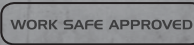
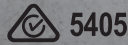




# INFRA-RED HEATER

## IRH22

### USER'S MANUAL & OPERATING INSTRUCTIONS



### DANGER

**READ AND UNDERSTAND ALL OF THE INSTRUCTIONS IN THIS MANUAL BEFORE ASSEMBLING, STARTING, OR SERVICING THE HEATER.** Be sure to comply with the instructions and warnings provided with this heater. Failure to comply can result in fire or explosion that can cause property loss, bodily injury, or loss of life. Only persons who can follow and understand these instructions should operate or service this heater. If you need heater info; such as an operating manual, labels, etc. Please visit our website [www.remingtonpower.co.nz](http://www.remingtonpower.co.nz)

**NOT FOR USE IN RESIDENTIAL LIVING AREAS OR IN ENCLOSED SPACES WITHOUT ADEQUATE VENTILATION. FOR OUTDOOR USE.** INDOOR USE PERMITTED ONLY FOR: The temporary heating of adequately ventilated buildings or structures under construction, alteration or repair. This is an unvented portable heater that uses air (Oxygen) from within the area in which it is used. Failure to provide adequate combustion and ventilation air will result in asphyxiation, carbon monoxide poisoning, bodily injury or death. Refer to "Ventilation" on Page 9.

[www.remingtonpower.co.nz](http://www.remingtonpower.co.nz)

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### INTRODUCTION

Your new Remington Heater will more than satisfy your expectations. It has been manufactured under stringent quality standards to meet superior performance criteria. You will find your new tool easy and safe to operate, and, with proper care, it will give you many years of dependable service.



**CAUTION:** Carefully read through this entire Instruction Manual before operating your new Remington Heater. Take special care to heed the Cautions and Warnings.

### ENVIRONMENTAL PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, hoses and packaging should be sorted, taken to the local recycling centre and disposed of in an environmentally safe way.



### SAFETY INFORMATION



**WARNING:** Fire, burn, inhalation and explosion hazard.

Keep combustibles such as building materials, paper or cardboard a safe distance away from the heater as recommended by these instructions. Never use the heater in spaces which contain products such as; gasoline, solvents, paint thinners, dust particles, volatile or airborne combustibles or any unknown chemicals. This is an unvented portable heater. It uses air (Oxygen) from the area in which it is used. Adequate combustion and ventilation

air must be provided. Refer to "Ventilation" on page 9. Bulk fuel storage should be a minimum of 8 metres from heater.



**WARNING:** Do not operate this heater until you have read and thoroughly understand these safety and operating instructions.

Failure to comply with the precautions and instructions provided with this heater can result in death, serious bodily injury, property loss or damage from the hazards of fire, soot production, explosions, burns, asphyxiation or carbon monoxide poisoning. Only persons who can read and understand these instructions should use or service this heater.



**WARNING:** Do not start the heater when excess fuel has accumulated.



**WARNING:** Do not start the heater when the chamber is hot.



**WARNING:** Risk of indoor air pollution!



**WARNING:** Carbon monoxide poisoning may lead to death!

Carbon monoxide is toxic. Humans can tolerate only small amounts of carbon monoxide and so precautions should be taken to provide proper ventilation. Failure to provide proper ventilation in accordance with the instructions in this manual can result in death.

People with breathing problems should consult a physician before using this heater.

Early signs of carbon monoxide poisoning resemble the flu. Symptoms of improper ventilation / carbon monoxide poisoning are: Headache • Dizziness • Nausea • Dry Mouth Sore Throat • Burning of Nose and Eyes

If you experience any of these symptoms: **GET FRESH AIR AT ONCE!** Have your heater serviced and check for proper ventilation. Some people are more affected by carbon monoxide than others. These include: pregnant women, those with heart or lung problems, anemia or those under the influence of alcohol or at high altitudes.

**FOR OUTDOOR USE. INDOOR USE PERMITTED ONLY FOR:** The temporary heating of adequately ventilated buildings or structures under construction, alteration or repair! Provide at least a three square foot (2,800 sq cm) opening of outside air for every 100,000 Btu / Hr heater rating. Refer to "Ventilation" on page 7 for further instructions.



