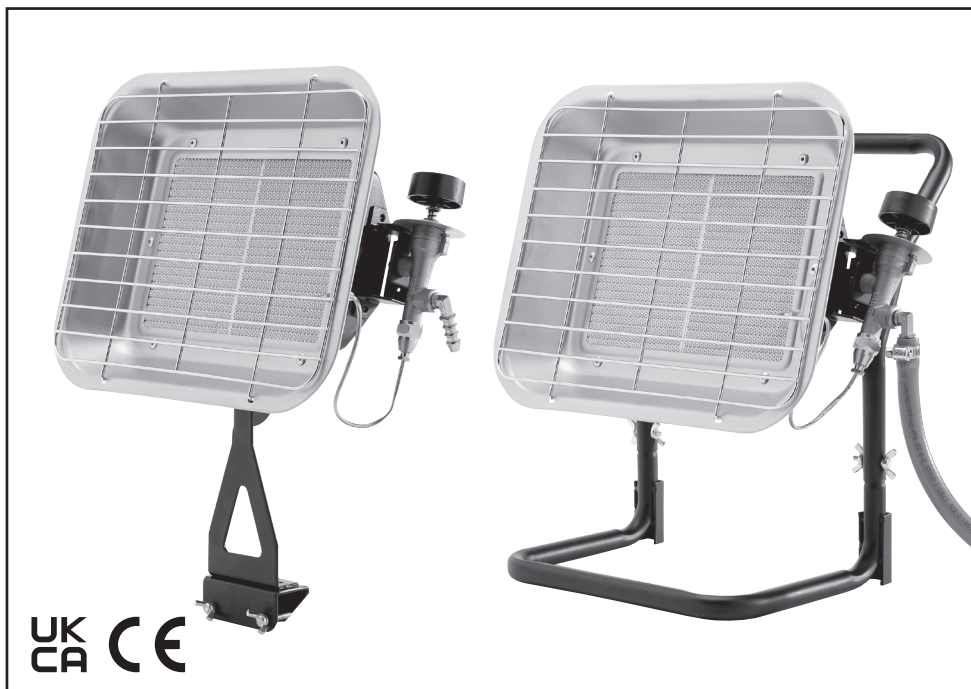




# PROPANE SPACE HEATERS

07866 & 07867



These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

# 1. TITLE PAGE

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## 1.1 INTRODUCTION:

**USER MANUAL FOR: Propane Space Heaters**

**Stock Nos: 07866 & 07867**

**Part No: PSH-RAD15**

## 1.2 REVISIONS:

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**Date first published October 2021.**

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As our user manuals are continually updated, users should make sure that they use the very latest version.

**Downloads are available from:** <http://drapertools.com/manuals>

Draper Tools Limited  
Hursley Road  
Chandler's Ford  
Eastleigh  
Hampshire  
SO53 1YF  
UK

Draper Tools Limited  
Oude Graaf 8  
6002 NL  
WEERT  
Netherlands

**Website:** [drapertools.com](http://drapertools.com)

**Product Help Line:** +44 (0) 23 8049 4344

**General Fax:** +44 (0) 23 8026 0784

## 1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

**Warning!** – Information that draws attention to the risk of injury or death.

**Important** – Information that draws attention to the risk of damage to the product or surroundings.

## 1.4 COPYRIGHT © NOTICE:

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## 3. WARRANTY

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### 3.1 WARRANTY

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact:

**Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England.**

**Telephone Sales Desk: +44 (0) 8049 4333 or Product Help Line +44 (0) 23 8049 4344.**

A proof of purchase **must** be provided with the tool.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This warranty period covering labour is 12 months from the date of purchase except where tools are hired out when the warranty period is 90 days from the date of purchase. The warranty is extended to 24 months for parts only. This warranty does not apply to any consumable parts, any type of battery or normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

**Note:** If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This warranty applies in lieu of any other warranty expressed or implied and variations of its terms are not authorised.

Your Draper warranty is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the warranty period.

Please note that this warranty is an additional benefit and does not affect your statutory rights.

