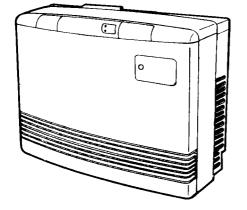
How to use your Space Heater

Energysaver RHFE-556FDT

Rinnai



OPTIONAL

Programmable fixed time period operation available. Ideal for school installations. Refer page one.

CONTENTS

Guarantee

Layout of appliance

Features

Safety Points

Operation

Adjusting Temperature

Humidifier

Installer

SERVICE CONTACTS

 VIC (03) 9271 6699
 SA (08) 8345 0292
 QLD (07) 3209 4622

 NSW/ACT (02) 9609 2600
 WA (08) 9478 3345

FIXED TIME PERIOD OPERATION

The Energysaver RHFE-556FDT includes an option so that operation of the appliance automatically stops after a fixed time period.

It is possible to choose any one of seven time periods. The periods are: 1, 2, 3, 6, 8, 10 or 12 hours.

This option must be activated by a qualified person or trained Rinnai service person.

Fixed time period operation is ideally suited to classroom situations, clubs, meeting halls, and other areas where a limit is required on the length of time the appliance operates.

The feature can provide substantial energy savings in cases where users are likely to forget to turn the appliance off when they leave the room after meetings or lessons.

If a power failure occurs at any time during operation, the appliance will remain OFF once the power is re-instated. The ON/OFF button must be pressed to re-ignite the appliance.

Contact Rinnai on one of the telephone numbers listed on the back cover of this booklet for further advice.

RINNAI GUARANTEE OF QUALITY

As the purchaser of this high quality model RHFE-556FDT Rinnai product you are provided with the following guarantee:

Heat Exchanger	1 Year	10 Years pro rata*
Fan	1 Year	2 Years
All other parts	1 Year	1 Year

Free Labour

*Full Heat Exchanger replacement (parts only) in the first year, thereafter reducing at 10% per year.

Free Parts

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 Trade Practices Act and other State and Territory Laws. This guarantee does not cover cleaning and normal wear and tear, calls of this nature may be chargeable. Please check the fault finding charts on pages 12, 13, and 14, before asking for a service call. You may be able to overcome the problem without a service call, or the heater may be operating normally. Service calls to a heater which is operating normally may be chargeable, even when the heater is under guarantee.

The Installer is responsible for your heater's correct installation. There is no requirement to post the following information back to Rinnai. However we advise that you keep it in a safe place as your record.

Date of purchase:				
Retailers name:				
Address:				
Telephone:				

Date of installation: Installers name: Address: Telephone: Licence number:

IMPORTANT

This appliance shall be installed in accordance with:

Manufacturer's Installation Instructions Local Gas Fitting Regulations Municipal Building Codes A.G.A. Installation Code for Gas Burning Equipment Any other relevant Statutory regulation This appliance must only be installed, serviced and removed by an Authorised Person

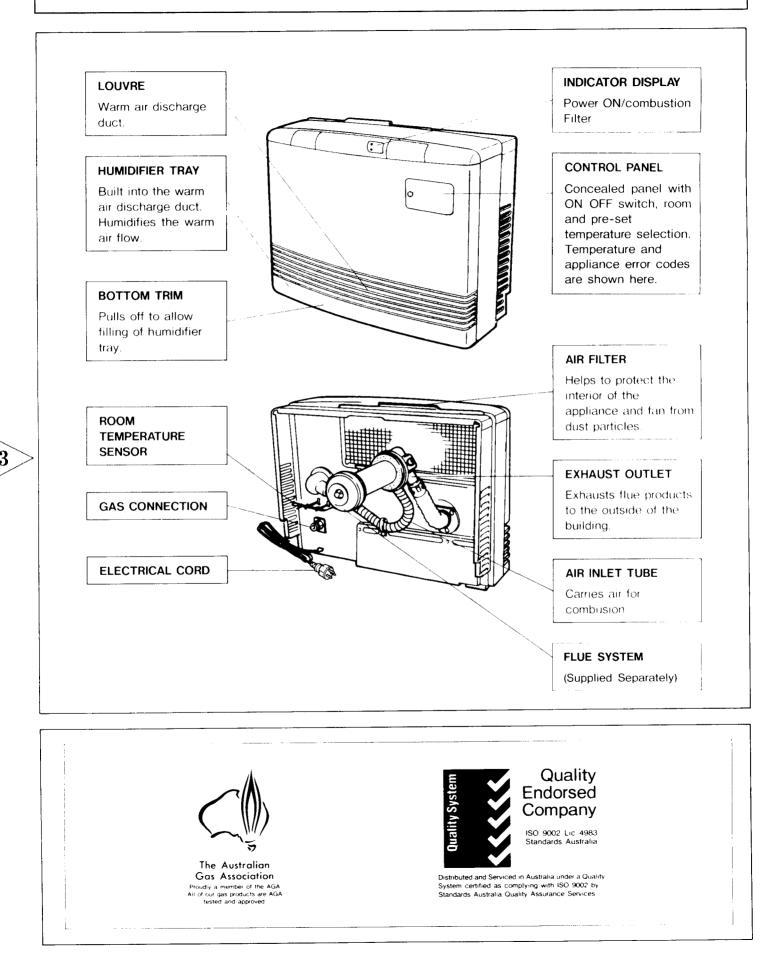
This appliance must be installed correctly by an Authorised Person. The installation of gas, and electricity must conform to local regulations.

The installation must also conform with the instructions supplied by Rinnai. Your Energysaver has been approved by the Australian Gas Association.