**WARNING:** *Risk of electric shock!*

**ALWAYS** use only the electrical power (voltage and frequency) specified on the model plate of the heater.

**ALWAYS** use only three-prong, grounded outlet and extension cord.

**ALWAYS** unplug the heater when not in use.

**ALWAYS** install the heater so that it is not directly exposed to water spray, rain, dripping water, or wind.



**WARNING:** *Risk of burns, fire and explosion!*

**NEVER** use fuels such as gasoline, benzene, paint thinners or other oil compounds in this heater.

**NEVER** refill the heater's fuel tank while the heater is operating or still hot. This heater is **EXTREMELY HOT** while in operation.

**NEVER** block air outlet (front).

**NEVER** use duct work in front of heater.

**NEVER** move or handle heater while still hot.

**NEVER** transport heater with fuel in tank.

**NEVER** use with an external fuel tank.



**CAUTION:** *Hot while in operation. Do not touch. Keep children, animals, clothing and combustibles away from heater.*

**ALWAYS** locate heater on a stable and level surface.

If your heater is equipped with a thermostat, once it is plugged in, it can start at anytime in accordance with the thermostat setting.

**DO NOT** let any child to get close to the heater and touch or hang on the heater.

**DO NOT** put this heater on uneven surfaces or on an incline. If used on unstable surfaces the heater may experience issues or become a fire risk.

**DO NOT** put the heater somewhere it may be at risk of falling. It may cause a fire or machine failure if it falls.

**DO NOT** operate heater in a place with high humidity, or likelihood of getting wet. If wet the machine may short circuit or cause an electric shock. This may cause a fire or risk machine failure.

**DO NOT** install heater in a place with wind, or near entrances. It may cause machine failure or a fire if it falls.

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## INFRA-RED HEATER

ONLY STORE the heater in a dry environment out of the elements, to remove risk of rusting or damage to machine. Avoid hot and humid environments. If damage occurs, there is a risk of fire and failure of machine.

When the heater is used inside a building, please connect flue to the outside of building, and install air ventilation opening before usage. The flue should be stainless steel, with a maximum of two bends, and a total of 4m.

DO NOT touch the heater during use or immediately after it turned off. It may cause burns.

DO NOT let children near the heater - Install a separate child safety barrier when a child is present. The heater presents a danger to children and may cause burns.

NEVER MOVE heater when in use, or immediately after switching off. Only move when completely cool as it could be a fire or burning risk.

DO NOT cover heater with flammable items, such as clothes and if heater makes unusual sounds, or it begins to smoke, immediately turn off the power and unplug from mains power. Contact service agent as soon as possible. DO NOT USE UNTIL HEATER HAS BEEN CONFIRMED SAFE TO USE. There could be a high risk of electric shock and/or fire.

DO NOT place items such as kettles on the heater. There is a fire or machine failure risk.

Ensure the heater is in a well ventilated area. Do not run in an enclosed area with little, or no, ventilation to avoid carbon monoxide poisoning.

DO NOT REPAIR, disassemble or remodel the heater. Only use approved service agents for repairing the machine. Contact Remington Power for more information.

TO REDUCE THE RISK OF EXPLOSION AND FIRE, do not place other inflammables such as chemicals and combustible materials nearby the heater. DO NOT use hairspray, benzene and propane gas or operate heater near combustibles such as furniture and curtains.

If heater is being used outdoors protect the heater from the elements. Use the brake so it remains stationary.

Please maintain the safety distance. Install the heater 2.5m from materials that can be burnt easily such as curtains, wood or plywood.



DO NOT use in a position where heater is exposed to rain, strong winds or drizzle as it may cause abnormal combustion or affect insulation of electrical parts, leading to electric shock or fire.

DO NOT install duct at the heater air outlet. There are risks of abnormal combustion, fire and explosion due to overheating.

Do not store heater with fuel for long periods of time. Remove fuel from heater completely if storing for long periods. There is a risk of explosion or machine damage.

If used inside, apply connecting duct to allow exhaust gas to be channelled outside as it may cause oxygen deficiency and carbon monoxide poisoning.

