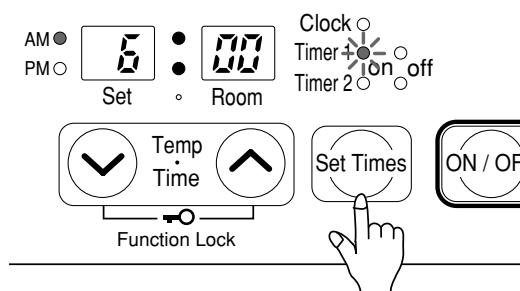
# PROGRAMMING THE ON/OFF TIMER (S)

Before programming the Timers you must ensure that the clock has been set to the correct time. See page 12.

As an example let's programme Timer 1 to heat the room by 7:10AM and finish at 9:30AM.

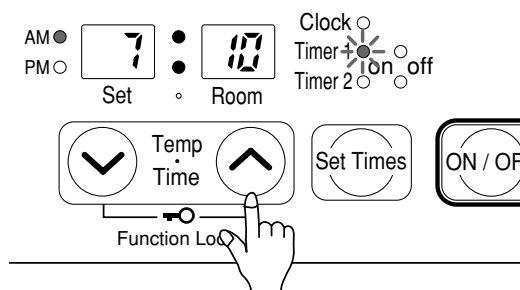
1

Press the Set Times button twice. The Digital Display will show AM6:00. Timer 1 indicator will flash.



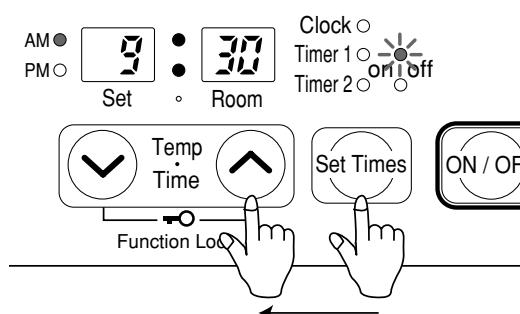
2

Press the “⬆” button until AM7:00 appears, release the button, then press it again until AM7:10 appears. (Press the “⬇” button if you go past AM7:10. )



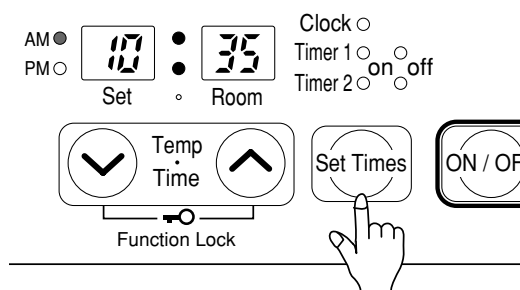
3

Press the Set Times button again, the Timer 1 OFF indicator will flash. Press the “⬆” button until AM9:30 appears.



4

Press the Set Times button three times to lock in the programmed time. The Digital Display will show the current time.



## Note :

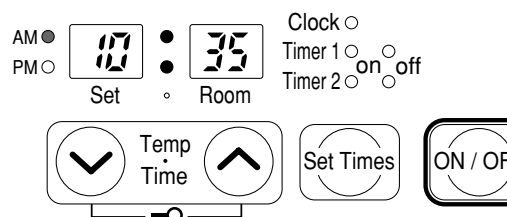
- This is for setting the ON / OFF times for Timer 1 and Timer 2 only.  
To activate the Timers, please see page 14.

# OPERATING THE HEATER TIMER (S)

Before operating The Timer(s), the clock time must be correct, and a starting time and finishing time for the Timer(s) must be programmed. See pages 12 and 13. The two Timers operate in the same way. This heater does not commence operation at the programmed starting time. It will attempt to heat a room by the programmed starting time. (Pre-heat function. Refer to page 15.)

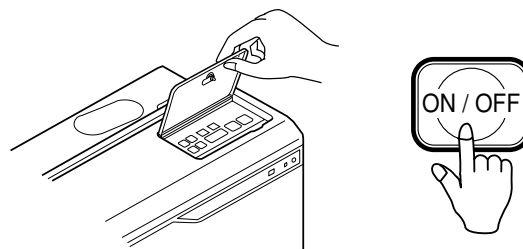
1

To select the Timer(s) to commence heating, check the time shown on the Digital Display is correct. See page 12. Check the ON and OFF times, for both Timers if necessary. See page 13.



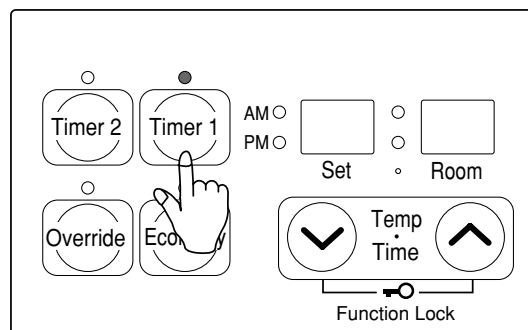
2

Press the ON-OFF button to operate the heater. The ON indicator will glow green and the heater will begin to operate. Select the desired temperature setting.



3

Press the Timer 1 and/or Timer 2 button(s). The Timer indicator(s) will glow and the heater will remain on standby until one hour prior to the time programmed into the selected Timer(s) is reached. When this time is reached, the Timer indicator will flash and the heater will operate. The ON indicator glows red when the heater commences operation.



## SET AND FORGET OPERATION

Your heater can be operated to alternate between Timers automatically during cold weather by selecting Timer 1 and Timer 2 together. Both Timer indicators will glow.

The appliance will remain on standby at intervals between the programmed finishing and starting times of each Timer. While the heater is operating with programmed intervals the Timer indicator will flash.

If there is a power failure the system memory will retain the Timer programs, and the clock will stop at the time power goes off. The clock will start again when the power comes back on, but the time will be slowed by the duration of the power failure. To set the clock to the correct time after the power has come back on, simply follow the instructions on page 12.

# PRE-HEAT FUNCTION

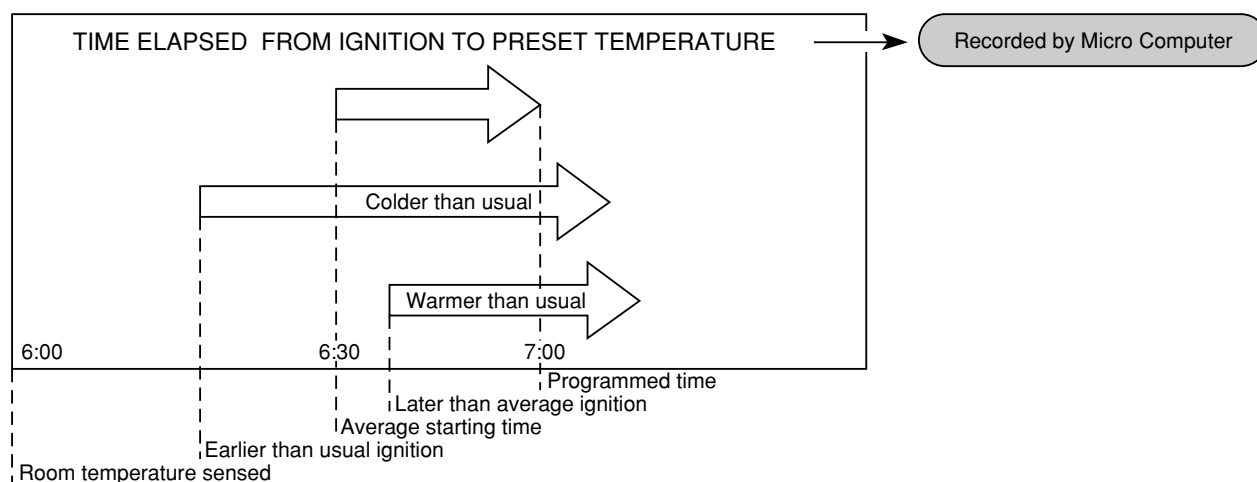
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This function operates automatically in conjunction with either of the Timers. When a Timer is selected, the heater may operate anywhere within an hour prior to the programmed starting time of the Timer. The Pre-heat function will automatically heat a room to the pre-set temperature by the programmed ON-Time. (ie. Heater will come on earlier to ensure desired temperature is reached by the programmed time.)