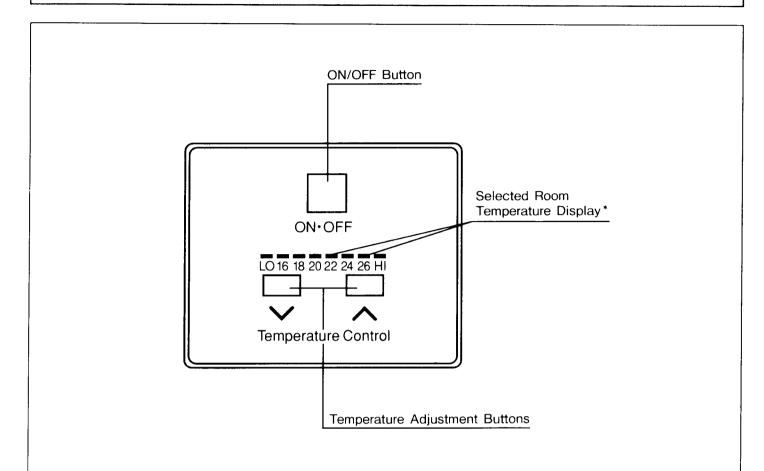
A.G.A. Approval Number: 5209

Please keep this instruction booklet in a safe place for future reference. All dimensions referred to in these instructions are in millimetres, unless otherwise specified.

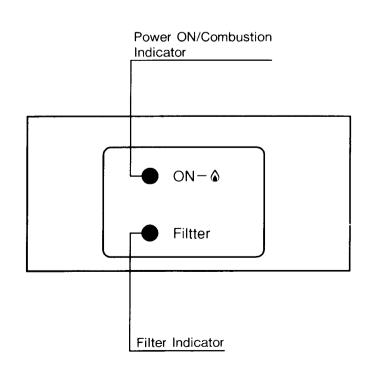
GETTING TO KNOW YOUR NEW RHFE-556FDT



CONTROL PANEL LAYOUT



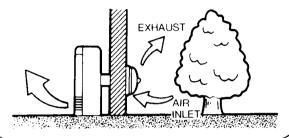
* Flashing LED is room temperature. Steady LED is selected temperature.



FEATURES

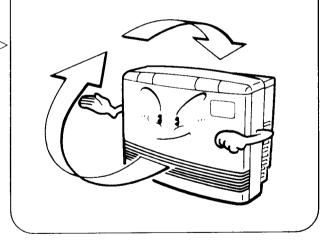
FORCED FLUE SYSTEM

Air for combustion is taken from outside the room and the flue products are exhausted outside, keeping the room air clean.



WARM AIR DISCHARGE

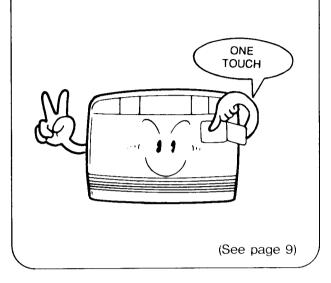
Warm air flows from the bottom of the appliance through the louvres, assisting in even heat distribution. An integral humidifier tray is built into the warm air discharge duct.



5

PUSH BUTTON IGNITION

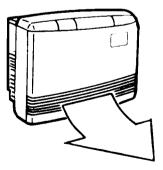
Only one touch of the ON/OFF switch is required to operate the heater.



ROOM TEMPERATURE DISPLAY/ADJUSTMENT

The gas modulating control system controls the gas and hot air to keep the room at a comfortable temperature.

Pre-set room temperature and current room temperature are displayed by indicators.



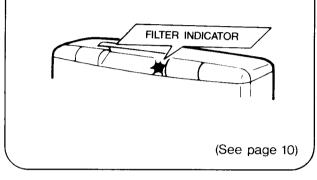
Error messages also displayed via the room temperature indicators.

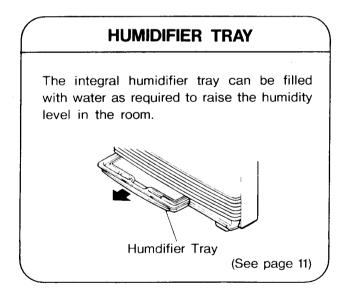
(See page 10)

FEATURES

FILTER INDICATOR

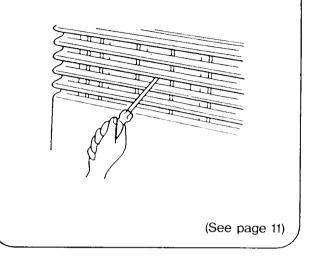
When the fan filter becomes covered with dust and the temperature inside the appliance rises, the filter indicator will flash. The filter should be vacuumed at regular intervals to avoid unnecessary strain on the appliance.





VERTICAL LOUVRE ADJUSTMENT

The louvre can be adjusted to alter the direction of the air flow by using a screw driving or similar tool by gently bending the vertical louvre(s) to the left or right.



FIXED TIME OPERATION

This feature will automatically stop the appliance after a fixed time period.

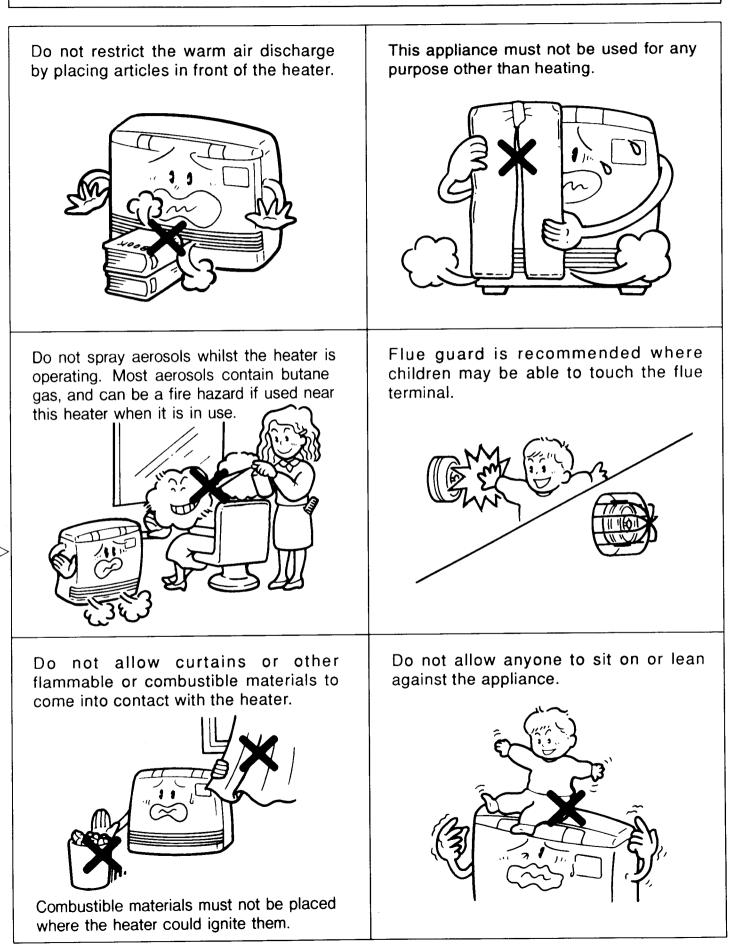
It is possible to choose any one of seven time periods. The periods are: 1, 2, 3, 6, 8, 10 or 12 hours.