**Draper Tools Limited.**

# 4. INTRODUCTION

## 4.1 SCOPE

This heater is intended for garage/workshop use, for domestic and light commercial use only. Any other application is considered misuse.

As part of our core range, this product is suitable for enthusiasts and tradespeople alike. Any application other than that it was intended for, is considered misuse.

## 4.2 SPECIFICATION

Stock No .....	07866 .....	07867
Part No .....	PSH-RAD15 .....	PSH-RAD15
Appliance category .....	1 <sub>3p</sub> .....	1 <sub>3p</sub>
Injector size .....	1.0mm .....	1.0mm
Normal gas pressure .....	37mbar .....	37mbar
Gas type .....	G31 .....	G31
Heat output; High .....	4.5kW max. ....	4.5kW max.
Low .....	3kW min. ....	3kW min.
Rated output .....	10,250-15,354BTU/hr .....	10,250-15,354BTU/hr
Fuel consumption .....	0.22-0.33kg/hr .....	0.22-0.33kg/hr
Heating area .....	20-80m <sup>2</sup> .....	20-80m <sup>2</sup>
Weight .....	1.8kg .....	2.2kg

## 4.3 HANDLING AND STORAGE

The environment will have a negative result on its operation if you are not careful. If the air is damp, components will rust. If the machine is unprotected from dust and debris; components will become clogged: And if not cleaned and maintained correctly or regularly the machine will not perform at its best.

DO NOT cover the heater.

## 5. HEALTH AND SAFETY INFORMATION

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### 5.1 GENERAL HEATER SAFETY WARNINGS

**⚠ WARNING:** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

#### 1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate heaters in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Heaters create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a heater.** Distractions can cause you to lose control.

#### 2) Electrical safety

- a) **Heaters plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) heaters.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose heaters to rain or wet conditions.** Water entering a heater will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the heater. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a heater outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a heater in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

#### 3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a heater. Do not use a heater while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating heaters may result in serious personal injury.**
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source.**
- d) **Remove any adjusting key or wrench before turning the heater on.** A wrench or a key left attached to a rotating part of the heater may result in personal injury.
- e) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can get sucked into the in moving parts of the heater.

#### 4) Heater use and care

**DO NOT move the heater when it is in operation or when plugged into the mains supply. Only move heater once it has cooled and it has been unplugged.**

- a) **Use the correct heater for your application.** The correct heater will do the job better and safer at the rate for which it was designed.
- b) **Do not use the heater if the switch does not turn it on and off.** Any heater that cannot be

## 5. HEALTH AND SAFETY INFORMATION

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controlled with the switch is dangerous and must be repaired.

- c) **Disconnect the plug from the power source before making any adjustments.** Such preventive safety measures reduce the risk of starting the heater accidentally.
- d) **Store idle heater out of the reach of children and do not allow persons unfamiliar with the heater or these instructions to operate the power tool.** Heaters are dangerous in the hands of untrained users.
- e) **Maintain heaters. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the heaters operation. If damaged, have the heater repaired before use.** Many accidents are caused by poorly maintained heaters.
- g) **Use the heater, in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the heater for operations different from those intended could result in a hazardous situation.

### 5) Service

- a) **Have your heater serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the heater is maintained.

### 6) Use in environments with no permanent presence of people.

- Warning posters must be displayed prohibiting people from being permanently in that room.
- The space heaters must only be used for room drying purposes only, provided that there is a guaranteed quantity of air exchange necessary for combustion.
- The necessary quantity of air will be reached when the volume of the room (in m<sup>3</sup>) is at least 10 times the nominal calorific power (in kW) of all space heaters used in that room.
- Normal air circulation through doors and windows must be ensured.
- Normal air circulation through doors and windows must be ensured.

### 7) Use in environments with permanent presence of people.

- The space heaters can only be used in well-ventilated rooms and when the percentage of polluting substances in the air does not exceed danger levels for health.
- A good ventilation is guaranteed when the rooms volume (in m<sup>3</sup>) is at least 30 times the normal calorific power (in kW) of all machines used in that room. Openings must be also distributed in height.
- The concentration of dangerous substances in the air is acceptable until it reaches maximum levels and the percentage of oxygen in the air exceeds 17% in volume.
- The apparatus should not be used for continuous heating of stables and farms. Use of a carbon monoxide detector is recommended.