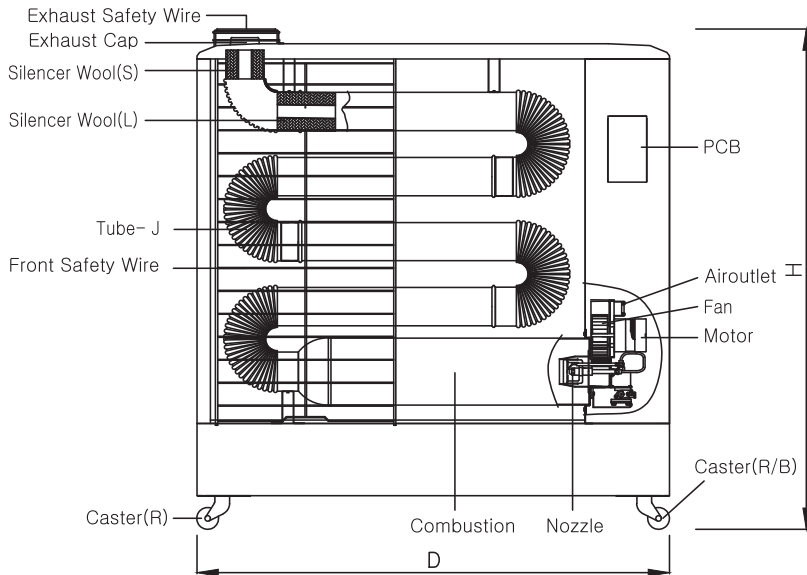
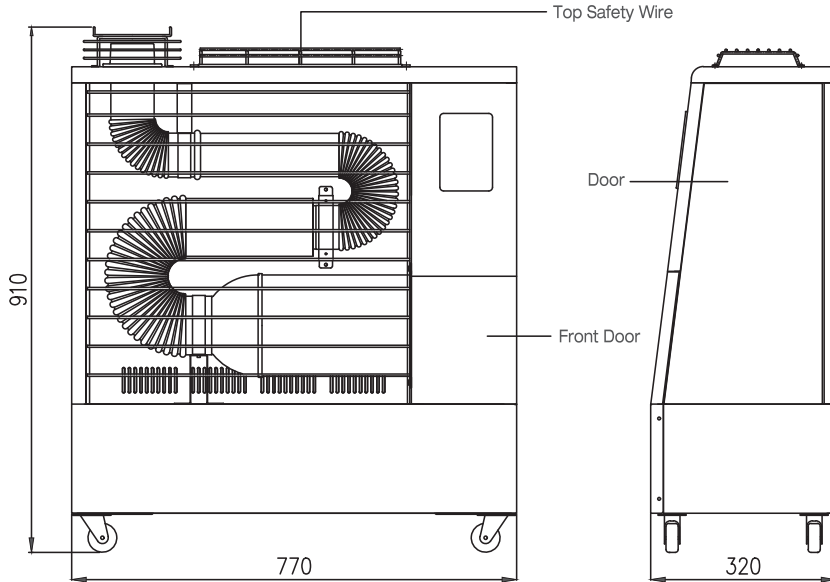
## SPECIFICATIONS

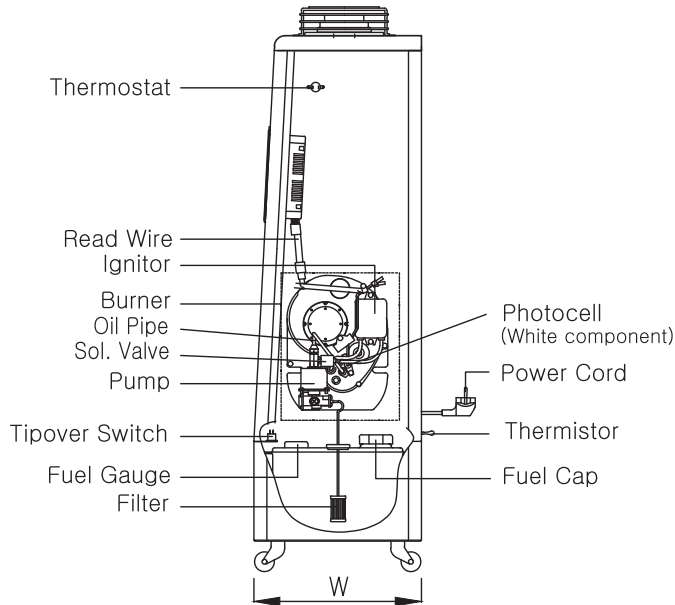
Model No:		#IRH22
Fuel:		Kerosene/Diesel
Fuel Consumption:		1.9 L/Hr
Caloric Value:		22000 (Kcal/Hr)
Heating Area:		130 - 200m <sup>3</sup>
Usage:		Heating
Power:		AC 230V ~ 50Hz
Power Consumption	During Ignition:	80W
	During Combustion:	65W
Size: (W x D x H)		1235 x 320 x 1290mm
Fuel Tank Size:		45L
Flue Diameter: (When connected)		75mm
Fuel Duration Hours:		22 - 24 Hours
Weight: (Net)		70kg
Serial #:		
		 5405 <span style="border: 1px solid black; border-radius: 10px; padding: 2px 5px; margin-left: 20px;">WORK SAFE APPROVED</span> 