This feature can provide substantial energy savings in cases where users are likely to forget to turn the appliance off when they leave the room after meetings or lessons.

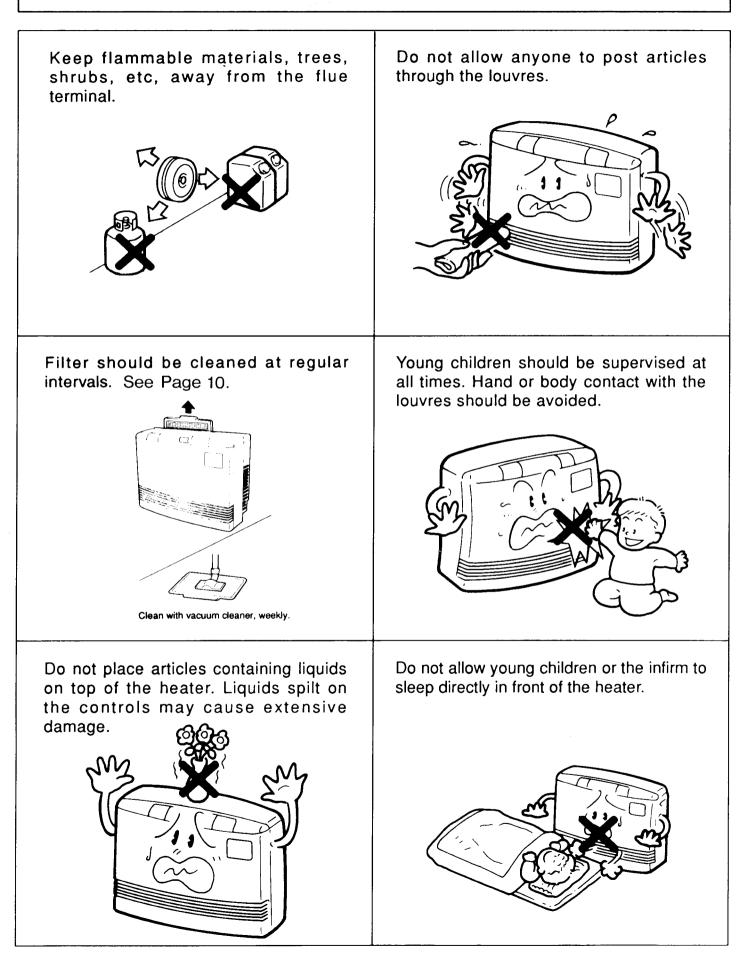
MEMORY

The micro-computer records selected preset temperature, to maintain comfort levels, so your preferred temperature always remains in place.

SAFETY POINTS



SAFETY POINTS



OPERATING YOUR NEW RHFE-556FDT

TO OPEN THE CONTROL PANEL

Using a finger, pull door lightly forward from the centre catch point on the left hand side of the control panel cover. The control panel cover will open forward to an angle.

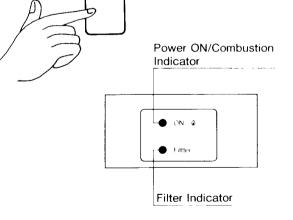
TURNING ON

Press the ON/OFF button to operate the heater. The ON indicator will glow green. After approximately 20 seconds the spark generator will be heard before the burner ignites and the ON indicator glows red, indicating that the burner is alight. Warm air can be felt coming from the louvres approximately 15 seconds later.

If the heater does not ignite on initial use, this may be due to air remaining in the gas supply line, and the temperature display will flash. The spark generator will only continue for 15 seconds. After this it will be necessary to press the ON/OFF button, then ON again.

TURNING OFF

Simply press the ON/OFF button to switch off the heater. The ON indicator will go out. The convection fan will continue to operate for several minutes after the burner has gone out in order to cool the appliance. Do not unplug the appliance while the convection fan is running.



Power ON/Combustion

Indicator

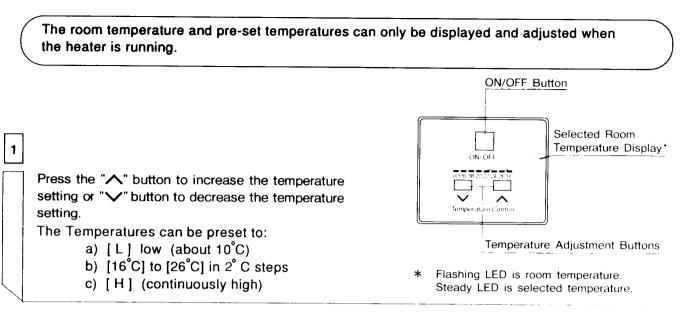
ON 2

Eilftei

Filter Indicator

DO NOT turn heater off by unplugging at the power point. The convection fan will continue to run until the appliance cools.

I ROOM TEMPERATURE ADJUSTMENT



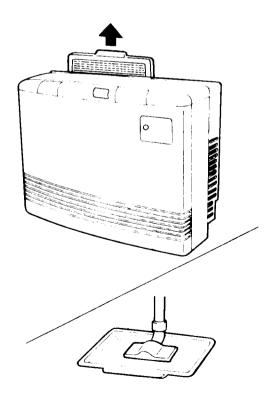
If the heater does not ignite then the pre-set temperature may not be set to a setting which is higher than the room temperature. The ON indicator will change colour from red to green when the heater reaches the pre-set temperature and stops running. The heater will operate at eight minute intervals to maintain warmth in a room.