**Warning: Failure to comply with the precautions and instructions provided with this heater, can result in death, serious bodily injury and property loss or damage from hazards of fire, explosion, burn, asphyxiation, carbon monoxide poisoning, and/or electrical shock.**

- Only persons who can understand and follow the instructions should use or service this heater.
- If you need assistance or heater information such as instructions manual, labels etc. Please contact Draper Tools.
- Check the heater thoroughly for damage. DO NOT operate a damaged heater.
- DO NOT modify the heater or operate a heater which has been modified from its original condition.

**Warning: We recommend the use of a carbon monoxide detector in the vicinity of the space heater.**

**Important: Not for domestic use!. Use in open buildings please abide by the relevant national and local guidelines and regulations.**

- For indoor use only. Not for use where exposed to weather.

## 5. HEALTH AND SAFETY INFORMATION

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- Use ONLY in well ventilated areas.

**Warning: Fire, burn, inhalation and explosion hazard. Keep solid combustibles, such as building materials, paper or cardboard, a safe distance away from the heater. Never use the heater in spaces which do or may contain volatile or airborne combustibles, or products such as gasoline, solvents, paint thinner, dust particles or unknown chemicals.**

**Warning: DO NOT use ducting of any sort with this heater.**

**Caution: Due to the high surface and exhaust temperatures, adults and children must observe clearances to avoid burns or clothing ignition. Do not touch. Keep children, clothing, and combustibles away.**

- Never point the heater directly at persons nearby. Install the heater such that it is not directly exposed to water spray, rain and / or water.
  - Never use in areas normally for habitation and /or where children may be present. Not for domestic use.
  - Operate only on a stable, level, flame proof non combustible surface.
  - Do not use in a dusty atmosphere.
  - Do not move, handle, or service while the heater is hot or in use.
  - Use only in accordance with national and local regulations, directives, and all other relevant restrictions.
- **WARNING:** The space heaters must only be used on fire-resistant floors. Safety distance: 2.5 metres from walls or other objects. The space heater must not be used in rooms containing explosive powders, gas fumes, flammable substances and materials. All service operations must be carried out by duly qualified and authorised staff only.

### 5.2 ADDITIONAL SAFETY INSTRUCTIONS FOR PROPANE SPACE HEATERS

- **Important:** This mobile propane-fired, unvented, infrared space heater for commercial applications only. It is designed for use with propane cylinders of between 7kg to 15kg gas capacity. **DO NOT** use domestically.
- **Warning!** Use only in well ventilated spaces of more than 15m<sup>3</sup> to prevent an accumulation of dangerous combustion gases.
- **DO NOT** operate heater in basements or otherwise below ground level, in high rise flats, bathrooms or bedrooms.
- **DO NOT** operate heater in leisure vehicles such as caravans and autocaravans.
- **Warning!** Heater will become very hot during use.
- **Warning!** Ensure Health & Safety, local authority and general workshop practice regulations are adhered to when using this equipment.
- Familiarise yourself with the application and limitations of the heater, as well as the potential hazards.
- **Warning!** Disconnect the heater from the gas supply before performing any maintenance.
- Maintain the heater in good condition (use an authorised service agent).
- Replace or repair damaged parts. Use genuine parts only. Unauthorised parts may be dangerous and will invalidate the warranty.