# IRH22

## INFRA-RED HEATER

### FEATURES



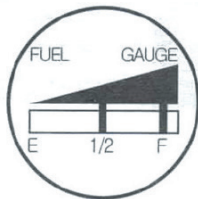


## ADDING FUEL

1. Open fuel cap located on the fuel tank.
2. Fill carefully with fuel until the flow meter reaches "F".
3. Check for any fuel spillage and clean up any spilled fuel thoroughly.



**WARNING! AVOID SPILLING FUEL WHEN REFUELING.** If fuel leaks around the heater, close the fuel filler cap and thoroughly clean any spilt fuel before operating heater.



**WARNING! NEVER REFUEL THE HEATER WHEN IT IS IN USE.** Only put in the fuel when the heater is turned off and has cooled down.



**WARNING! ONLY USE recommended high quality kerosene or diesel fuel for this heater. DO NOT use fuels with high volatility such as gasoline, benzene and thinner.**

When the heater is used for the first time, fuel that is used during the manufacturing process and other substances can combust. Ignite in a well ventilated area so any fumes can be removed easily.

When the heater is used for the first time, it might have some smell due to above



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## INFRA-RED HEATER

reasons. As you use it for a while, the smell will no longer be present. This can take approximately 1-2 hours.



**DANGER:** *Never refuel this heater while it is hot or operating. Fire or explosion could result. Never fill the fuel tank indoors. Always fill the tank outdoors.*

*Be sure that the heater is on level ground when fueling, and never overfill the tank. Do not use gasoline or crankcase drainings.*

NEVER use fuel such as, benzene, alcohol, white gas, camp stove fuel, paint thinners, or other oil compounds in this heater.

THESE ARE VOLATILE FUELS THAT CAN CAUSE A FIRE OR EXPLOSION.

NEVER store Kerosene in the living space. Kerosene should be stored in a well ventilated area outside the living area.

NEVER store Kerosene in direct sunlight or near a source of heat.

NEVER use Kerosene that has been stored from one season to the next. Kerosene deteriorates over time. OLD Kerosene WILL BURN PROPERLY IN THIS HEATER.

### Fuel Set - Fuel Conditioner

For optimal performance, it is strongly suggested that Fuel Set fuel conditioner be used in addition to fuel. Diesel contaminants such as diesel bug and water in the fuel may make the heater perform poorly. Add the recommended dose of Fuel Set to every tank of fuel when filling to ensure the heater performs at its peak.

## VENTILATION

There is a risk of indoor air pollution and Carbon monoxide poisoning. Use heater only in well ventilated areas or duct outside. See page...for more info

Refer to Safety Information on pages 3 - 4 for information about Carbon Monoxide Poisoning.

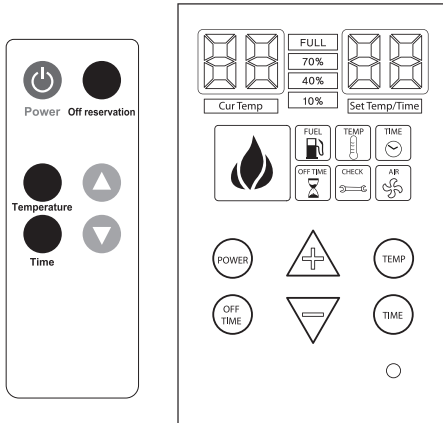
Always provide a fresh air opening in the heated space of at least 2.8m<sup>2</sup> each 100,00 Btu / Hr. of heater output. Provide a larger opening if more heaters are being used.



## OPERATION

1. Plug heater into 230V power outlet. Set temperature to higher than current temperature.
2. Power On - Before using ensure heater has adequate ventilation - see Ventilation section above.
3. Select temperature or timer control mode. See info as follows for temperature controls.