FAN FILTER

To protect the room air fan from dust particles or lint, a filter is situated at the rear of the appliance. When this filter becomes blocked, the filter indicator will flash to indicate that it should be cleaned. Clean the filter weekly during the heating season to avoid unnecessary strain on the appliance.

Do not remove filter when appliance is operating. When the filter requires cleaning, clean filter before using the appliance, or whilst the appliance is not operating.

If you do not clean the filter at regular intervals and the filter indicator is allowed to remain flashing, then the appliance will stop and [20] will flash on the Digital Display signifying that the inbuilt safety device has functioned. You must clean the filter before operating the heater again.



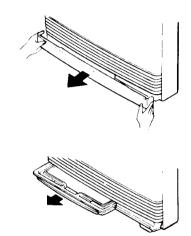
HUMIDIFIER TRAY

So that you can humidify the air, your Rinnai RHFE-556FDT is fitted with an enamelled tray at the bottom of the heater. If you choose to make use of the humidifier tray, it will need filling about once a day during the heating season. Do not fill the humidifier tray while the heater is running.

To fill the humidifier tray:

1

Remove the bottom trim panel, below the louvres, by pulling on both sides. Simply pull the tray forward to allow it to be filled with water. The warm air will be humidified as it passes over the water in the tray. Refit the bottom trim panel after filling the tray. The RHFE-556FDT is a very high efficiency appliance, during operation a small amount of condensation is produced in the flue system, this drains into the enamelled humidifier tray.

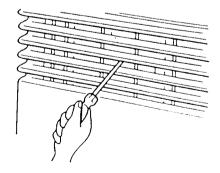


The humidifier has the benefit (when filled with water) of raising the humidity in the air. With increased humidity, the heater can actually be run at a lower temperature while still maintaining the same level of comfort.

VERTICAL LOUVRE ADJUSTMENT

The warm air flow direction may be altered by inserting a screwdriver or similar tool and gently bending the vertical louvre(s) either to the left or the right.

Note: these louvres are not designed to be adjusted more than 6 times.



CARING FOR YOUR NEW RHFE-556FDT

This appliance is controlled by a micro computer. If there is something wrong with the appliance then it will stop, as it is protected by the following safety devices.

Ignition Safety Device Burner Safety Device Overheat Safety Device Power Failure Safety Device Power Surge Safety Device Fan Delay Safety Device

Your RHFE-556FDT requires very little maintenance, simply clean the rear fan filter once a week and wipe the outer case and louvre section with a damp cloth.

DO NOT USE SOLVENTS.

Solvents may melt or distort plastic parts.

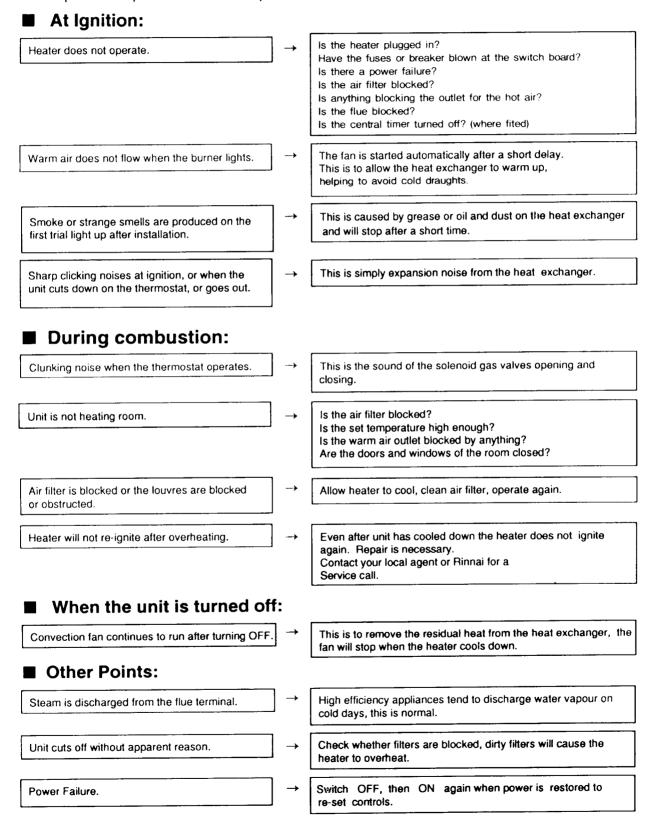


Problem	No ON indicator	Burner doesn't ignite	Unusual combustion	Combustion stops during operation	Smell of gas	Noisy Ignition	Takes too long to warm the room	Remedy
Not Plugged In	•	٠						Plug In
Power Cut	•	•		•				Re-ignite manually after power is restored
(Initial Installation) Air in gas pipe		•						Purge air (Installer)
Gas Filter Blocked		•	•				•	Service Call
Miss Ignition	•	•						Service Call
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
Gas turned off at meter	•	•						Turn gas on

PRE-SERVICE CHECK

Before asking for a service call please check the following points.

These points are part of the normal operation of the unit.



ERROR MESSAGES

The Energysaver 556 has the ability to check its own operation continuously. If a fault occurs, an Error Message will flash on the control panel Display. This assists with diagnosing the fault, and may enable you to overcome a problem without a service call. Please quote the code displayed when enquiring about service.

Flashing LED	FAULT	REMEDY	
16	Ignition failure	Check gas is turned ON. Service call if repeated.	
LO	Flame failure	Check gas is turned ON. Service call if repeated.	
20	Overheat	Clean filter Service call if repeated.	
HI	Room overheat	Lower room temperature to less than 40°C.	
22•24	Room Temperature	Service call	
24•26	Sensor faulty		
18-20-22	Overheat temperature	Service call	
20.22.24	Sensor faulty		
LO•16•18	Sparker failure	Service call	
16-18-20	Combustion fan failure	Service call	
18•20	Faulty ON/OFF switch	Service call	
LO•16	Faulty solenoids	Service call	
26	Faultly Flame Rod	Service call	
22•24•26•HI	Communication Error	Turn heater OFF, then ON again.	
LO~HI	Power failure	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.