This function is called Pre-heat due to the way it operates. The room temperature is sensed one hour before reaching the programmed time of either Timer.

The temperature differential at the time of sensing the room temperature combined with the data from the previous operation governs exactly how long before the programmed ON time the micro-computer will operate the heater and ignite the burner.

The following chart may help to improve your understanding of the Pre-heat function.



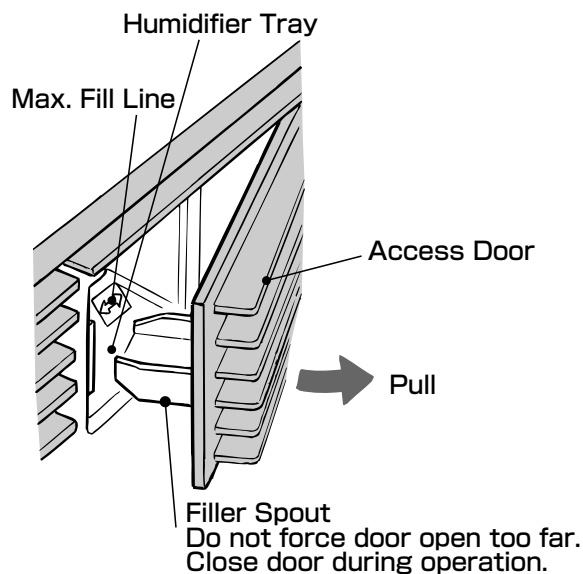


# OTHER OPERATING INFORMATION

## ■ HUMIDIFIER TRAY

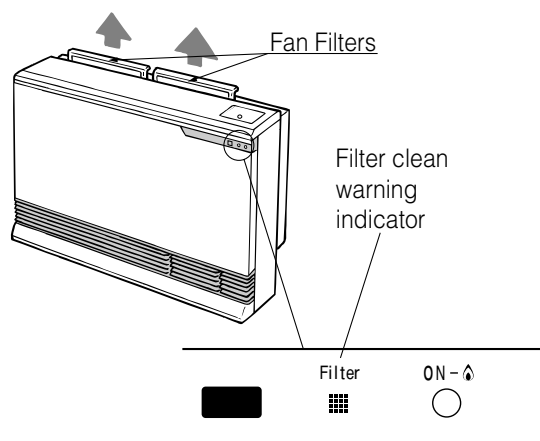
Your 1004FTR is fitted with an enamelled tray behind the air outlet so that you can humidify the air. To fill the tray, open the door as shown in the diagram and pour water into the tray using the spout built into the door.

The air will be humidified as it passes over the water in the tray. **DO NOT FILL THE TRAY WHILST THE UNIT IS IN OPERATION. CLOSE THE DOOR AFTER FILLING.** The 1004FTR is a very high efficiency appliance. During operation a small amount of water is produced in the flue tubes. This drains into the enamel tray. It is quite normal for a small quantity of water to remain in the bottom of the tray. If you are using the humidifier, it will need filling about once a day during the peak heating season.



## ■ FAN FILTERS

To protect the fan from dust and lint, the 1004FTR is fitted with 2 fan filters. They are located at the top, rear of the unit. To clean, pull the filters out of the unit and remove dust with a soft brush or a vacuum cleaner. Re-fit filters after cleaning. Your 1004FTR has a filter clean warning indicator that will illuminate when required, however, weekly cleaning is recommended during the peak heating season.



## ■ OUTSIDE FLUE

On cold days steam may be discharged from the flue outlet. This is normal with a high efficiency appliance and does not indicate any fault.

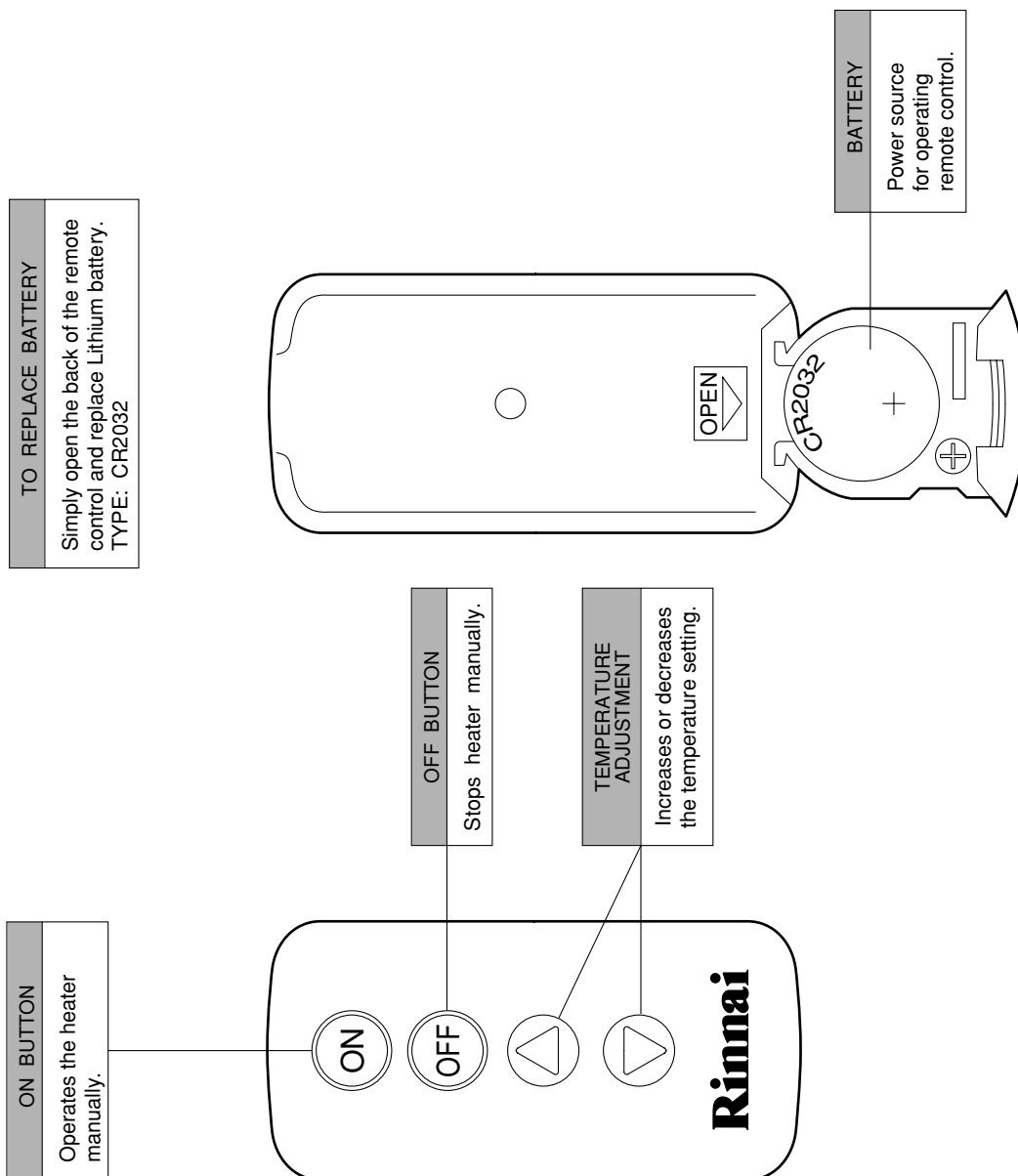
The heater and its flue must be installed correctly by an authorised person, and the installation must conform to all local regulations.

The installation also must comply with the instructions supplied by Rinnai.

This heater must be serviced, installed and removed by an authorised person.

No parts or functions should be modified or permanently removed from the heater or its flue.

