

# HOME OWNER / INSTALLER FOR YOUR SAFETY

THIS MANUAL MUST BE READ IN ITS ENTIRETY BEFORE OPERATING HEATER

## RHFE-1004FA

# ENERGYSAVER GAS DIRECT VENT WALL FURNACE



Owner's Operation and Installation Manual



**WARNING:** IF THE INFORMATION IN THIS MANUAL IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

#### WHAT TO DO IF YOU SMELL GAS

- DO NOT TRY TO LIGHT ANY APPLIANCE.
- DO NOT TOUCH ANY ELECTRICAL SWITCH; DO NOT USE ANY PHONE IN YOUR BUILDING.
- IMMEDIATELY CALL YOUR GAS SUPPLIER FROM A NEIGHBOR'S PHONE. FOLLOW THE GAS SUPPLIER'S INSTRUCTIONS.
- IF YOU CANNOT REACH YOUR GAS SUPPLIER, CALL THE FIRE DEPARTMENT.

INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

This appliance may be installed in a after market permanently located, manufactured (mobile) home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the Rating Plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

Rimmai

INSTALLER: MUST LEAVE MANUAL WITH UNIT AFTER INSTALLATION.
OWNER: RETAIN THIS MANUAL SAFELY, FOR FUTURE REFERENCE.

#### WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE, REFER TO THE OWNER'S INFORMATION MANUAL PROVIDED WITH THIS APPLIANCE. INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

# ENERGYSAVER RHFE-1004FA Operation Manual

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## FEATURES OF THE RHFE-1004FA UNITS

- Clean Heating Forced Flue Type
- ♦ Easy Operation One-Touch Ignition
- **♦** Sensible Temperature Control Feature
- Comfortable Room Temperature Control and Display
- ♦ Warm Air Outlet at Floor Level (Keeps Your Feet Warm)
- Child Safety Lock
- **♦** Room Temperature Setting Memory
- Dirty Air Filter Indicator Lamp
- Energy-Saving Economy Setting
- Humidifier Tray
- Air Flow Directional Louvers
- Direct Vent Easily Installed
- Proportional Heating Variable Capacity
- Hush! Quiet Operation
- ♦ Modern Design Minimizes Floor Space Requirements
- Failure Message Display

## **SAFETY DEVICES**

Spark Safety Device: Automatically shuts unit down when there is an abnormal spark at time

of ignition.

Flame Failure Device: Activated when burner flame fails. This prevents raw gas from being

released.

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 louvers, or a blocked fan filter.

Two Fusible Links: Backs up the overheat switch. If the fusible link cuts the unit off, a

service call by an authorized person is required to replace the link.

Overcurrent Prevention Device: This is a 5 amp. glass fuse found on P.C. board. Design to

shut unit down in case of overcurrent. If fuse blows all

indicator lamps will be "OFF".

**Power Outage Safety Device:** This safety device cuts off gas passage and stops

operation.

Local and state codes must be adhered to prior to installation.

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

	NAT.	LPG
Minimum supply gas pressure	5.0" (127mmH₂O)	11.0" (279mmH₂O)
Maximum supply gas pressure	10.5" (267mmH₂O)	13.0" (330mmH₂O)
Manifold test pressure	Factory set	Factory set

See conversion for setting gas pressures.

#### **GENERAL INFORMATION**



THIS SERIES IS DESIGN CERTIFIED BY THE AMERICAN GAS ASSOCIATION LABORATORIES (AGA) AND INTERNATIONAL APPROVAL SERVICES (IAS).



ALTERATION OF THE ORIGINAL DESIGN INSTALLED OTHER THAN AS SHOWN IN THESE INSTRUCTIONS OR USED WITH A TYPE OF GAS NOT SHOWN ON THE RATING PLATE, IS THE RESPONSIBILITY OF THE PERSON AND COMPANY MARKING THE CHANGE.

Thank you for purchasing a Rinnai gas forced flue heater.

Before using this product, please read this manual carefully to insure proper use of the product.

Please read the attached warranty thoroughly and keep it in a safe place.

<sup>\*</sup>There's 1/8" NPT pipe tap provided for gas pressure test. That is located on the gas control assembly A. The minimum inlet gas supply pressure is for the purpose of input adjustment.

## IMPORTANT POINTS / USAGE AND INSTALLATION MUSTS

Unpack heater and check for damage. (DO NOT INSTALL DAMAGED HEATER.) If heater is damaged, contact your supplier for advice. Before installing a heater, check the label for the correct gas type (see label on heater). Refer to local gas authority for confirmation of gas type if you are in doubt.

#### Included in Carton:

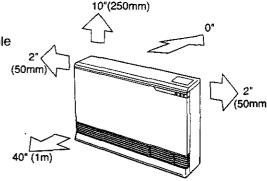
**Customers Operating Information** 

#### **IMPORTANT**

#### Before using this product, please read this manual carefully to insure proper use of product.

- 1. The installation must conform with local codes or, in absence of local codes, the National Fuel Gas Code, ANSI Z223.1 or the Canadian Installation Code, CAN/CGA-B149.
- 2. For information on gas type, see data plate on the appliance.
- 3. 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.
- 4. This appliance is not designed to be built in.
- 5. If you move, check the gas type in the area where you are moving to. The local gas authority will be able to advise on local regulations.
- 6. This heater discharges a large volume of warm air at low level to provide even heat distribution. If the air in the room contains cooking vapor or cigarette smoke, and the heater is used on a carpet, the surface of the carpet may become discolored. In addition, some nylon carpets contain dyes which may be affected by the warm air flow. Some soft vinyl surfaces are also subject to distortion, or discoloration by warm air. To prevent discoloration of carpets, etc., a mat should be placed under the appliance, extending about 30" (750mm) in front of it.

Diagram shows minimum clearances from combustible materials.

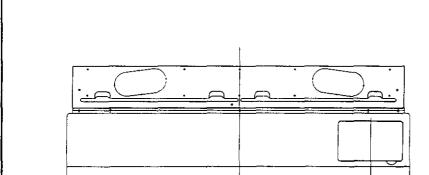


Rinnai recommends 10 inches (250mm) clearance on both sides for future servicing.

- 7. Read these rules and the instructions carefully. Check all local codes. Failure to follow these could cause a malfunction of the heater resulting in death, serious bodily injury and/or property damage.
- 8. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.
  If a conversion of the unit is needed, conversions must be performed at Rinnai America or anthorized agent at owner's expense.
- 9. WARNING: Any change to this heater or its controls can be dangerous.
- 10. If a gas leak is suspected, turn heater off, turn gas supply valve off at appliance connector valve. Open windows to ventilate area immediately and contact your dealer or gas company.
- 11. DO NOT PLACE CLOTHING OR FLAMMABLE MATERIALS, GASOLINE AND OTHER FLAMMABLE VAPORS AND LIQUIDS, ON OR NEAR THE HEATER.

- 12. YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE SAME ROOM WITH THE HEATER.
- 13. LPG containers must not be installed indoors.
- 14. Do not use this room heater if any part has been under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.
- Adequate clearances for accessibility for purposes of servicing and proper operation should be provided.
- 16. Adequate clearances around air openings should be provided.
- 17. Do not install in areas where curtains, drapes, clothing, or other moving flammables are within 12 inches of this unit.
- 18. Periodic examination of the venting system is required.
- 19. The flow of combustion and ventilation air should not be obstructed.
- 20. A manufactured Home (Mobile Home) installation must conform with the Manufactured Home Construction and Safety Standard, title 24CFR, Part 3280, or, when such a standard is not applicable, the Standard for Manufactured Home Installations, ANSI A225.1 or Standard for Gas Equipped Recreational Vehicles and Mobile Housing, CSA Z240.4.
- 21. "This appliance must be installed in accordance with the current standard CSA Z240.4 GAS EQUIPPED RECREATIONAL VEHICLES AND MOBILE HOUSING. Cet appareil doit ette installe conformement aux, exigences de la norme Z240.4 en vigeuer de l'ACNOR, Installations de gaz dans les constructions mobiles et vehicules recreatifs."
- 22. If a blockage occurs at the vent terminal due to snow, ice, leaves, spider webs or other type of obstructions the unit will stop working. The unit will not function until the blockage has been removed. If the unit then fails to operate contact a qualified service agency.
- 23. For manufactured (mobile) home or residential installation, this unit has been designed and certified to be converted from natural gas to propane or vice-versa. When provisions are being made to convert this unit, a certified conversion kit must be used. You must also readjust manifold gas pressure to specifications indicated in the conversion manual. If in doubt contact Rinnai America for assistance.
- 24. Clothing or other flammable material should not be placed on or near the appliance.

## **DIMENSIONS**



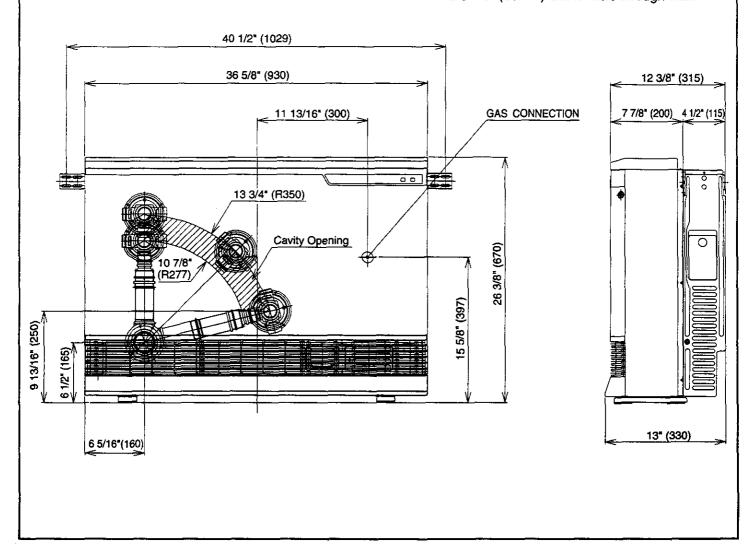
inches (mm)

#### **FLUE MANIFOLD POSITION**

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

FOR WEATHERBOARD WALLS DRILL THROUGH CENTER 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 a 3 1/8" (80mm) drill for hole through wall.



14 1/16" (357.5)

# **SPECIFICATIONS**

140551 //	ВТ	U/h	MIN	MIN. CLEARANCES			
MODEL #	INPUT	OUTPUT	SIDE	TOP	FRONT	OUTPUT	
RHFE-1004FA-N	Low 10,500	Low 8,400	2"	10"	40"	LO:203.4	
NATURAL	High 38,400	High 30,700	(50mm)	(250mm)	(1m)	HI:360.6	
RHFE-1004FA-P	Low 10,500	Low 8,400	2"	10"	40"	LO:203.4	
PROPANE	High 36,500	High 29,200	(50mm)	(250mm)	(1m)	HI:360.5	

## **SPECIFICATIONS**

Type of Appliance	Fan forced flued gas furnace
Model	RHFE-1004FA ENERGYSAVER
Dimensions	Width—36 5/8" (930mm) Depth—12 3/8" with back spacer (315mm with back spacer) Height—26 3/8" (670mm)
Weight	Approx. 90 lbs.
Connections	Electrical—AC 120V 60Hz 121 watts Gas—1/2*female NPT
Combustion System	Stainless steel bunsen burner
Ignition System	Continuous spark
Operation	Finger touch control buttons
Temperature Control	Electronic thermostat HI-LOW/OFF Up/down switch 2°F increments
Temperature Range	Modulates Continuous LOW=55°F 60°F∼80°F HI=High Combustion
Warm Air Outlet	Bottom front louver
Indicator/Lamps	Operation/Combustion, Filter, SetTemp., RoomTemp., Economy, Function Lock.
Operating Buttons	ON/OFF, Up/down, Function-lock, Economy
Economy Mode	Energy saving feature
Humidifier Tray	Capacity—7 pints (3000cc)

Safety Devices		Flame failure – Flame rod Over heat – Bi-metal switch, thermal fuse, thermistor Power failure – PCB Power surge – 5 Amp. fuse Fan delay – Micro computer timer Pre-purge – Combustion fan, pre-purge timer, spark sensor Room over heat – Automatic cut off at 104°F after 10 minutes			
Noise Level Range		HI~LOW=47~	37dB(A)		
	Com	bustion Method	Forced combustion		
TYPE	Air S	upply Exhaust	Closed Type		
	Radi	ation Method	Forced convection		
AIR SUPPLY/	Wall Hole	Penetration	3 1/8" (80mm)		
EXHAUST PIPE	Max. Extended Length		13ft., 2 bends (4m, 2 bends)		

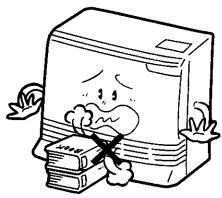
SPECIFICATIONS FOR VENT SIZES							
s	3"—4 1/2" (75—115)mm	Thin Walls Mobile Home					
A	4 1/2"—9 1/2" (115—240 )mm	Wood Walls					
В	9 1/2"—15 3/4" (240—400 )mm	Wood/Brick					
С	15 3/4"—23 5/8" (400—600 )mm	Brick/Block					
D	23 5/8"—31 1/2" (600—800 )mm	Special					

<sup>\*\*</sup> BTU - Efficiency increase with vent size. Clearances from combustibles see page 3.

<sup>\*\*</sup> Thermal efficiency rating determined under continuous operating conditions, and was determined independently of any installed system.