INSTALLATION INSTRUCTIONS

SPECIFICATION Input: 23 MJ/h		В	Burner: Stainless Bunsen Type				
gnition: Flue: Gas Control: Electrical Sup Remove installatio	Replace only with Ri parts from carton and che	onents dulatir plianc nnai p	are supplied ng Controls. e is fitted with art number 90	a supply lead and 3 pin p 174772.			
			Flue Locking Clamp		1		
Back Spacer Set		1	Flue Lock Stopper	SD	1		
			Insulation Clip		1		
Wall Bracket	0	2	Hose Clip		2		
	Customers operating information and Installation Instructions	1	Plastic tie for air inlet		1		
Air Filter		1	(M4 × 20)	For Flue Lock Stopper	1		
(M4)	For Back Spacer Set	4	(M4)	Flue Securing Screws	3		
(M4)	For Air Intake Clip	2	(M4.8×32) Wood Screws	Wall Bracket Screws	2		

Check the 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 the 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.

15

Refer to an approved pipe sizing chart if in doubt about size of gas line.

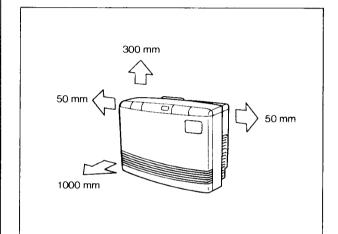
When positioning the heater the main points governing the location are:

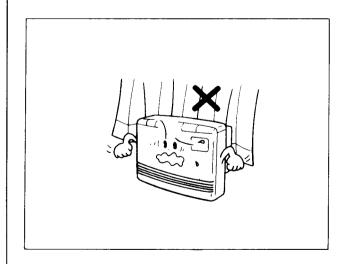
- 1. FIUEING
- 2. WARM AIR DISTRIBUTION

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.

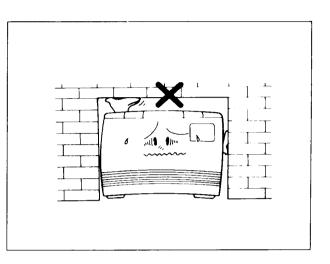




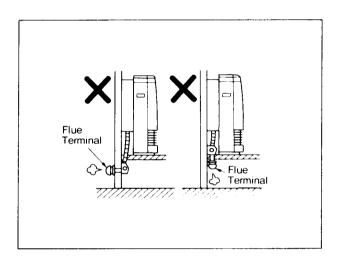
Flue fittings must be kept clear of flammable materials.

This heater is not designed to be built in.

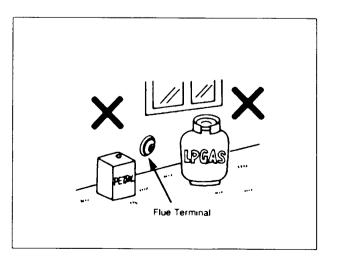
LOCATION



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



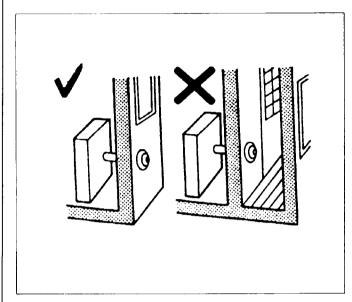
The flue terminal should be positioned away from flammable materials.



LOCATION

Do not flue into natural draught flues or fireplaces, this unit can only be used with one of the six types of Rinnai flue kits.

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.

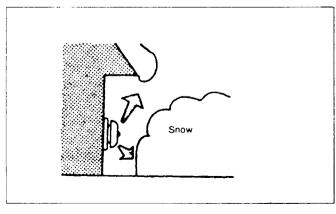
FLUE SIZES:

6 Flue lengths are available.

AA	flue	suits	wall	75 -	115	mm
А	flue	suits	wall	115 -	240	mm

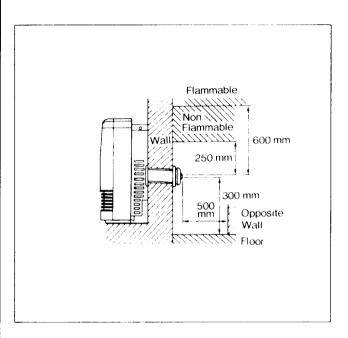
- B flue suits wall 240 400 mm
- C flue suits wall 400 600 mm
- D flue suits wall 600 800 mm
- E flue suits wall 800 1000 mm
- Co-ax flue also available.

SNOW AREAS

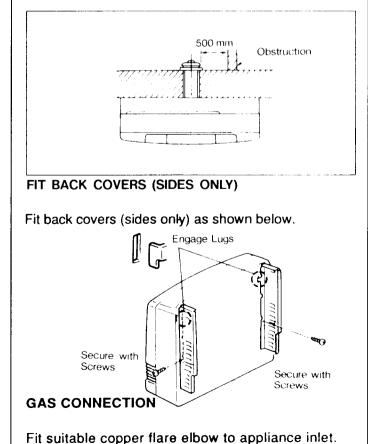


In areas subject to heavy snowfall, keep snow clear of flue terminal at all times.

STANDARD INSTALLATION OF FLUE MANIFOLD. Diagram below shows minimum clearances and distances from obstructions. Also check local regulations.

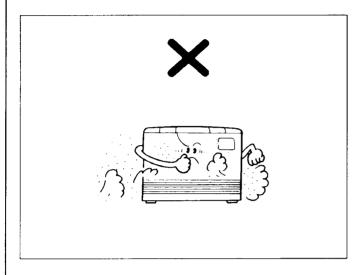


Side Clearances



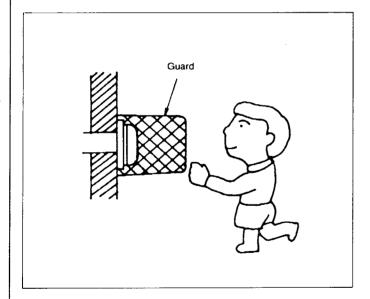
LOCATION

Do not install the heater in an unusually dusty area.



Use a flue guard if the terminal is easily accessible to children. Check local regulations.

Guards are available as an optional extra.