# REMOTE CONTROL



## ■ Note

- Some fluorescent lights may interfere with the transmission of remote control signals. In this case changing the position from which you are operating the remote control may help.
- Avoid leaving the remote control in direct sunlight and do not place the remote close to the louvres of the heater.
- Avoid getting the remote control wet, or dropping it.
- The remote control works within 5 metres and an angle of 40° to the receiver on the heater.
- Only use the battery type specified. (CR2032).
- Remove battery if control is not going to be used for a long period. This will help to avoid damage from leaking batteries.

# LOCATION

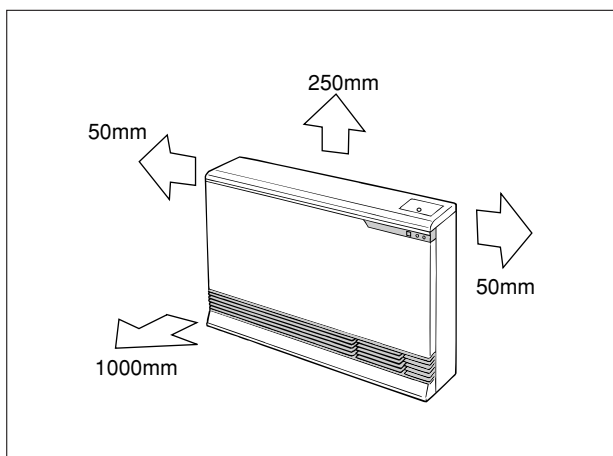
**When positioning the unit the main points governing the location are :**

(1) Flueing

(2) Warm Air Distribution.

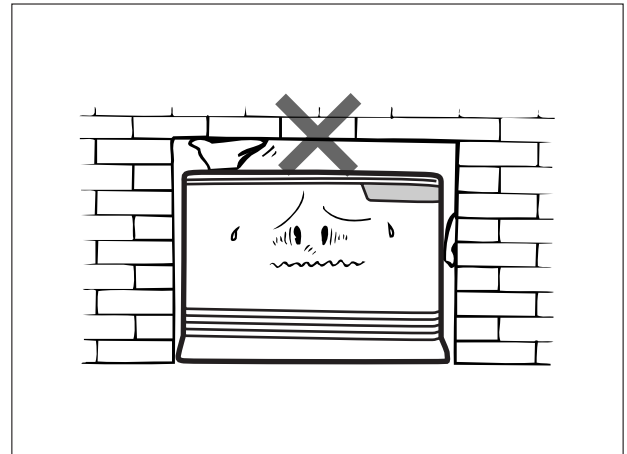
This heater must not be installed where curtains or other combustible materials could come into contact with it. In some cases curtains may need restraining.

See diagram for other recommended clearances.

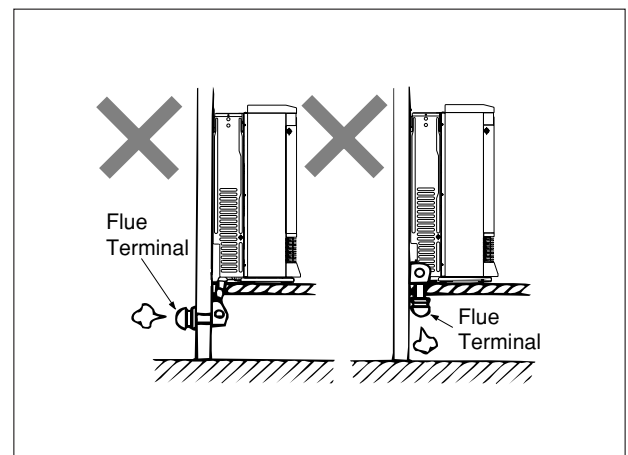


Flue fittings must be kept clear of flammable materials.

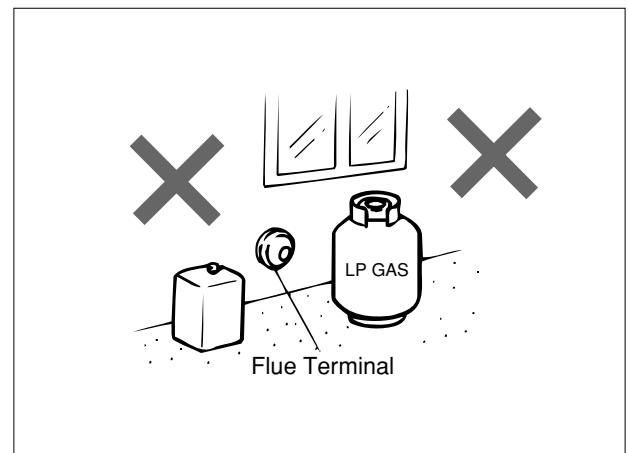
**This unit is not designed to be built in.**



Flue is not designed to be positioned under floors, or below the level of the heater.



Flue terminal should be positioned away from flammable materials.



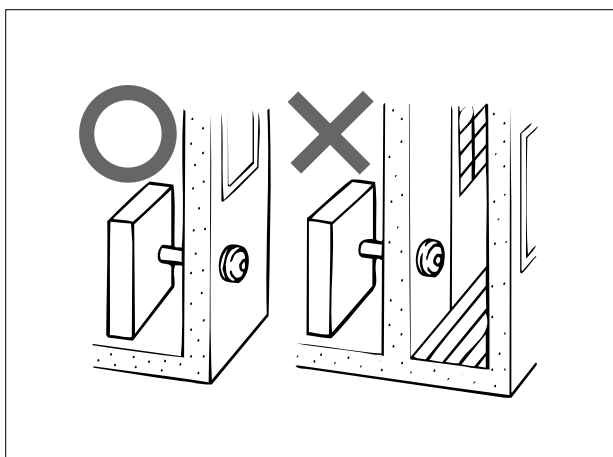
# LOCATION

Do not flue into natural draught flues or fireplaces, this unit can only be used with a Rinnai flue kit.

(A flue kit is available to flue right through to the rear of most fireplaces Use this kit when the heater is going to be installed in front of a fireplace.)

Do not flue unit into other rooms.

**Flue terminal must be outside.**



Flue may be positioned directly under opening windows. with a minimum clearance of 150 mm.

## Flue sizes :

6 flue lengths are available (Sold Separately)

AA flue suits walls 75-115mm

A flue suits walls 115-240mm

B flue suits walls 240-400mm

C flue suits walls 400-600mm

D flue suits walls 600-800mm

E flue suits walls 800-1000mm

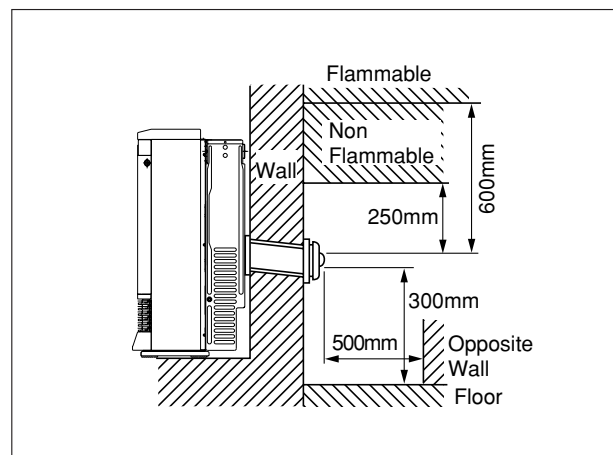
For information on special extra long flues, contact Rinnai.

Co-ax internal wall flues are also available. Separate instructions are supplied with co-ax flue kits.

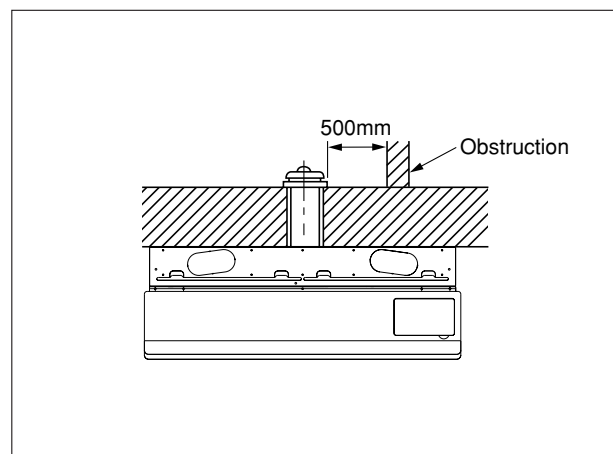
## Standard installation of flue manifold.

