

Care and Maintenance

Maintenance

All maintenance and service are to be performed by a qualified service technician, preferably one who has attended Rinnai service training classes on the Direct Vent products.

The appliance should be inspected annually by a qualified service technician. 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 passage ways of the appliance be kept clean.

CAUTION Prevent dust from accumulating on the power cord, side covers, and parts behind the appliance.

Any screen or guard removed for servicing the appliance must be replaced prior to operating the appliance. Clean as follows:

1. Turn heat off. Allow to cool for one hour.
2. Remove the front panel by removing five screws.
3. Use pressurized air to remove dust from the main burner, heat exchanger, and fan blades.
4. Use soft dry cloth to wipe cabinet.

Do not use wet cloth or spray cleaners on the burner.

The flue should be inspected annually for blockages or damage.

Motors are permanently lubricated and do not need periodic lubrication. Keep fan and motor free of dust and dirt by cleaning annually.

Verify proper operation after servicing.

When attaching the front panel, take care not to clip or pinch any electric cords to prevent electric shock.

Care of Exterior

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

Do not use volatile substances such as benzene or thinners. They cause fading of the paint and deformation of the resin.

Snow Accumulation

Keep the area around flue terminal free of snow and ice. The appliance will not function properly if the intake air or exhaust is impeded by obstructions.

Refer to the Flue Terminal Clearances (page 18). The clearance in Ref. A should be maintained from any snow accumulation.

Filters

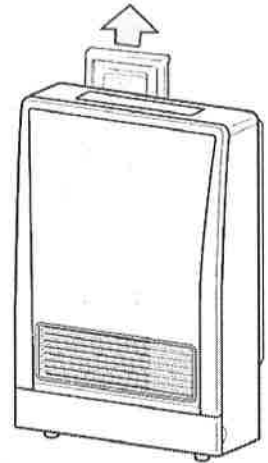
Dirty filters reduce the air flow and the appliance's ability to produce heat. The filters should be cleaned frequently during the heating season.

If the filters become blocked the filter indicator lamp will flash red and a beep will sound five times. This beeping will repeat every 5 minutes. Eventually the appliance will turn off and display fault code 14 on the control panel display.

To clean the filters, the appliance should be OFF and cool.

Remove the filter and clean it using a soft dry cloth or vacuum. If the filter is greasy wash with warm soapy water, rinse, and dry completely.

Do not use the appliance without the filter installed.



Visual Inspection of Flame

Check that the burner flames are operating normally. The flame can be seen through the circular window through the louvers.

When operating normally the burner flame should appear as long, clear, blue, stable, streaks. Yellow flames or an orange color is abnormal and maintenance is required.

NORMAL

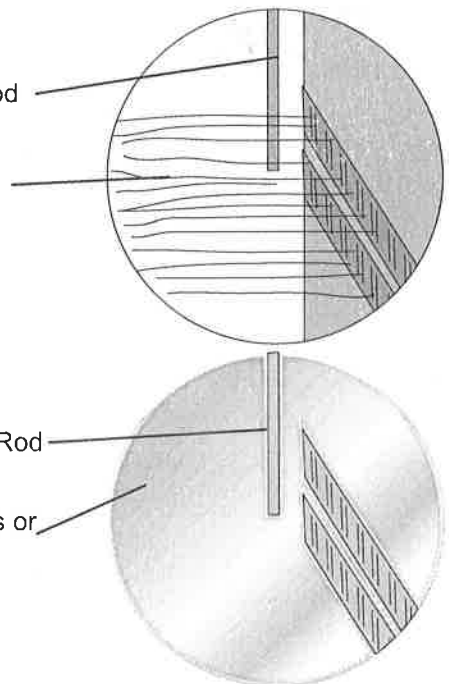
Flame Rod

Long, clear, blue, stable flames

ABNORMAL

Flame Rod

Yellow flames or orange color



Before Making a Service Call

Before making a service call please check the following:

■ At Ignition:

Heater does not operate.	→	Is the heater plugged in? Have the fuses or breaker blown at the fuse box / breaker panel? 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 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 and dust on the heat exchanger and will stop after a short time.
Sharp clicking noises at ignition	→	This is simply expansion noise from the heat exchanger.

■ During Combustion:

Clicking 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? Was the appliance correctly sized for the space?
Air filter is blocked or the louvers 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 a qualified / authorized service provider.

■ 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 heater cools down.
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■ Other Points:

Steam is discharged from the flue terminal.	→	High efficiency appliances tend to discharge water vapor on cold days. This is normal.
Unit shuts off without apparent reason.	→	Check whether filters are blocked. Dirty filters will cause the heater to overheat.

Fault Codes

If there is a malfunction the appliance may shut down as a safety precaution and display a fault code to assist in diagnosing the problem. The fault code will flash in the display on the control panel. When making a service call, this code will assist with diagnosing the fault.

You may be able to clear the fault code by turning the heater off and then on again. If the fault code remains or returns on the next operation, contact Rinnai or your nearest service agent and arrange for a service call.

CODE DISPLAYED	FAULT	REMEDY
11 [1]	Ignition Failure	Check that gas is turned ON. Check that the vent termination is not blocked. Refer to the Restart Function explanation. Service call if repeated.
14	Overheat	Clean filter. Service call if repeated. [2]
16	Room Overheat	Ensure that room temperature is less than 104°F (40°C).
31	Room Temperature Sensor Faulty	Service call.
32		
33	Overheat Temperature Sensor Faulty	Service call.
34		
49	Sensor Breakdown	Service call.
53	Sparker Failure	Service call.
61	Combustion Fan Failure	Service call.
62	Convection Fan Failure	Service call.
70	Faulty ON/OFF Switch or Faulty "Set back" Switch	Service call.
71	Faulty Solenoids	Service call.
72	Faulty Flame Rod	Service call.
73	Communication Error	Service call.
99	Flue Block	Check around the flue terminal for blockage. [3]

[1] Only this code is dim.

[2] If the fusible link needs replacement, it must be done by a qualified service agency. In addition, the cause of the overheat needs to be determined. The fusible link is a one use safety device that breaks to shut off the appliance.

[3] Remove any obstructions. The flue needs to be kept clear to expel exhaust gases. If the appliance fails to operate contact a qualified service agency.