## **SAFETY POINTS**

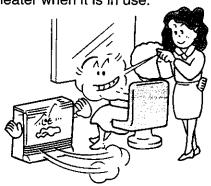
Do not restrict the warm air discharge by placing articles in front of the heater.



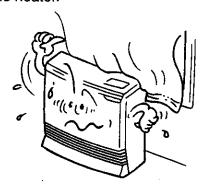
Do not spray aerosols while the heater is operating. Most aerosols contain butane

gas, and can be a fire hazard if used near

this heater when it is in use.

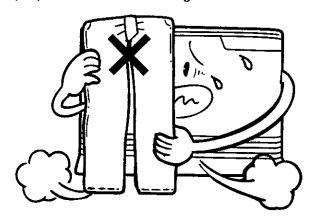


Do not allow curtains or other flammable or combustible materials to come into contact with the heater.

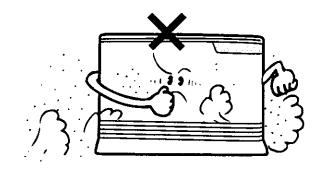


Combustible materials must not be placed where the heater could ignite them.

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



Do not install the heater in an unusually dusty area.

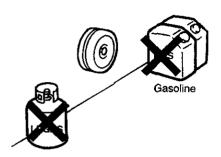


Do not allow anyone to sit on or lean against the appliance.



## **SAFETY POINTS**

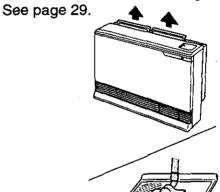
Keep flammable materials, trees, shrubs, etc., away from the flue terminal.



Do not allow anyone to poke articles through the louvers.



Filter should be cleaned at regular intervals.

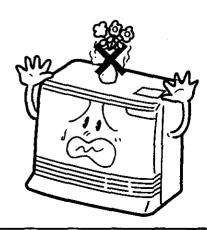


Clean as needed.

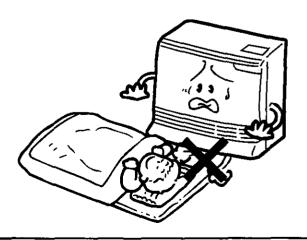
Young children should be supervised at all times. Hand or body contact with the louvers should be avoided.



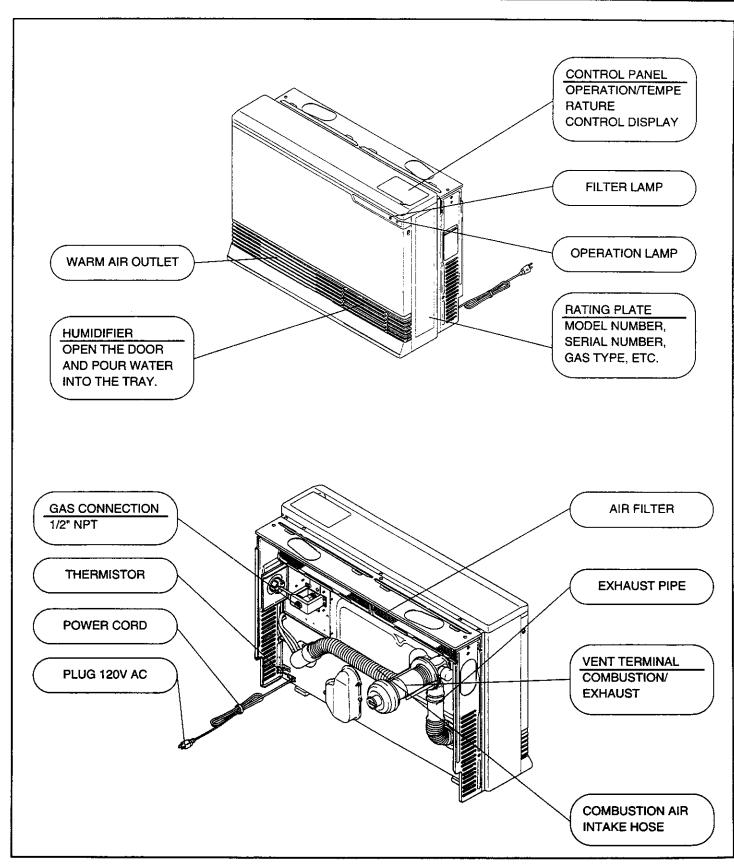
Do not place articles containing liquids on top of the heater. Liquid spilled on the controls may cause extensive damage.



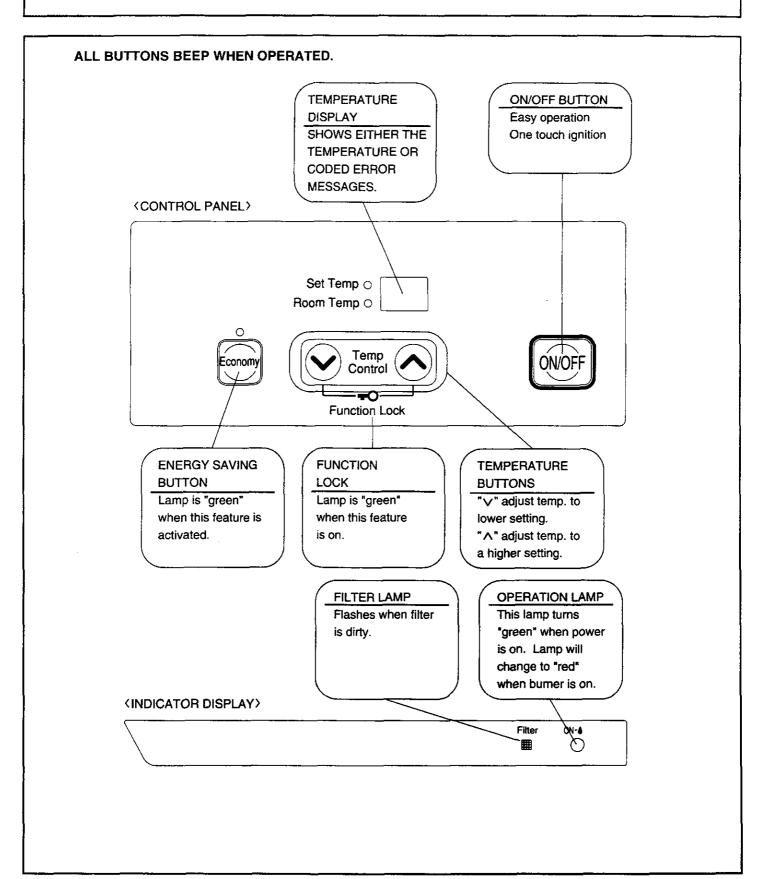
Do not allow young children or an infant to sleep directly in front of the heater.

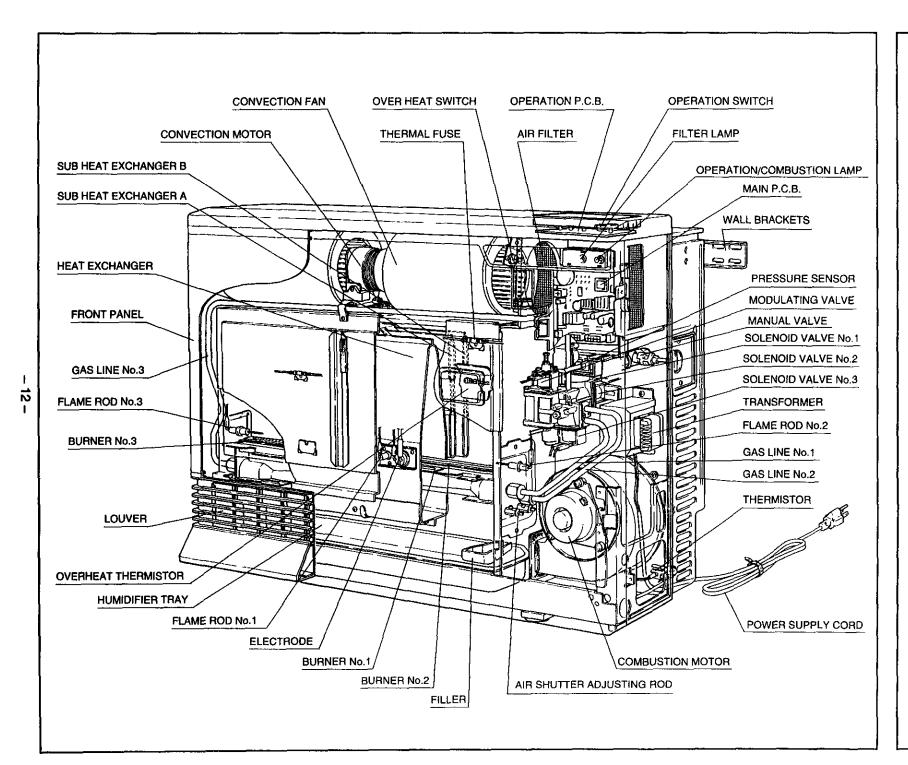


## **GETTING TO KNOW YOUR NEW RHFE-1004FA**



## **CONTROL PANEL**





## NOTICE BEFORE INSTALLATION

The heater must be installed by a qualified service person according to these installation instruction.

Check your local building codes for the proper method of installation. In the case of absence of local codes, this heater should be installed in accordance with the National Fuel Gas Code ANSI Z223.1.

Check local codes or, in the absence of local codes, the current CAN/CGA B149 INSTALLATION CODE.

DUE TO HIGH TEMPERATURES, THE APPLIANCE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES.

CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURES AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION.

"WARNING" Do not operate appliance with the panel(s) removed, cracked or broken. Replacement of the panel(s) should be done by a licensed or qualified service person.

INSTALLATION AND REPAIR SHOULD BE DONE BY A QUALIFIED SERVICE PERSON. THE APPLIANCE SHOULD BE INSPECTED BEFORE USE AND AT LEAST ANNUALLY BY A QUALIFIED SERVICE PERSON. MORE FREQUENT CLEANING MAY BE REQUIRED DUE TO EXCESSIVE LINT FROM CARPETING, BEDDING MATERIAL, ETC. IT IS IMPERATIVE THAT CONTROL COMPARTMENTS, BURNERS AND CIRCULATING AIR PASSAGEWAYS OF THE UNIT BE KEPT CLEAN.

The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70 or Canadian Electrical Code, CSA C22.1, if an external electrical source is utilized.

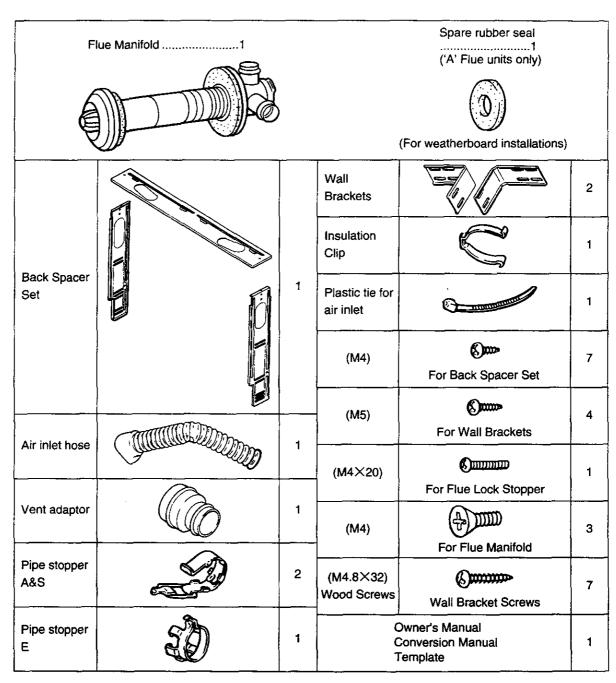
WARNING: THIS APPLIANCE IS EQUIPPED WITH A THREE-PRONG (GROUNDING) PLUG FOR YOUR PROTECTION AGAINST SHOCK HAZARD AND SHOULD BE PLUGGED DIRECTLY INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE.

Do not cut or remove the grounding prong from the plug.

Rinnai recommends a dedicated electrical circuit. This gas appliance must not be connected to a chimney flue serving a separate solid-fuel burning appliance.

When the appliance is installed directly on carpeting, tile or other combustible material other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance.

## **INSTALLATION INSTRUCTIONS**



Check to ensure gas type on rating plate matches gas being supplied to the unit. If not, unit may have been converted and should be checked to ensure conversion was done properly. If not, unit could be damaged due to being overfired.

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

Refer to data plate located inside of 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.

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

## GAS CONNECTION

- 1. The gas supply line shall be gas-tight, sized and so installed as to provide a supply of gas sufficient to meet the maximum demand of the heater without loss of pressure.
- 2. A shut off valve (and appliance connector valve) should be installed in the upstream of the gas line to permit servicing.
- 3. Flexible pipe and any appliance connector valve used for gas piping shall be types approved by nationally recognized agencies.
- 4. Any compound used on the threaded joint of the gas piping shall be a type which resists the action of liquefied petroleum gas.
- 5. Supplied gas pressure must be within the limits shown in the specifications.
- After completion of gas pipe connections, all joints including the heater must be checked for gas tightness by means of leak detector solution, soap and water, or an equivalent nonflammable solution, as applicable.
  - CAUTION: Since some leak test solutions, including soap and water, may cause corrosion or stress cracking, the piping shall be rinsed with water after testing, unless it has been determined that the leak test solution is noncorrosive.
- 7. The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 P.S.I (3.5kPa).
  - The appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply system at test pressures equal to or less than 1/2 psig.
- 8. One 1/8" test plug is provided for testing of manifold pressure see schematic for location. (On page 43, item # 125)
  - At time of installation installer must supply a 1/8" N.P.T. plugged tapping, accessible for test manometer connection, immediately up stream of the gas supply connection to the appliance.

