Rinnai

Energysaver® Space Heaters
Operation and Installation Manual

To Suit Models:	**Please note:**
RHFE-556FTR / RHFE-556FDT	**Flue System Installation Instructions enclosed with Flue Terminal packaged separately.**
RHFE-557FTR	
RHFE-1004FTR / RHFE-1004FDT	

This appliance shall be installed in accordance with:

- Manufacturer's Installation Instructions
- Local Gas Fitting Regulations
- Municipal Building Codes
- AS/NZS 5601 Gas Installations, AS/NZS 3000 Wiring Rules
- Any other relevant Statutory Regulations

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

The Australian Gas Association
All Rinnai gas products are A.G.A. certified.

N10378

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INSTALLATION REQUIREMENTS

This heater must be installed by an authorised person. The installation must conform to local regulations.

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

Service and removal must be carried out by an authorised person.

CERTIFICATION

The Rinnai Energysaver® Range have been certified by the Australian Gas Association.

The AGA Certification Number is shown on the appliance dataplate.

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

Please keep these instructions in a safe place for future reference.

CARTON CONTENTS

Check you have the following:

1 x Rinnai Energysaver Space Heater - Model either:
RHFE-556FTR/FDT, RHFE-557FTR, RHFE-1004FTR or RHFE-1004FDT

1 x Rear Cover set, comprising of left, right and top cover panels

1 x Bolt pack containing;

- Stainless steel sheath clamp
- 2 x securing brackets
- 2 x 8g x 30 mm stainless steel securing bracket screws
- 2 x plastic inlet hose clamps
- 1 x 150 mm long cable tie
- 1 x HD stainless steel flue clamp
- 2 x 6g x 10 mm button head screws
- 4 x 6g x 8 mm pan head screws.

IMPORTANT **For Flueing details, please refer to seperate Energysaver Co-Axial Flueing Installation Manual'.**

INSTALLATION RECORD

INSTALLERS / GAS FITTERS DETAILS

Installers Name: _____

Company Name: _____

Company Address: _____

_____

_____

Company Contact Details

Telephone: _____

Mobile Phone: _____

Certificate of Compliance / Certification Number: _____

Authorised Persons - Licence Number: _____

Installers Signature: _____

Installation Date: _____

APPLIANCE DETAILS

Model Number: _____

Serial Number: _____

Installation Address: _____

_____

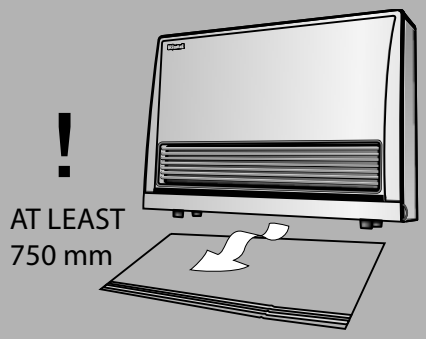
_____

_____

SAFETY

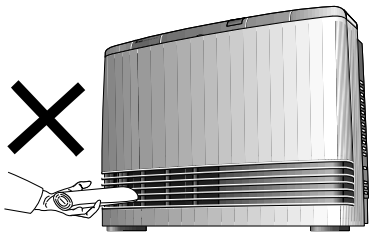
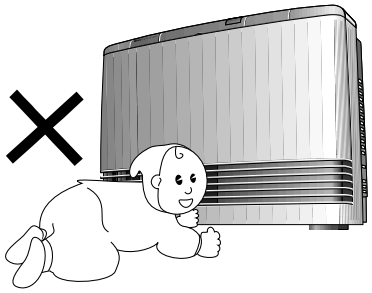
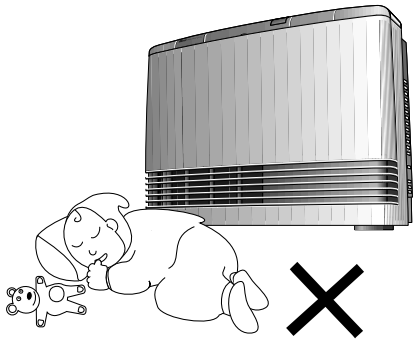
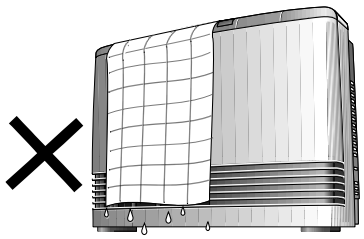
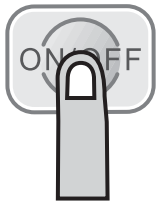
WARNING

- **Failure to comply with these instructions could result in a fire or explosion, which could cause serious injury, death or property damage.**
- **Improper installation, adjustments, service or maintainence can cause serious injury, death or property damage. Such work must be performed by an authorised person.**
- **The appliance must be installed in accordance with the local gas and electrical authority regulations.**
- **For information on gas consumption, see data plate on the appliance.**
- **This appliance must not be installed where curtains or other combustible materials could come in contact with it. In some cases curtains may need restraining.**
- **When considering installation ensure minimum clearances as follows are adhered to.**
- **Heat radiating from the front of the heater may over time affect the appearance of some materials used for flooring such as carpet, vinyl, cork or timber. This effect may be amplified if the air in the room contains cooking vapours or cigarette smoke. To avoid this possibility, it is recommended that a mat or similar protective sheet be placed in front of the appliance, extending at least 750 mm in front of the air outlet.**

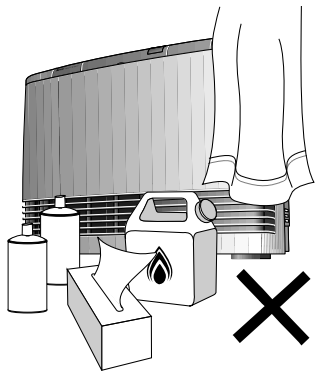
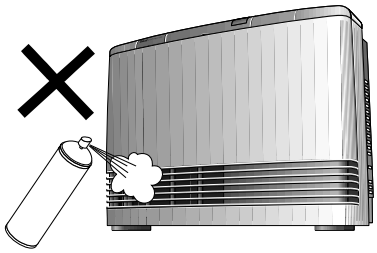
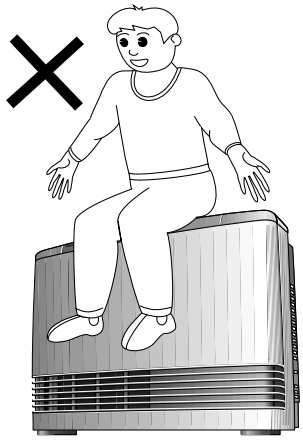
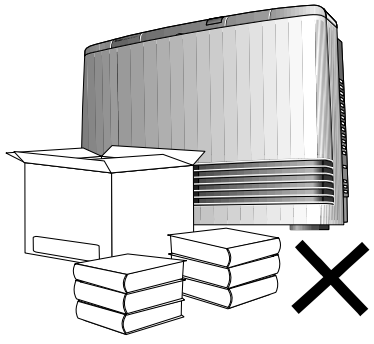
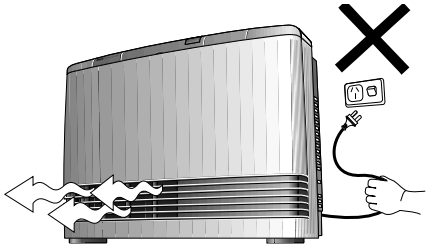


- **The appliance is not intended for use by young children or infirm persons without supervision.**
- **This appliance is not intended for use by persons (including children) with reduced physical, sensor or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instructions concerning use of this appliance by a person responsible for their safety.**
- **These appliances are not intended for use by young children or infirm persons without supervision.**
- **Young children should be supervised when in the vicinity of these heaters while in operation.**
- **If the supply cord is damaged or require replacing, it must be replaced by the manufacturer or the manufacturer's agent or similarly qualified person in order to avoid a hazard.**
- **This heater must not be located immediately below a power socket outlet.**
- **DO NOT connect to an LPG Gas cylinder indoors.**
- **A dedicated 240 V earthed 10 Amp power point must be used with this appliance.**
- **DO NOT modify this appliance. Modifying it in any way or form, from original specifications may create a dangerous situation and will void your warranty.**
- **Only the flue components specified by Rinnai must be used.**
- **Unpack the heater and check for damage. DO NOT INSTALL DAMAGED HEATER. If the heater is damaged, contact your supplier for advice.**
- **Before installing the heater, check the label for the correct gas type (see rating plate, right hand side panel).**
- **Refer to local gas authority for confirmation of the gas type if you are in doubt.**

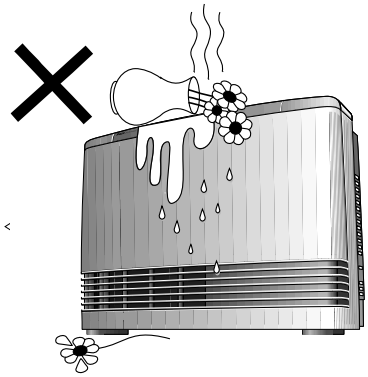
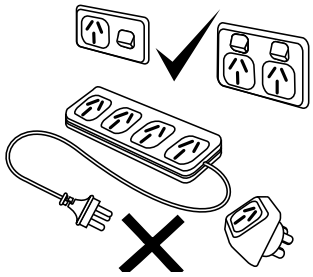
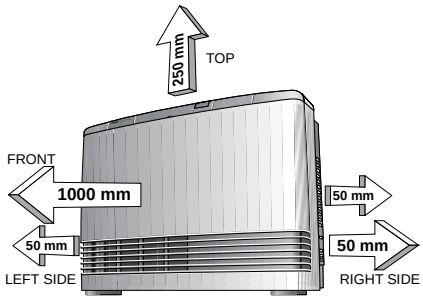
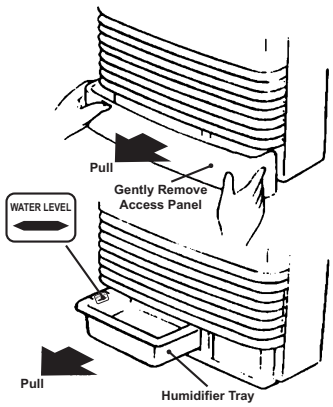
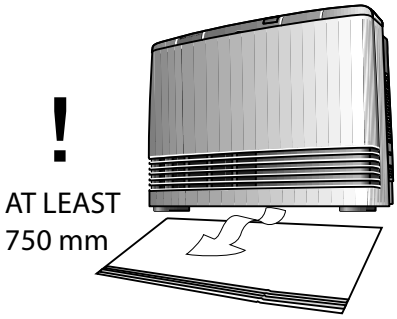
SAFETY

DO NOT allow children to post articles in the louvres.	
The appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure they DO NOT play with the appliance.	
DO NOT allow children or elderly persons to sleep in the warm air discharge from the heater.	
DO NOT cover or place articles on this heater.	
Turn ‘OFF’ heater after use.	

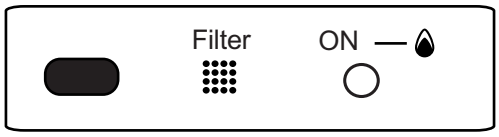
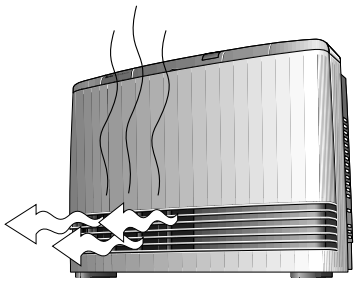
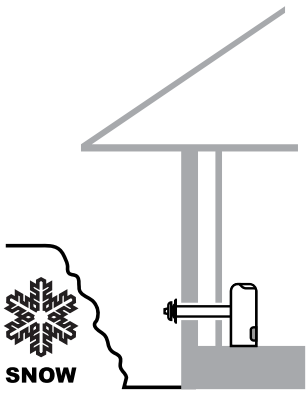
SAFETY

Keep away from flammable materials. Combustible materials must not be placed where the heater could ignite them. DO NOT place articles on or against this appliance. DO NOT use or store flammable materials near this appliance.	
DO NOT spray aerosols in the vicinity of this appliance while it is in operation. Most aerosols contain butane gas which can be a fire hazard if used near this heater when it is in use.	
DO NOT sit on this heater.	
DO NOT place articles in front of the louvres.	
DO NOT unplug the heater while it is in operation or while the fans are still cycling. DO NOT turn the heater 'OFF' by unplugging it from the wall.	

SAFETY

DO NOT place containers of liquid on top of the heater. Water spillage can cause extensive damage to the appliance and may result in electric shock.	
A dedicated 240V 10 Amp power point be used with this appliance. DO NOT use power boards or double adaptors to operate this appliance. Heater must not be located below a power socket-outlet.	
This appliance must not be built-in The clearances must be maintained.	
Access panel and Humidifier tray have to be fitted while the heater is in use. Rinnai recommend you fill the tray to the water level indicator as marked. Take care not to overfill.	
Heat emanating from the front of this appliance may over time affect the appearance of some materials used for flooring such as carpet, vinyl, cork or timber. This effect may be amplified if the air in the room contains cooking vapours or cigarette smoke. To avoid this possibility, it is recommended that a mat be placed in front of the appliance, extending at least 750 mm in front of the air outlet.	

SAFETY

During peak operating periods the filters should be cleaned weekly, however if the “FILTER” warning indicator flashes in the control panel display, turn off the appliance immediately and clean filters before further use.	
When the heater is operated for the first time or after long periods of non use a slight odour may be emitted, this is normal. However if odours persist switch off the appliance and contact Rinnai.	
Keep flammable materials, trees shrubs etc. away from the flue terminal.	
Snow Areas - in areas subject to heavy snowfall, keep snow clear of flue terminal at all times.	

IMPORTANT

Servicing shall be carried out only by an Authorised Person

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 gas off, a service call is required to repair the appliance 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. If this happens repeatedly a service call is required.

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.

Electrical Fuse:

The electrical circuits are protected by an electric fuse. When the fuse blows, the heater will not operate. The fuse must be replaced by an authorised person.

Power Failure:

In the event of a power failure or power cut, the gas valves will automatically close. After the power is re-instated the appliance must be re-started manually.