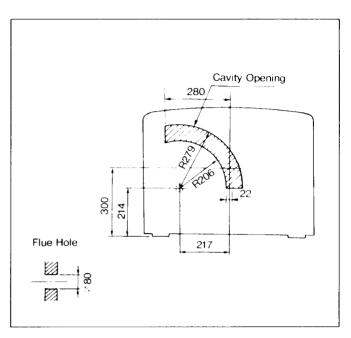
Floor must be level.

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 WEATHER BOARD FROM OUTSIDE, THEN DRILL FROM INSIDE THROUGH PLASTERBOARD.



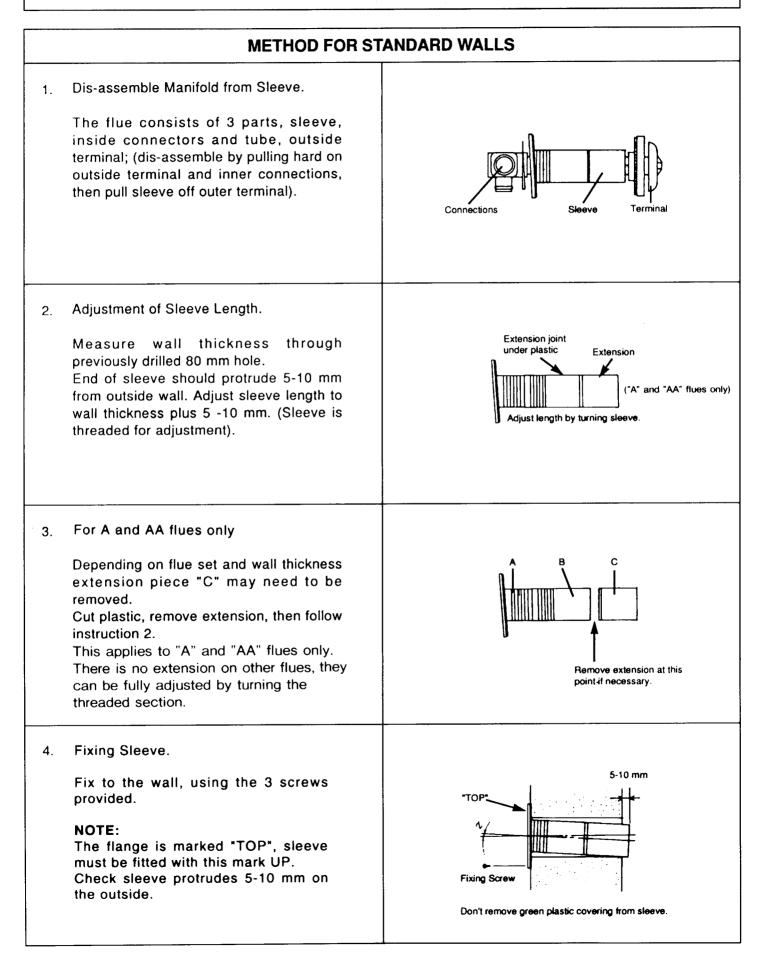
Before drilling the flue hole, check for water and gas pipes as well as electric cables.

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

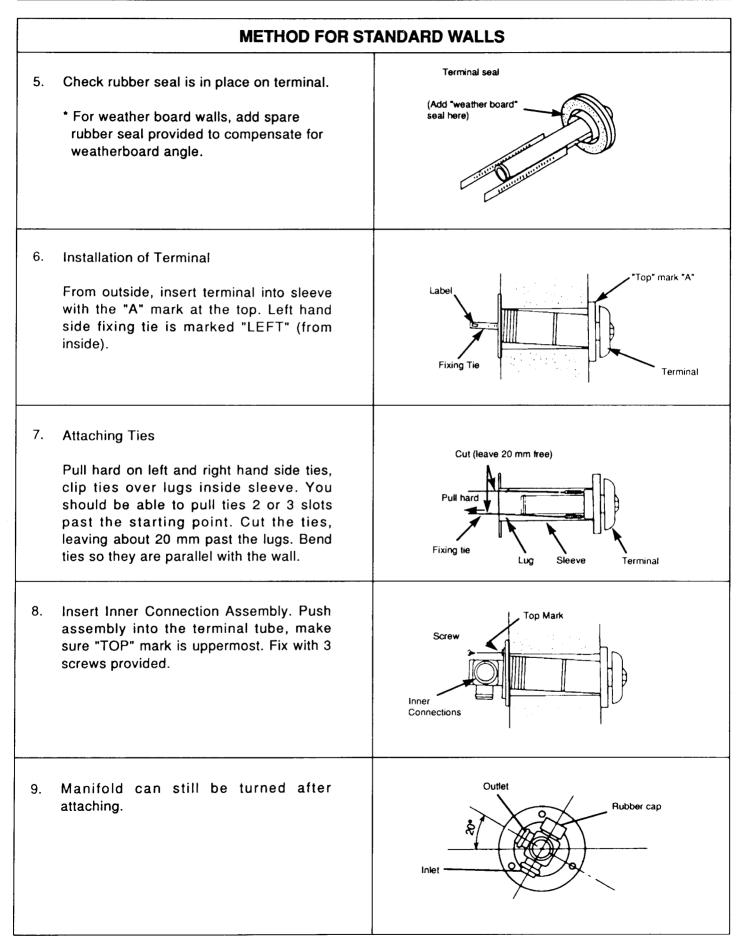
WALL MOUNTING BRACKETS

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 30 mm down from the top edge mark, and 40 mm in front the left and right hand sides of the top spacer. Attach wall brackets at the marked position. Remove right hand back cover.

SLEEVE AND MANIFOLD INSTALLATION

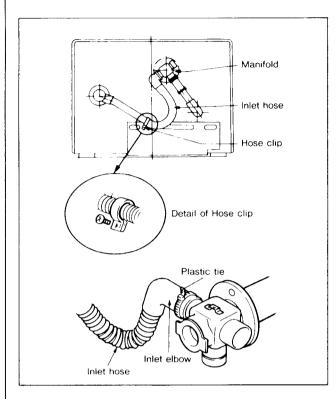


SLEEVE AND MANIFOLD INSTALLATION



FITTING UNIT

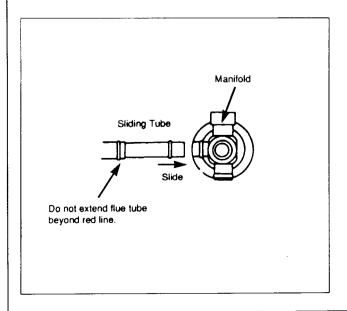
AIR INLET HOSE



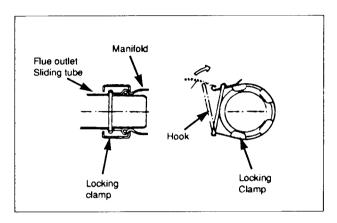
LOCKING CLAMP SCREW CLAMP AND INSULATION.