## CANADIAN VENT REGULATIONS CAN/CGA-B149.1-M91

A vent shall not terminate:

- (a) Directly above a paved sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings;
- (b) less than 7 ft. (2.13m) above a paved sidewalk or a paved driveway located on public property;
- (c) within 6 ft. (1.8m) of a mechanical air supply inlet to any building;
- (d) above a meter/regulator assembly within 3 ft. (900mm) horizontally of the vertical centerline of the regulator;
- (e) within 6 ft. (1.8m) of any gas service regulator vent outlet;
- (f) less than 1 ft. (300mm) above grade level;
- (g) within the following distances of a window or door which can be opened in any building, any non-mechanical air supply inlet to any building or the combustion air inlet of any other appliance;
  - (i) 1 ft (300mm) for inputs up to and including 100,000 Btuh (30kW),
  - (ii) 3 ft (900mm) for inputs exceeding 100,000 Btuh (30kW); and
- (h) underneath a veranda, porch or deck, unless
  - the veranda, porch or deck is fully open on a minimum of two sides beneath the floor, and
  - (ii) the distance between the top of the vent termination and the underside of the veranda, porch or deck is greater than 1 ft. (300mm).

#### FOR COMPLIANCE TO NFPA 54 OR Z223.1 U.S.A.

Vent terminal must be located at least 3 feet above any forced air inlet location within 10 feet away.

Vent terminal must not be located over public walk ways or be detrimental to regulators and equipment where condensate could be a problem.

Vent terminal must be kept clear of snow at all times.

The bottom of the vent terminal and the air intake must be located at least 12 inches above grade.

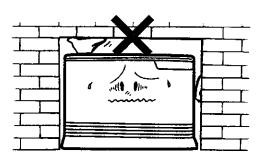
The vent terminal of a direct vent appliance with an input of 50,000 Btu per hour or less shall be located at least 9 inches form any opening through which flue gases could enter a building, and such an appliance with an input over 50,000 Btu per hour shall require a 12inches vent termination clearance. The bottom of the vent terminal and the air intake shall be located at least 12 inches above grade.

## **LOCATION / CLEARANCES**

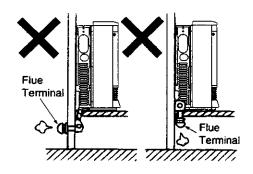
When positioning the heater the main points governing the location are:

- 1. Flueing
- 2. Warm air distribution

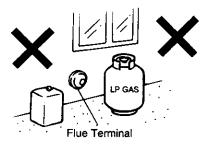
This heater is not designed to be built in.



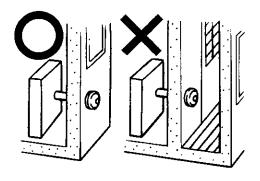
The flue is not designed to be positioned under floors, or below the level of the heater.



The flue terminal should be positioned away from flammable materials.



Do not flue into natural draught flues or fireplaces, this unit can only be used with one of the five types of Rinnai flue kits. Do not flue unit into other rooms. Flue terminal must be outside.

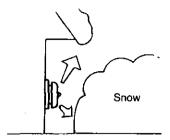


Flue may be positioned directly under opening windows, with a minimum clearance of 9" (230mm).

#### FLUE SIZES:

- 5 Flue lengths are available.
- S flue walls 3"~4 1/2" (75~115mm)
- A flue walls 4 1/2"~9 1/2" (115~240mm)
- B flue walls 9 1/2"~15 3/4" (240~400mm)
- C flue walls 15 3/4"~23 5/8" (400~600mm)
- D flue walls 23 5/8"~31 1/2" (600~800mm)

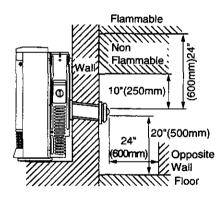
#### **SNOW AREAS**



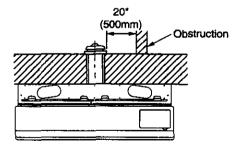
In areas subject to heavy snowfall, keep snow clear of flue terminal at all times.

#### STANDARD INSTALLATION OF FLUE MANIFOLD.

Diagram below shows minimum clearances and distances from obstructions.
Also check local regulations.



#### Side Clearances

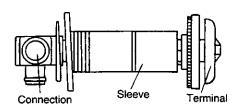


## SLEEVE AND MANIFOLD INSTALLATION

#### **METHOD FOR STANDARD WALLS**

#### 1. Disassemble Manifold from Sleeve.

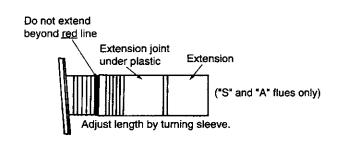
The flue consists of 3 parts, sleeve, inside connectors and tube, outside terminal; (dis-assembly by pulling hard on outside terminal and inner connections, then pull sleeve off outer terminal.)



#### 2. Adjustment of Sleeve Length.

Measure wall thickness through previously drilled 3 1/8" (80mm) hole.

End of sleeve should protrude 3/16"~3/8" (5~10mm) from outside wall. Adjust sleeve length to wall thickness plus 3/16"~3/8" (5~10mm). (Sleeve is threaded for adjustment.) Do not extend beyond red line.

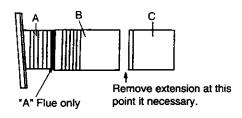


#### 3. For S and A flue only.

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

Cut plastic, remove extension, then follow instruction 2. This applies to "S" and "A" flues only.

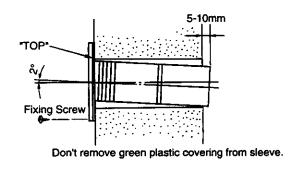
There is no extension on other flues, they can be fully adjusted by turning the threaded section.



#### 4. Fixing Sleeve.

Fix to the wall, using the 3 screws provided.

**NOTE:** The flange is marked "TOP", sleeve must be fitted with this mark **Up**. Check sleeve protrudes 3/16" ~3/8" (5~10mm) on the outside.

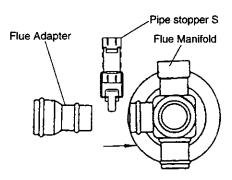


## 5. Check rubber seal is in place on terminal. \*For weather board walls, add spare rubber seal Terminal seal (Add "weather board provided to compensate for weather board angle. seal here) 6. Installation of Terminal TOP" mark "A" From outside, insert terminal into sleeve with the "A" Label mark at the top. Left hand side fixing tie is marked "LEFT" (from inside). Fixing tie 7. Attached Ties Cut (leave 20mm free) Pull hard on left and right hand side ties, clip ties over lugs inside sleeve. You should be able to pull ties 2 or 3 slots past the starting point. Cut the ties, leaving Pull hard about 3/4" (20mm) past the lugs. Bend ties so they are parallel with the wall. Fixing tie Terminal Slèeve 8. Insert Inner Connection Assembly. Top Mark Push assembly into the terminal tube, make sure "TOP" mark is uppermost. Fix with 3 screws provided. Connections 9. Manifold can still be turned after attaching. Outlet Rubber cap

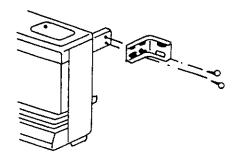
Inlet

## **FITTING UNIT**

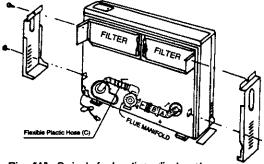
1. Fix Flue Adapter to Flue Manifold with PIPE STOPPER S as shown below.



2. Fit Wall bracket as shown below.



3. Fit Air inlet Hose to heater. Fix Side Back Spacers with screws.



Pipe "A" - Swivels for location adjustment

Pipe "B" - Telescopic-telescopes into pipe A and flue manifold Pipe "C" - Fits on manifold "Air Intake" pipe

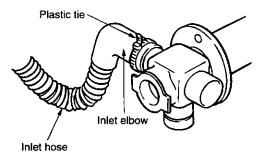
Air Inlet Hose

Connect Air Inlet Hose to Manifold

Inlet.

Do not kink the hose.

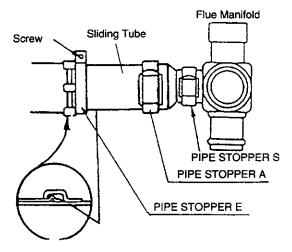
4. Secure with plastic tie as shown below.

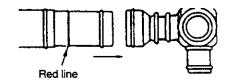


When servicing unit replace plastic tie with new

(Available at local hardware store or contact local distributor.)

5. Connect Vent Sliding Tube with PIPE STOPPER S and E as shown below.

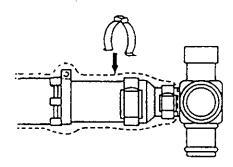




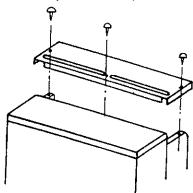
Sliding Tube should not be extended beyond the RED LINE.

Red line should not be visible after sliding the tube back into the vent outlet.

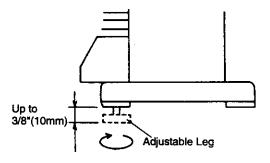
Slide the insulation sleeve up to the flue manifold,slip the securing clip over the sleeve as shown.



7. Fix Back Spacer, Top to heater. (3 screws in top back cover).



 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.

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

Some items are not covered under the unit's warranty. Example: annual maintenance, carbon on flame rods/igniter, dust, spider webs, improper conversions, etc.

## OPERATING INSTRUCTION LABEL ENERGYSAVER RHFE-1004FA

#### FOR YOUR SAFETY READ BEFORE OPERATING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
- B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

#### WHAT TO DO IF YOU SMELL GAS

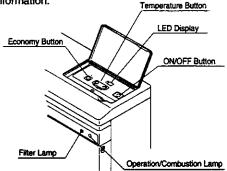
- · Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.

- If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

#### **OPERATING INSTRUCTIONS**

- STOP! Read the safety information above on this label.
- 1. Set the thermostat to lowest setting.
- Turn off all electric power to the appliance via the ON/OFF button on the control panel. Locate manual gas valve to be found on back side of heater.
- Turn Manual valve clockwise to the full OFF position.
- 4. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you then smell gas,
  - BACK SIDE OF HEATER MANUAL GAS VALVE OPEN CLOSED

- STOP! Follow "B" in the safety information above on this label. If you don't smell gas go to next step.
- 5. Turn Manual gas valve to the full on position.
- Turn on all electric power to the appliance via ON/OFF button.
- 7. Set the thermostat to desired setting.
- 8. Burner is lit when indicator lamp "ON" turns red.
- "ON" indicator flashes when burner fails to ignite.
- 10. If the appliance will not operate, follow the instruction "TO turn off gas to appliance" and call your service technician or gas supplier. See manual for additional information.



#### TO TURN OFF GAS TO APPLIANCE

- Turn off electric power to the appliance using the ON/OFF button located on the control panel.
- Locate manual valve on back side of unit.
- 3. Turn manual valve clockwise to the full OFF position.

NOTE: The fan will continue to operate until the appliance is cool, do not turn the appliance off by unplugging it from the wall.

Keep burner and control compartment clean. Refer to the installation and operating instructions accompanying heater.

## ADDITIONAL CUSTOMER OPERATING INFORMATION

#### **IGNITION**

Make certain the heater is connected into both the gas and the electric power.

Depress the ignition ON/OFF button slowly and firmly.

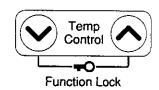


When you release the ignition ON/OFF button the 'LED Display will illuminate, the spark will ignite the main burner and the Combustion fan will begin to run. If the heater does not ignite within 15 seconds the spark will stop and the 'LED Display will show Error Code. Turn off unit and repeat ignition operation.

This heater has an automatic ignition system, when the main burner has lit, the combustion Lamp will glow red, and the spark will stop. There may be a smell of burning dust or oil the first time the heater is lit or when the heater has been out of operation for a long time, this is normal. You may need to repeat the ignition operation the first time the heater is plugged in, due to air in the gas line.

### TEMPERATURE LEVEL

Set Temp O



#### COMBUSTION INDICATOR

Filter ON-&

#### **TEMPERATURE CONTROL**

The thermostat automatically modulates the burner and the fan to maintain the room temperature which you have selected.

To change the room temperature, simply adjust the temperature control buttons until the desired setting is indicated.

The temperature range from LO to HI is about 55°F (12°C) to 122°F (50°C). Temperature control may be affected by the location of the heater.

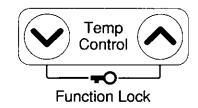
#### **TEMPERATURE CONTROL**

Set Temp O Room Temp O Control ON/OFF

#### **ROOM TEMPERATURE DISPLAY**

'Temperature is indicated by the L.E.D. display on the control panel. The first time when the appliance is turned on, the preset temperature '72 F degrees' (from the factory) will be shown on the L.E.D. display. Every time the Set Temp has been changed, that set temperature will be latest data appearing on the L.E.D. display on the next time the appliance is turned on. To get to Set Temp, press either 'up' or 'down' button. At the Set Temp, press 'up' to increase the temperature or 'down' to decrease. When the desired temperature is set, 10 seconds later the LED display will change to the room temperature mode which will show the current room temperature.

Set Temp O



#### TO TURN UNIT OFF

Depress ignition ON/OFF button again.
The appliance will stop operate.
Do not turn off by unplugging at the power outlet.
Convection fan continues to run until heater is cool.