SERVICE

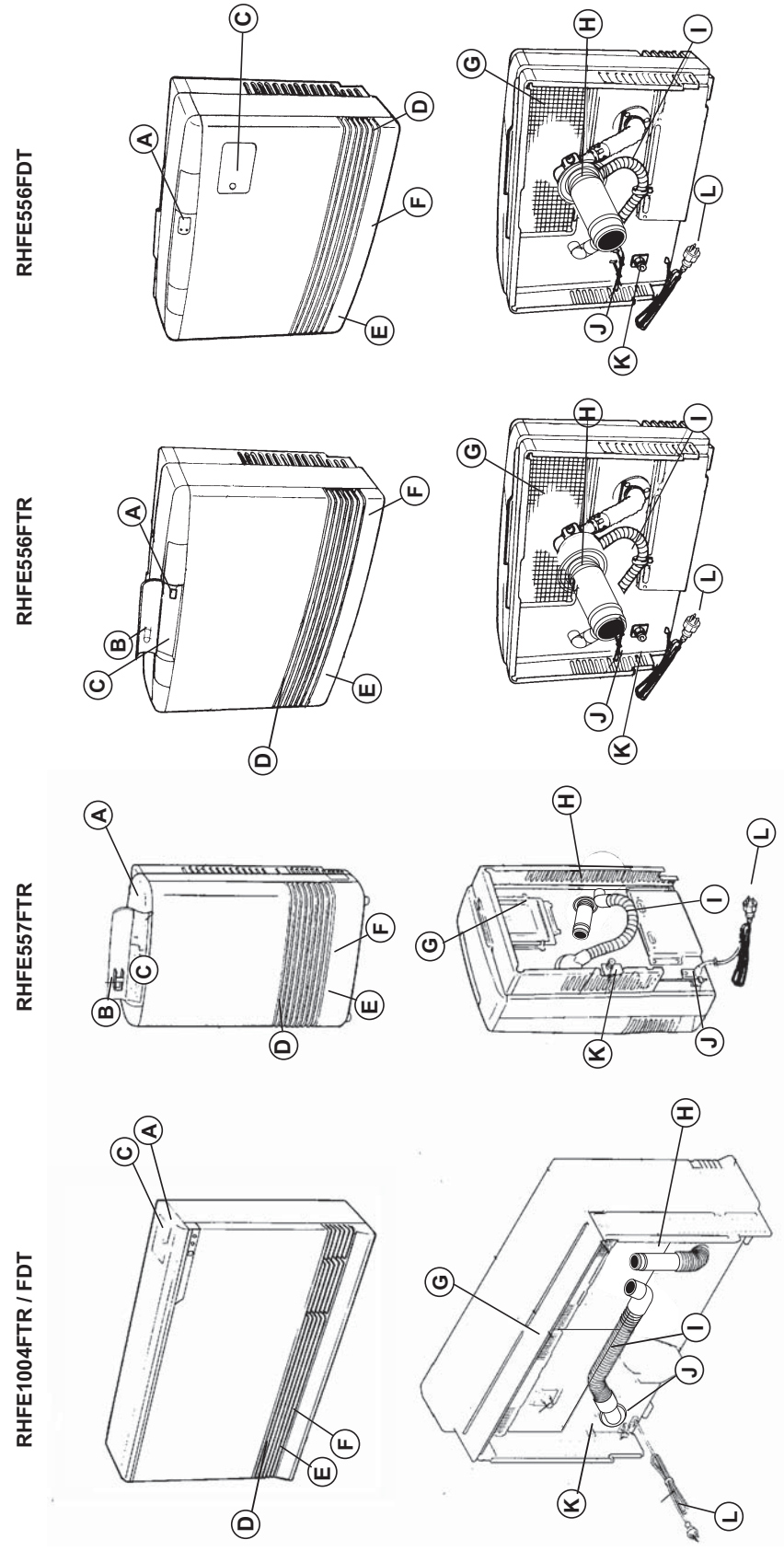
Rinnai Australia has a service and spare parts network in all states. Our service network personnel are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance needs servicing, please ring one of the service contact numbers on the back of this booklet.

Rinnai recommend that this appliance be serviced every 2 years.

FEATURES

ROOM SEALED	Air for combustion is taken from the outside and the flue product are exhausted to the outside. This means heater operation has no effect on the composition and quality of air in the room.
PUSH BUTTON IGNITION	Only one touch of the 'ON/OFF' button is required to operate the heater.
FUNCTION / CHILD LOCK	Prevents children from altering heater settings whilst running, or from activating the heater when turned OFF.
MEMORY	The micro-computer records selected programming temperatures, the Timer, and Economy/Auto-Off and Pre-heat modes. 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 these parameters. (Only the clock will need to be re-programmed).
7 STEP AUTOMATIC HEAT CONTROL	With electronic thermostat. The fan is also controlled by the thermostat.
PRE-HEAT	This function operates automatically in conjunction with the Timers. When a Timer is selected, the heater may operate anywhere within an hour prior to the programmed starting time of a Timer. This function is called Pre-heat since it ensures the room reaches the desired temperature by the time the Timer programs ON time. The room temperature is sensed one hour before reaching Timers programmed ON time. The temperature differential at the time of sensing the room temperature combined with the data from previous operation governs exactly how long before the programmed ON time the micro-computer will operate the heater and ignite the burner.
ECONOMY MODE	The Economy (ECON) function is an energy saving features designed to control the room temperature and prevent discomfort from over heating.
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 heater 'ON' and 'OFF', and to adjust its temperature at your convenience. The remote control also comes with its own handy bracket for easy storage.
DUAL TIMER	The Dual Timer allows you to program the appliance to come on for two separate periods each day, one period in the morning and one period in the evening, user the Timer 1 and Timer 2 functions. The Dual Timer feature means that you can "Set and Forget" your heater. It will turn itself ON at the times you have programmed until you cancel the Timer program.
HEATER FILTER INDICATOR	When the heater filter becomes covered with dust the heater filter indicator will flash. The filters should be vacuumed at regular intervals to avoid unnessary strain on the appliance.
HUMIDIFIER TRAY	The integral **humidifer tray** can be filled with water as required to raise the humidity level in the room for extra comfort. Tray should not be filled to more than 3/4 full.

ABOUT YOUR ENERGYSAVER



A 'ON' / 'OFF' SWITCH

B REMOTE CONTROL BRACKET

C CONTROL PANEL
Operation / Temperature Control Display and Appliance error codes

D LOUVRE
Warm air discharge duct.

E HUMIDIFIER TRAY
Built into the warm air discharge duct. Humidifies the warm air flow.

F BOTTOM TRIM
Pulls OFF to allow filing of humidifier tray.

G AIR FILTER
Helps to protect the interior of the appliance & fan from dust particles.

H EXHAUST OUTLET
Exhausts flue products to the outside of the building, via the flue system (purchased separately).

I AIR INLET TUBE
Carries air for combustion, via the flue system (purchased separately).

J ROOM TEMPERATURE SENSOR

K GAS CONNECTION

L ELECTRICAL CORD

CUSTOMER INFORMATION - CONTROL PANEL

Models: RHFE-556FTR / RHFE-557FTR

1 'ON' / 'OFF' BUTTON
Main switch for turning 'ON / OFF'.

2 SET TIMES BUTTON
Selects clock and/or Timers for adjusting or programming.

3 TIME / TEMP DISPLAY
Shows either time of day, temperature or coded error messages.

4 TIME / TEMP ADJUSTMENT BUTTON
Used to adjust temperature and time settings.

5 OVERRIDE BUTTON
This function is used to manually override the current operation of the heater.

6 OVERRIDE INDICATOR
Indicates that the override function is activated.

7 FUNCTION / CHILD LOCK BUTTON
Helps prevent accidental operation as well as small children from altering controls.

8 FUNCTION / CHILD LOCK INDICATOR
Indicates Function lock is activated.

9 CLOCK ADJUSTMENT & TIMER INDICATORS
Indicates that clock or dual timer programme is being set.

10 ECONOMY BUTTON
Indicates that the Economy mode is in operation.

11 ECONOMY INDICATOR
Selects energy saving function.

12 TIMER ACTIVATION BUTTONS
Selects operating mode for Timer 1 or Timer 2.

13 TIMER ACTIVATION DISPLAY
Indicates that Timer 1 or Timer 2 has been selected to operate.

14 POWER 'ON' / COMBUSTION INDICATOR
Indicates that appliance is turned 'ON' & whether the burner is alight.

15 FILTER INDICATOR
Indicates that the filter needs cleaning.

16 REMOTE CONTROL RECEIVER

CUSTOMER INFORMATION - CONTROL PANEL

Model: RHFE-1004FTR

1 'ON' / 'OFF' BUTTON
Main switch for turning 'ON / OFF'.

2 SET TIMES BUTTON
Selects clock and/or Timers for adjusting or programming.

3 TIME / TEMP DISPLAY
Shows either time of day, temperature or coded error messages.

4 TIME / TEMP ADJUSTMENT BUTTON
Used to adjust temperature and time settings.

5 OVERRIDE BUTTON
This function is used to manually override the current operation of the heater.

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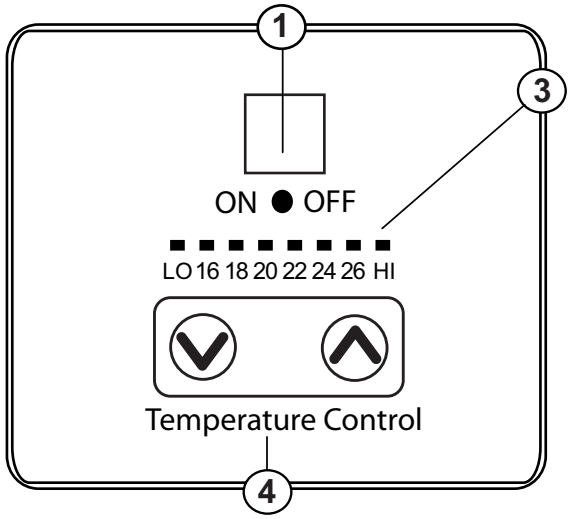
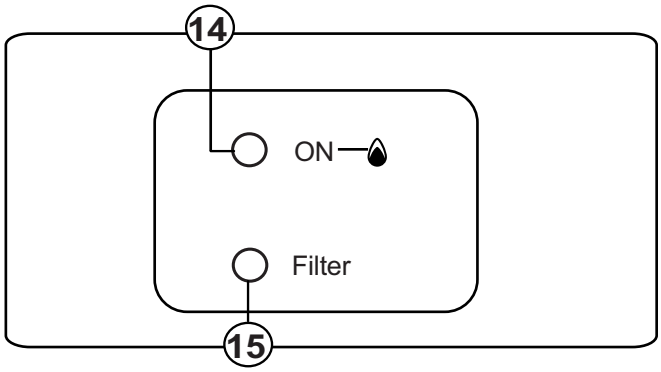
16 REMOTE CONTROL RECEIVER

CUSTOMER INFORMATION - CONTROL PANEL

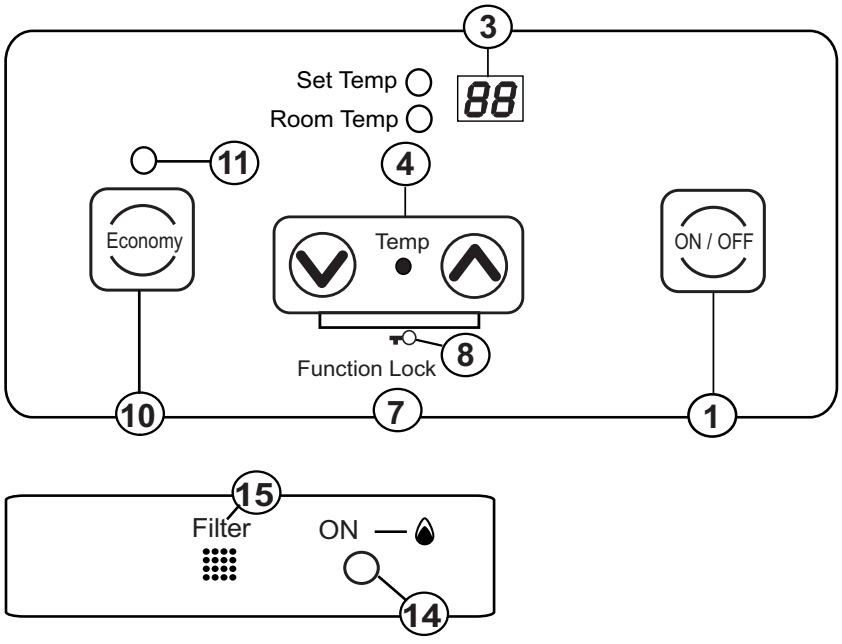
RHFE-556FDT



* Flashing LED is room Temperature
Steady LED is selected Temperature



Model RHFE-1004FDT



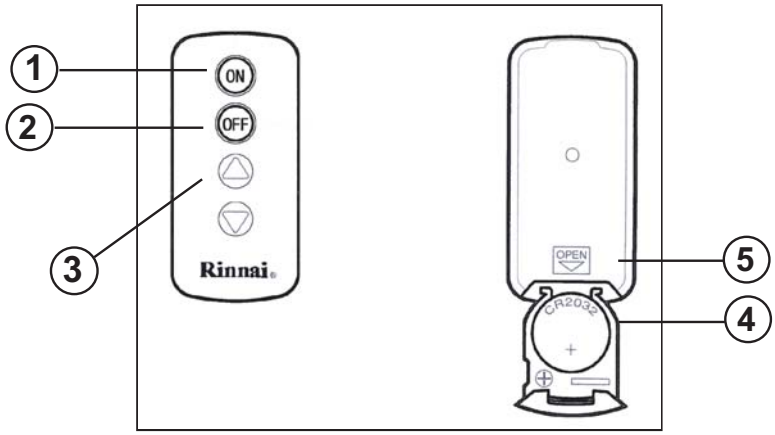
REMOTE CONTROL PANEL

Remote Control

The Remote Control will not turn the heater 'ON' if Timer(s) have been selected.

To manually operate when Timer(s) are not selected, simply press the 'ON' or 'OFF' button. ① or ②

To alter the temperature at anytime while the heater is operating, simply press the "▲" or "▼" ③ buttons.