Diagram below shows minimum clearances and distances from obstructions.

Also check AG601 and / or local regulations.

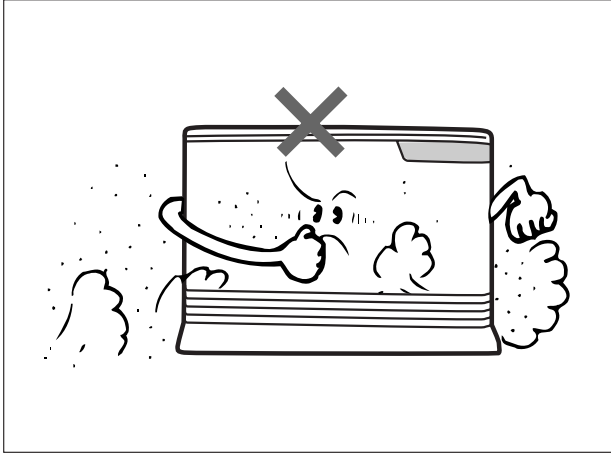


## Side Clearances.

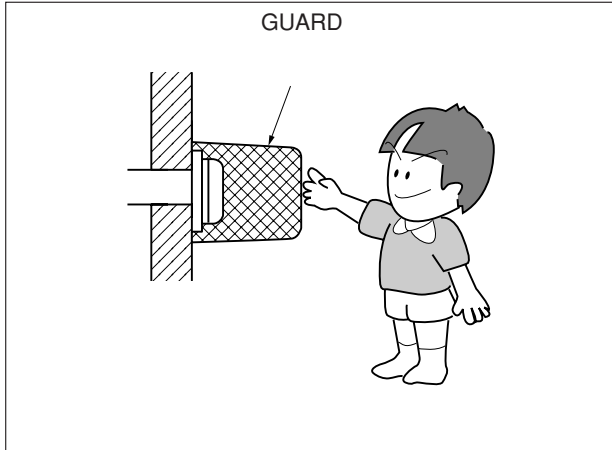


# LOCATION

Do not install the unit in an unusually dusty area.



Use flue guard if the terminal is easily accessible to children.  
Check local regulations.  
Flue guards are available as an optional extra.

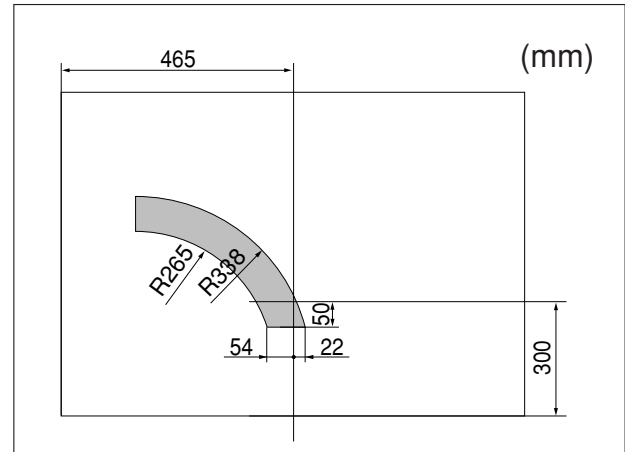


Floor must be level.  
Do not use electrical extension cords to connect unit to power supply.  
Keep the power cord away from the flue.

## Flue manifold position.

Centre of hole for flue manifold can be drilled anywhere within the shaded area.  
(To avoid studs etc.)

**FOR WEATHERBOARD WALLS DRILL THROUGH CENTRE OF WEATHERBOARD FROM OUTSIDE, THEN DRILL FROM INSIDE THROUGH PLASTERBOARD.**


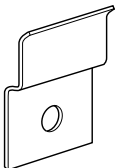






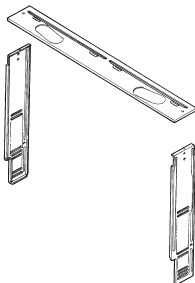





When drilling the flue hole, check for water and gas pipes and electric cables before starting to drill.

Use an 80mm (8cm) drill for hole through wall.

# INSTALLATION INSTRUCTIONS

## ■ The following components are supplied with your 1004FTR.

Plastic tie for air inlet connection .....1 	Wall Clips .....2 	<b>Screws</b> Back Cover .....7 Wall Clip .....2 Flue Manifold .....3 Terminal tube .....3 Insulation Clip .....1
Flue Adapter .....1 	Keys .....2 	Flue Locking Clamp .....2 (L .....1 (S .....1 
Air Inlet Hose .....1 	Remote Control .....1 	Flue Lock Stopper .....1 
Back Cover Set .....1 	Remote Control Holder .....1 	Insulation Clip .....1 
	Adhesive Tape .....2 	Instructions .....1

(OPTIONAL FLOOR AND WALL BRACKETS ARE AVAILABLE FOR COMMERCIAL INSTALLATIONS)

Check unit supplied is correct for the gas type in your area.

Refer to local gas authority for confirmation of gas type if in doubt.

Refer to data plate located inside front panel.

Check for damage. if the unit is damaged contact your supplier or Rinnai.  
Do not install a damaged unit before checking with your supplier.

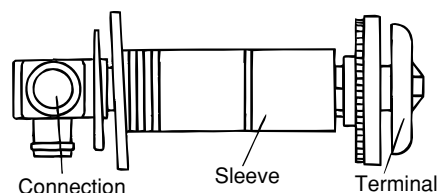
# SLEEVE AND MANIFOLD INSTALLATION

(SUPPLIED SEPARATELY)

## METHOD FOR STANDARD WALLS

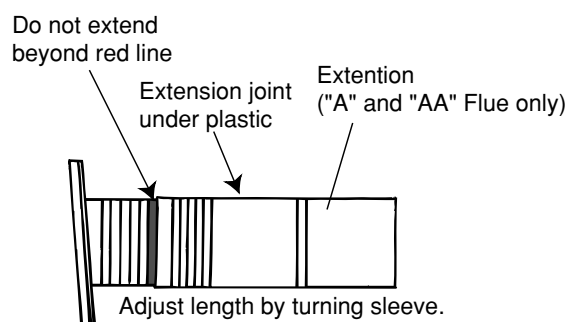
### 1. Dis-assemble Manifold from Sleeve.

The Flue consists of 3 parts, sleeve, inside connectors and tube, outside terminal, (dis-assemble by pulling hard on outside terminal and inner connections, then pull sleeve off outer terminal).



### 2. Adjustment of Sleeve Length.

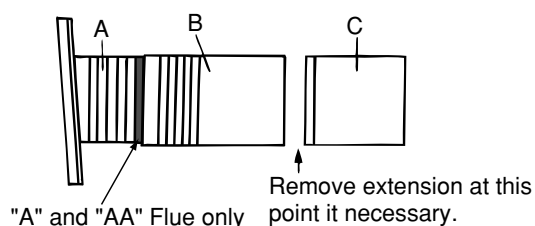
Measure wall thickness through previously drilled 80 mm hole (see P20). End of sleeve should protrude 5-10 mm from outside wall. Adjust sleeve length to wall thickness plus 5-10mm. (Sleeve is threaded for adjustment.)



### 3. Depending on flue set and wall thickness extension piece "C" may need to be removed.

Cut plastic. remove extension. then follow instruction 2.

This applies to "A" and "AA" flues only. There is no extension on other flues. they can be fully adjusted by turning the threaded section.