#### **IGNITION BUTTON**

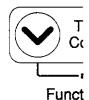


#### **ECONOMY BUTTON**

To select 'Economy Mode', push the 'Economy' button, the green lamp will glow. 30 minutes after the room temperature reaches the preset temperature (set by the thermostat), the 'Economy Mode' if set, reduces the temperature by 2°F, after another 30 minutes it reduces the temperature by a further 2°F. This is an energy saving feature. It does not operate if the heater is under capacity for the room size.

#### **ECONOMY**





#### **FILTER LAMP**

If the filter lamp glows during operation, check air filter for dust. If there is dust present, clean filter. See section on care of heater. Turn heater off before cleaning filters.



#### **OPERATING PRECAUTIONS**

Please read this section carefully, before using your Forced flue heater.

#### Gas Type, Power Source, and Manufactured Date

- Type of gas, power source and manufactured date are displayed on the nameplate placed on the right side of the unit.
  - Do not use gas other than the type of gas (gas group) indicated on the nameplate.
  - This equipment is for 120 V AC (60Hz) only. Do not use power source other than what is listed.

#### Caution

- Should the type of gas or power source be different, please contact your dealer. Using a different type of gas or power source may affect the performance or may be dangerous.
- If you are moving to another area, please check the types of gas and power source provided in the
  area. If the types of gas and power source are different, adjustment or modification is necessary.
   Please consult the gas provider in the new area.

#### **Usage**

- Do not use for drying clothes!
  - Do not use for any other purposes other than heating (e.g., drying the laundry).
  - Draping clothes over the unit blocks the warm air outlet or the filter area and is very dangerous, as it causes heat to build up inside the unit.

#### **Usage Location**

■ Do not use near flammable material!!!

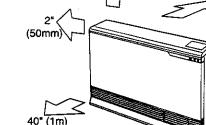
Place the unit sufficiently away from flammable objects such as furniture, wall and curtains. Check carefully when installing the unit.

10\*(250mm)

#### **REQUIRED DISTANCE FROM FLAMMABLES:**

Top: At least 10 " (250mm)

Left: At least 2" (50mm) Front: At least 40" (1m) Right: At least 2" (50mm)



Rinnai recommends 10" (250mm) clearance on both sides for future servicing.

■ Watch for falling objects!!!

Do not place under a shelf or in other locations where there is a danger of an object falling on the unit.

Avoid using in special purpose rooms!!!

This equipment is made for use as a heater for a residential building. Do not use in beauty salons, factories and other places where spray or chemicals are used or where a large amount of dust is present.

Do not use hair treatment products containing silicon in a room heated by the Forced flue heater, as they may cause ignition error, flame extinction or other malfunctions.

■ Insert a board under the unit when placing on carpeted floor!!!

This heater may be installed on combustible flooring. When the heater is installed directly on carpeting, tile or other combustible material other than wood flooring, the heater shall be installed on a metal or wood panel extending the full width and depth of the heater.

#### **Emergency Procedures:**

Stay calm and turn the unit off!!!

In case of an emergency (e.g., abnormal overheating of the unit, loud noise), always stay calm, turn the unit off by pushing the ON/OFF button, close the gas valve and contact your dealer or the Rinnai office or store near you.

#### **During a Thunderstorm**

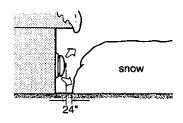
When a thunderstorm is approaching, turn the unit off and unplug the power cord. Heavy thunderstorm may cause damage to the unit.

#### **Inspection and Maintenance**

- Be sure to perform inspection and maintenance procedures. (See page 29 and 34 for details.) In particular, check the gas connection, power connection and air supply/exhaust pipe connection.
- Do not use the unit if you suspect malfunctioning or damage. Incomplete repairs are dangerous.
   In case of malfunctioning, read the instructions on page 32 and or contact your dealer or the nearest Rinnai office.

#### **During Snow Accumulation**

If the air supply/exhaust vent is covered by snow or damaged by falling icicles, the exhaust may be blocked and cause malfunctioning of the unit. Keep the area around the air supply/exhaust vent free of snow and icicles. Minimum clearance from snow accumulations should be at least (24").



#### Installation of Unit:

- Please ask your dealer to install the unit properly in a safe location:
- Refer to the installation manual to make sure the unit is installed properly.

#### **Customer's Operating Information**

The following pages explain how to use the Forced flue heater. Also read "Operating Precautions" on pages 23—26.

#### When Using for the First Time

- Check the power cord and power plug.
  - Firmly plug the unit into an electrical outlet, ensure outlet is properly grounded. An outlet that is not grounded properly can cause unit to operate erratically.
  - Make sure the power cord is not exposed to the heat from the exhaust pipe.
- Fully open the gas valve on the unit.

#### **Before the Cold Season Begins**

- Check the air supply/exhaust connection.
- Before using this heater, inspect the air supply/exhaust connection to make sure the pipe is not disconnected or bent.
- Check the main unit and the air supply/exhaust.
- Make sure there is no combustible or flammable material near the main unit or the air supply/exhaust.

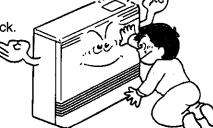
#### **CAUTION:**

If you find a problem with the air supply/exhaust do not use the unit. Contact your dealer or the nearest Rinnai office.

#### **Function Lock**

The Function lock feature prevents accidents due to tampering by small children.

- Press both"∧" and "∨" button at the same time.
  The "Function Lock" lamp should comes on and engage the function lock.
- Cancelling the Function lock. Press both"∧" and "∨" button again and hold for two (2) seconds. This will disengage the function lock.



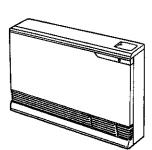
#### Note:

If the Function lock is engaged while the unit is operating, all operations by switches and buttons will be disabled except turning the unit off.

If the Function lock is engaged while the unit is off, all operation will be disabled. When you turn the unit on and the Function lock is engaged you must cancel the Function lock before preceding.

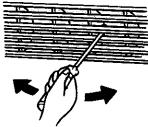
#### **AIR FLOW CONTROL:**

The direction of air flow may be changed to the left or right.
Use a screwdriver or a similar object to change the direction of the vertical louver.



#### **CAUTION:**

- Do not adjust repeatedly (more than 5-6 times), as it may cause the louver to break.
- The horizontal louver (which determines the vertical air flow direction) is fixed and cannot be adjusted.
- Do not adjust the air flow direction while warm air is flowing, as it may cause burn injury.



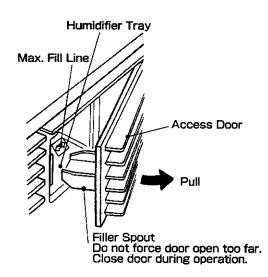
#### **Sensible Temperature Control:**

The sensible temperature control feature enables comfortable heating which matches the conditions in the room.

 Based on the information collected by the room temperature thermistor when the heating starts, the heating capacity is automatically adjusted to achieve a comfortable heating effect and to reach the set room temperature quickly.

#### **Adding Water to Humidifier:**

So that you can humidify the air your RHFE-UNIT is fitted with an enamelled tray behind the air outlet. To fill the tray, open the door as shown in the diagram and pour water into the tray using the spout built into the door. The air will be humidified as it passes over the water in the tray. DO NOT FILL THE TRAY WHILE THE UNIT IS IN OPERATION. CLOSE THE DOOR AFTER FILLING. The RHFE UNIT is a very high efficiency appliance, during operation a small amount of water is produced in the vent 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.



#### Caution:

- The humidifier tray and the surrounding area are hot when the unit is on. To avoid burns, do not add water to the tray while unit is on.
- Avoid adding water when the room is susceptible to condensation.
- If the water overflows from the water level hole when adding water, do not add any more water.

#### Care of Unit Exterior:

Dampen soft cloth with warm water, wring water out well and wipe the unit.

#### Caution:

Never use volatile substances such as benzine or thinners, as they cause fading of paint or deformation of resin.

#### Care of Air Filter:

Always clean the air filter when the filter indicator lamp starts blinking.

- The filter indicator lamp starts blinking when the dust accumulates on the air filter. In this event, turn the unit off immediately, wait until the unit cools off and clean the filter.
- Even if the lamp is not blinking, if you think the filter is dirty, clean the filter while you are cleaning the room. This will ensure comfortable use.
- The air filter may be removed. Clean both sides of the filter with a vacuum cleaner or a duster.
- If the filter is greasy, wash quickly with detergent, shake water off and dry completely.
- After cleaning and drying, replace the filter securely.

# AIR FILTERS

#### **CAUTION:**

• If you continue to use the heater with the filter indicator lamp flashing, the sensor may detect trouble and turn the unit off. Causing the room temperature display lamp "14" and the "operation/combustion" lamp to flash, indicating that the safety device has been activated. In this event, clean the air filter immediately as above.



#### **TESTING**

#### **Testing Unit**

Purge air from gas line.

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

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

Plug unit in and turn power on, (CAUTION - 120V inside unit).

Turn thermostat to "HI", turn control to "ON". Unit should ignite within 10 seconds.

If unit does not ignite, there may be air in the gas line, turn control "OFF" then "ON" again.

Check pressure, regulator is factory set, if pressure is incorrect, check supply before altering regulator. The appliance must be stopped before testing unit. Remove the test point screw and connect manometer to pressure point on the modulating valve.

Turn the unit to "ON" position using the ON/OFF button on the operation panel and check pressure. If pressures are correct remove manometer and replace test point plug.

Leak test all gas connections.

#### CHECK

#### Fault-Failure Procedure

If unable to get the unit to operate correctly, contact Rinnai Agent, or Gas Utility. Please read the fault finding charts before reporting faults.

Do not use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control which has been under water.

"WARNING" Do not operate appliance with the panel(s) removed, cracked or broken. Installation and repair it should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person.

More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc.. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean. Ventilating system should be inspected and cleaned annually of all debris and spider webs.

Rinnai's service assistance telephone number is 1/800/621—9419.

WARNING: DO NOT OPERATE UNIT UNTIL PROPER INSTALLATION HAS BEEN COMPLETED.

## 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. At Ignition: Heater does not operate. Is the heater plugged in? Have the fuses or breaker blown at the switch board? Is there a power failure? Is the air filter blocked? Is anything blocking the outlet for the hot air? Is the flue blocked? Warm air does not flow when the burner The fan is started automatically after a short delay. lights. This is to allow the heat exchanger to warm up, helping to avoid cold draughts. Smoke or strange smells are produced This is caused by grease or oil and dust on the heat exchanger and will stop on the first trial light up after installation. after a short time. Sharp clicking noises at ignition, or when This is simply expansion noise from the heat exchanger. unit cuts down on the thermostat, or goes out. During Combustion: Clunking noise when the thermostat This is the sound of the solenoid gas valves opening and closing. operates. 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 louvers are Allow heater to cool, clean air filter, operate again. blocked or obstructed. 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 This is to remove the residual heat from the heat exchanger, the fan will stop turning OFF. when the heater cools down. Other Points: Steam is discharged from the flue terminal. High efficiency appliances tend to discharge water vapor on cold days, this is normal. Unit cuts off without apparent reason. Check whether filters are blocked, dirty filters will cause the heater to overheat.

Switch OFF, then ON again when power is restored to re-set controls.

Power Failure.

## **TROUBLE SHOOTING**

Your RHFE-1004FA requires very little maintenance, simply clean the rear fan filter as needed and wipe the outer case and louver section with a damp cloth.

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	•	•						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
Louver obstructed				•			•	Clear obstruction
Air filter blocked				•			•	Clean filter
Gas Escape					•			Service Call
Function Lock Set		•						Cancel Function Lock
Gas turned off at meter	•	•						Turn gas on

General maintenance items are not covered under unit's warranty. Such as cleaning dust, debris and carbon from flame rod, spider webs, and improper set up of unit.

## **ERROR MESSAGES**

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

CODE DISPLAYED	FAULT	REMEDY		
11	Ignition failure	Check gas is turned ON. Service call if repeated.		
12	Flame failure	Check gas is turned ON. Service call if repeated.		
14	Overheat	Clean filter Service call if repeated.		
16	Room overheat	Lower room temperature to less than 40°C(104°F).		
31	Room Temperature	Service call.		
32	Sensor faulty	Gervice can.		
33	Overheat Temperature	Service call.		
34	Sensor faulty	Gervice can.		
53	Sparker failure	Service call.		
61	Combustion fan failure	Service call.		
70	Faulty ON/OFF switch	Service call.		
71	Faulty solenoids	Service call.		
72	Faulty Flame Rod	Service call.		
73	Communication Error	Turn heater OFF, then ON again.		
49	Sensor breakdown	Service Call.		
99	Flue block	Check around flue terminal		

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.

## **MAINTENANCE / SERVICE**

#### **MAINTENANCE SUGGESTIONS**

This heater has been designed and constructed for a long performance life when installed and operated properly under normal conditions. Regular inspections, as outlined in this section, are strongly recommended as means of keeping your heater operating efficiently throughout the season.

#### 1. Cleaning

Heater must be cleaned annually. Keep heater clear of dust and debris especially in and around burner.

Cleaning procedures of heater are as follows:

- 1) Turn heater off. Allow to cool for one hour.
- 2) Remove the Front Panel by removing screws. See schematic page 38.
- Use pressurized air to remove dust from around main burner, heat exchangers and fan blades.
- 4) Use soft dry cloth to wipe cabinet.

DO NOT DAMAGE OR DISTORT ANY PARTS OF HEATER.