1 'ON' BUTTON

Operates the heater manually.

2 'OFF' BUTTON

Stops heater manually.

3 TEMPERATURE ADJUSTMENT

Increases or decreases the temperature setting.

4 BATTERY

Power source for operating remote control.

5 BATTERY REPLACEMENT

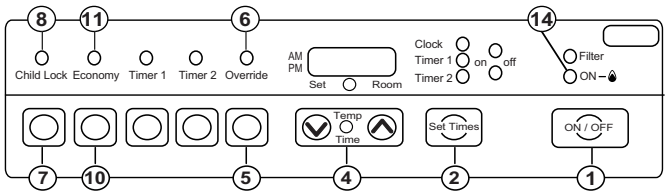
Open the back of the remote control and replace Lithium battery. TYPE: CR 2032

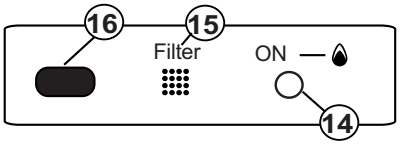
PLEASE NOTE: NOT USED ON THE 'FDT' MODEL ENERGYSAVERS

NOTE

- **Only use battery type specified (CR 2032). ⑤.**
- **Remove the battery ④ if control is not going to be used for a long period. This will help avoid damage from leaking batteries.**
- **The remote control will not function if the heater is in Timer mode.**
- **If the heater is in Override mode, switching 'ON' or 'OFF' will cancel any future timer operations, these will have to be reset manually.**
- **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 close the the louvres of the heater.**
- **Avoid getting the remote control wet or dropping it.**

CUSTOMER INFORMATION - OPERATION





IMPORTANT:
You must read and understand these instructions fully before operating the heater.

- To turn the unit 'ON' ①

Press the ON/OFF ① button to operate the heater. The ON indicator will glow green. The spark generator will be heard before the burner ignites and the ON indicator ⑭ glows red, indicating that the heater is alight.

When the heater warms up, the fan will automatically start.

If the heater does not ignite on initial use, this may be due to air remaining in the gas supply line. The spark generator will only continue for 15 seconds. After this it will be necessary to press the ON/OFF ① button OFF, then ON again.

If the appliance fails to ignite after 4 attempts, contact Rinnai as a service call may be required.

- To turn the unit 'OFF' ①

Simply press the ON/OFF ① button to switch off the heater. The ON indicator ⑭ light will go out. The 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 fan is running. The convection fan will continue to run until the appliance cools.

- Room Temperature Adjustment ④

The room temperature and pre-set temperatures can only be displayed and adjusted when the heater is running.

Press the "▲" ④ button to increase the temperature setting or "▼" ④ button to decrease the temperature setting.

The temperatures can be preset to:

a) [L] low - continuous combustion on low.

b) [16°C] to [26°C] in 1°C steps - thermostatic control to preset temp selected. Combustion rate varies as required to maintain the selected temperature.

c) [H] - continuous combustion on high.

- 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 ⑭ will change colour from red to green when the heater reaches the pre-set temperature and stops running.
- Economy Mode ⑩

The Economy (ECON) function is an energy saving features designed to control the room temperature and prevent discomfort from over heating.

1. The Economy mode can only be operated when the heater is turned ON, but remains in the system memory once set until deactivated. Selected the Economy mode before selecting time operation.
2. Press the Economy ⑩ button to start the Economy function. The Economy indicator ⑪ will glow.
3. Press the Economy ⑩ button once more to switch OFF the function.

- Child Lock / Function Lock ⑦

The lock function will help to prevent accidental operation as well as small children from altering the controls. To operate the lock simply press the LOCK ⑧ button. The function is activated immediately and the LOCK indicator ⑧ will glow.

To Deactivate the LOCK simply press the LOCK ⑦ button for 3 seconds and the LOCK indicator ⑧ will go out. The LOCK can be deactivated at any time in this way.

CUSTOMER INFORMATION - OPERATION

During normal operation the LOCK may be activated and all 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 functions will be locked. If the heater is turned OFF while the LOCK is activated, it cannot be turned ON again until the LOCK is deactivated.

Override ⑤

This function is intended to be used to manually override the current operation of the heater. For example; if the heater is in standby mode (i.e. between finishing time and starting time of a Timer) and the OVERRIDE ⑤ button is selected, then the heater will begin to operate and heat the room.

- To operate the OVERRIDE simply press the OVERRIDE ⑤ button. The OVERRIDE ⑥ indicator will flash.
  To manually deactivate the OVERRIDE simply press the OVERRIDE ⑤ button again. The OVERRIDE ⑥ indicator will go out, and the heater will return to standby mode.
- The heater will continue to operate on OVERRIDE until the OVERRIDE ⑤ button is pressed again, or one of the Timers takes over the 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).

FDT Models Only

Fixed Time Period Operation for FDT Models only:

- The Energysaver RHFE-556FDT or RHFE-1004FDT 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 ① must be pressed to re-ignite the appliance.
- Contact Rinnai on the number listed on the back cover of this manual for further advise.

How to Operate the FDT Models Only

To Turn the Unit 'ON'

- Press the ON/OFF ① button to operate the heater. The ON indicator will glow 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 / extintion. This is inside of the unit expending and contracting and is normal.**
- **The heater will not ignition if the ON/OFF button is pressed straight after extinction. After approximately 20 seconds has passed, the unit will automatically go into ignition mode.**

To Turn the Unit 'OFF' ①

- Press the ON/OFF button to switch off the heater.
- 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.**


NOTE

- **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 the Temperature

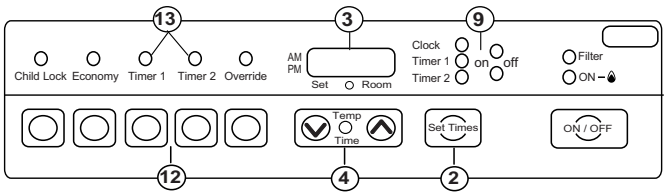
Displaying, setting and adjusting the room temperature can only be done when the unit is operating.

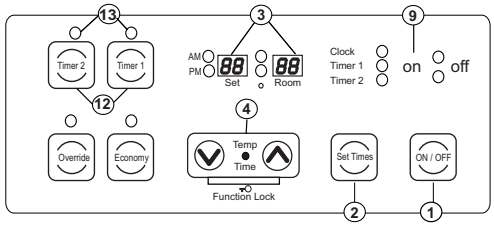
- When the unit is first operated, the room temperture is set at 22°C.
- Set the desired room temperature will the up and down buttons while looking at the display section.
- The "Set Temp" can be set to "L" or between "16" ~ "26", or "H" (continuous combustion on High).
- The "Room Temp" will display "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. 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.**

SETTING THE CLOCK





Setting the Clock

When the appliance is first plugged in or after a power failure, the digital display ③ with show **--:--**

As an example, let's set the clock to 10:35 am;

Press the SET TIMES ② button once, the Clock indicator ⑨ will flash.

Press and hold the "▲"④ button; the minutes will begin to change first then the time will change by whole hours.

Release the button when AM 10:00 shows on the Digital Display ③. 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 "▲"④ button again, release the button when AM 10:35 shows. If you go past AM 10:35, then the "▼"④ button can be used to change the time settings in reverse.

Press the Timer Set ② 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 ③ will flash to show that the Clock is operating.

Setting the ON / OFF Timers

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

As an example, let's program Timer 1 to heat the room by 7:10 am and finish at 9:00 am.

Press the Set Times ② button twice. The Digital Display ③ will show AM 6:00. Timer 1 indicator ⑬ will flash.

Press the "▲" button until AM 7:00 appears, release the button, then press it again until AM 7:10 appears. (Press the "▼"④ button if you go past AM 9:00).

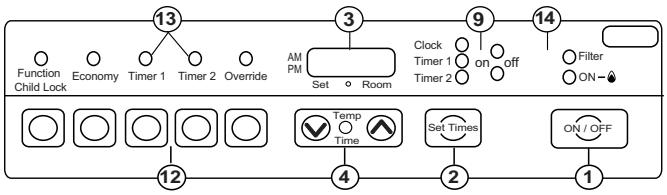
Press the Set Times ② button three times to lock in the program time. The Digital Display③ will show the current time. A small indicator on the Digital Display ③ will flash to shown that the display has returned to the clock.

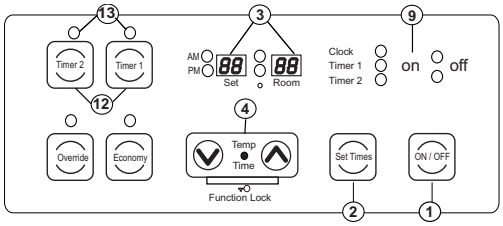
Timer 2 is programmed in the same way, remember to ensure that the Timer 2 indicator ⑬ is flashing when you program in the desired setting.

NOTE

This procedure is for setting the ON/OFF times for Timers 1 and 2 only. To achieve the timers refer to details on the following page.

OPERATING THE TIMERS





Operating the Timers

The timers can be programmed to operate for any two positions in any 24 hours. 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. 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. See Pre-heat, for further explanation.

To select the Timer(s) to commence heating:

- Check the time shown on the Digital Display ③ is correct.
- Check the ON and OFF times, for both Timers if necessary, (see 'setting the ON/OFF timers').
- Press the ON/OFF ① button to operate the heater. The ON indicator ⑨ will glow green.
- Select the desired temperature setting. ④

Press the Timer 1 and/or Timer 2 ⑫ button(s). The timer indicator(s) ⑬ will glow. The heater will now remain on standby until up to 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 ⑭ glows red when the heater commences operation. Actual start time will depend on temperature selected and current room temperature. (See Pre-heat section for further details).

Set and Forget Operation

Your heater can be operated to alternate between Timers automatically during cold weather by selecting Timer 1 and Timer 2 ⑫ together. Both Timer indicators ⑬ 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 during programmed intervals the Timer indicator ⑬ will flash.

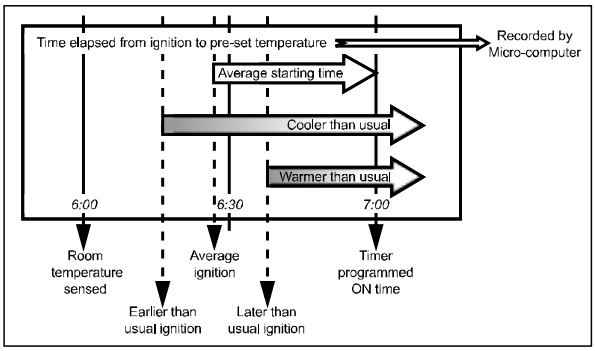
If there is a power failure, the system memory will retain the Timer programs, and the clock ③ will stop at the time the power goes off. The clock will start again when the power comes back on, but the time will be slow by the duration of the power failure. To set the clock to the correct time after the power has come back on, simply follow the instructions on page 18.

OTHER OPERATING INFORMATION

Pre-Heat

This function operates automatically in conjunction with the Timers. When a Timer is selected, the heater may operate anywhere within an hour prior to the programmed starting time on the Timer.

This function is called Pre-heat since it ensures the room reaches the desired temperature by the time the Timer programs ON time. The room temperature is sensed one hour before reaching Timers programmed ON time.



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

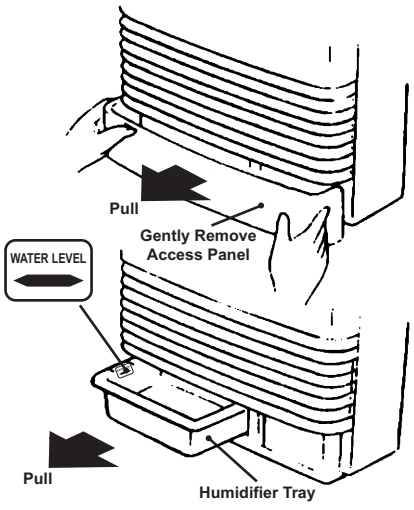
Humidifier Tray

Your heater 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 wil 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.

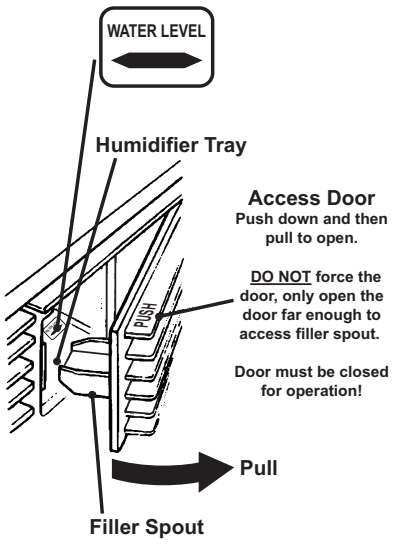
These are very high efficiency appliances. During operation a small amount of water is produced in the flue tubes. This drains into the enamel tray. It is quite normal for a small quantity of water to remain in the bottom of the tray. If you are using the humidifier, it will need filling about once a day during the peak heating season.

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 desgined to be adjusted more than 6 times.



RHFE-556FTR/RHFE-556FDT / RHFE-557FTR

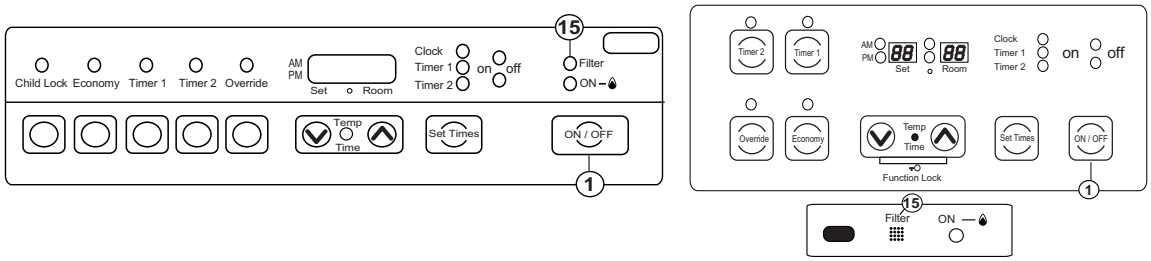


RHFE-1004FTR / RHFE-1004FDT

Outside Flue Terminal

On cold days steam may be discharged from the flue terminal. This is normal with high efficiency appliances as such as the Energysaver® range and does not indicate any fault.