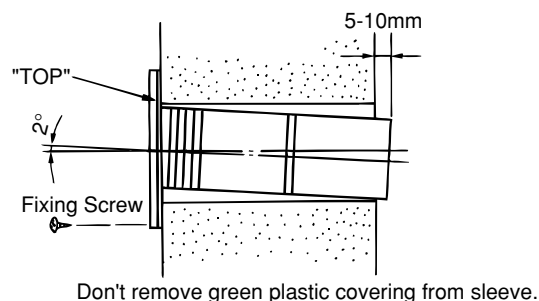
### 4. Fixing Sleeve.

Fix to inside wall. use 3 screws provided.

#### NOTE :

Flange is marked "TOP" sleeve must be fitted with this mark UP.

Check sleeve protrudes 5-10mm on outside.



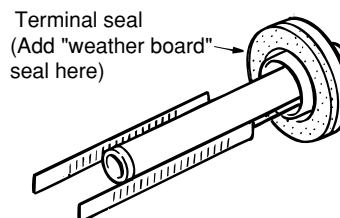
# SLEEVE AND MANIFOLD INSTALLATION

(SUPPLIED SEPARATELY)

## METHOD FOR STANDARD WALLS

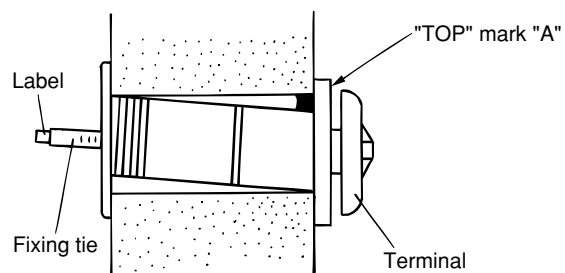
### 5. Check rubber seal is in place on terminal.

For weather board walls, add spare rubber seal provided to compensate for weather board angle.



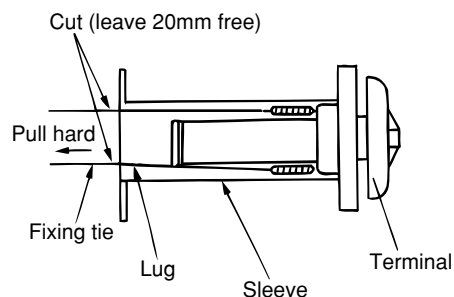
### 6. Installation of Terminal.

From outside, insert terminal into sleeve with the "A" mark at the top.  
Left hand side fixing tie is marked "LEFT" (from inside) .



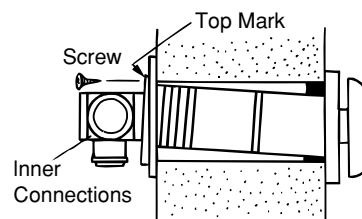
### 7. Attaching Ties.

Pull hard on left and right hand side ties. clip ties over lugs inside sleeve.  
You should be able to pull the ties 2 or 3 slots past the starting point.  
Cut the ties. leaving about 20mm past the lugs. Bend ties so they are parallel with the wall.

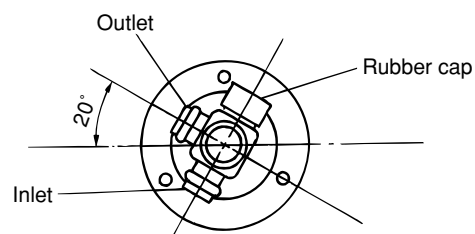


### 8. Insert Inner Connection Assembly Push assembly into terminal tube, make sure "TOP" mark is uppermost.

Fix with 3 screws provided.



### 9. Manifold can still be turned after attaching.

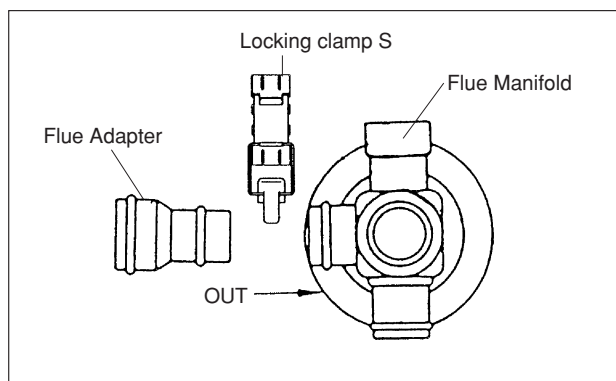




# FITTING UNIT

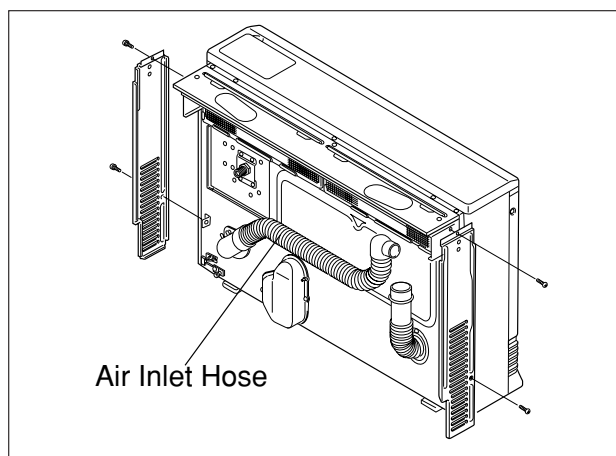
## Fix Flue Adapter to Flue.

Manifold with Locking Clamp S as shown below.



## Fit Air inlet Hose to heater.

Fix Side Back Spacers with screws.



## Place top back spacer in position.

Mark the position of the top edge of the top spacer on the wall. Move the heater away from the wall. Mark centre lines 20mm down from the top edge mark, and 12mm in front the left and right hand sides of the top spacer. Attach wall brackets at the marked position.

## Fit Inlet Elbow

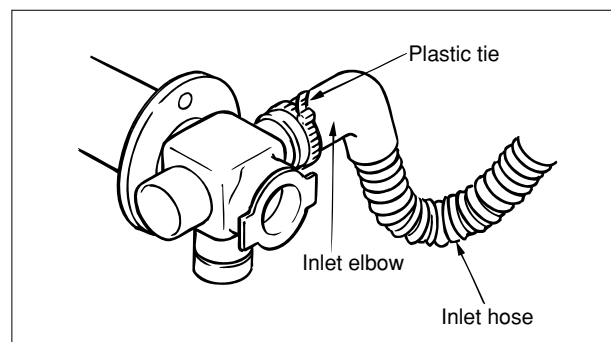
Fit a suitable inlet fitting to R1 / 2 15mm threaded fitting on the rear of the heater. Normally, the most suitable fitting is an RC 1 / 2 15×15mm copper flare elbow. The appliance can then be connected with 15mm copper tube.

## Air Inlet Hose

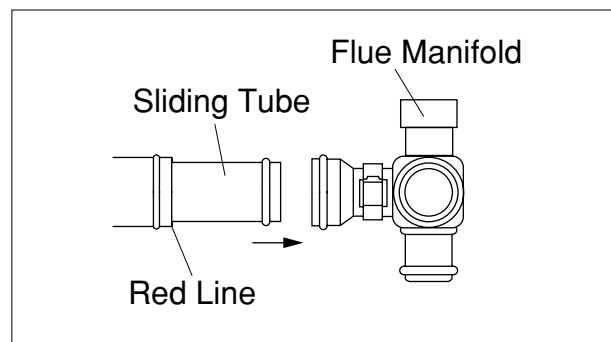
Connect Air Inlet Hose to Manifold Inlet.

Do not kink the hose.

Secure with plastic tie as-shown below.

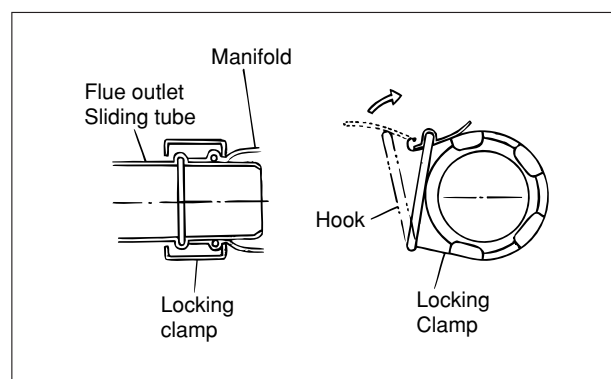


1. Connect the flue outlet to the manifold by extending the stainless steel sliding tube until it is fully inserted into the manifold.