DO NOT USE WET CLOTH OR SPRAY CLEANERS ON BURNER.

2. Visual check of main burner flames.

Flame pattern should be as shown in the following Figures.

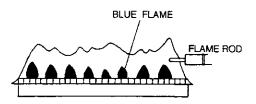
The burner must flame evenly over the entire surface when operating correctly. The flame must burn with a clear blue stable flame. See page 40 item # 417 for location of view ports. Any and all parts removed for inspection or service must be replaced before operating unit.

- The appliance area must be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- 4. The flow of combustion and ventilation air should not be obstructed.
- 5. Verify proper operation after servicing.

#### **VISUAL CHECK**

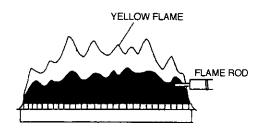
#### SATISFACTORY

#### **FRONT VIEW**

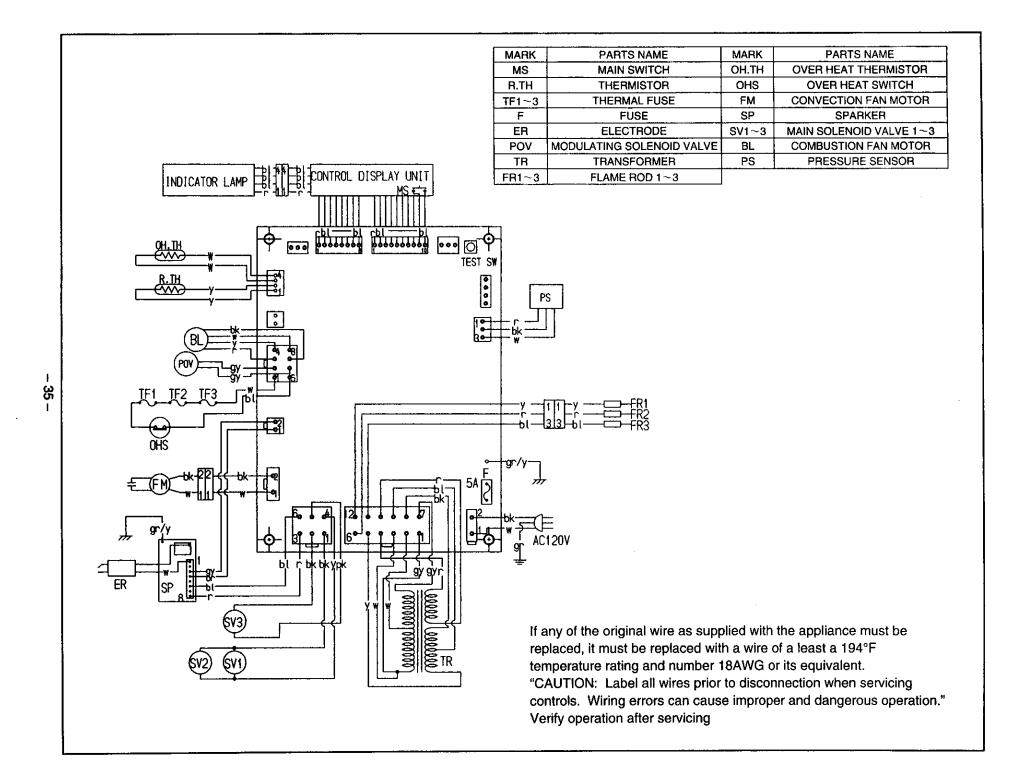


#### **UNSATISFACTORY**

#### FRONT VIEW



- VENT MAINTENANCE
- VENT SYSTEM
   Must be checked annually for blockage or deterioration. See vent installation instructions for proper assembly.
- MAINTENANCE-ELECTRIC MOTORS
   Motors are permanently lubricated and need
   no lubrication. Keep fan and motor free of
   dust and dirt. Clean annually.



# Please record below: Purchased from: Address: Phone: Date of Purchase: Model No.: Serial No.: Installed by: Installer's license No.: Address: Phone: Date of installation:

### **CONSUMER'S NOTICE:**

Keep in a safe place for your records.

WARRANTY INFORMATION

Consumer product safety commission suggest all heating systems should be checked annually to be certain venting system is free of foreign matter, and that safety and electrical components be checked for safe operation. See maintenance.

### LIMITED WARRANTY RINNAI FURNACE

Rinnai America corporation warrants the products described in this warranty, including any parts and components thereof, to be free from any defects in materials and workmanship for the period specified below, subject to the terms specified in this warranty. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or country. This warranty extends to the original purchaser and applies to products purchased and retained for use within the U.S.A.and Canada. This warranty applies to furnaces manufactured after June 1,1995.

MODEL	PERIOD OF COVERAGE	TYPE OF FAILURE	
<del>-</del> _ <del>-</del>	10 YEARS LIMITED*	DEFECTIVE	
RHFE-1004FA	FROM DATE	HEAT	
	OF PURCHASE	EXCHANGER	
	FIVE YEARS	DEFECTIVE	
RHFE-1004FA	FROM DATE	MATERIALS	
	OF PURCHASE		
	TWO YEARS	REASONABLE	
RHFE-1004FA	FROM DATE	LABOR	
	OF PURCHASE**		

In the event of a malfunction, operational difficulty or failure of the product, or any parts or components, during the warranty term, resulting from defects in materials of workmanship Rinnai will remedy the malfunction, operational difficulty, or failure. The remedy will consist of repair or replacement of the product (including payment of reasonable shipping costs), or refund of the purchase price, at the option of Rinnai. You may obtain the benefits of warranty coverage by returning the product to a qualified Rinnai servicing agent for the appropriate repair or replacement. All warranty service and/or replacement of parts must be performed for you by a servicing agent which has been qualified by Rinnai or its authorized distributor. Any such warranty replacement or repair shall be subject to the terms and conditions of this warranty for the remainder of the original period of coverage. In order to obtain the name and location of the qualified Rinnai servicing agent closest to you, please write Rinnai at the address shown on the back side of the warranty card or call Rinnai at 1-800-621-9419 in U.S.A. and Canada.

This warranty does not cover travel time or any failure due to, operational difficulty, or malfunction due to accident, abuse, misapplication, improper installation or improper maintenance or service, or from any cause other than defects in materials or workmanship.

If any part of your Rinnai EnergySaver fails because of a manufacturing defect in material or workmanship <u>within two years</u> from the date of original purchase, Rinnai will furnish without charge the required replacement part, shipping and reasonable labor. In addition for the following three years, Rinnai will furnish without charge, the required replacement parts and shipping costs.

In addition, if the heat exchangers fail because of a manufacturing defect in material or workmanship within the third through the fifth year, from the date of original purchase, Rinnal will furnish without charge replacement heat exchangers, shipping costs included. Related service labor, import duties or custom fees and diagnosis calls are not included.

In addition, if the heat exchangers fail because of a manufacturing defect in material or workmanship within the <u>sixth through tenth year</u> from the date of original purchase, Rinnai will make the following allowances, based on retail cost, toward purchase of replacement heat exchangers. Any local transportation, related service labor, import duties or customs fees and diagnosis calls are not included.

Year of Failure	Allowance
6	\$50.00U.S.A.
7	\$40.00U.S.A.
8	\$30.00-U.S.A.
9	\$20.00-U.S.A.
10	\$10.00-U.S.A

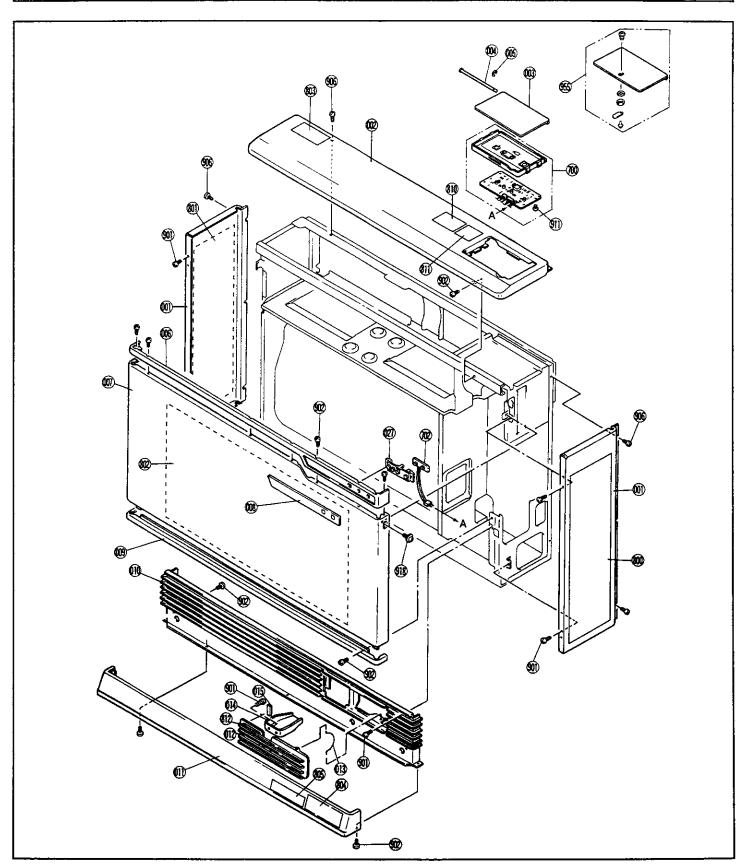
Any implied warranties of merchantability and fitness applicable to the equipment are limited in duration to the period of coverage of this express written warranty. Some states/provinces do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you. Rinnai is not liable for any special, indirect or consequential damages; some states/provinces do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.

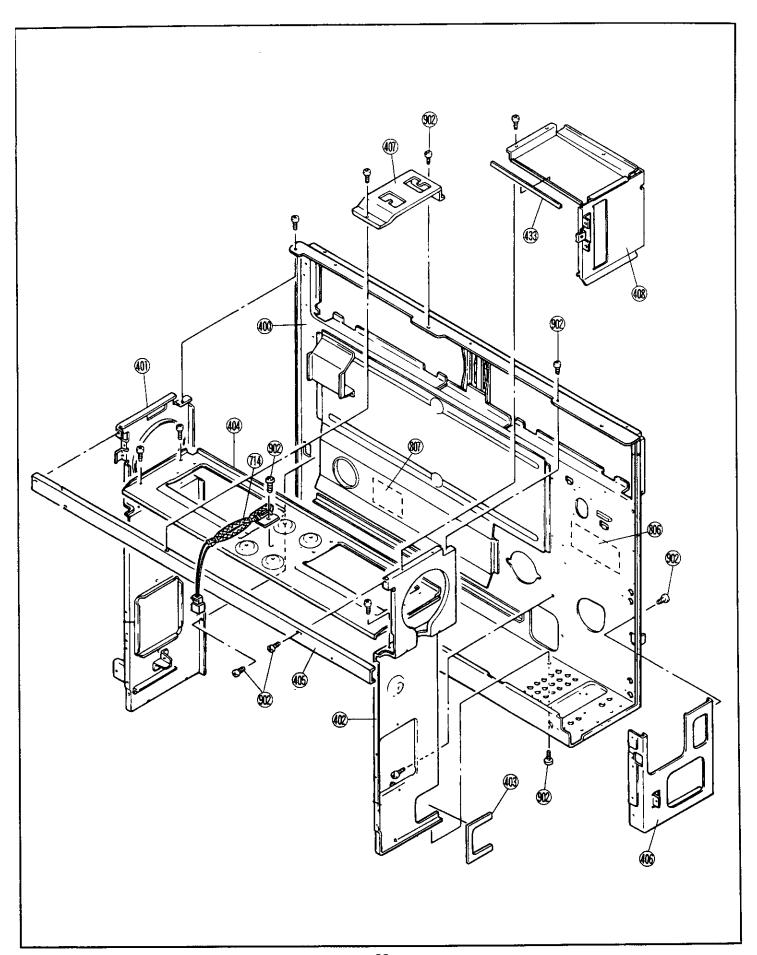
Rinnai does not authorize any person or company to assume for it any other obligation or liability in connection with the sale, application, engineering, installation, use, removal, return, or replacement of its products; and no such representations are binding on Rinnai. The Warranty Registration Card provided below should be returned within two weeks of purchase to help Rinnai better serve you. However, the return of the Registration Card is not necessary in order to validate this warranty. Proof of purchase with date and serial number is required.