## 5. HEALTH AND SAFETY INFORMATION

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- **Warning!** Keep all guards and holding screws in place, tight and in good working order. The guard on this appliance is to prevent risk of fire or injury from burns and no part of it should be permanently removed. IT DOES NOT GIVE FULL PROTECTION FOR YOUNG CHILDREN OR THE INFIRM. Check regularly for damaged parts. A guard or any other part that is damaged must be repaired or replaced before the heater is next used. Avoid twisting the regulator's flexible tube. The tube should be inspected for damage regularly and replaced if damage is found. Refer to the tube for its specification and length.
- Keep gas hose away from heat, oil and sharp edges. Ensure that all connections are secure.
- Keep the heater clean for best and safest performance.
- Ensure the propane bottle is in a stable upright position before igniting the heater. DO NOT use with the bottle in any position other than upright.
- **DO NOT** use any fuel other than propane.
- Ensure there are no flammable or combustible materials within 2 metres of the heater and that nothing, including walls, is less than 500mm from any surface of the heater.
- **DO NOT** use the heater where there are flammable liquids, solids or gases such as paint solvents, etc.
- **Warning!** Not to be used for the heating of habitable areas of domestic premises. For use in public buildings, refer to national regulations.
- **DO NOT** move the heater when it is operating.
- **DO NOT** use the heater for any purpose other than that for which it is designed.
- **DO NOT** operate the heater if any parts are damaged or missing as this may cause failure and/or personal injury.
- **DO NOT** adjust or tamper with the regulator.
- **DO NOT** allow untrained persons to operate the heater.
- **DO NOT** operate the heater when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- When not in use disconnect from the gas supply and store in a safe, dry, childproof area.

In the event of a gas leak immediately close the bottle valve, extinguish any flame and then place equipment in a well ventilated area, preferably outdoors and away from any heat sources (including strong sunlight). Rectify cause of leakage.