## CONTROLS



### Set Time/Temp Control:

Set Temp/Time

Set Temp. / Time indicates the reserved time. By pushing '+/\_ ' button, time is changed by an hour. It can be set in 24 hours in total. Set Temp. or Set Time is indicated again after 2 seconds. Remaining time is indicated by flickering 10 times every 5 min. eg. Off Timer is indicated when off timer is set for 5 hours. (5 - 4 - 3hr ... 55 - 50...5min).



**Off Time Control:** During the operation if you push Off Timer button, Off timer function is cancelled. Select Off timer to see whether off timer mode is operating or not. Off timer will be lit if operating.



### Time Control Light:

The timer control light is lit when selected. Machine will work for 30 mins and then pause in timer mode. Repetition time can be set in from

5-25 mins. (e.g. Repetition time set to 15 mins. Runs for 15 mins then 15 mins pause.) Time will be reduced by 1 min every time.



**Temp Control Light:** The temperature control light is lit when selected. You can set the desired temperature between "0~40°C" by pressing "+/-" button. When setting temperature ensure selected temperature is higher than current temperature (e.g. set temp at 20°C if current temperature is 15°C). When the room reaches the set temperature the heater will stop until temperature drops again.

Cur Temp

### Current Temperature Control:

Shows current temperature



### Fuel Light:

If fuel light turns on, heater may stop as it has run out of fuel. Turn off heater and refuel once cool. See fuel section in this booklet for more info on refueling. In the case of fuel leakage, heater will require servicing. Clean fuel spillage and contact a service agent.



### Check Light:

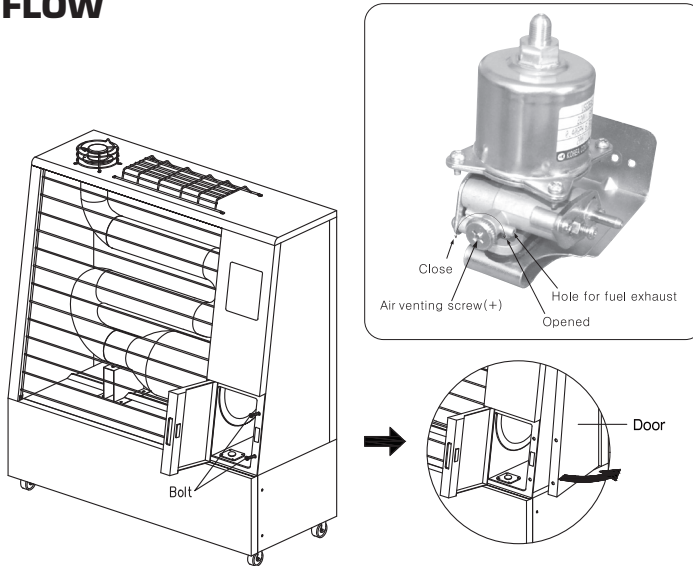
If check light comes on see page 15 for more info



### Air Flow Function Light:

(Applies to models with Air Flow function)  
Fan operates after power has been on for 1 minute, it cannot be stopped randomly.

## AIR FLOW



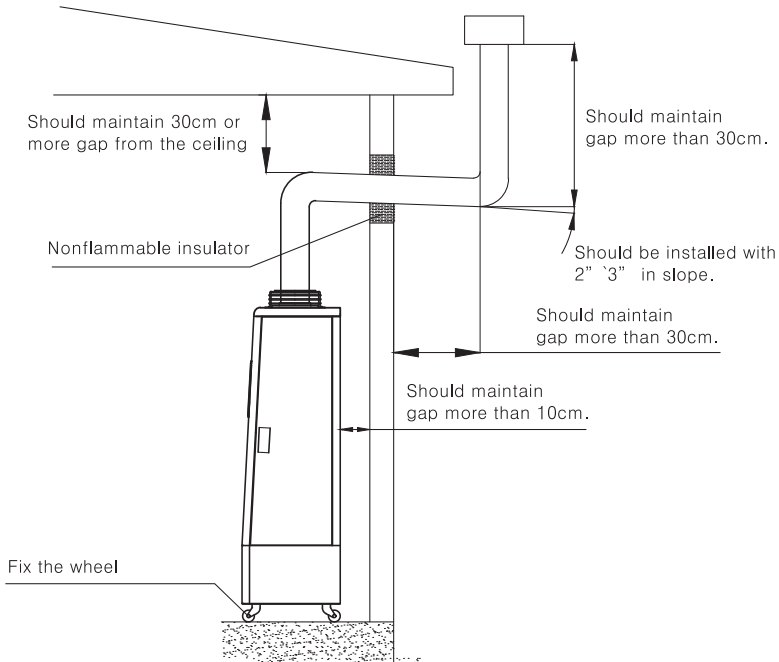
If the electric pump is noisy, and there is no ignition of the burner, the likely cause is no fuel or no air flow. If it is neither of these contact your service agent.