The following components can be fitted by reaching down the rear of the appliance as it is positioned against the wall.

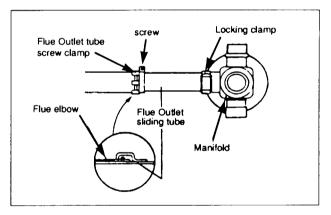
1. Connect the flue outlet to the manifold by extending the stainless steel sliding tube until it is fully inserted into the manifold.



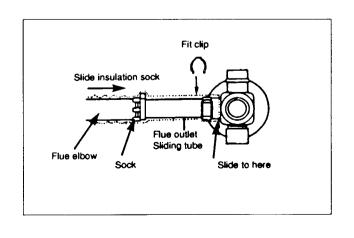
2. Fit the locking clamp over connection between sliding tube and manifold. Engage the hook and rotate it until it snaps against the body of the clamp.



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.



Purge air and swarf from gas line. Connect gas. Connection can easily be reached from the right hand side rear of the appliance.

TESTING

Remove bottom trim (pulls off). Remove louvres (6 screws) and front panel.

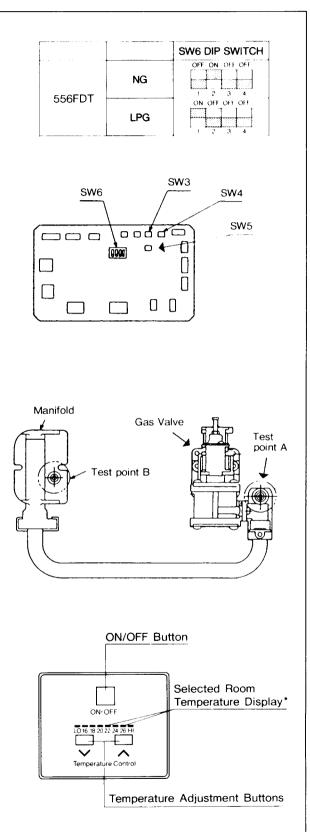
PRESSURE CHECKING PROCEDURE: Caution-240 V inside appliance.

- 1. Check that SW6 (Dip switches) are correct for the gas type for which the appliance is to be used. (Refer to diagram opposite).
- 2. There are two test points, one on the heat exchanger, one on the gas manifold. Connect a pressure gauge between both test points. (Connect one side of the gauge to one point, the other side of the gauge to the other). If you are using an electronic manometer, connect the side to the heat exchanger test point.
- 3. Press the ON/OFF button to operate the appliance.
- 4. With the appliance operating, press SW5 once.
- 5. Press SW4 to operate the appliance on forced low.
- 6. Check the pressure against the low pressure shown on the data plate. (Left hand side panel)
- 7. Press SW4 again.
- 8. Press SW3 to operate the appliance on forced high.
- 9. Check the pressure against the high pressure shown on the data plate.
- 10. Press SW3 again.
- 11. Press SW5 again to return the heater to normal operation.
- 12. Turn the heater OFF, remove the pressure gauge, and replace the test point screws.
- 13. Reassemble appliance and check appliance operation.

THE REGULATOR HAS BEEN FACTORY PRE-SET. IF THE PRESSURE IS INCORRECT, CHECK THE SUPPLY PRESSURE FIRST, BEFORE MAKING ANY ADJUSTMENT TO THE APPLIANCE.

IF THE PRESSURE NEEDS RE-SETTING FOLLOW THE INSTRUCTIONS BELOW:

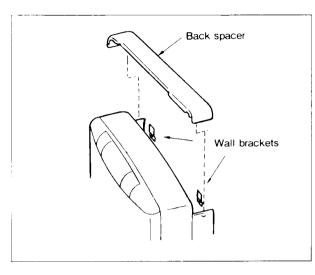
- 1. Follow checking procedure 1-6, reset the low pressure by using the "∧" or "∨" buttons on the control panel.
- 2. Press SW4 again to lock in the selected setting.
- 3. Follow checking procedure 8 and 9, reset the high pressure by using the "∧" or "∨" buttons on the control panel.
- 4. Press SW3 again to lock in the selected setting.
- 5. Press SW5 to return the heater to normal operation.
- 6. Turn the heater OFF, remove the pressure gauge, and replace the test point screws.
- 7. Reassemble appliance and check appliance operation.



Flashing LED is room temperature.
 Steady LED is selected temperature.

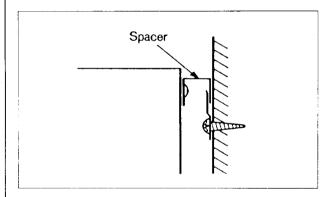
FITTING TOP SPACER + WALL CLIP

■ SECURE HEATER TO WALL

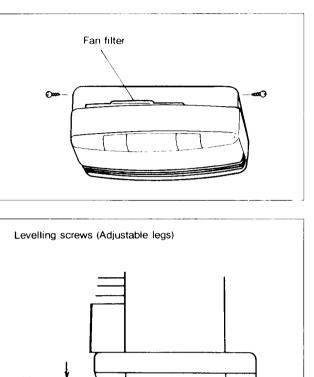


Replace top and right hand spacers, clipping the top spacer into the wall brackets at the same time as attaching it to the heater.

Secure top spacer with the screws provided. THE HEATER IS NOW SECURED TO THE WALL.



OPTIONAL FLOOR BRACKETS ARE AVAILABLE FOR COMMERCIAL INSTALLATIONS. Tighten all screws, fit fan filter.