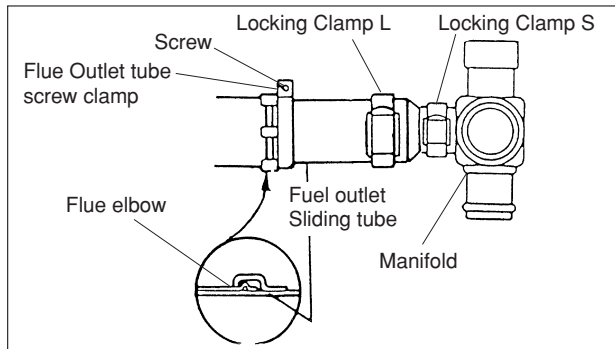
Sliding Tube should not be extended beyond the RED LINE.

2. Fit the Locking Clamp L over connection between sliding tube and manifold. Engage the hook and rotate it until it snaps against the body of the clamp.

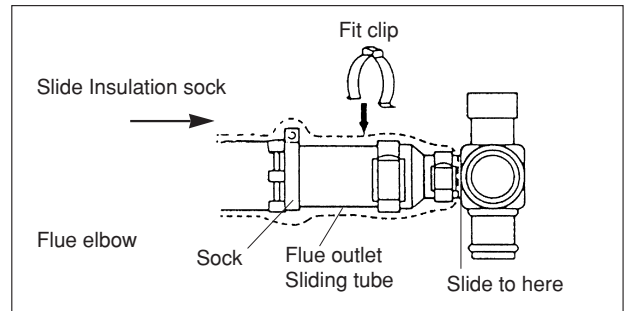


# FITTING UNIT

3. Fit the screw clamp between the sliding tube and the flue elbow. Secure with the 4 mm screw supplied. The flue outlet is now locked into position.



4. Slide the insulation sleeve up to the flue manifold. Slip the securing clip over the sleeve as shown.



# TESTING

## Testing Unit

Purge air and swarf from gas line. Connect gas. Refer to A.G.A pipe sizing chart if in doubt about the size of the gas line.

Connection can easily be reached from the top, rear of the unit. Check for escapes, using soapy water after turning gas on.

Remove outer case, 4 screws inside louvre, 2 behind louvre and 3 on the top rear of casing.

Remove test point screw, attach pressure gauge to test point, (on solenoid valve).

Plug unit in and turn power on, (CAUTION-240V inside unit).

Turn thermostat to "HI", turn control to "ON". Unit should ignite within 10 seconds. (If unit does not ignite first time it will spark again after 10 seconds).

If unit still does not ignite, there may be air in the gas line, turn control "OFF" then "ON" again. Check pressure, regulator is factory set, if pressure is incorrect, check supply before altering regulator.

Turn control to "OFF" position, remove pressure gauge and replace test point screw.

Re-light unit, on "HI" setting.

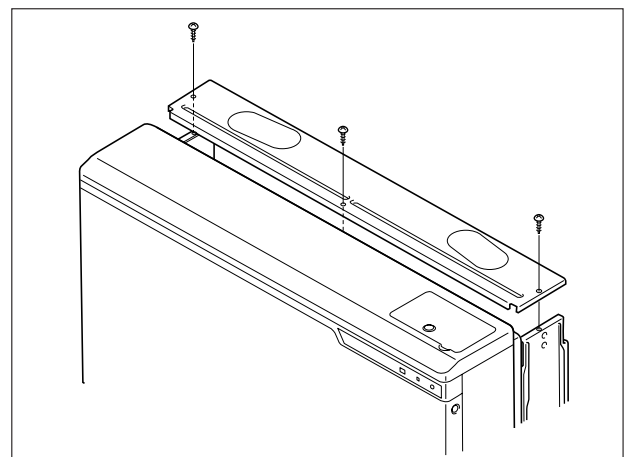
Adjust temperature down Slowly.

The heater will cut down, then cut out (Depending on the room temperature).

Turn the power off. Replace the casing.

Turn power on.

Re-check operation.

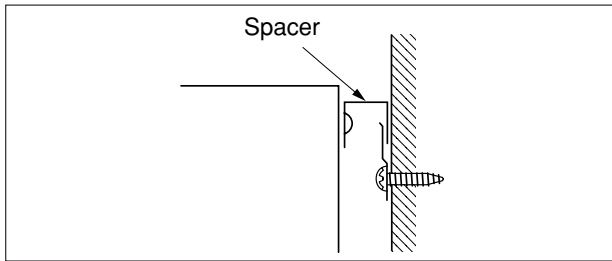


Replace top spacer, clipping the spacer into the wall brackets at the same time as attaching it to the heater.

Secure top spacer with the screws provided.

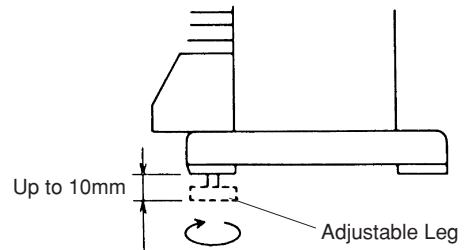
THE HEATER IS NOW SECURED TO THE WALL.

# TESTING



OPTIONAL FLOOR BRACKETS ARE AVAILABLE FOR COMMERCIAL INSTRUCTIONS.

Leveling screws (Adjustable legs)

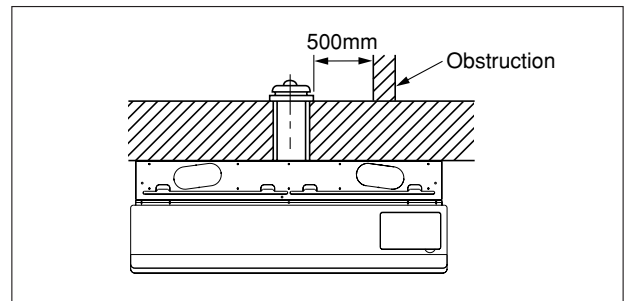
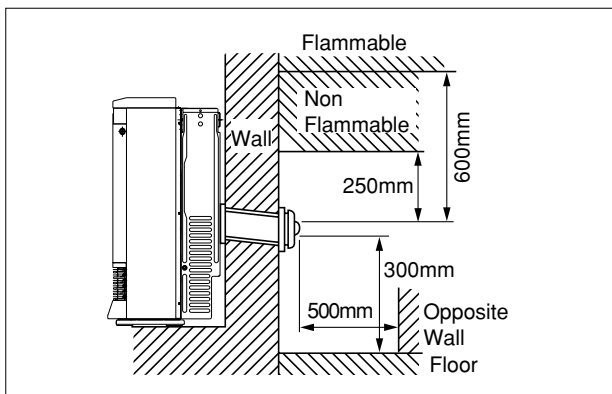


If necessary the unit can be levelled using the adjustable legs under the front right and left hand side legs.

# INSTALLATION CHECK

## Fault-Failure Procedure

If unable to get the unit to operate correctly contact Rinnai Australia, Agent, or Gas Utility. Please read the fault finding charts on Pages 27 and 28 before reporting faults. Check complete installation, including clearances.



When you are satisfied that the unit is operating correctly-

## Instruct Customer

Instruct the customer on use of the unit making sure the customer understands the Customers Instruction Book.

# CARE OF YOUR 1004FTR

This unit needs very little maintenance. Simply clean the fan filters once a week and wipe the outer case with a soft damp cloth.

**DO NOT USE SOLVENTS.**

Check the flue terminal occasionally to make sure shrubs etc. have not grown around it.

UNIT CHECK LIST Please check this list before asking for service.