CARE OF YOUR ENERGYSAVER



Cleaning

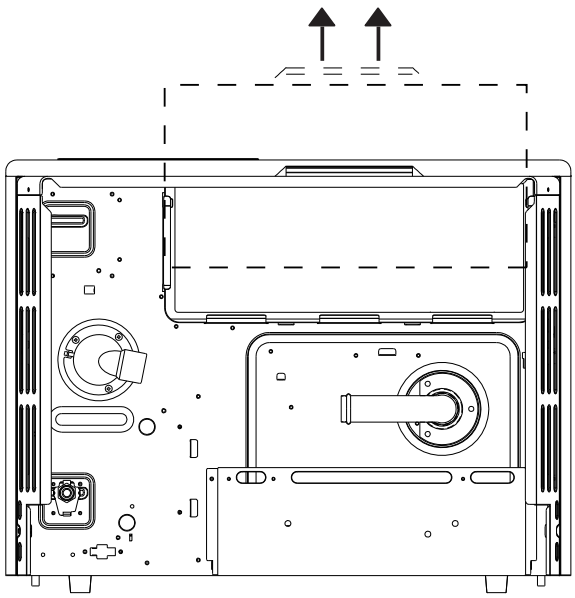
Your heater needs very little maintenance, but the following information will help you to keep it looking good, and working efficiently.

- Unplug electrical cord before cleaning.
- All parts of the heater can be cleaned using a soft, damp cloth and a mild detergent.
- Do not use solvents to clean any parts.

Fan Filter

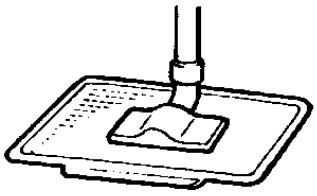
To protect the room air fan from dust particles or lint, a filter is situated at the rear of the appliance. When this filter becomes blocked, the filter indicator will flash to indicate that it should be cleaned. Clean the filter weekly during the heating season. Dusty filters reduce the air flow through the appliance reducing heating effectiveness.

Remove filter by pulling straight up and out from 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 (15) is allowed to remain flashing, then the appliance will stop and [14] will flash on the Digital Display signifying that the inbuilt safety device has functioned. You must clean the filter before operating the heater again.
- DO NOT use the heater with the filter indicator flashing as this may cause overheating.
- DO NOT not wait for the filter indicator to flash before cleaning filters.



WARNING **Ensure to fit the Fan Filter back in the appliance after cleaning. DO NOT operate appliance without filter in place.**

Regularly check the outside flue terminal to make sure it is clear from plant growth and from other obstructions. Refer “SAFETY” on page 2 for additional requirements.

TROUBLE SHOOTING

Trouble Shooting Check List

Please check this list before asking for Service.

Fault → / Cause	No Operation Lamp	Burner doesn't ignite	Unusual Combustion	Combustion stops	Smell of Gas	Noisy Ignition	Takes too long to warm the room	Remote control does not work	Remedy
Not plugged in	●	●							Plug in power cord and press the control panel ON / OFF button.
Power Cut	●	●		●					Re-ignite manually after power is restored.
(Initial Installation) Air in gas pipe		●							Purge air (Installer).
Gas Filter Blocked		●	●				●		Service Call (Contact Rinnai).
Mis-Ignition	●	●							Check customer instructions.
Flue Terminal obstructed			●	●		●			Clear obstruction.
Flue manifold not connected						●			Service Call (Contact Rinnai).
Louvre obstructed				●			●		Clear obstruction.
Air Filter Blocked				●			●		Clean filter (weekly).
Gas Escape					●				Service Call (Contact Rinnai).
"ON" Timer is set		●							Cancel "ON" Timer.
Gas turned OFF at meter		●							Turn Gas "ON".
Function / Child Lock Set	●	●							Cancel Function / Child lock.
Battery Flat (remote control)								●	Replace Battery.

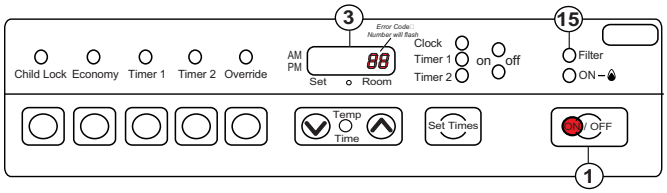
If you are unsure about the way the unit is operating, contact Rinnai or your Agent.

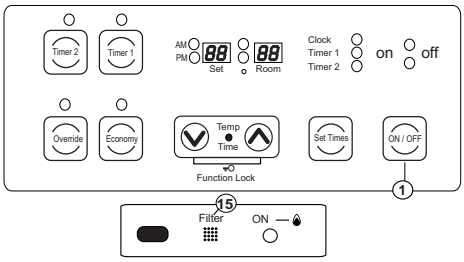
TROUBLE SHOOTING

Before asking for a service call please check the following.
These symptoms are part of the normal operation of the unit and do not indicate a fault.

Symptom		Explanation
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.
Unit is not heating room	→	Is the air filter blocked? Is the set temperature high enough? Is the warm air outlet blocked by anything? Are the doors and windows of the room closed?
Air filter is blocked or the louvres are blocked or obstructed	→	Allow heater to cool, clean air filter, operate again.
Heater will not re-ignite after overheating	→	Even after unit has cooled down the heater does not ignite again. Repair is necessary. Contact your local agent or Rinnai for a Service Call.
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.
Unit cuts off without apparent reason	→	Check whether filters are blocked, dirty filters will cause the heater to overheat.
Power Failure		Switch OFF, then ON again when power is restored to re-set controls.
Timers:		
Timers do not operate at set time.	→	Timers may either be inactivated or incorrectly programmed. Repeat programming. Refer to “SETTING THE CLOCK” on page 18.
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® Range of heaters has the ability to check its own operation continuously. If a fault occurs, an Error Message will flash on the Digital Display ③ on 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.

Error Code	Probable Cause	Comments
00	Power failure	Turn Heater OFF the ON again
11	Ignition failure	Check gas supply is turned on Turn Heater OFF the ON again 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
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 Sensor Faulty	Service call
24 • 26		
18 • 20 • 22	Overheat Temperature Sensor Faulty	Service call
20 • 22 • 24		
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	Fault Flame Rod	Service call
22 • 24 • 26	Communication error	Turn Heater OFF the ON again
LO • HI	Power Failure	Turn Heater OFF the ON again
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 the ON again
--:--	Power failure	Turn Heater OFF the ON again

ERROR MESSAGES

RHFE-556FTR

When a safety device is activated, the cause will be indicated by a flashing display. (Filter indicator will also flash in the case of overheat).

Error Code	Probable Cause	Comments
--:--	Power failure	When power failure is sensed operation stops
11	Miss Ignition	Flame current does not reach 1.0µA within the given time, after solenoid valve opens
12	Flame Failure	Flame rod current remains below 0.1µA for 3 seconds during initial combustion
14	Over heat safety device	High-limit temperature thermistor or thermal fuse has activated
16	Over temperature cut off	Room temperature is sensed as being above 40°C for longer than 10 minutes
31	Room temperature thermistor disconnection	Room temperature thermistor open circuit
32	Room temperature thermistor short circuit	Room temperature thermistor wire trapped, touching bare metal
33	High-limit thermistor disconnection	High limit thermistor open circuit

In all cases, you may be able to clear the Error Message simply by turning the heater OFF, ① 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.

NOTE

Service calls for general cleaning, maintenance and wear and tear are not necessarily covered under the warranty. Service calls of this nature may be chargeable.
Faults caused by insufficient gas supply, gas quality, installation errors or operation errors are not covered by the Rinnai warranty. Refer to seperate Warranty booklet for details.

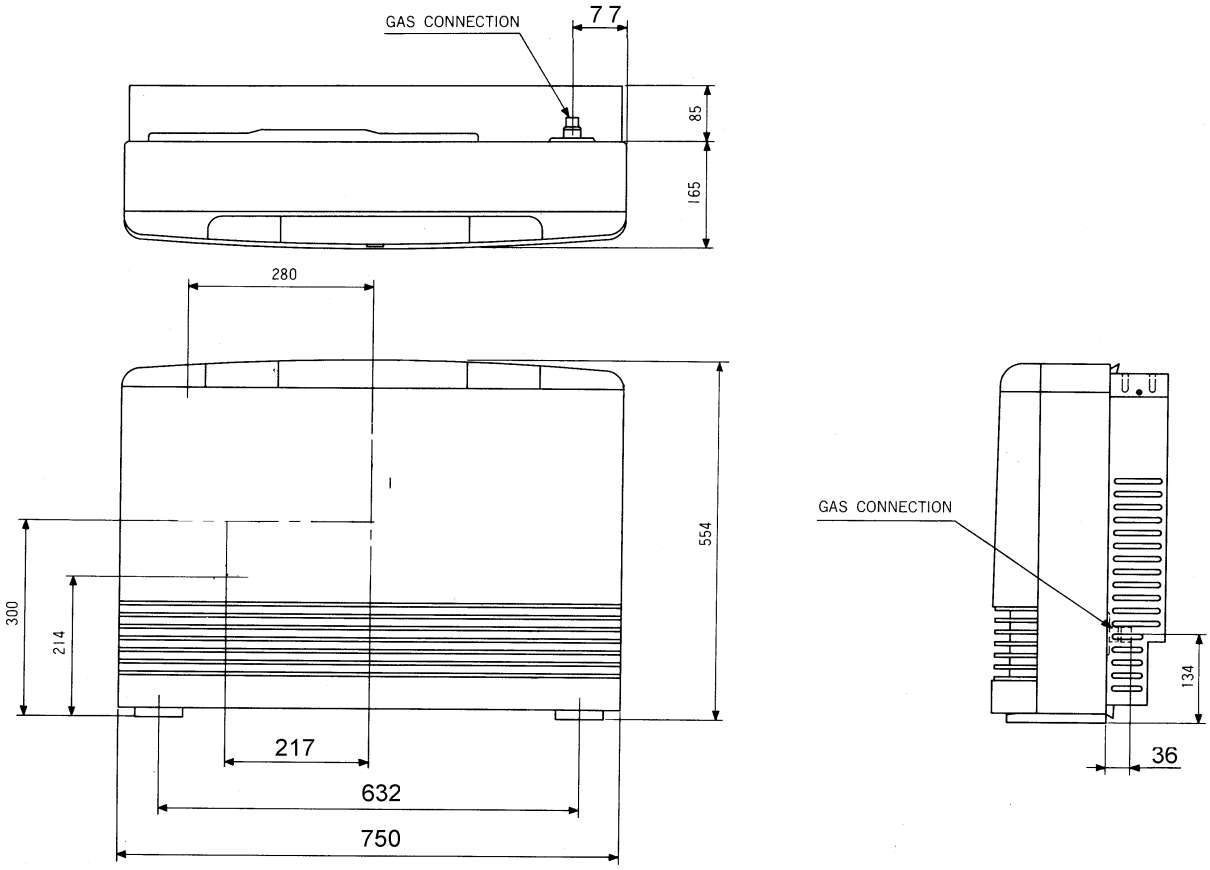
INSTALLATION MANUAL - TABLE OF CONTENTS

SPECIFICATIONS

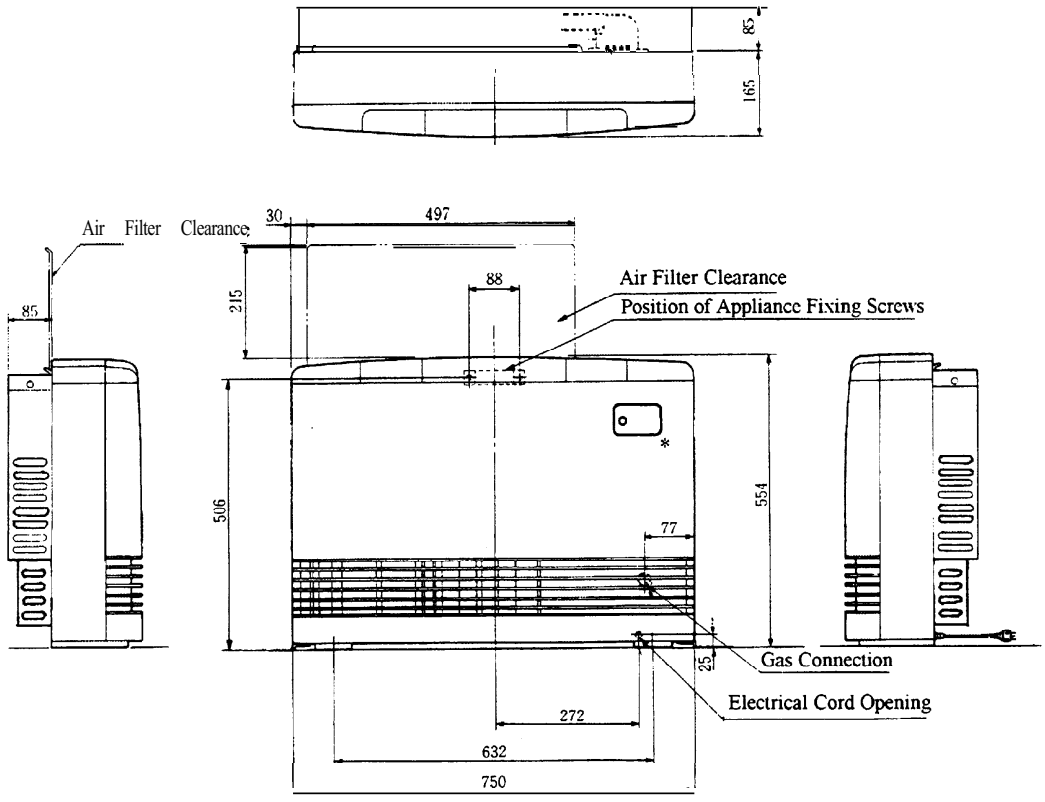
Models:	**RHFE-556FTR** **RHFE-556FDT**	**RHFE-557FTR**	**RHFE-1004FTR** **RHFE-1004FDT**
Type of Appliance	Energysaver® Fan Forced Power Flued Gas Space Heater		
Height (mm) - Width - Depth - Height	 750 250 554	 750 250 554	 930 330 670
Weight (Kg)	22	22	42
Input (MJ/hr) - Nat Gas - High - Low	 23 9	 23 9	 37 11
Gas Control	Rinnai Electronic Modulating Control		
Burner	Stainless Steel Ribbon Type		
Gas Inlet	R 1/2” Male Thread (15 mm)		
TPP (kPa) - NG - High - Low	 0.51 0.09	 0.51 0.09	 0.76 0.49
TPP (kPa) - LPG - High - Low	 1.06 0.18	 1.06 0.18	 2.33 1.07
Flue	Forced Flue		
Flue Connection	Supplied with heater		
Flue Systems	All flue systems are sold separately to suit individual applications		
Ignition	Continuous electrical spark, direct to main burner		
Electrical Supply	240 V, 50 Hz - The unit is fitted with a supply lead and 3 pin plug, replace only with Rinnai part only.		
Fan	Centrifugal 7 Speed Fan		
Rinnai are continually updating and improving products, therefore specifications are subject to change without prior notice.			