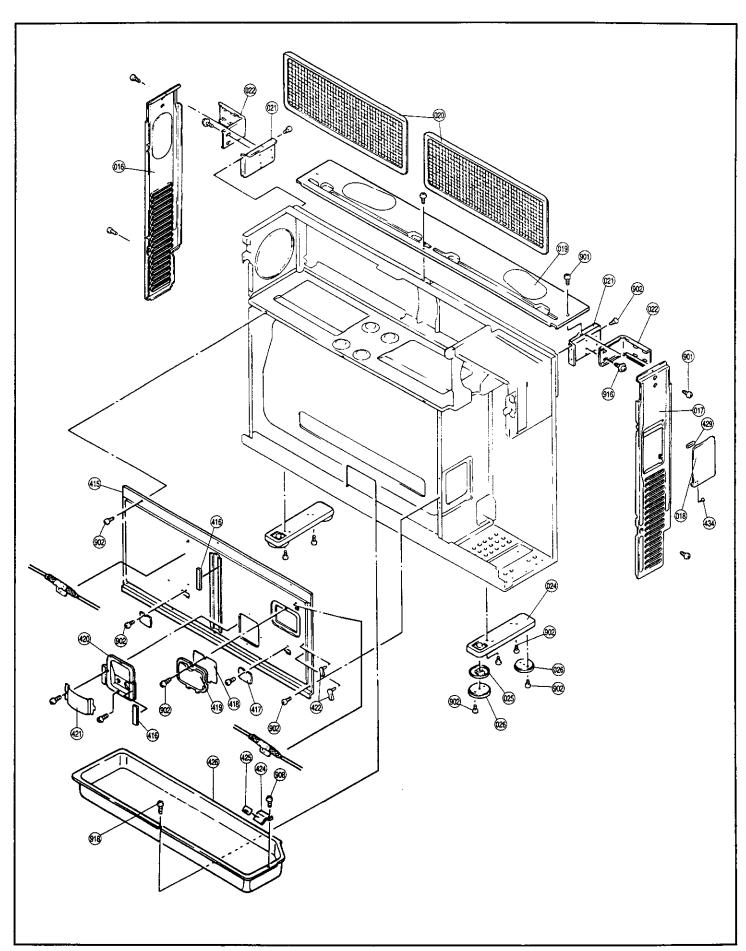
\*\*The labor warranty may be extended 3 additional years for a total of 5 years full warranty. Mail \$25.00 per year to Rinnai with the completed warranty registration card (page57).

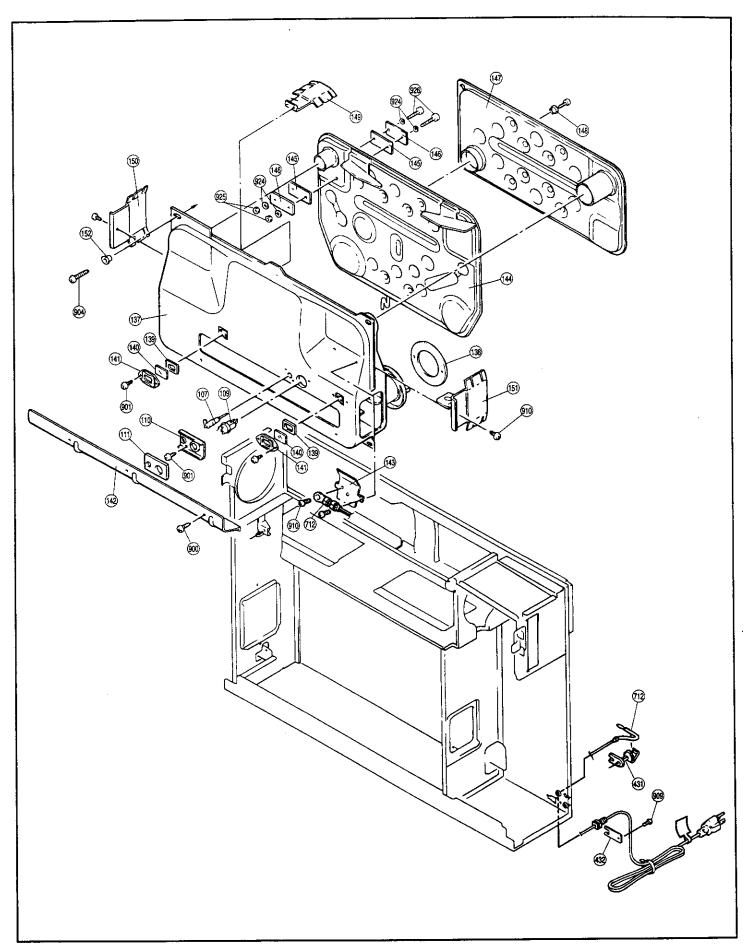
FOR EXTENDED WARRANTY - PLEASE REMIT PAYMENT WITH THE CARD PLEASE RETURN THE CARD TO RINNAI WITHIN TWO WEEKS OF PURCHASE

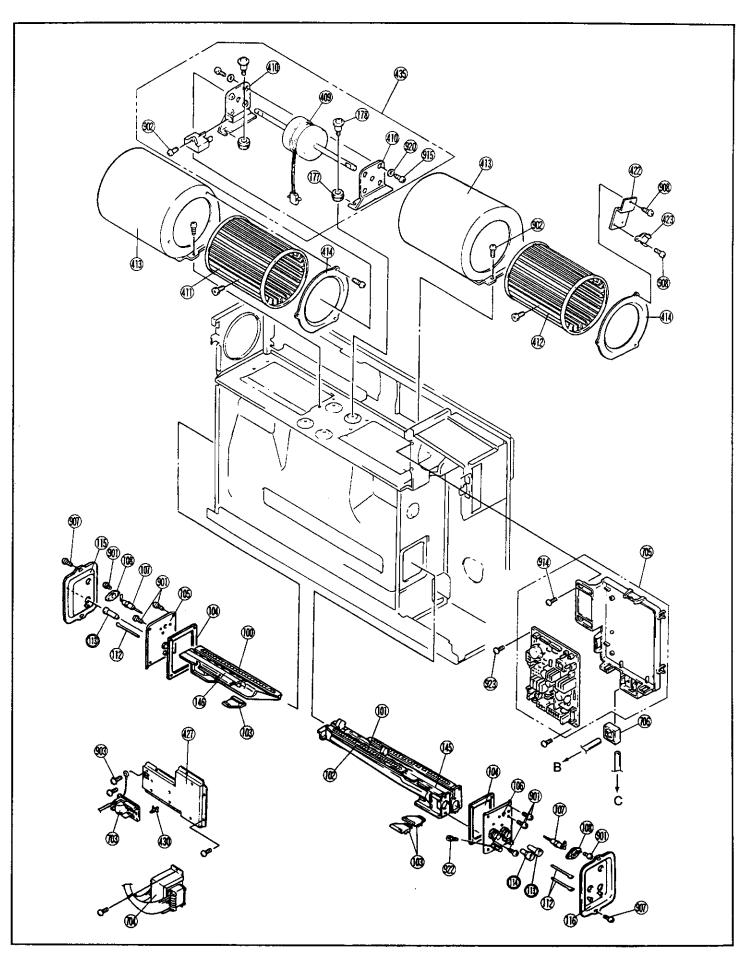
# **SCHEMATIC DIAGRAM**

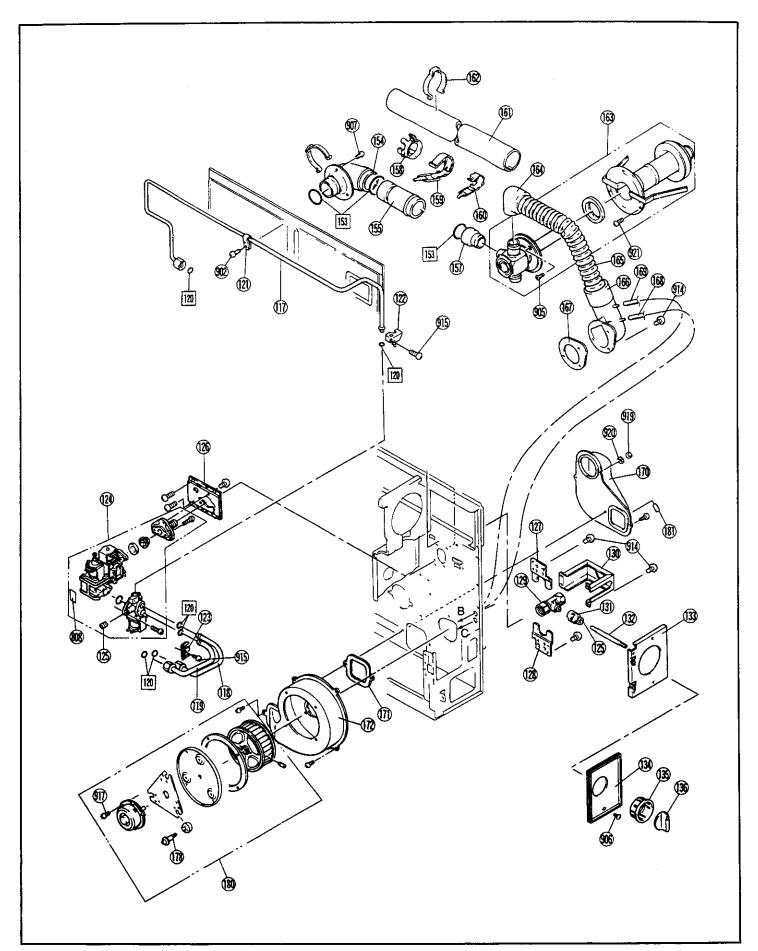


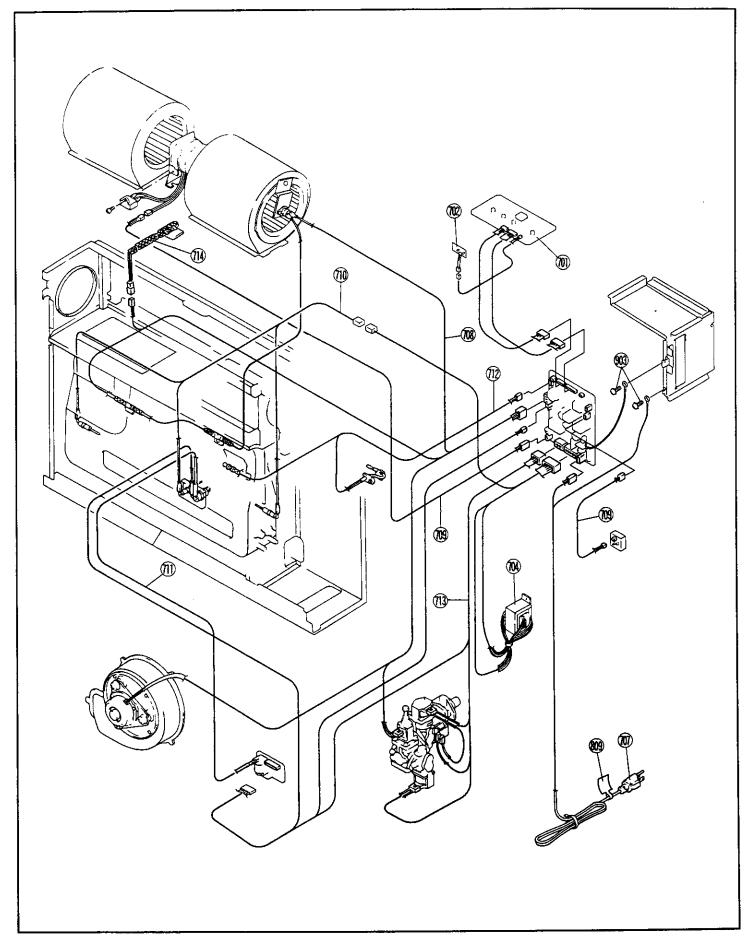












# **PARTS LIST**

No.	DRAWING No.	PART NAME	QTY'	SIZE	REMARKS
001	1001F-073X02	SIDE PANEL	2	t0.8	RHA WHITE
	1004F-2071	TOP PLATE	1	t0.8	RHA WHITE
	1004F-2073-2	OPERATION LID	i	t1.0	RHA WHITE
	556F-558-2	FULCRUM	1	φ3.2	
		STOPPER	i	φ2	
	1001F-1514-2X02	DECORATION PANEL ASS'Y	i		RHA WHITE
007	1001F-160-2X01	FRONT PANEL SSS'Y B	1		RHA WHITE
	1004F-2080	ESCUTCHEON PANEL	i	t0.3	1
	1001F-084-2X02	LOUVER SUPPORT TRIM	1	t1.2	CONSERVATIVE GRAY
	1001F-163-2X01	LOUVER ASS'Y B	i		CONSERVATIVE GRAY
oi i	1001F-162X04	BOTTOM TRIM ASS'Y	1 1		RHA WHITE
012	1001F-164-4X01	FILLER ASS'Y D	1		CONSERVATIVE GRAY
	1001F-078	LOUVER DOOR HINGES	i	φ1.8	
	551F-015X01	FILLER	i	_ <del>r</del> =	BLACK
	RHF300-185-1	MAGNET	1		
	1001F-1410-2	BACK SPACER LEFT A	i	t0.6	RHA WHITE
017	1001F-1411-1	BACK SPACER B RIGHT A	1 1	t0.6	RHA WHITE
018	1001F-166-4	OPERATION LID D	i	t1.0	RHA WHITE
019	1001F-165-10	BACK SPACER UPPER ASS'Y J	1		RHA WHITE
020	1004F-228	AIR FILTER ASS'Y			BLACK
021	1001F-092X01	BACK SPACER SUPPORT	2	t1.2	
	RHF1000-117X01	WALL BRACKET	2	t1.2	RHA WHITE
024	1001F-157X02	LEG ASS'Y	2		
	550F-0220X01	RUBBER BRACKET ASS'Y	2		
	550F-0225X01	BASE SUPPORT RUBBER	4		
100	1001F-145-3X04	HIGH BURNER ASS'Y C	1		
101	1001F-145-3X04	HIGH BURNER ASS'Y C	1		
102	1001F-147-3X01	LOW BURNER ASS'Y C	1		
	RHF250-075X02	DAMPER PANEL	2	t0.5	
	1001F-049	BURNER BRACKET PACKING	2	t2	
	1004F-2022	BURNER BRACKET LEFT ASS'Y			
	1004F-2020	BURNER BRACKET RIGHT ASS'Y	1		
	1001F-104-2X02	FLAME ROD	1		
	RHF250-038	ELECTRODE CLIP	1	t0.6	<u> </u>
	1001F-216	ELECTRODE	1		
	1001F-168X01	ELECTRODE BRACKET	1	t0.6	
	1001F-175	ELECTRODE SEAL PACKING	1	t2.0	
	RHF250-076	AIR SHUTTER ADJUSTMENT	2	φ4	
	1004F-2031	MAIN INJECTOR	2		
	1004F-2036	MAIN INJECTOR	ī		
	1001F-042X01	BURNER SHIELD LEFT	i	t0.6	
	1001F-041X01	BURNER SHIELD RIGHT	1	t0.6	
	1004F-2066	INTERCONNECTION C ASS'Y	1		
	1004F-2065	INTERCONNECTION B ASS'Y	1		
	1004F-2064	INTERCONNECTION A ASS'Y	1		
	M10B-4-8	O RING	6	P8	
	1001F-101-2X01	INTERCONNECTION CLIP	i	t1.2	
	CP-30488X02	INTERCONNECTION BRACKET	1 1	t1.2	