Problem Cause	No operation lamp	Burner doesn't ignite	Unusual combustion	Combustion stops during operation	Smell of gas	Noisy ignition	Takes too long to warm the room	Remedy
Not Plugged In	●	●						Plug In
Power Cut	●			●				Re-ignite manually after power is restored
(Initial installation) Air in gas pipe		●						Purge air (Installer)
Gas Filter Blocked		●	●				●	Service Call
Mis-ignition	●	●						Check customers instructions
Flue terminal obstructed			●	●		●		Clear obstruction
Flue manifold not connected						●		Service Call
Louvre obstructed				●			●	Clear obstruction
Air filter blocked				●			●	Clean filter (weekly)
Gas escape					●			Service Call
Room too large							●	Check with retailer
"ON" Timer is set	●	●					●	Cancel "ON" Timer
Gas turned off at meter		●	●					Turn gas on
Function Lock Set		●						Cancel Function Lock

If you are unsure about the way the unit is operating, contact Rinnai or your agent.

# PRE-SERVICE CHECK

Before asking for a service call please check the following.  
These points are part of the normal operation of the unit.

## At ignition :

Warm air does not start when the burner lights.	→	The fan is started automatically after a short delay. This is to allow the heat exchanger to warm up, helping to avoid cold draughts.
Smoke or strange smells are produced on the first trial light up after installation.	→	This is caused by grease or oil on the heat exchanger and dust, and will stop after a short time.
Sharp clicking noises at ignition, or when the unit cuts down on the thermostat, or goes out.	→	This is simply expansion noise from the heat exchanger.

## During combustion :

Clunking noise when the thermostat operates.	→	This is the sound of the solenoid gas valves opening and closing.
--	---	---

## When the unit is turned off :

Convection fan continues to run after turning off.	→	This is to remove the residual heat from the heat exchanger. The fan will stop when the unit cools down.
--	---	--

## Other points :

Steam is discharged from the flue terminal.	→	High efficiency appliances tend to discharge water vapour on cold days. This is normal.
Heater does not start even when ON button is pushed and thermostat is on HIGH.	→	Check timer. Timer must be in the "OFF" position for manual operation.

## Timers :

Timers do not operate at set time.	→	Timers may either be unactivated or incorrectly programmed. Repeat programming. Refer to pages 14 and 15.
Timer operates for 30 seconds then cuts out.	→	Room temperature may be higher than set temperature. Adjust temperature upwards if desired.

# ERROR MESSAGES

The Energysaver 1004FTR has the ability to check its own operation continuously. If a fault occurs, an Error Message will flash on the Digital Display of the control panel. This assists with diagnosing the fault, and may enable you to overcome a problem without a service call. Please quote the code displayed when inquiring about service.

CODE DISPLAYED	FAULT	REMEDY
11	Ignition failure	Check gas is turned ON. Service call if repeated.
12	Flame failure	Check gas is turned ON. Service call if repeated.
14	Overheat	Clean filter Service call if repeated.
16	Room overheat	Lower room temperature to less than 40°C.
31	Room Temperature Sensor faulty	Service call.
32		
33	Overheat Temperature Sensor faulty	Service call.
34		
53	Sparker failure	Service call.
61	Combustion fan failure	Service call.
70	Faulty ON / OFF switch	Service call.
71	Faulty solenoids	Service call.
72	Faulty Flame Rod	Service call.
73	Communication Error	Turn heater OFF, then ON again.

In all cases, you may be able to clear the Error Message simply by turning the heater OFF, then ON again.

If the Error Message still remains or returns on the next operation contact Rinnai or your nearest service agent and arrange for a service call.

# SAFETY DEVICES

## **Overheat Switch :**

This device automatically cuts the gas off if the heater exceeds a predetermined temperature. This is normally caused by an obstruction in front of the louvres, or a blocked fan filter. If this switch operates, turn the unit off, remove the obstruction (clean filters) and let the unit cool off before re-operating.

## **Two Fusible Links**

Backs up the overheat switch. If a fusible link cuts the unit off, a service call by an authorised person is required to replace the link.

## **Flame Failure Device**

If the flame goes out during operation this device cuts the unit off (lockout) . To reset, turn the unit off, then on again.

## **Fan Switch**

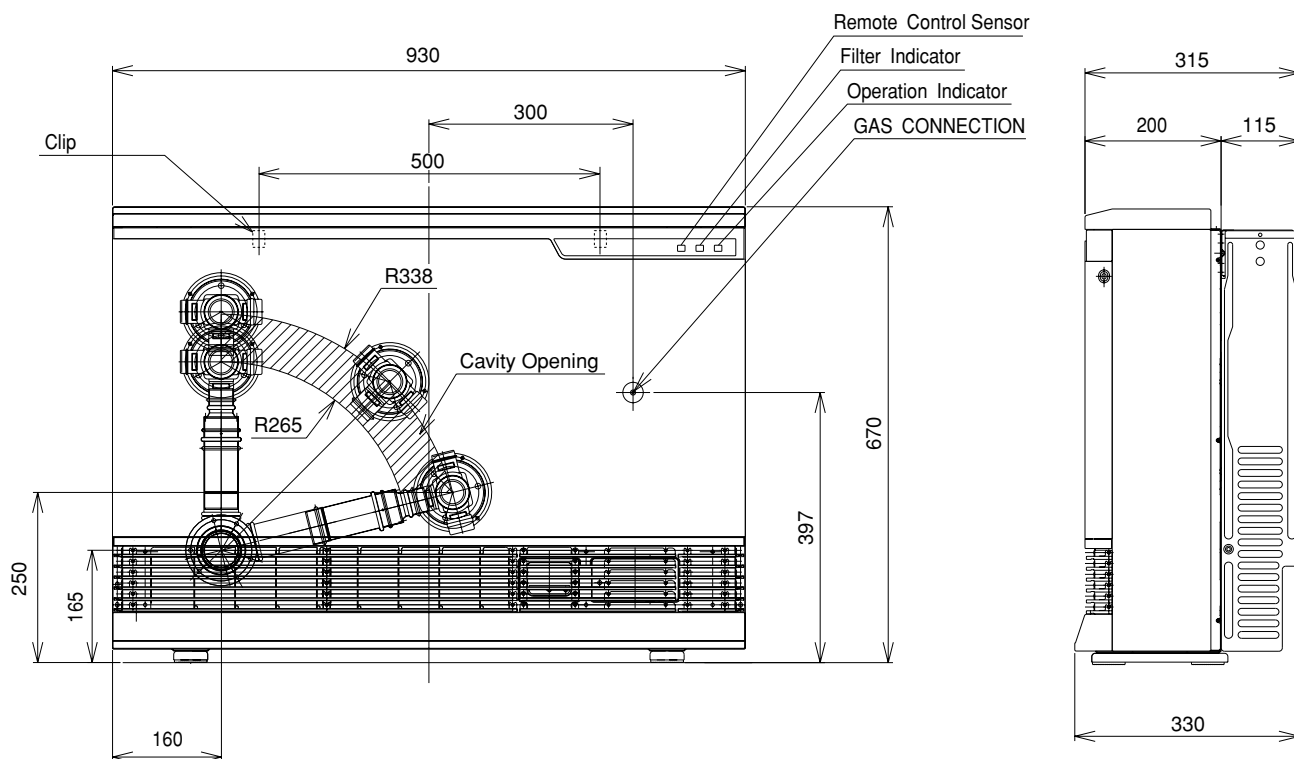
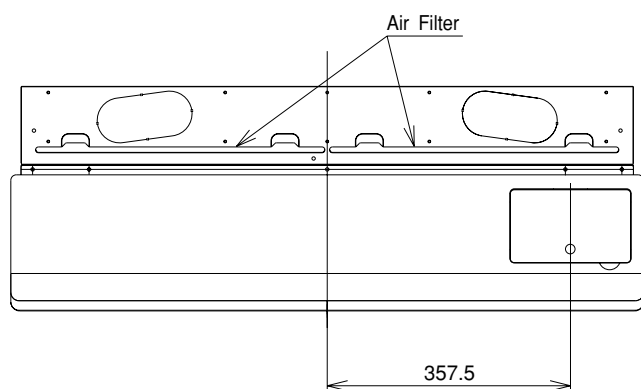
Turns the fan on automatically when the heat exchanger warms up and off when it cools down. This helps to prevent cold draughts and maximises efficiency.