### Air Flow Method

1. Turn the air vent screw (+) anti-clockwise 2- 3 times.
2. Press Power button once.
3. After approx.10 seconds an air bubble (fuel) will come from the air hole.
4. When the ignition is on, turn the screw(+) in clockwise. If this fails, try again. If it fails after 4 attempts contact service agent.

## DUCTING

### Example of Flue Ducting Installment



#### The Heater

Ensure the ground surface is flat and solid and surrounding area has no flammable risks. Heater may not work if installed on an inclined place due to imperfect combustion.

Sufficient space surrounding the heater is required - Allow at least 1.5m distance from the wall, the ceiling and all sides. Remove any obstacles within the 1.5m range.

Once installed, lock the casters (brakes) on each wheel of the heater to avoid movement.

#### The Ducting (Flue)

When using heater for indoor use it is essential to install exhaust duct to vent the heater for health and safety reasons.

DO NOT use heater inside without first ducting out as follows:

Only use 3cm or over insulating material.

#### Recommended Duct Specification:

*Max. Diameter: 100mm4*

*Max. Length: 4 m*

*Max. Bend: 2 times*

*Material: Stainless Steel*

## MAINTENANCE



**WARNING!** *Do not clean or repair heater when in use, cooling down, or connected to power supply.*

Do not tamper with the unit. Have an experienced serviceman make any necessary adjustment or repairs.

Use only original equipment parts. The use of alternate or third party components can cause unsafe operating conditions and will void your warranty.

We suggest following the maintenance schedule as follows:

### Cleaning

Unplug power source before cleaning and wait until heater has cooled completely. Wipe outer with a clean damp rag, using neutral detergent if necessary.



**DANGER!** *Do not pour water or any liquid or fuel into or over the heater when cleaning, this can cause serious damage to the heater and be very dangerous.*



**WARNING!** *Burner has been adjusted in the factory for proper functioning of the heater. User should not manually adjust the burner. This may cause damage and Warranty may be void if burner has been manually adjusted.*

### Combustion furnace and heating

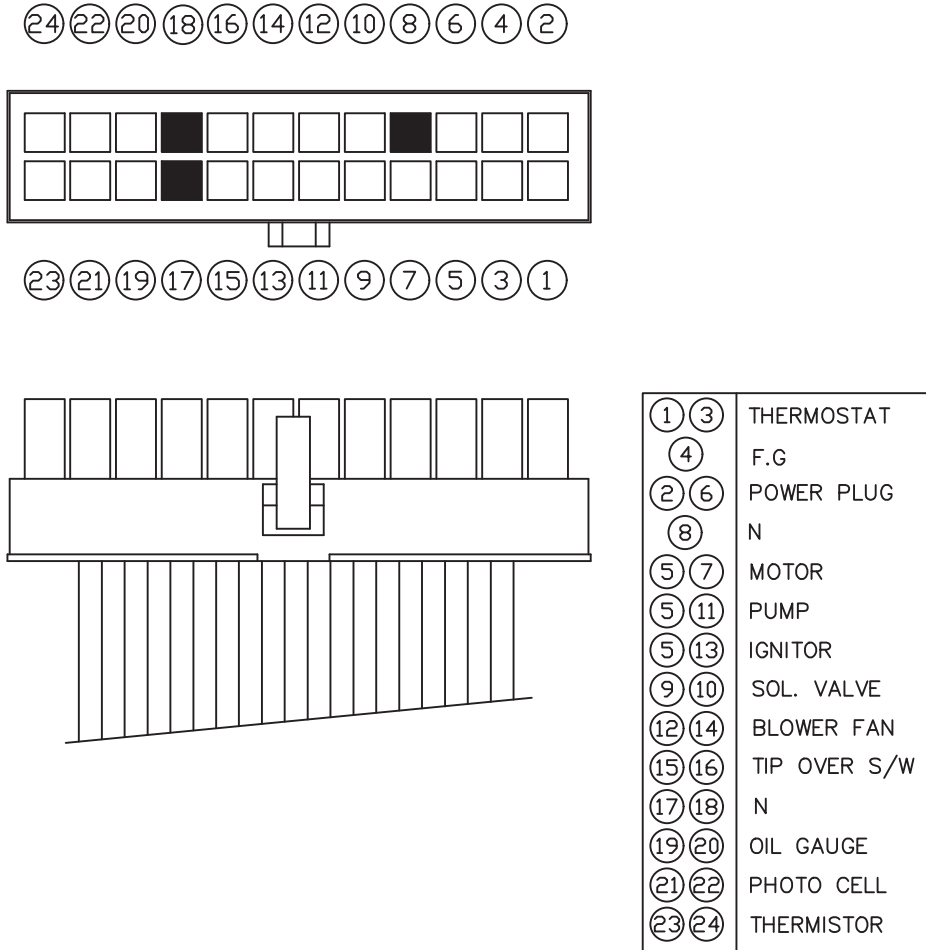
**tube** (Heat exchanger) Check for soot and clean when necessary.