DIMENSIONS

RHFE-556FTR



RHFE-556FDT

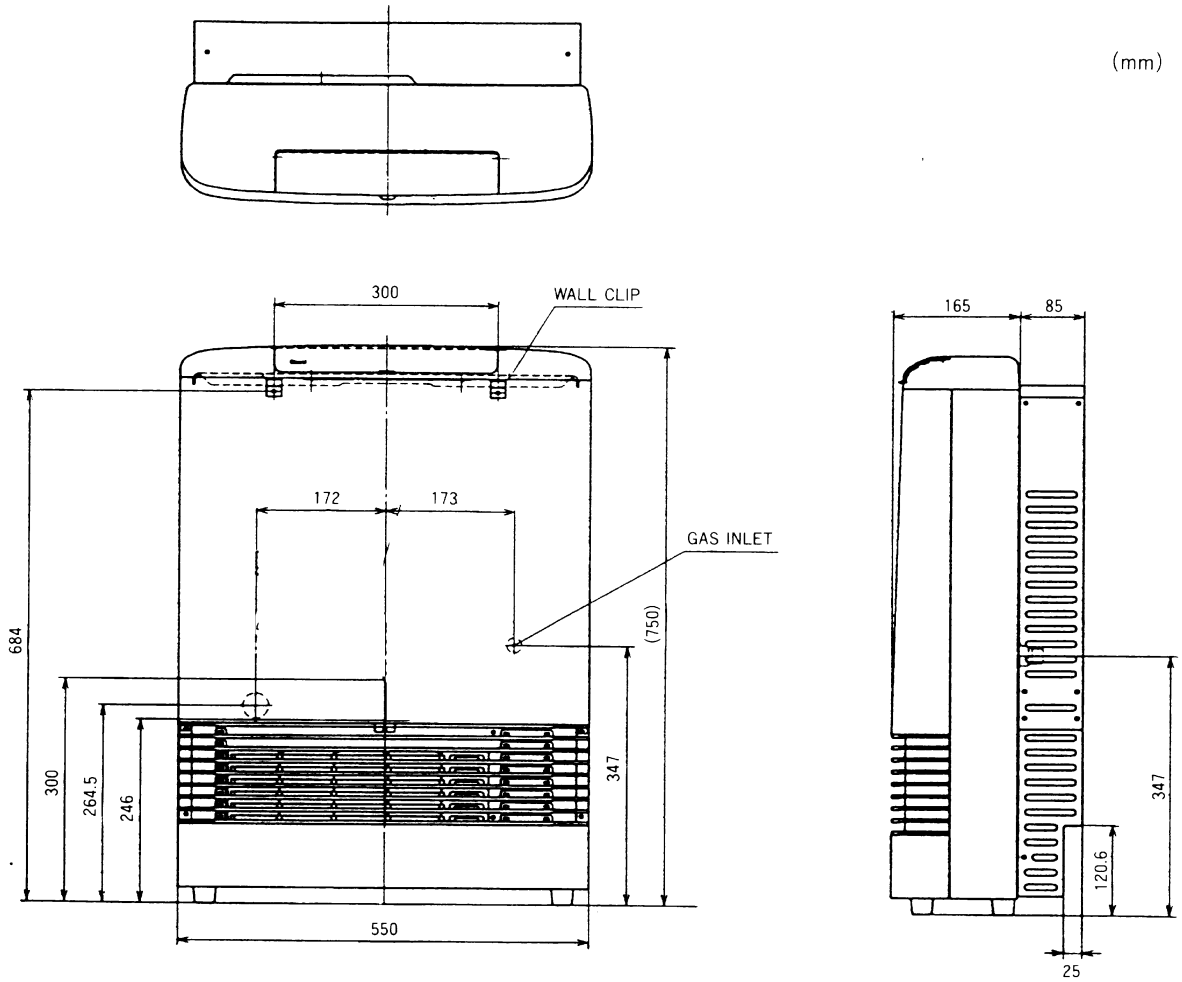


* FM/FDT version only

Refer to Wall Penetration for Flue location on page 34

DIMENSIONS

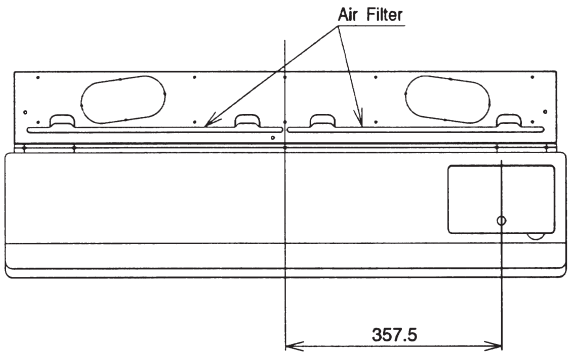
RHFE-557FTR

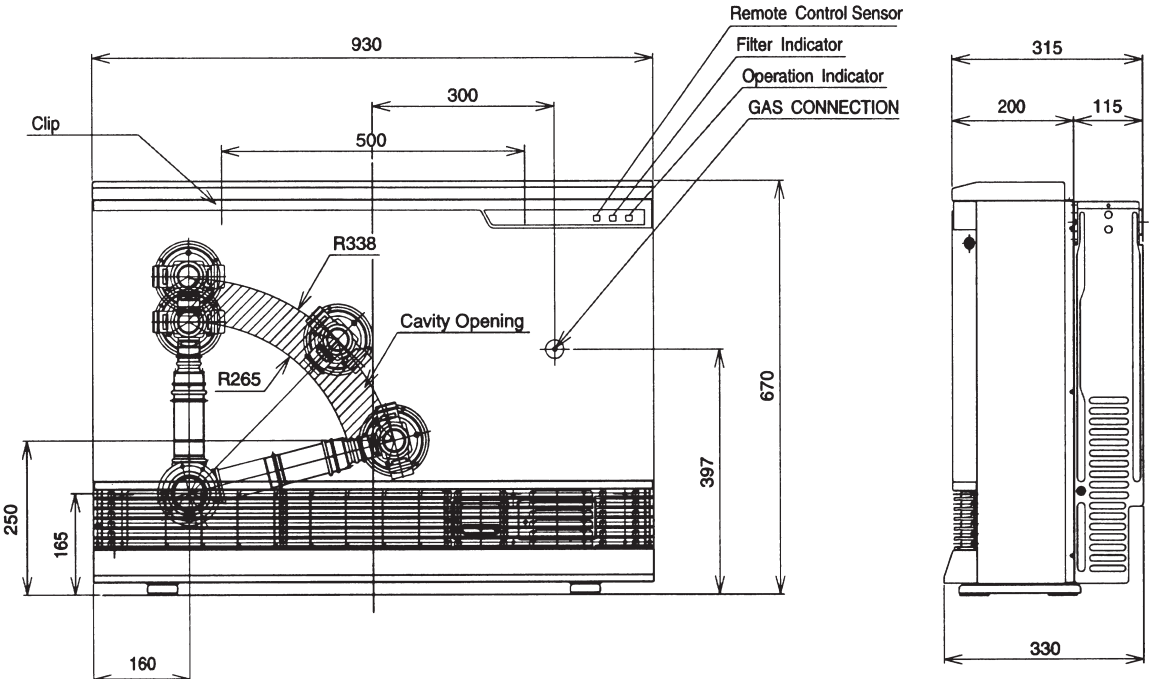


Refer to Wall Penetration for Flue location on page 34.
For all Flueing instructions refer to seperate Co-Axial Flue Installation Instructions supplied with the Flueing Components

DIMENSIONS

RHFE-1004FTR / RHFE-1004FDT





Refer to Wall Penetration for Flue location on page 34. For all Flueing instructions refer to seperate Co-Axial Flue Installation Instructions supplied with the Flueing Components

HEATER LOCATION

LOCATION

When positioning the heater the main variables governing the location are Flueing and 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. Refer to page 2 for additional safety consideration.

WARNING

For all installations, ONLY Rinnai Energysaver® Flue components MUST be used. The Rinnai Energysaver® MUST NOT be flued into 'natural draft' flue system or via a chimney.
Consult the Rinnai 'Energysaver® Space Heater Co-Axial flue System installation' manual included with the 'On Wall' or 'Direct' flue kits for detailed flue installation instructions.

GAS SUPPLY

The gas supply terminates outside the heater at the rear of the appliance.

Locate the gas supply pipe to suit position as per the heater gas inlet. Refer to the drawings on page 36 for appliance gas inlet location.

Gap required between the wall and heater body is 85 mm to 200 mm depending on Back Cover set used.

WARNING

Gas pipe sizing must consider the gas input to this appliance as well as all other gas appliances in the premises. The gas meter and regulator must be specified for the total gas rate. Suitable sizing chart such as the one in AS/NZS 5601 should be used.

PURGING THE GAS SUPPLY

All foreign materials such as filings must be purged from the gas supply, as they may cause the gas control valve to malfunction.

ELECTRICAL SUPPLY

This heater has a power cord with a three pin plug supplied. The cord passes out of the rear of the appliance and can extend to the left or right of the appliance.

A dedicated 240 V earthed 10 Amp power point must be used with this appliance. The power point must to the left or the right side, it **must not** be above the heater. Alternatively the appliance can be direct wired if the power supply is to be concealed.

IMPORTANT

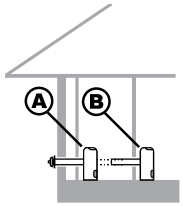
Consult a qualified electrician if direct wiring is required as it must comply with the requirements of AS/NZS 5601 and AS/NZS 3000 and any other relevant local regulations.

FLUE INSTALLATION CONFIGURATIONS

NOTE **Consult the 'Energysaver® Space Heater Co-Axial Flue Systems Installation Manual' included with the 'On Wall' or 'Direct' flue kits for detailed flue installation instructions. Use only Rinnai Flue components with this appliance.**

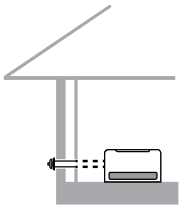
The following configurations are currently available. For alternative configurations contact Rinnai

DIRECT / EXTENDED



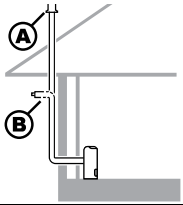
Components			
Option A (Direct)		**Option B (Direct Extended)**	
Direct Flue Kit	ESDFK	Direct Flue Kit Co-Ax Pipe 900mm (Optional) #	ESDFK ESPIPE900

SIDEWAYS



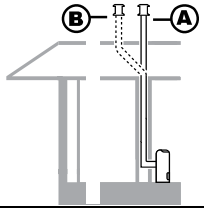
Components	
Direct Flue Kit Co-Ax Pipe 900mm # Back Cover Set (see note below)	ESDFK ESPIPE900

EXTERNAL WALL



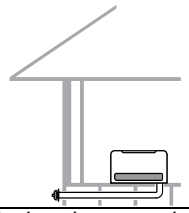
Components			
Option A (Vertical Termination)		**Option B (On Wall Termination)**	
Direct Flue Kit Co-Ax Pipe 900mm # Bend (2 x 45º) Condensate Trap Roof Cowl	ESDFK ESPIPE900 ESBEND ESCONDK ESROOFCOWL	Direct Flue Kit Co-Ax Pipe 900mm # Bend (2 x 45º) Condensate Trap	ESDFK ESPIPE900 ESBEND ESCONDK

IN-WALL



Components			
Option A (Direct)		**Option B (Offset)**	
Vertical Adaptor Kit § Co-Ax Pipe 900mm # Roof Cowl	ESFKITIW ESPIPE900 ESROOFCOWL	Vertical Adaptor Kit § Co-Ax Pipe 900mm # Bend (2 x 45º) Roof Cowl	ESFKITIW ESPIPE900 ESBEND ESROOFCOWL

UNDER FLOOR



Components	
Direct Flue Kit Co-Ax Pipe 900mm # Bend (2 x 45º) Back Cover Set (see note below)	ESDFK ESPIPE900 ESBEND

 # Order lengths as required *§ Includes Condensate Trap (ESCONDK)*

NOTE **The Energysaver Heater comes supplied with a standard back cover set. For 'Sideways' & 'Underfloor' installations, refer to the 'Energysaver Space Heater Co-Axial Flue System Installation Manual' for the alternative back cover set required.**

DO NOT **Flue is NOT to be terminated under the floor or in a roof space.**

'Down & Out' and vertical 'through roof' flue installations are permitted ONLY when the flue terminal is located externally.

WARNING **For horizontal installations there must be a continuous fall of at least 2° to the termination point to drain condensate.**

All terminations exceeding a vertical height of 1.5 metres must incorporate a condensate trap.

'Down & Out' Flue systems must have a continuous fall of at least 2° to the termination point to drain condensate. Flue terminal must be at least 300 mm above the ground in accordance with AS/NZS 5601-Fig. 6.2.