Up to 10 mm Adjustable Leg

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

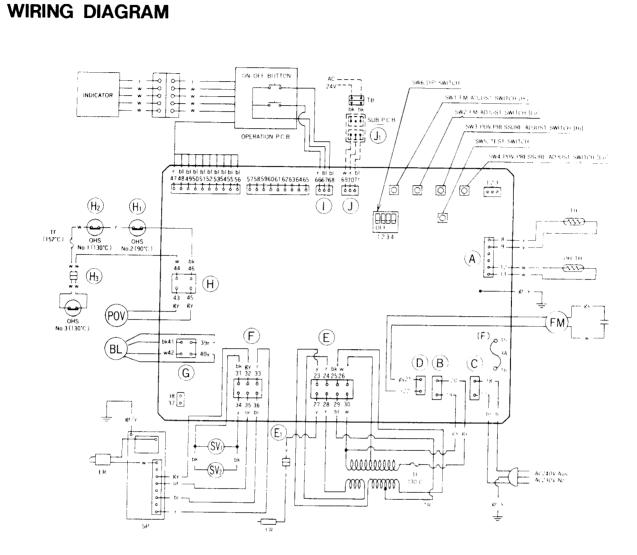
■ INSTRUCT CUSTOMER ON USE OF HEATER

When you are satisfied that the appliance is operating correctly, explain operation of heater to the customer.

Fault-Failure Procedure

If unable to get the heater to operate correctly, contact Rinnai directly or your Agent or Gas Utility.

WIRING DIAGRAM

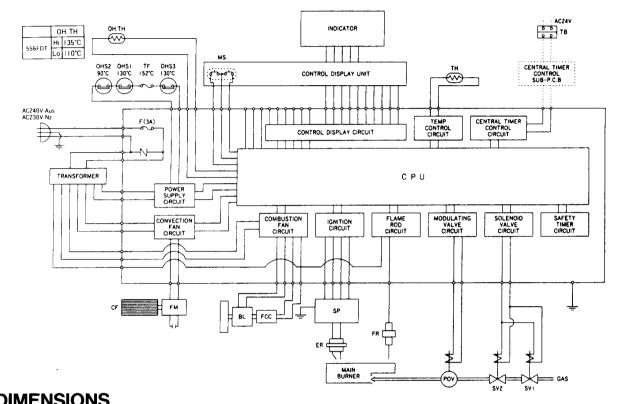


MARK	PART NAME
MS	MAIN SWITCH
тн	THERMISTOR
ŢF	THERMAL FUSE
F	FUSE
CF	CONVECTION FAN
FCC	FAN CONTROL CIRCUIT
E R	ELECTRODE
TR	TRANSFORMER
RCR	REMOTE CONTROL RECEIVER
тв	TERMINAL BLOCK
онтн	OVER HEAT THERMISTOR
0HS1~3	OVER HEAT SWITCH 1~3
FM	FAN MOTOR
BL	COMBUSTION FAN MOTOR
SP	SPARKER
FR	FLAME ROD
SVI~2	MAIN SOLENOID VALVE 1~-2
CPU	CENTRAL PROCESSING UNIT

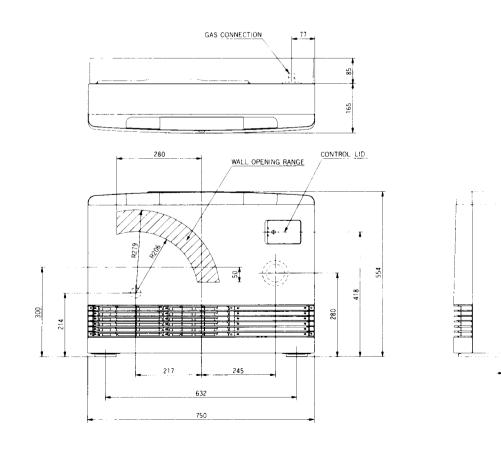
CODE	COLOUR
[pi	purple
y	yellow
w	white
gr∕y	green, yellow
gy	grey
bI	blue
r	red
bk	black
01	orange
br	brown
gr	green

BLOCK DIAGRAM and DIMENSIONS

BLOCK DIAGRAM



DIMENSIONS



ц.,

Ē

34

36

SERVICE CONTACT POINTS

Rinnai Australia PTY. LTD. A. C. N. 005 138 769

Internet: http://www.rinnai.com.au E-mail: enquiry@rinnai.com.au

Head Office/VIC/TAS:	10-11 Walker Street, Braeside, VIC 3195.	Tel: (03) 9271 6625. Fax: (03) 9271 6622. Sales: (03) 9271 6666. Fax: (03) 9271 6611. Spare Parts: (03) 9271 6600. Fax: (03) 9271 6688. Service: (03) 9271 6699. Fax: (03) 9271 6688. 24 hr Hot Water Tel: (1800) 632 386.
N. S. W./A. C. T. Branch	1: 62 Elizabeth Street, Wetherill Park, NSW 2164.	Tel: (02) 9609 2111. Fax: (02) 9609 5260. Sales: (02) 9609 2888. Fax: (02) 9609 5260. Service: (02) 9609 2600. Fax: (02) 9729 0467. 24 hr Hot Water Tel: (02) 9729 0468.
S. A. Branch:	140 Days Road, Ferryden Park, SA 5010.	Tel: (08) 8345 0292. Fax: (08) 8345 4760. 24 hr Hot Water Tel: (08) 8345 5185.
W. A. Branch:	18 Belgravia Street, Belmont, WA 6104.	Tel: (08) 9478 3355. Fax: (08) 9277 2531. 24 hr Hot Water Tel: (08) 9401 2562. North Tel: (08) 9457 1909. South Service: (08) 9478 3345.
QLD Branch:	1/6 Booran Drive, Logan Central, QLD 4114.	Tel: (07) 3209 4622. Fax: (07) 3209 4722. 24 hr Hot Water Tel: (0419) 704 956.

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 SERVICE, PLEASE RING ONE OF THE SERVICE CONTACT NUMBERS ON THE BACK OF THIS BOOKLET. RINNAI RECOMMEND THAT THIS APPLIANCE BE SERVICED EVERY 2 YEARS.