### Combustion furnace and

**reflection board** Check for corrosion and pollution yearly. Clean or change if necessary.

**Fuel / Fuel filter** Check for fuel leaks from any place near the fuel tank. Check fuel filter (Inside tank) once a year, for pollution, clean or change if necessary.

## WIRING DIAGRAM



### TROUBLESHOOTING

When the front control panel displays as follows:

Displayed signals	Reasons of default	Check-ups and actions to take
E1: Ignition Failure	Burner does not ignite.	<ul style="list-style-type: none"> <li>- Out of fuel</li> <li>- Oil pipe is filled with air (→ Ventilate air)</li> <li>- Fuel line is polluted (→ Clean it)</li> </ul>
E3: Temperature Sensor	Temperature sensor is broken down	<ul style="list-style-type: none"> <li>- Temperature sensor connection terminal is disconnected. (→ Connect the terminal)</li> </ul>
E4: Overheat Sensor	Overheat sensor is broken down	<ul style="list-style-type: none"> <li>- Check for traces of combustion due to flame in the burner (contact Remington service agent)</li> <li>- Check if overheat controller wiring is disconnected. (→ Reconnect, then restart)</li> </ul>
E5: Unbalanced	Heater is unbalanced	<ul style="list-style-type: none"> <li>- Check if the heater is moving (It can happen if the heater is shaken →restart)</li> <li>- Conduction switch is disconnected (→ Connect the switch and restart)</li> </ul>
E6: No fuel	No fuel	<ul style="list-style-type: none"> <li>- Refuel (→ Restart)</li> </ul>
Hi	Temperature is more than 50C	<ul style="list-style-type: none"> <li>- Check if temperature sensor detector is placed inside (→ Put the sensor outside)</li> </ul>

☞ When E1 - E5/Fuel happen, reasons of error should be arranged before starting it again.  
 Press "Power" button twice to restart the heater.  
 Air ventilation procedure is clearly explained in page 10. Please refer to it.

If following errors are made and measures are taken but the heater does not work contact a Remington service agent

Errors	Check list	Measures
All the lights in front control panel are turned off	<ul style="list-style-type: none"> <li>- Power failure</li> <li>- Power cable is unplugged</li> <li>- Fuse is disconnected</li> </ul>	<ul style="list-style-type: none"> <li>- Connect to power</li> <li>- Change the fuse</li> </ul>
The heater turns on and off regularly.	<ul style="list-style-type: none"> <li>- Operation setting is selected as "Time"</li> </ul>	<ul style="list-style-type: none"> <li>- Select "Temperature"</li> </ul>
Flow-meter does not work but the heater operates	<ul style="list-style-type: none"> <li>- Flow-meter is disconnected.</li> </ul>	<ul style="list-style-type: none"> <li>- Connect the line.</li> </ul>
Smoky smell is made during initial operation	<ul style="list-style-type: none"> <li>- The smell is made as the foreign substance in inside the gasket burns</li> </ul>	<ul style="list-style-type: none"> <li>- No smell will be made 1-2 hours later</li> </ul>
Fuel smell is too strong	<ul style="list-style-type: none"> <li>- As the heater turns off after the operation, it might have some smell</li> <li>- Fuel is leaked during refuelling</li> </ul>	<ul style="list-style-type: none"> <li>- Operate more than 15 minutes.</li> <li>- Clean out leaked fuel</li> </ul>
Internal temperature displays higher than normal	<ul style="list-style-type: none"> <li>- Check for location of temperature sensor at the back of the heater (If sensor is placed inside the heater).</li> </ul>	<ul style="list-style-type: none"> <li>- Fix the sensor in the right place.</li> </ul>