No.	DRAWING No.	PART NAME	QTY'		REMARKS
123	1004F-2030	INTERCONNECTION BRACKET	1	t1.2	
124	1004F-2060-A	GAS CONTROL ASS'Y A	1_		
124	1004F-2060-C	GAS CONTROL ASS'Y C	]		
125	CP-40104	HANDLE SPRING	]		
126	1001F-008-2	VALVE BRACKET B	]	t1.6	
127	1001F-106-1	REVOLVING STOPPER A	1	t1.2	
128	1001F-106-3X02	REVOLVING STOPPER C	1	t1.2	
129	1001F-1633	MANUAL VALVE	1	<u> </u>	
130	1001F-1632	COCK REINFORCEMENT BOARD	1	t1.2	
131	1001F-1626	SHAFT ADAPTOR	1	(1.2	<del></del>
			1	φ8Xt0.7	
132		SHAFT	1		
	1001F-1630	HANDLE SUPPORT	1	t1.6	
	1001F-1631X01	VALVE PANEL	1	t0.4	
	REH18-25	SHAFT GUIDE			
	CP-40369-33	HANDLE ASS'Y	<u> </u>		
137	1001F-138-2X05	MAIN HEAT EXCHANGER ASS'Y B	1		
	RHF1000-167	INLET FLANGE PACKING	]	t4	
	300FT-14X03	GLASS WINDOW PACKING	2		
140	300FT-15X01	VIEWING GLASS	2	t3.0	
141	300FT-12	GLASS CLIP	2	t0.6	
142	1001F-115X01	BLANKING PANEL	1	t0.6	
	1004F-2048	OT.TH BRACKET	1	t0.6	
	1001F-142-2X06	SUB HEATEXCHANGER No.1 ASS'Y B	1		
	1004F-112	RECTIFICATION BOARD ASS'Y B	1		
	1001F-151X01	RECTIFICATION BOARD LEFT ASS'Y	i		
	1001F-143X04	SUB HEATEXCHANGER No.2 ASS'Y	i		
	1001F-169X01	SPACER	<u> </u>	φ16	
	1001F-021-1X01	SUB HEATEXCHANGER CLIP A	<del>'</del>	t1.0	
	1001F-021-2	SUB HEATEXCHANGER CLIP B	1	t1.0	
151	1001F-183X02	SUB HEATEXCHANGER B ASS'Y	1	(1.0	
	RHF1000-174	HEATEXCHANGER BRACKET SLIP	2	φ16	
			3	φιο	
	RHF1000-142-a	ORING A	3		
154	1001F-131	EXHAUST ELBOW ASS'Y	<u> </u>		
	1001F-132-2	SLIDE PIPE B	<u> </u>	t0.5	
	1004F-530X01	EXHAUST ADAPTOR B ASS'Y	1		
	1004F-401	SLIDE PIPE STOPPER		t1.0	
	1001F-250X02	EXHAUST PIPE STOPPER ASS'Y	]		
	1001F-1730X02	EXHAUST PIPE STOPPER S ASS'Y	1		
	1001F-111X03	COVER	1		
162	RHF1000-145	ELBOW COVER STOPPER	1	t0.8	
163	431F-1900	FLUE ASS'Y	ן		
164	RHF1000-132	AIR INTAKE ELBOW	I		
165	RHF1000-130-d	AIR INTAKE FLEXIBLE HOSE	1	L=150	
	1004F-2032-1×02		1		
	1004F-2033	AIR INLET PACKING	1	t2	
	1004F-2052-1	SENSING TUBE A	. ]	φ3XL400	CLEAR
	1004F-2052-2	SENSING TUBE B	1	φ4XL490	
	1001F-158X01	AIR INTAKE DUCT	i	<del></del>	
171	1001F-053	SEAL PACKING	i	t3	
172		COMBUSTION FAN CASING	1		
	CP-30310	SCREW FOR MOTOR	3	M5X0.8X22	
180		COMBUSTION FAN TOTAL ASS'Y	1	INIONO, ONEE	
100	ו ויטטקויבטטב	CONTROL TAIL TO THE AGO T		<u> </u>	<u> </u>

No.	DRAWING No.	PART NAME	QTY'	SIZE	REMARKS
181	304F-9112	CAP	1		
400	1001F-186-1X17	REAR PANEL ASS'Y	1		
401	1001F-154X05	FRAME LEFT ASS'Y	1		
402	1001F-156X10	FRAME RIGHT ASS'Y	1		
403	1001F-112X01	WARM AIR SEAL PACKING	1	t3 <u>i</u>	
	1001F-004-2	CONVECTION FAN SUPPORT B	1_	t1.0	
	1001F-066	TOP PANEL SUPPORT	7	t1.2	
	1001F-064X02	FRAME CORNER	\ \ \ \	t1.0	
	1001F-110	TOP PANEL REINFORCEMENT	7	t1.0	
	1004F-2006	FRAME CORNER ASS'Y	וו		
	ES-02051	CONVECTION MOTOR	1		
	550F-0903X01	CONVECTION MOTOR BRACKET	2	t1.2	
411	1004F-308-1X01	CONVECTION FAN A	1		
	1004F-308-2X01	CONVECTION FAN B	1		
413		FAN CASING ASS'Y	2		
	RHF1000-89X01	BELL MOUTH	2	t0.8	
	1001F-159-2X07	HEAT SHILD BOARD B ASS'Y	1		
	RC-223-21-1	SEAL PACKING	2	t4	
417	1001F-137	VIEWING WINDOW PANEL	2	t1.0	
418	302F-0523	INSULATION SHEETING	<del>  -</del>	t0.25	
	302F-0523 302F-0506X01	O.H.S. PROTECTOR	<del>                                     </del>	t0.6	
419	1001F-062X04	ELECTRODE VIEWING PANEL	<del>                                     </del>	t0.8	
		ELECTRODE COVER	i	t0.5	
421	1001F-070X02		2	t0.8	
422	1001F-217	O.H.S. BRACKET	<del>                                     </del>		
	ES-01131X01	OVERHEAT SWICH	1 1	t0.5	
424	1001F-172	WATER LEVEL INDICATOR	1 1		
425		WATER LEVEL LABEL	1 1	t50 μ	BLACK
426	1001F-037	HUMIDIFIER TRAY	<del>                                     </del>	t0.6	BLACK
427	1004F-2016	TRANSFORMER BRACKET	]		
429		MAGNET	1		
430		P.C.B. SUPPORT	4		
431	RC-213-628	THERMISTOR HOLDER	1		DI AOK
432		POWER SUPPLY CABLE BRACKET	<u> </u>		BLACK
433	1004F-2009	EDGE			
434	550F-0418	NYRON RIVET	2		
435	1004F-2086	CONVECTION MOTOR SUB ASS'Y	<u> </u>		
	1004F-2075	OPERATION P.C.B. ASS'Y	1		
702	1004F-2078	INDICATOR ASS'Y	]		
703	El-161	IGNITOR ASS'Y	1		
704	ET-251	TRANSFORMER	1		
705	1004F-2010	MAIN P.C.B. TOTAL ASS'Y	1_		
	1004F-2051	PRESSURE SENSOR	1		
	CP-90466-3	POWER SUPPLY CABLE ASS'Y	1		
	1004F-2054	MOTOR LEAD ASS'Y B	]		
	1004F-2053	SENSOR LEAD ASS'Y	1		
	1004F-2059	FR LEAD ASS'Y	Ī		
	1001F-1667-3	HIGHTENSION CORD ASS'Y	1		
	1004F-2057	THERMISTOR LEAD ASS'Y	1		
	1004F-2058	SV.IG LEAD ASS'Y	1		
	1004F-2061	TF LEAD ASS'Y	1		
	CP-72135-19	RATING PLATE	1	$t25\mu + t25\mu$	LPG
	CP-72135-20	RATING PLATE	1	$t25\mu + t25\mu$	

No.	DRAWING No.	PART NAME	QTY'	SIZE	REMARKS
801	CP-72151-19	RATING PLATE	1	$t25\mu + t25\mu$	LPG
801	CP-72151-20	RATING PLATE	1	$t25\mu+t25\mu$	
802	1004F-2093	OPERATION LABEL	1	t80μ	·
803	1001F-1651	FILTER LABEL	1	$t25\mu + t25\mu$	
804	556F-2065	CAUTION LABEL	1	$t25\mu + t25\mu$	
	1001F-1656	CAUTION MARK	1	$t25\mu + t25\mu$	
	431F-1840	PROPANE STICKER	1	t80μ	
806	431F-1841	NG STICKER	1	t80μ	
807	1001F-1654X01	EXHAUST CAUTION LABEL	1	t80μ	
	CP-72062-2	SPEC MARK	1	,-	
	431F-1860	POWER SUPPLY CABLE LABEL	1	t50μ	
	431F-1862X01	GAS CHECK LABEL	1	t140μ	
	431F-1863X01	GAS CHECK LABEL	i	t140μ	
	431F-1830	EXHAUST CAUTION LABEL		t25μ+t25μ	
	CP-71747-2	PULL LABEL	ì	teop riced	
	1004F-2090	OWNER'S MANUAL	1		
	1004F-2092	CONVERTION MANUAL	<u> </u>		
	1004F-2091	TEMPLATE	1		•
	1004F-2095-1	CONVERSION SET(TO NG)	1	-	
	1004F-2095-2	CONVERSION SET(TO LPG)	i		
	FOT-106-6	KEY	<del></del>		
	FOT-187	OPERATION LID SET	ו		
	ZBA0408SB	SCREW		M4X0.7X8	
	ZBA0408SC	SCREW		M4X0.7X8	
	ZBA0408SZ	SCREW		M4X0.7X8	
	CP-30421-1	SCREW		M4X0.7X8	
	ZBA0412SZ	SCREW			
	ZBB0410SC	SCREW		M4X0.7X12 M4X0.7X10	
	ZBD04103C	SCREW			
	ZBD0408SZ	SCREW		M4X0.7X8	
	ZEAB0408SZ			M4X0.7X8	
	ZEAB0408SB	SCREW		4X8	
	ZEAB0408SC	SCREW		4X8	
		SCREW		4X8	
010	ZGAA0308SZ ZAA0506SZ	SCREW		3X8	
		SCREW		M5X0.8X6	
$\overline{}$	ZAA0420SZ	SCREW	-	M4X20	
	ZEDB0408SZ	SCREW		4X8	
_	ZHADOF LOSC	SCREW		M4X8	
	ZHAD0510SC	SCREW		M5X10	
	ZDAA0410SZ	SCREW		4X10	
$\vdash$	ZIADO408SZ	SCREW		M4X0.7X8	
	ZIADO410SC	SCREW	ļļ	M4X0.7X10	
	ZRABO4SZ	NUT		M4	
	ZSCA04SZ	WASHER		M4	
	CP-30408X01	SCREW	ļ <u>.</u>	4.8XL32	
	ZAA0306SZ	SCREW		M3X0.5X6	
	CP-30486-2	SCREW			
	ZSCA04SC	WASHER		M4	
	ZRAAO4SC	NUT		M4	
926	ZAA0440UK	SCREW		M4X0.7X40	

### Vent sizes:

5 Vent lengths are available. inch (mm)

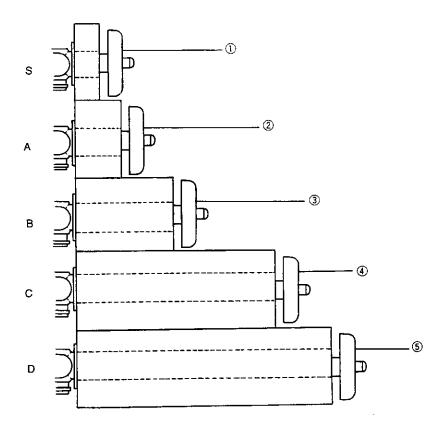
S Vent suits walls 3"~4 1/2" (75~115)

A Vent suits walls 4 1/2"~9 1/2" (115~240)

B Vent suits walls 9 1/2"~15 3/4" (240~400)