AT NO TIME MUST THE 'AIR INTAKE' HOSE BUT CUT OR SHORTENED. For more detailed information refer to 'Energysaver® Space Heater Co-Axial Flue Systems Installation Manual'

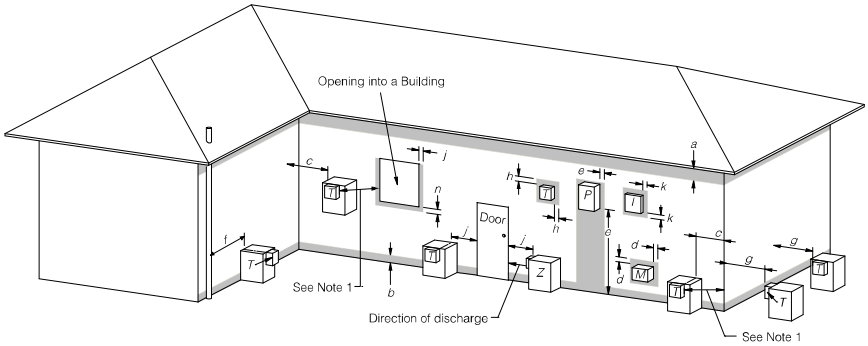
FLUE POSITIONING

FLUE TERMINAL LOCATION

WARNING

The flue terminal should be positioned away from flammable materials.

Ensure that the location of the flue terminal can comply with the requirements of AS/NZS 5601 Clause 6 and Fig. 6.2 which is reproduced below.



T = Flue terminal *Z* = Fan assisted flue appliance only *M* = Gas meter *P* = Electricity meter or fuse box *I* = Mechanical air inlet

Shading indicates prohibited areas for flue terminals

Ref.	Item	Min. clearances (mm) Natural draft	Fan assisted
a	Below eaves, balconies and other projections:		
	• *Appliances* up to 50 MJ/h input	300	200
	• *Appliances* over 50 MJ/h input	500	300
b	From the ground, above a balcony or other surface *	300	300
c	Front a return wall or external corner *	500	300
d	From a gas *meter* (M) (see 5.11.5.9 for vent terminal location of *regulator*) (see Table 6.6 for New Zealand requirements)	1000	1000
e	From an electricity *meter* or fuse box (P) †	500	500
f	From a drain pipe or soil pipe	150	75
g	Horizontally from any building structure* = or obstruction facing a terminal	500	500
h	From any other *flue terminal* , cowl, or combustion air intake †	500	300
j	Horizontally from an openable window, door, non-mechanical air inlet, or any other opening into a building with the exception of sub-floor ventilation:		
	• *Appliances* up to 150 MJ/h input *	500	300
	• *Appliances* over 150 MJ/h input up to 200 MJ/h input *	1500	300
	• *Appliances* over 200 MJ/h input up to 250 MJ/h input *	1500	500
	• *Appliances* over 250 MJ/h input *	1500	1500
	• All fan-assisted *flue appliances* , in the direction of discharge	-	1500
k	From a mechanical air inlet, including a spa blower	1500	1000
n	Vertically below an openable window, non-mechanical air inlet, or any other opening into a building with the exception of sub-floor ventilation:		
	• Space heaters up to 50 MJ/hr input	150	150
	• Other *appliances* up to 50 MJ/hr input	500	500
	• *Appliances* over 50 MJ/h input and up to 150 MJ/h input	1000	1000
	• *Appliances* over 150 MJ/h input	1500	1500

* - unless *appliance* is *certified* for closer installation

† - Prohibited area below electricity meter or fuse box extends to ground level.

NOTES:

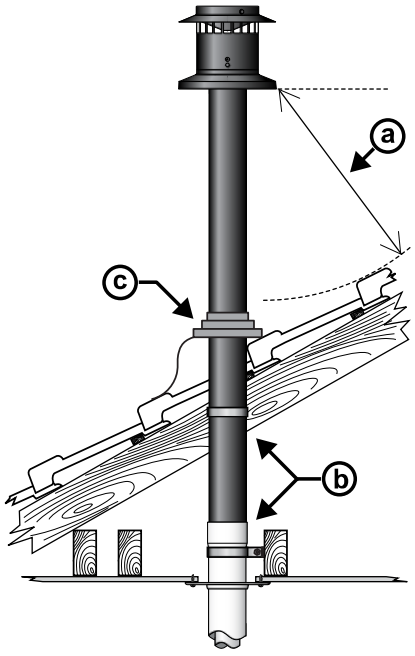
1 Where dimensions *c, j* or *k* cannot be achieved an equivalent horizontal distance measured diagonally from the nearest discharge point of the terminal to the opening may be deemed by the Technical Regulator to comply.

2 See Clause 6.9.4 for restrictions on a *flue terminal* under a covered area.

3 See Figure J3 for clearances required from a *flue terminal* to an LP Gas *cylinder.* A *flue terminal* is considered to be a source of ignition.

4 For *appliance* s not addressed above acceptance should be obtained from the Technical Regulator.

FIGURE 6.2 (in-part) MINIMUM CLEARANCES REQUIRED FOR BALANCED FLUE TERMINALS, FAN-ASSISTED FLUE TERMINALS, ROOM-SEALED APPLIANCE TERMINALS AND OPENINGS OF OUTDOOR APPLIANCES



(a) Minimum clearance 500 mm to nearest part of roof.

(b) Minimum clearance 25mm to combustible materials.

(c) Decktite or lead collar flashing.

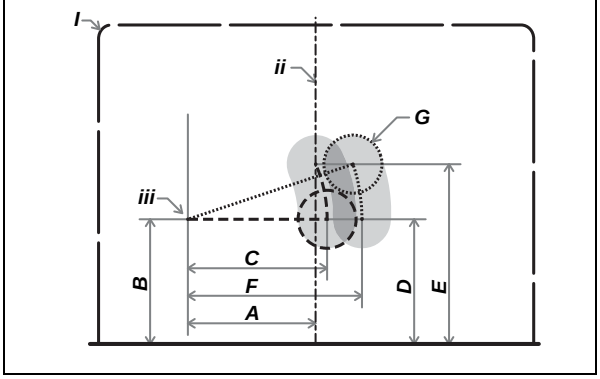
NOTE

*** AS/NZS 5601 was current at the time of printing this manual, but may have been superseded. It is the installers responsibility to ensure that the current version of this standard is used.**

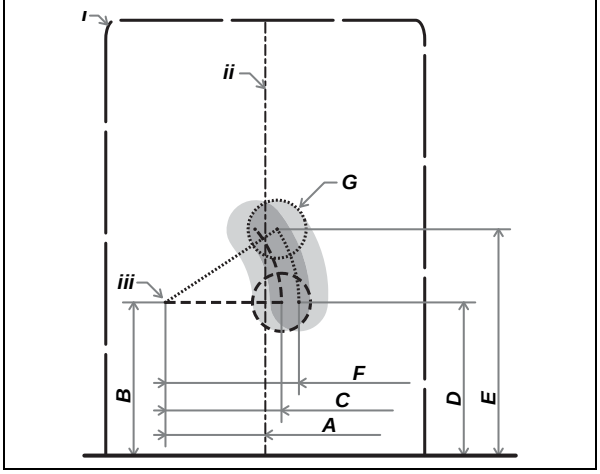
WALL PENETRATIONS

Below are diagrams and associated dimension tables for wall penetrations for each Energysaver heater models.

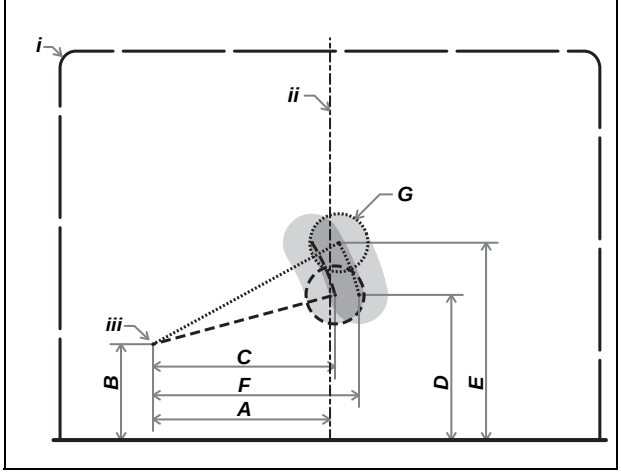
RHFE 556



RHFE 557

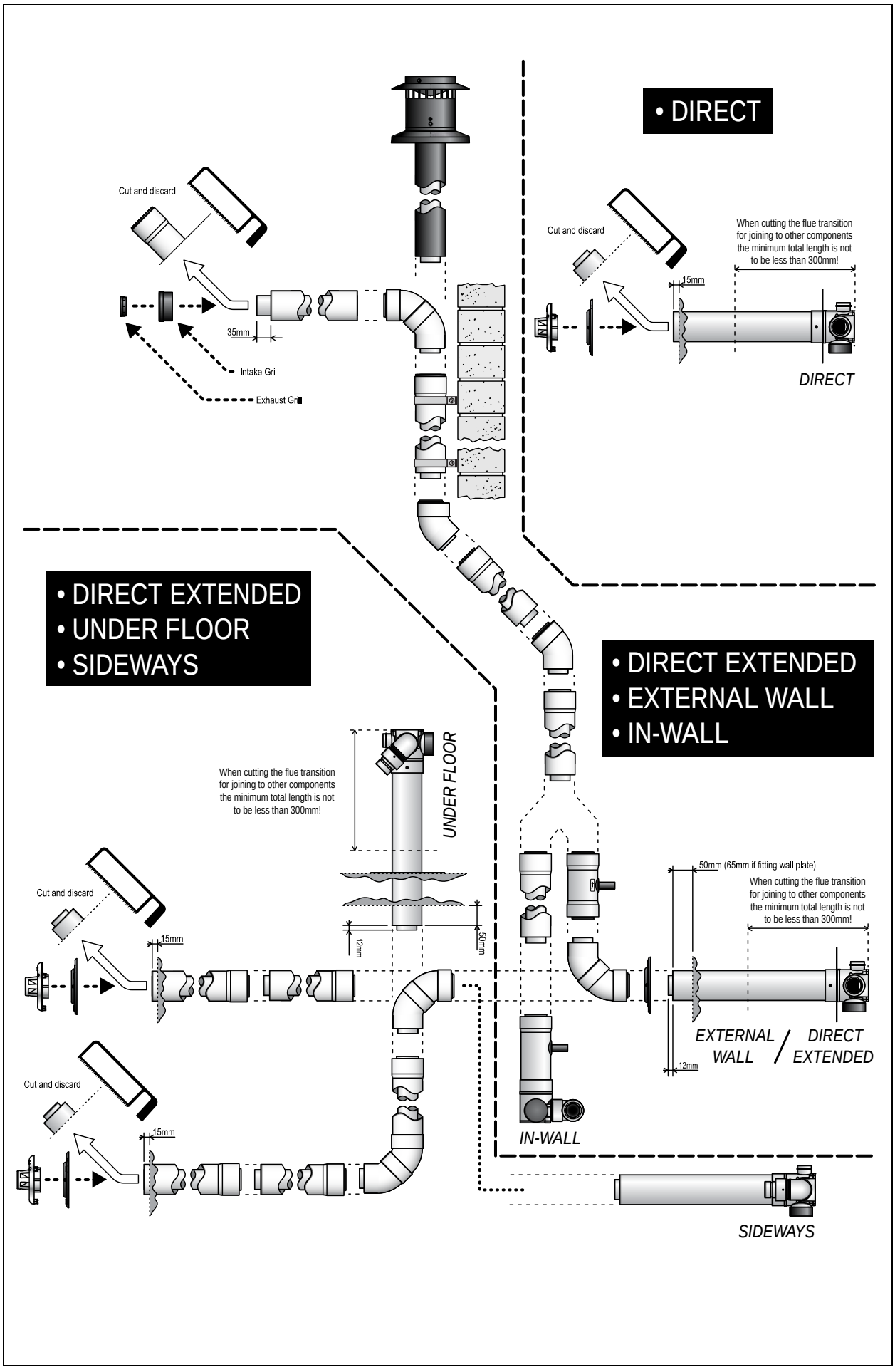


RHFE 1004



	All dimension are in millimetres	RHFE 556	RHFE 557	RHFE 1004
i	**Width of appliance**	750	550	930
ii	**Centre-Line of appliance**	375	275	465
iii	**Arc axis (Axis point of the flue elbow)**	—	—	—
A	**Horizontal distance from Centre-Line to arc centre**	220	172	305
B	**Vertical distance from base to arc centre**	215	264	165
C	**Minimum horizontal limit of arc**	240	200	325
D	**Minimum vertical limit of arc**	215	264	250
E	**Maximum vertical limit of arc**	310	390	340
F	**Maximum horizontal limit of arc**	300	230	365
G	**Penetration diameter**	100	100	100

INSTALLATION CONFIGURATION



HEATER INSTALLATION

1. UNPACKING THE APPLIANCE

The heater is supplied in one carton containing; Heater, Standard Rear Cover Set and Bolt Pack.

Remove all packaging materials. Check for damage. If **any** damage is evident **DO NOT** install or operate this appliance. Contact your supplier for advice. Before installing the heater, check it is labelled for the correct gas type, (refer to the data label at the rear of the heater). Refer to the local gas authority for confirmation of gas type if you are in doubt.

NOTE

The heater does not come supplied with flue components. These are purchased separately.

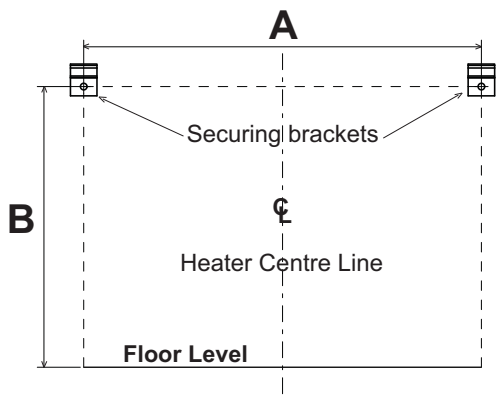
ONLY Rinnai Energysaver® Co-Axial Flue System Flue components can be used with this appliance.