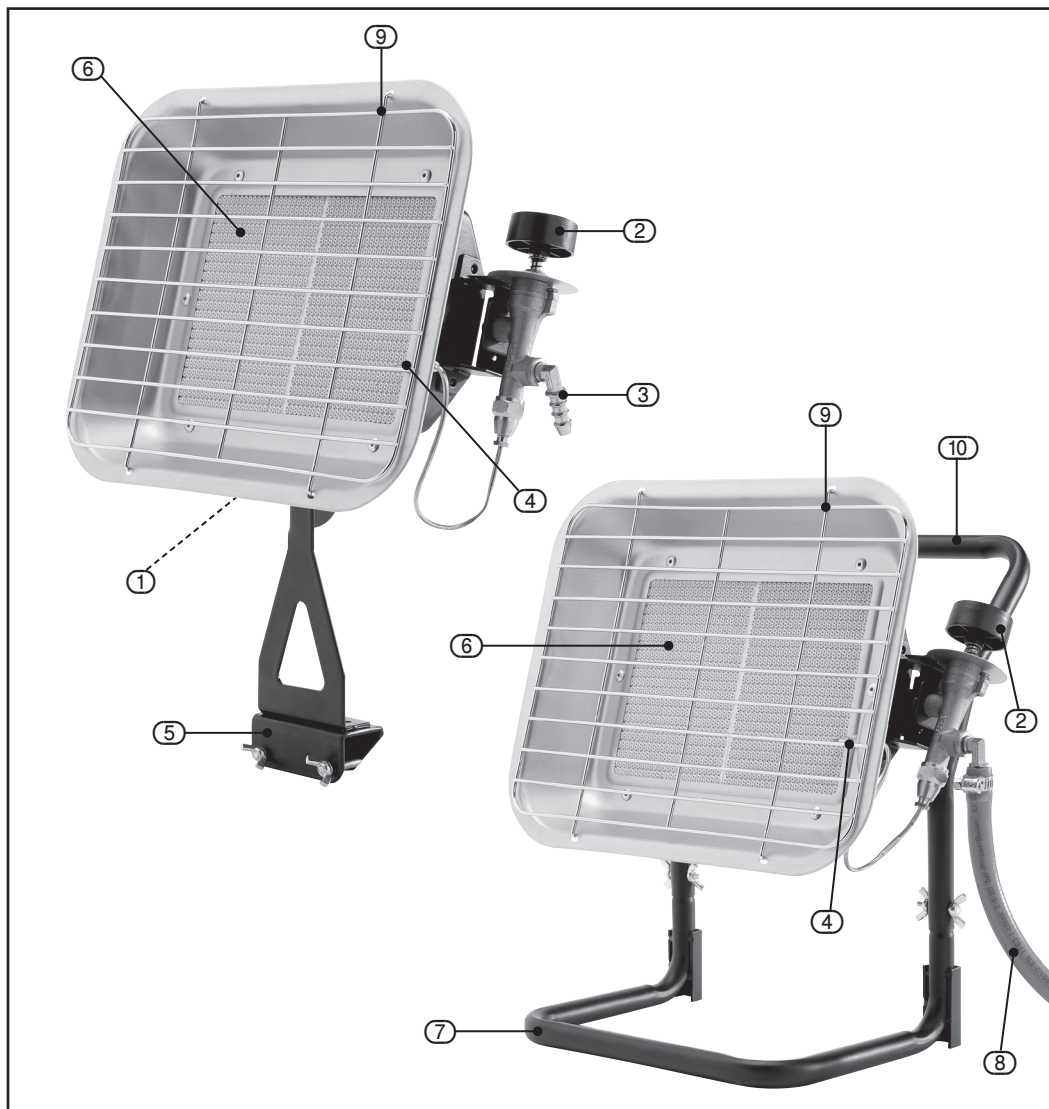
### 5.3 RESIDUAL RISK

**Important:** Although the safety instructions and operating manuals for our heaters contain extensive instructions of safe working with power tools, every heater involves a certain residual risk which can not be completely excluded by safety mechanisms. Heaters must therefore always be operated with caution!

We recommend that the regulator is disconnected from the bottle when heater is not in use.

## 6. TECHNICAL DESCRIPTION

### 6.1 IDENTIFICATION



- |   |  |
|---|--|
| ① Heater angle adjustment.                      | ⑦ Steel tubular stand (07867 only).                      |
| ② Adjustable output control.                    | ⑧ 1.5M hose (07867), (0.7M hose with 07866 - not shown). |
| ③ Hose connector.                               | ⑨ Heater guard.  |
| ④ Gas safety valve.                             | ⑩ Carry handle.  |
| ⑤ Clamp for attaching to cylinder (07866 only). |  |
| ⑥ Grade A ceramic plates.                       |  |

## 7. UNPACKING AND CHECKING

### 7.1 PACKAGING

Carefully remove the product from the packaging and examine it for any sign of damage that may have happened during shipping. Lay the contents out and check them against the parts shown below. If any part is damaged or missing, please contact the Draper Help Line (the telephone number appears on the Title page) and do not attempt to use the product.

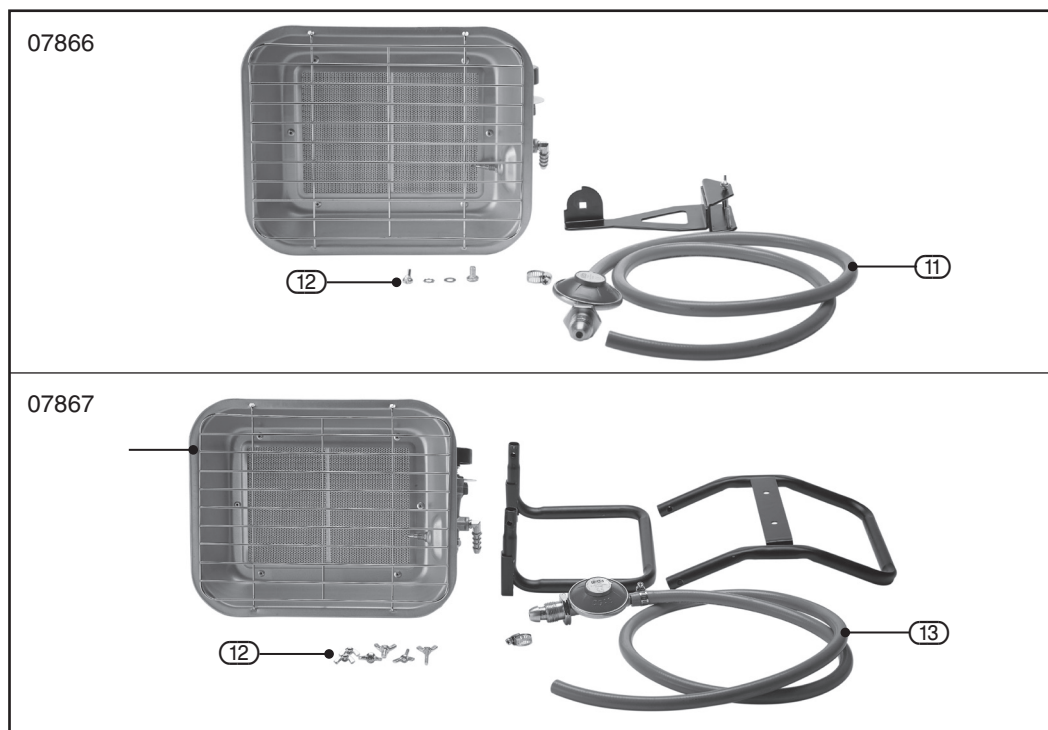
The packaging material should be retained at least during the warranty period, in case the machine needs to be returned for repair.