# SERVICE

Rinnai Australia has a service and spare parts network in all states. Our service network personnel are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance needs servicing, please ring one of the service contact numbers on the back of this booklet.

Rinnai recommend that this appliance be serviced every 2 years.

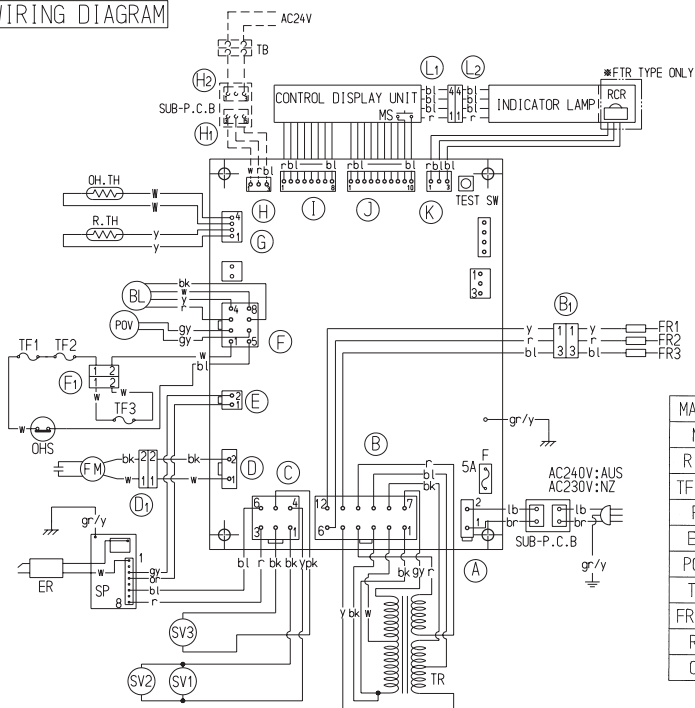
# DIMENSIONS





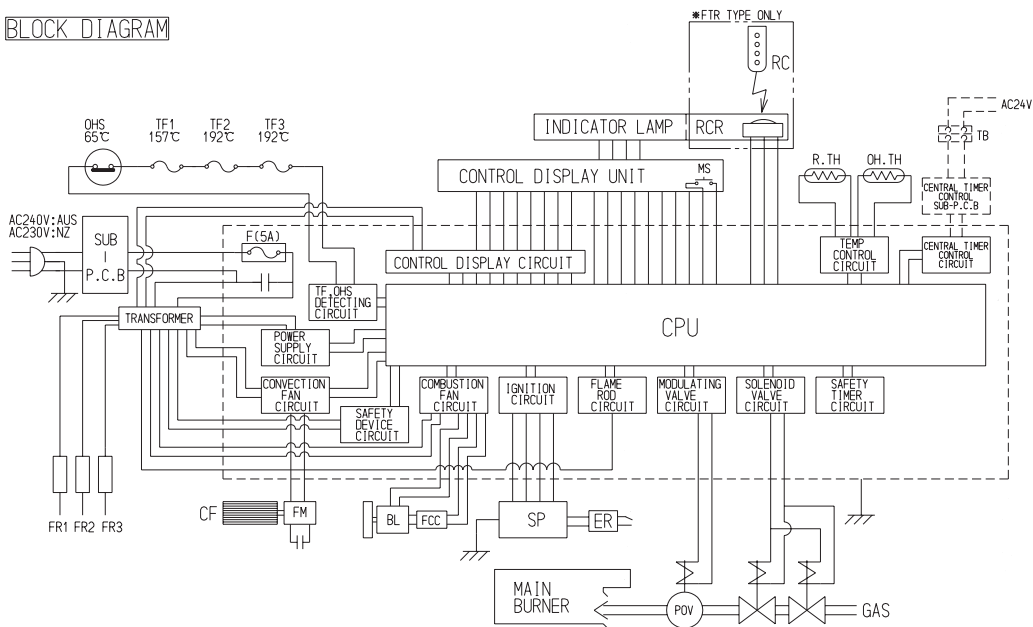
# WIRING DIAGRAM

WIRING DIAGRAM



MARK	PARTS NAME	MARK	PARTS NAME
MS	MAIN SWITCH	OH.TH	OVER HEAT THERMISTOR
R.TH	THERMISTOR	OHS	OVER HEAT SWITCH
TF1~3	THERMAL FUSE	FM	CONVECTION FAN MOTOR
F	FUSE	SP	SPARKER
ER	ELECTRODE	SV1~3	MAIN SOLENOID VALVE 1~3
POV	MODULATING SOLENOID VALVE	BL	COMBUSTION FAN MOTOR
TR	TRANSFORMER	FCC	FAN CONTROL CIRCUIT
FR1~3	FLAME ROD 1~3	RCR	REMOTE CONTROL RECEIVER
RC	REMOTE CONTROLLER	TB	TERMINAL BLOCK
CF	CONVECTION FAN	CPU	CENTRAL PROCESSING UNIT

BLOCK DIAGRAM



CODE	COLOR
bk	black
bl	blue
gr	green
gr/y	green/yellow
pk	pink
r	red
w	white
y	yellow
gy	grey
or	orange
br	brown
lb	light blue

# NOTES

# GUARANTEE INFORMATION

## ■ RINNAI GUARANTEE OF QUALITY

As a purchaser of a high quality Rinnai Product, we provide you with the following guarantee on your new 1004FTR.

	FREE LABOUR	FREE PARTS
Heat exchanger	1 Year	10 Years pro-rata*
Fan	1 Year	2 Years
All other parts	1 Year	1 Year

\* Heat exchanger full replacement parts cost in the first year, reducing 10% per year thereafter.

The benefits conferred by this guarantee are in addition to all other rights and remedies in respect of the product which you have under the Trades Practices Act and other State and Territory Laws.

Please record below :

Your Retailer :

Address :

Phone :

Date Of Purchase :

Your Installer :

Installer's Licence No.

Address :

Phone :

Date Of Installation :

The installer is responsible for your heater's correct installation. (There is no need to post this guarantee back to Rinnai. Simply keep it in a safe place as your record.)

# SPECIFICATIONS

Description	The Rinnai RHFE-1004FTR Forced Flue	
Type	Fully Automatic Space Heater	
Input	Natural Gas : High : 37 MJ / h Lo : 11MJ / h	Propane : High : 37 MJ / h Lo : 11MJ / h
Gas Control	Rinnai Electronic Modulating Control	
Burner	Stainless Steel, Ribbon Type	
Gas Inlet	R1 / 2" Male Thread (15mm)	
Test Point Pressure	Natural Gas : High : 0.76kPa Lo : 0.49kPa	Propane : High : 2.33kPa Lo : 1.07kPa
Flue	Forced Flue	
Flue Connection	Supplied with heater	
Ignition	Electronic - Continuous Spark	
Electrical Supply	240V, 50Hz The unit is fitted with a supply lead and 3 pin plug, replace only with Rinnai part number 90161894	
Fan	Centrifugal 7 Speed Fan	

Rinnai are continually updating and improving products, therefore specifications are subject to change without prior notice.

# SERVICE CONTACT POINTS

# Rinnai

**Rinnai Australia Pty. Ltd.**

ACN 005 138 769  
ABN 74 005 138 769

10-11 Walker Street  
Braeside VIC 3195

**☎ Helpline : 1300 366 388**

Sales / Service: Facsimile : (03) 9271 6611

Mon-Fri (8.30am to 5. 30pm EST)

Cost of a local call. Higher from mobile or public phones.

Internet : [www.rinnai.com.au](http://www.rinnai.com.au)

Email : [enquiry@rinnai.com.au](mailto:enquiry@rinnai.com.au)

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