WARNING

240 VOLTS, RISK OF ELECTRICAL SHOCK!
Ensure the appliance is disconnected from mains power.

2. CONNECTING THE APPLIANCE TO THE CONSUMER GAS PIPE

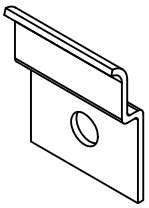
1. Remove the plastic protection cap from the threaded gas inlet located at the rear of the appliance.
2. Position the appliance gas inlet in line with gas supply from wall.
3. Attach gas supply pipe to the appliance gas inlet and tighten - finger tight. Appliance has R1/2 fitting.
4. On the wall behind the appliance, at a level of about midway of the heaters height, mark the vertical centre line of the heater.
5. Mark the flue penetration position in accordance with 'Energysaver® Space Heater Co-Axial Flue System Installation' manual.
6. Undo the gas connection, remove the heater.
7. Cut Flue penetration(s)
8. Mark out the securing bracket screw holes in accordance with the drawing adjacent and table below using the centre line as reference.



Models	A = Width	B = Height
RHFE-556FTR	88	506
RHFE-556FDT	88	506
RHFE-557FTR	300	685
RHFE-1004FTR	500	622
RHFE-1004FDT	500	622

9. Attach the two securing brackets supplied to the wall using the two 8g x 30mm screws supplied, or suitable equivalent.

SECURING BRACKET



10. Install flue system in accordance with 'Energysaver® Space Heater Co-Axial Flue System Installation manual'.
11. Return the heater to the final position.

HEATER INSTALLATION

12. Connect flue in accordance with 'Energysaver® Space Heater, Co-Axial Flue System Installation Manual'.
13. Connect gas supply line and fully tighten connection.

Use a soapy solution to test all gas connections. If a leak is present bubbles will form at the leak point. When finished remove any residue with a rag. Prevent any soapy solution from coming in contact with electrical components.

14. Fit left and right cover panels to the rear of the appliance by clipping the panels onto the location tabs then fastening into position using the two 6g x 8mm pan head screws supplied. Screws locate into pre-drilled and formed recesses at the bottom edge of the panels
15. Remove the Fan Filter and carefully fit the top cover panel ensuring the rear fold locates neatly between the two securing brackets and wall.
16. Secure the top cover panel with two 6g x 8mm pan head screws supplied or suitable equivalent.
17. Replace the Fan Filter.

Air hose and heater exhaust connections at the Energysaver® heater MUST be made and check in accordance with these instructions. Improper connections may result in dangerous situations, for example, the dispersion of combustion products in the space being heated.

TESTING

- Purge air and swarf from gas line. Connect gas. Connection can easily be reached from the right hand side rear of the appliance.
- Remove bottom trim (pulls off). Remove louvres and front panel (7 screws).

PRESSURE CHECKING PROCEDURE

WARNING

- **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 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. (Right 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, set the clock 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.

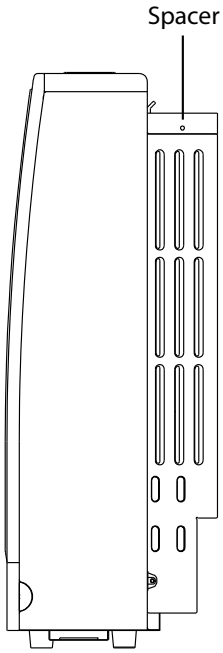
1. Follow checking procedure 1-6, reset the low pressure by using the " ▲ " button or " ▼ " buttons on the control panel.
2. Press SW4 again the lock in the selected setting.
3. Follow checking procedure 8 and 9, reset the high pressure by using " ▲ " button or " ▼ " buttons on the control panel.
4. 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, set the clock (see page 13) and check appliance operation.

FITTING TOP SPACER + WALL CLIP

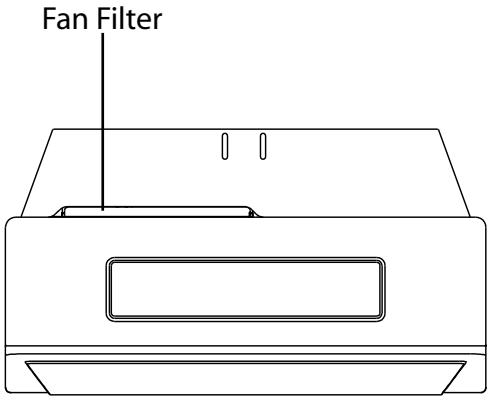
Replace top and right hand spacers, clipping the top spacer into the wall brackets at the same time as attaching it to the heater.

Secure top spacer with the screws provided.

THE HEATER IS NOW SECURED TO THE WALL.



Tighten all screws, fit fan filter.



INSTRUCT CUSTOMER ON USE OF HEATER

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

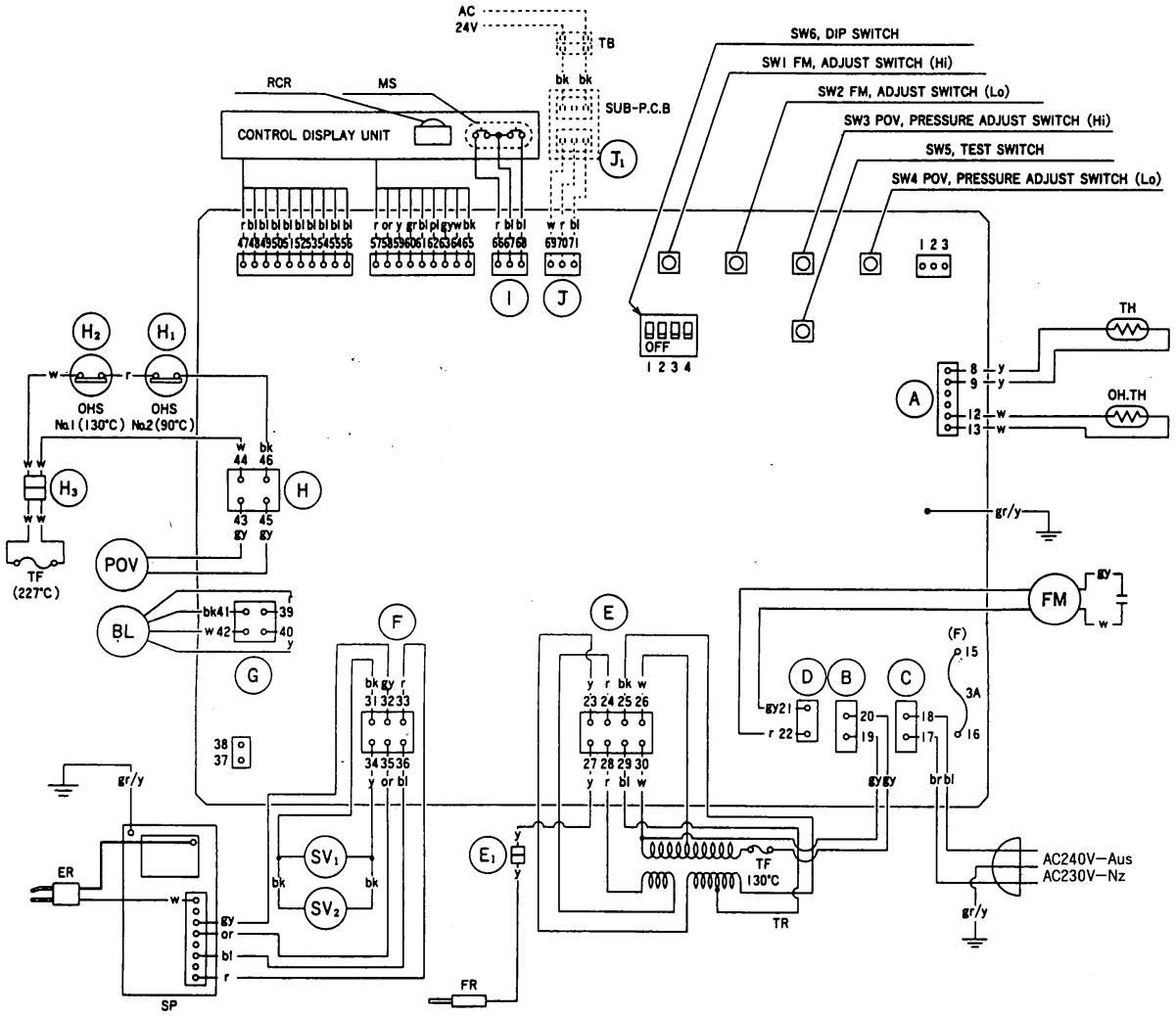
Fault-Failure Procedure

If unable to get the heater to operate correctly, contact Rinnai.

(Check the insulating resistance of the appliance).

WIRING DIAGRAM

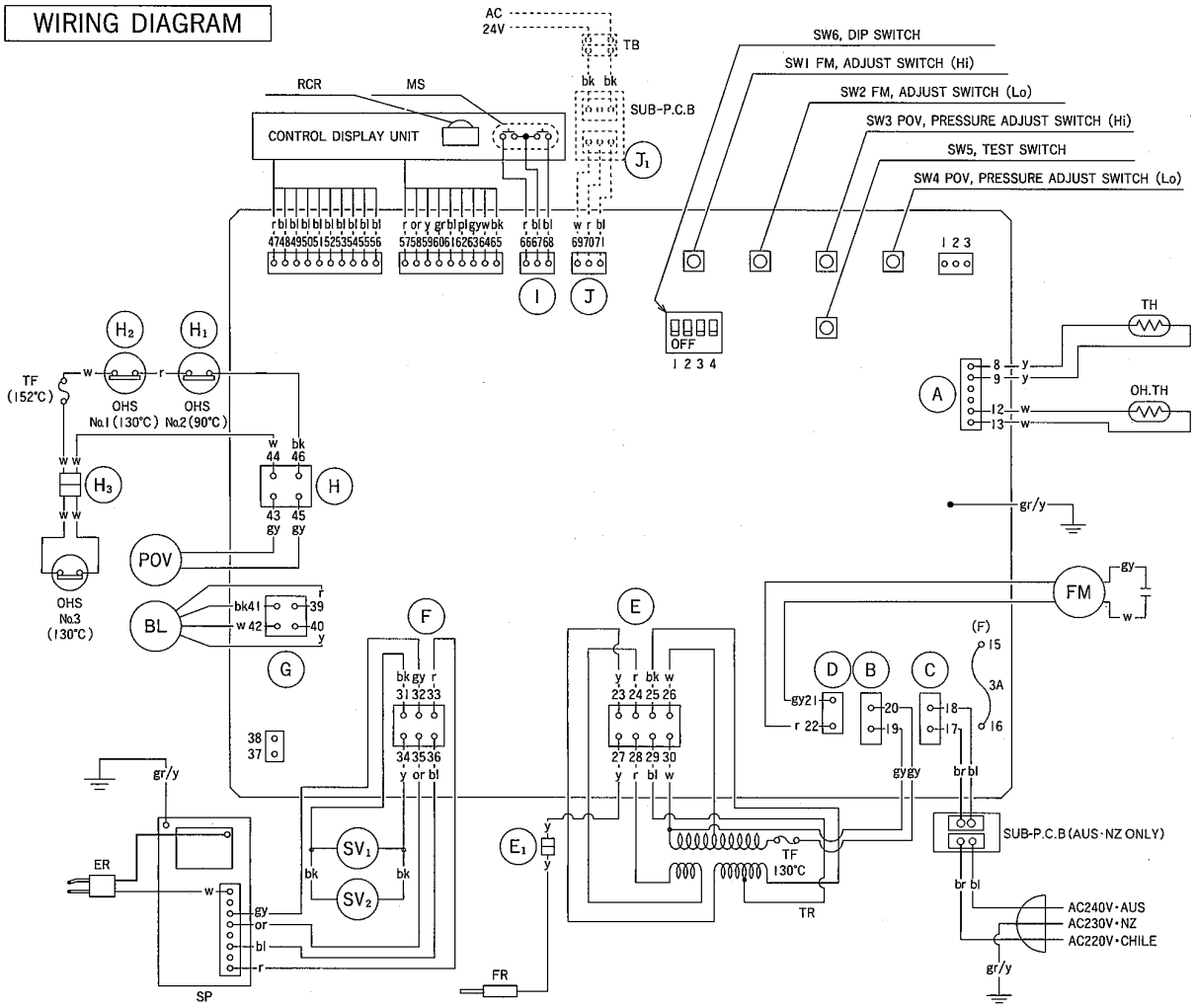
RHFE-557FTR



MARK	PART NAME	MARK	PART NAME
MS	MAIN SWITCH	OH. TH	OVER HEAT THERMISTOR
TH	THERMISTOR	OHS1~2	OVER HEAT SWITCH 1~2
TF	THERMAL FUSE	FM	FAN MOTOR
F	FUSE	BL	COMBUSTION FAN MOTOR
CF	CONVECTION FAN	SP	SPARKER
FCC	FAN CONTROL CIRCUIT	FR	FLAME ROD
ER	ELECTRODE	SV1~2	MAIN SOLENOID VALVE 1~2
POV	MODULATING SOLENOID VALVE	CPU	CENTRAL PROCESSING UNIT
TR	TRANSFORMER	RC	REMOTE CONTROL
TB	TERMINAL BLOCK	RCR	REMOTE CONTROL RECEIVER