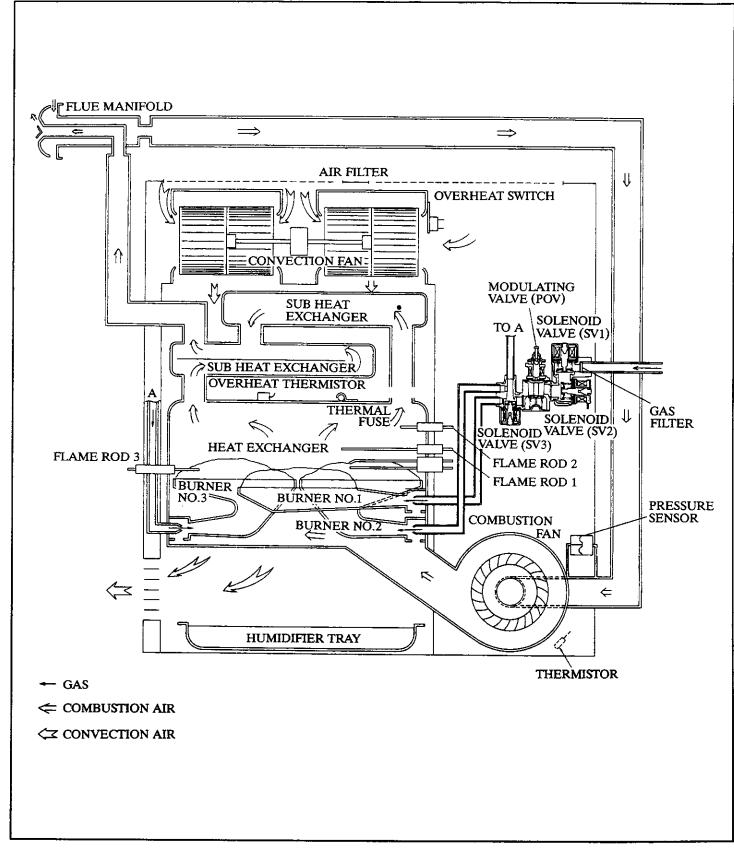
C Vent suits walls 15 3/4"~23 5/8" (400~600)

D Vent suits walls 23 5/8 "~31 1/2" (600~800)



NO.	RANK	PARTS NAME	PARTS NO.	QTY	REMARKS
1	М	VENT KIT - S	FOT-150	1	
2	М	VENT KIT - A	FOT-151	1	
3	М	VENT KIT - B	FOT-152	1	
4	М	VENT KIT - C	FOT-153	1	
5	М	VENT KIT - D	FOT-154	1	
6		RUBBER SEAL		1	SEE PAGE 14.
		·			

# RHFE-1004FA FLOW DIAGRAM



### EXTENSION SET PARTS AND INSTALLATION GUIDE

FOT-102

FOT-103

FOT-114

FOT-115

### Rinnai

• This extension set is to be used for installations requiring extra distance. MAXIMUM VENT LENGTH 13'WITH 2 ELBOWS

### ■ NAMES AND NUMBERS OF PARTS

A FOT-102(11.4-20.3 inch)
B FOT-103(21.0-39.6 inch)

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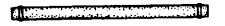
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**1) EXHAUST PIPE** 

**©PIPE STOPPER A** 

**9PIPE CLAMP** 

12SCREW A



②EXHAUST PIPE(STRAIGHT) 40 inch

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 $\prod$ 

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A FOT-102(29.5 inch)

B FOT-103(49.2 inch)

C FOT-114(90.6 inch)

**PIPE STOPPER B** 

**®WALL-FIXTURE** 

**3SCREW B** 

•

3AIR INTAKE HOSE

**®TOP STOPPER** 

①NUT

**4**O RING



**4**BENT ELBOW

**5HOSE JOINT** 

			PARTS No.	FOT-102	FOT-103	FOT-114	FOT-115
<u>(1)</u>	Α	EXHAUST PIPE	FOT 111-1	1			
W	В	EXHAUST PIPE	FOT 112-1		1	1	
(	2	EXHAUST PIPE(STRAIGHT)	FOT 114-3			1	
	Α	AIR INTAKE HOSE	RHF 1000-130-e	1			
3	В	AIR INTAKE HOSE	RHF 1000-130-b		1		
	С	AIR INTAKE HOSE	RHF 1000-130-f			1	
(	<b>4</b>	BENT ELBOW	FOT 025-4				1
(	<u>s</u>	HOSE JOINT	FOT 064-8	1	1	1	
(	6	PIPE STOPPER A	1001F-250	1	1	2	2
(	Ī	PIPE STOPPER B	FOT 111-6	1	1	1	
(	<u>B</u>	TOP STOPPER	FOT 062-7	1	1	1	
(	9	PIPE CLAMP	FOT 064-11	2 SET	3 SET	4 SET	
(	10	WALL FIXTURE	FOT 064-12	2	3	4	
(	Ū	NUT	FOT 062-10	2	3	4	
(	12	SCREW A	ZAA0420SC	2	3	4	
(	13	SCREW B	CP-30408	4	6	8	
	<b>(4)</b>	O RING	M10B-4-49				1

### **■ TYPES COMPATIBLE WITH EXTENSION SET**

### RHFE-1004FA

### INSTALLING AN EXTENSION KIT

Installing an extension kit requires construction of an air line and the exhaust line. The air line is connected between the Air Supply Elbow at the rear of the heater and the air inlet port on the Flue pipe. Similarly, the exhaust line is connected between the joint pipe at the rear of the heater, and the exhaust port on the Flue pipe.

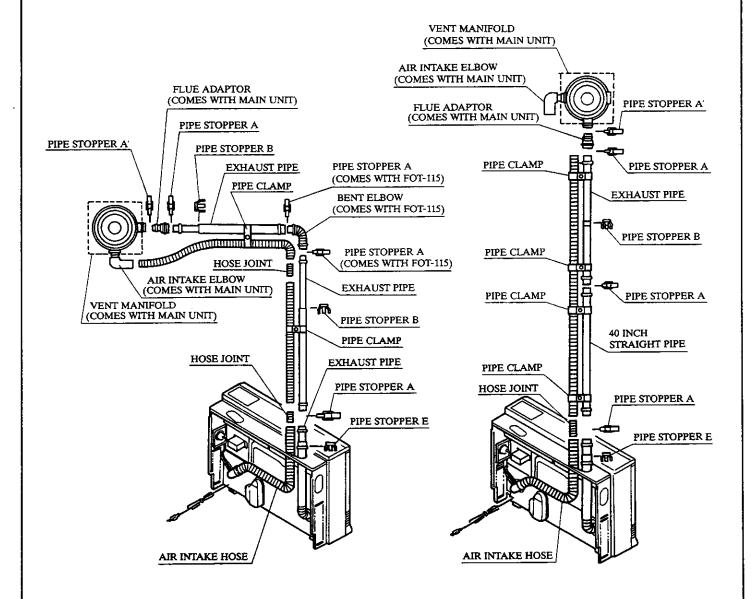
Caution: Check to see there is no debris in pipe or hose.

### HOW TO INSTALL

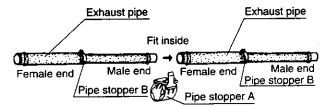
MODEL:RHFE-1004FA

Example: Using 2 sets of extension set and 1 bent set.

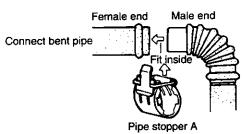
Example:Using 80 inches slide pipe set.



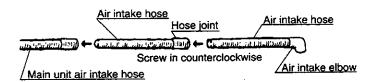
### 1. How to connect exhaust pipes



To connect the exhaust pipes, fit the male end into the female end and clamp with pipe stopper A to prevent slipping. The exhaust pipe can be telescoped to the required length; do not cut it.



### 2. How to connect air intake hose

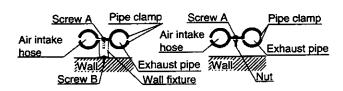


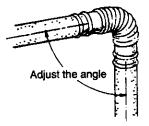
Screw hose joint half of its length onto the air intake hose, then screw another air intake hose into the joint. The hose can be cut to the required length.

IMPORTANT: The PVC air line is longer than the exhaust line and may need to be cut to size. Be sure, however, to thoroughly deburr all rough edges.

### 3. Affixing the air intake hose and exhaust pipe

### 4. How to use the bent pipe



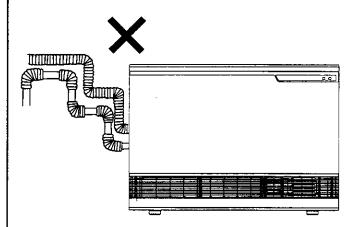


- Set the air intake hose and exhaust pipe into the pipe clamps, screw the clamp onto the wall fixture, and affix to the wall with screw B.
- The air intake hose and exhaust pipe can also be screwed onto the wall using the pipe clamp and the nut.

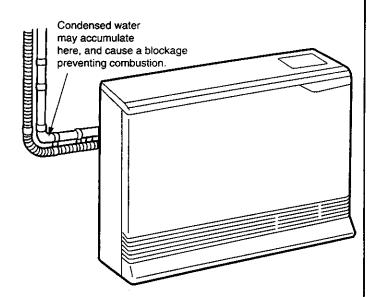
With the exhaust pipes inserted into the ends, bend the bent pipe to the angle reguired for installation. This part is mainly used for curves and for connection to vent terminal.

### **■ CAUTIONS**

1. Maximum extendable length
FOR BEST ROOM AIR HUMIDITY, KEEP WATER
IN THE HUMIDIFIER TRAY.



### 2. To prevent water condensation

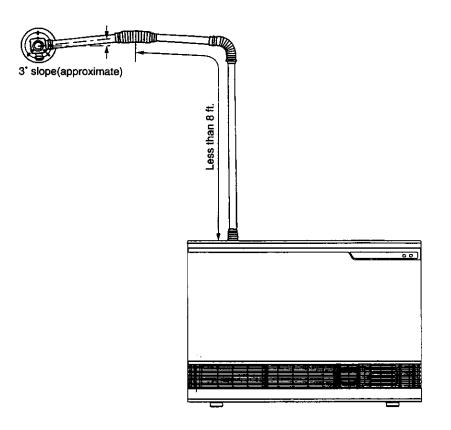


- · 13 feet, 2 bends
- The bend where the hose and pipes leave the body is not counted.
- · The air intake hose should run along the exhaust pipe.
- Condensed water formed by combustion, will run back to the unit, and may overflow from the condensation pan if pipes are longer then 8 feet. Therefore, pipes exceeding these lengths should be made to drain to the outside by

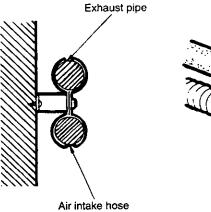
giving their horizontal portions 3° or more downward and outward slope.

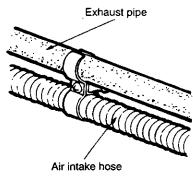
### CAUTION

Never allow the exhaust pipe to sag, as condensed water may accumulate and cause incomplete combustion.



4. Wherever the air intake hose and exhaust pipe run sideways, try to have the exhaust pipe on top (to prevent the air intake hose from sagging onto the exhaust pipe).





### **QUALIFIED INSTALLING AGENCY**

The installation must conform to local codes, in the absence of local codes, the installation must conform with American National Standard (National Fuel Gas Code) known as NFPA 54 and ANSI Z223.1.1996.

Available from the American National Standards Institute, Inc., 1430 Broadway, New York, N.Y. 10018 or from the National Fire Protection Association, 470 Atlantic Avenue, Boston, Mass. 02210.

# **TECHNICAL DATA**

WEIGHT	DIMENSIONS	GAS RATE (BTU/h)			
90 Lbs.	Width: 36 5/8" Height: 26 3/8" Depth: 12 3/8"	INPUT NG LP LOW 10,500 10,500 HIGH 38,400 36,500	OUTPUT  NG LP LOW 8,400 8,400 HIGH 30,720 29,200		

### **Burner Orifices:**

	NG		LPG		
	PARTS No.	QTY'	PARTS No.	QTY	
HI	1004F-2031-2-1.80	2	1004F-2031-1-0.95	2	
LOW	1004F-2036-2-1.95	1	1004F-2036-1-1.20	1	

### **GAS CONVERSION SPECIFICATIONS**

MODEL	GAS TYPE DIAMETER OF ORIFICE(mm)			DAMPER A-DJUSTMENT		MANIFOLD DIFFERENTAL PRESSURE (W.C.)		
		H!	LOW	FRONT	RIGHT	LEFT	HI	LO
RHFE-1004FA-N	NG	1.80	1.95	7/10	10/10	10/10	3.7 <b>"</b> W.C.	2.0"W.C.
RHFE-1004FA-P	LPG	0.95	1.20	10/10	10/10	10/10	10.1"W.C.	4.3"W.C.

### **GAS SUPPLY PRESSURE**

	NATURAL	PROPANE
MINIMUM	5.0"W.C.	11.0"W.C.
MAXIMUM	10.5"W.C.	13.0"W.C.

- The minimum inlet gas supply pressures is for the purpose of input adjustment.
- · Heaters may be converted from one gas to another using Rinnai conversion kits.

NAME TITLE	
COMPANY	
ADDRESS	
CITY STATE ZIP	
PHONE NUMBER	



NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

### **BUSINESS REPLY MAIL**

FIRST CLASS PERMIT NO.271 LAGRANGE, GA

POSTAGE WILL BE PAID BY ADDRESSEE

Rinnai America Corp. 1662 Lukken Industrial Drive West LaGrange GA 30240-9867

### EXTENDED WARRANTIES AVAILABLE SEE WARRANTY

# **Rinnai** FURNACE WARRANTY REGISTRATION CARD

Owner's Name	
Installation Address	
City, State, Zip	
Dealer's NameAddress	** ** ***
City, State, Zip	
Type of Dealer	
Model	Type of Gas
Serial No.	_
Date Purchased	
Comments:	

### Rinnai

AMERICA CORPORATION 1662 Lukken Industrial Drive West. La Grange, Georgia 30240 Phone:1-800-621-9419

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