## WARRANTY

To validate your warranty, register your product online at [www.remingtonpower.co.nz](http://www.remingtonpower.co.nz)

Whilst every effort is made to ensure your complete satisfaction with this tool, occasionally, due to the mass manufacturing techniques, a tool may not live up to our required level of performance and you may need the assistance of our service department.

This product is warranted for a 12 month period from the date of the original purchase. If found to be defective in materials or workmanship, the tool or the offending faulty component will be replaced free of charge with another of the same item. A small freight charge may apply. Proof of purchase is essential.

We reserve the right to reject any claim where the purchase cannot be verified. This warranty does not include damage or defects to the tool caused by or resulting from abuse, accidents or alterations. It also does not cover any bonus items or included accessories. Only the heater is covered under this warranty.

Please ensure that you store your receipt in a safe place. Conditions apply to the above warranty.

1. **DURATION:** The manufacturer warrants that it will repair or replace, at no charge for parts or labour, the Remington Heater, if proven defective in material or workmanship, during the following time period(s) after date of original retail purchase:

For 1 Year:  
This Remington Heater  
Model Number: IRH22

2. **WHO GIVES THIS WARRANTY (Warrantor):**

EUROQUIP NEW ZEALAND  
& EUROQUIP AUSTRALIA  
[www.euroquip.co.nz](http://www.euroquip.co.nz)

3. **WHO RECEIVES THIS WARRANTY (Purchaser):**

The original purchaser of this Remington Heater

4. **WHAT IS COVERED UNDER THIS WARRANTY:**

Defects in material and workmanship which occur within the duration of the warranty period.

5. **WHAT IS NOT COVERED UNDER THIS WARRANTY:**

- A. Implied warranties, including those of merchantability and FITNESS for a particular purpose are limited in duration to this express warranty. After this period, all risks of loss, from

whatever reason, shall be on the purchaser.

- B. ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE OR MALFUNCTION OF THIS PRODUCT.
  - C. This warranty does not apply to any accessory or consumable items included with the product which are subject to wear from usage; the repair or replacement of these items shall be at the expense of the owner. These items include, but are not limited to: sparkplugs, seals, o-rings, nozzles, tuning costs, wheels, tyres, bearings, parts, etc. In addition, this warranty does not extend to any damage caused by the untimely replacement or maintenance of any of the previously listed CONSUMABLE parts.
  - D. Any failure that results from accident, purchaser's abuse, neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) supplied with the product.
  - E. Pre-delivery service, i.e. assembly and adjustment.
6. **RESPONSIBILITIES OF WARRANTOR UNDER THIS WARRANTY:** Repair or replace, at Warrantor's option, products or components which have failed within duration of the warranty period.
  7. **RESPONSIBILITIES OF PURCHASER UNDER THIS WARRANTY:**
    - A. Please call your re-seller or the number listed above for warranty assistance.
    - B. Provide dated proof of purchase and maintenance records.
    - C. All generators must be delivered or shipped to the nearest Service Agent or re-seller. Freight costs, if any, must be borne by the purchaser.
    - D. Use reasonable care in the operation and maintenance of the products as described in the owner's manual(s).
    - E. No warranty costs incurred will be considered for, or covered if Euroquip has not been contacted and prior permission for repair / replacement has been granted.
  8. **WHEN WARRANTOR WILL PERFORM REPAIR OR REPLACEMENT UNDER THIS WARRANTY:**

Repair or replacement will be scheduled and serviced according to the normal work flow at the servicing location and depending on the availability of replacement parts.



# **IRH22**

INFRA-RED HEATER

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Congratulations on your new Remington product. We are proud to have you as our customer and will strive to provide you with the best service and reliability in the industry. This product is backed by our extensive warranty. Please contact your local agent or submit a service case online for fast response at [www.remingtonpower.co.nz](http://www.remingtonpower.co.nz) and find the form under the service tab.