WIRING DIAGRAM

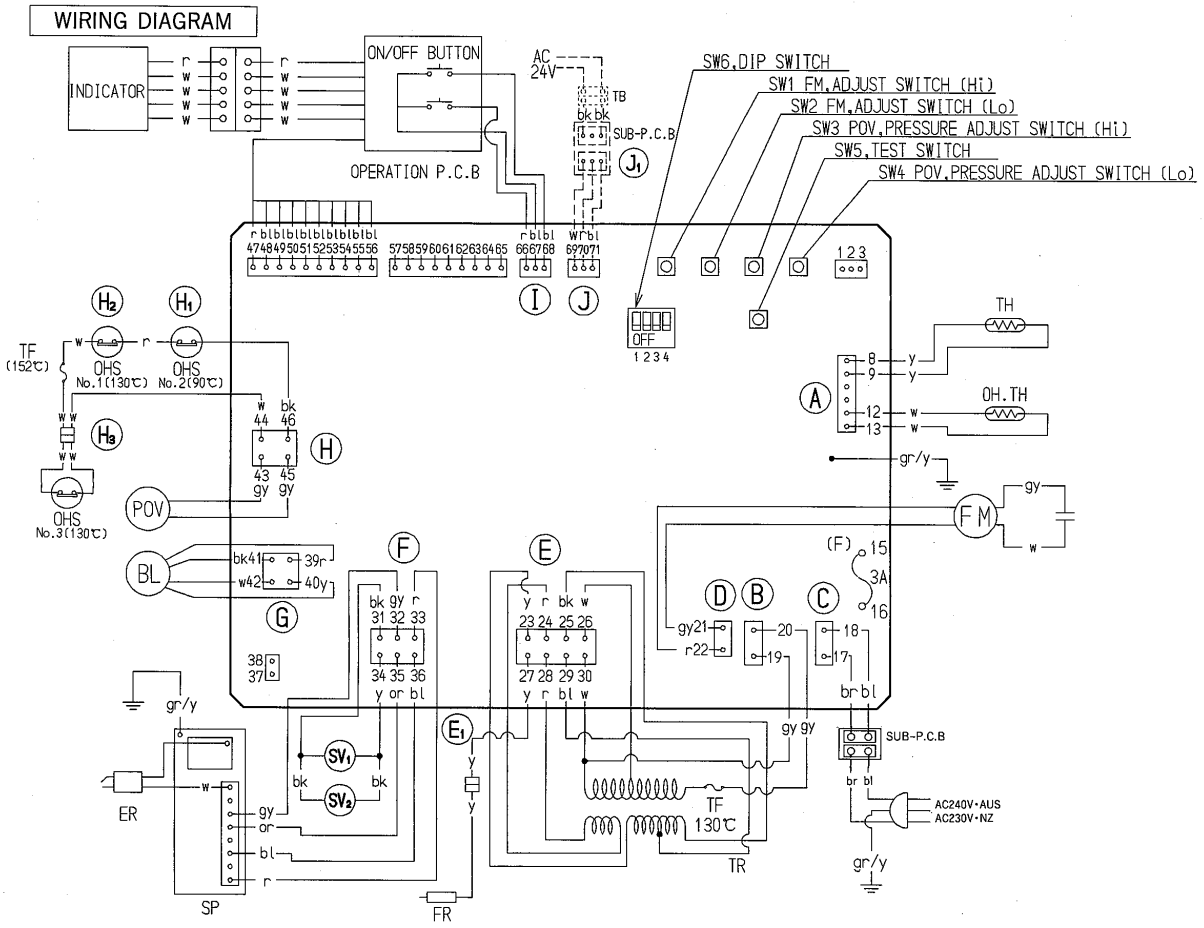
RHFE-556FTR



MARK	PART NAME	MARK	PART NAME
MS	MAIN SWITCH	RCR	REMOTE CONTROL RECEIVER
RC	REMOTE CONTROL	TB	TERMINAL BLOCK
TH	THERMISTOR	OH. TH	OVER HEAT THERMISTOR
TF	THERMAL FUSE	OHS1~3	OVER HEAT SWITCH 1~3
F	FUSE	FM	FAN MOTOR
CF	CONVECTION FAN	BL	COMBUSTION FAN MOTOR
FCC	FAN CONTROL CIRCUIT	SP	SPARKER
ER	ELECTRODE	FR	FLAME ROD
POV	MODULATING SOLENOID VALVE	SV1~2	MAIN SOLENOID VALVE 1~2
TR	TRANSFORMER	CPU	CENTRAL PROCESSING UNIT

WIRING DIAGRAM

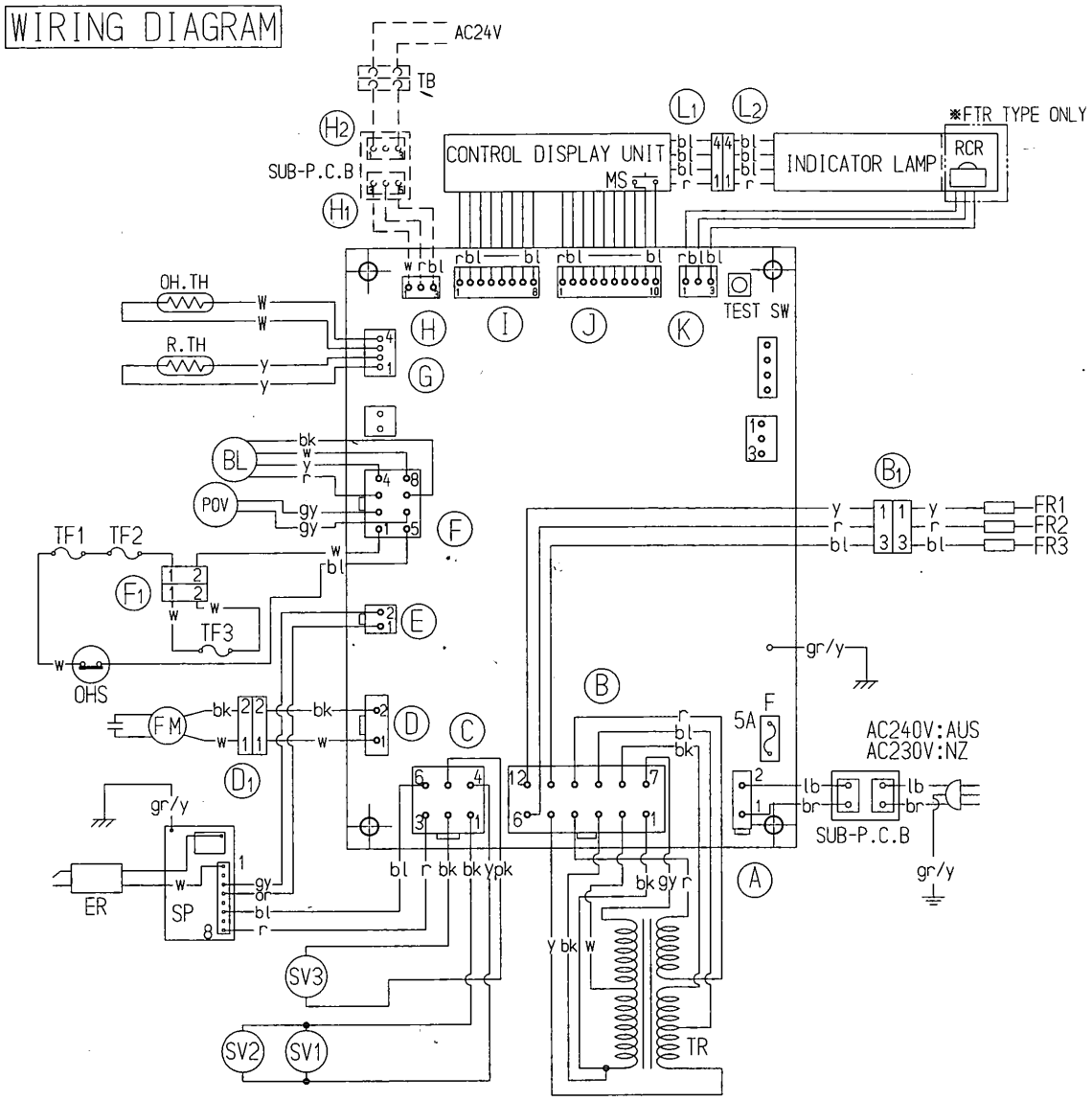
RHFE-556FDT



MARK	PART NAME	MARK	PART NAME
MS	MAIN SWITCH	TB	TERMINAL BLOCK
TH	THERMISTOR	OH. TH	OVER HEAT THERMISTOR
TF	THERMAL FUSE	OHS1~3	OVER HEAT SWITCH 1~3
F	FUSE	FM	FAN MOTOR
CF	CONVECTION FAN	BL	COMBUSTION FAN MOTOR
FCC	FAN CONTROL CIRCUIT	SP	SPARKER
ER	ELECTRODE	FR	FLAME ROD
POV	MODULATING SOLENOID VALVE	SV1~2	MAIN SOLENOID VALVE 1~2
TR	TRANSFORMER	CPU	CENTRAL PROCESSING UNIT

WIRING DIAGRAM

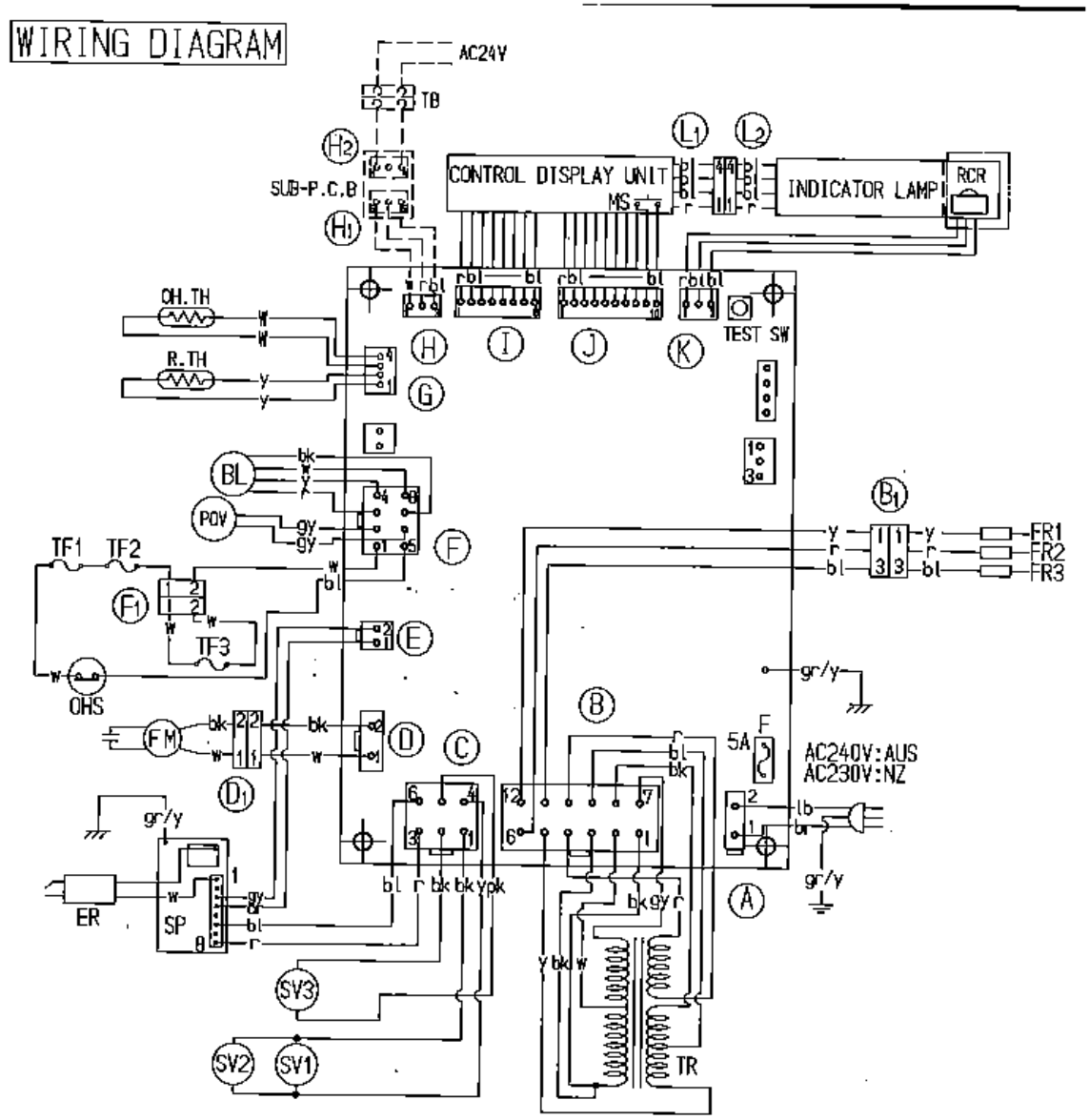
RHFE-1004FTR



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

WIRING DIAGRAM

RHFE-1004FDT



*FTR TYPE ONLY

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

CHECKLIST ON YOUR ENERGYSAVER

INSTALLATION AND COMMISSIONING CHECKLIST

- Complete the Installation Check List and the Installer details below.
- Instruct customer on the Energysaver® operation.
- Ensure the customer understands the content of this manual.

Advise the customer that during the initial burning in period of approximately 2 hours, some vapour and smell may be emitted from the heater. This is normal operation for a new heater.

During this period the heater should be operated on 'High' and the space being heated should be well ventilated.

The grill louvre and rear cover fitted to this appliance reduces the risk of fire and injury, no part of it should be permanently removed.

Ensure the Customer understands that:

No part of this appliance should be permanently removed.

Paper or other material must not be forced into the louvres of this appliance.

Young children and the infirm should be supervised at all times while in the vicinity of this appliance while it is in operation or able to be turned on.

Attention Installer - Have you checked?	Yes	*No
1. Is the appliance positioned in a suitable location (clearances, combustible clearances mantels and surrounds etc)?		
2. Have all packaging / protective materials been removed prior to operation?		
3. The Appliance Test Point (Burner) Pressure is correct for it's particular installation / flue configuration and adjusted if necessary.		
4. Have you used only Rinnai Energysaver® flueing components?		
5. That the air inlet hose and flue connections are sound?		
6. That the Appliance is secured to the wall as per Installation manual?		
7. Gas Supply pipe is purged of foreign matter before connection?		
8. That gas connections are correct?		
9. Have you turned on the power?		
10. Is the appliance inlet pressure correct with all other resident gas appliances operating?		
11. Have you shown the customer how to operate the heater and informed them of the safety requirements?		
12. Where applicable, have you connected the condensation drain hose in accordance with the Installation manual?		
13. Have you checked the flue clearances and installation as per the Installation manual and as per AS/NZS 5601?		
14. Have you filled out the "Installation Record" found at the front of this manual?		
15. Is the end-user fully aware of the servicing schedule?		
16. Have you completed the "Energysaver® Commissioning Check List" attached to the front of the Appliance?		
17. Have you left this Operation and Installation manual with the customer?		

***If you have answered NO to any of the above, you must correct before appliance hand-over to the customer.**

Rinnai

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National Help Line

Tel: 1300 555 545* Fax: 1300 555 665*

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

Rinnai has a Service and Spare Parts network with personnel who are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance requires service, please call our National Help Line. Rinnai recommends that this appliance be serviced every 2 years.