#### Warning!

- Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.
- If any of the packaging is to be thrown away, make sure they are disposed of correctly, according to local regulations.

### 7.2 WHAT'S IN THE BOX

As well as the main product, there are several parts not fitted or attached to it.



- (11) 0.7M hose and gas bottle regulator.
- (12) Assembly bolts.
- (13) 1.5M hose and gas bottle regulator.

## 8. ASSEMBLY

### 8.1 FITTING THE STAND - FIG. 1

Attach the stand to the heater assembly using the two bolts (12) supplied.

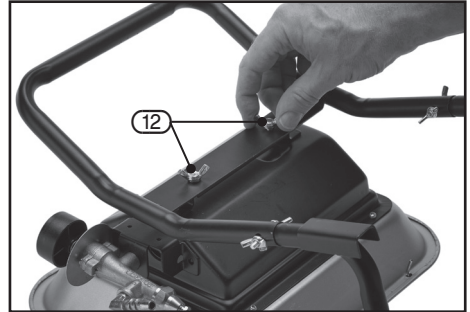


FIG.1

### 8.2 FITTING THE REGULATOR - FIG. 2

Fit the regulator to the gas bottle by screwing the POL nut anticlockwise into the port of the gas bottle valve. Tighten nut with spanner.



FIG.2

### 8.3 FITTING THE GAS HOSE - FIG. 3

Attach one end of the gas hose to the barbed male connector on the regulator and hose clip. Attach the other end of the gas hose to the barbed male connector of the heater valve inlet and hose clip. A small amount of washing up liquid would assist fitting the hose. Ensure the hose routed so that it does not touch any part of the heater, which will become hot during operation.

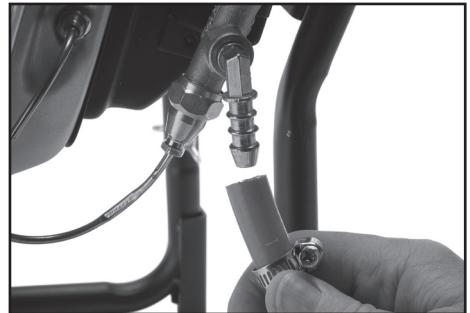


FIG.3

### 8.4 CHECKING FOR LEAKS

Open the gas bottle valve and using soapy water, check all joints for leaks.

## 9. OPERATION

**Warning:** Ensure that you read and understand the safety instructions in section 5.

### 9.1 HEATER POSITION

**DO NOT** use the heater where there are flammable liquids, solids or gases such as paint solvents, etc. Ensure there are no flammable or combustible materials within 2 metres of the heater and that nothing, including walls, is less than 0.5 metres from any surface of the heater.

**Always ensure that the heater is facing away from the gas bottle.**

### 9.2 LIGHTING THE HEATER - FIG'S. 4-5

- Ensure the heat control dial is in the ignition position and gas regulator is on.
- Hold down the heat control dial and turn it full clockwise to the on position and keep it down.
- After a few seconds bring a flame to the bottom edge of burner.
- After the gas ignites, keep the heat control dial held down for a further 20 seconds then turn control dial anti-clockwise to reduce the heat output to required level.

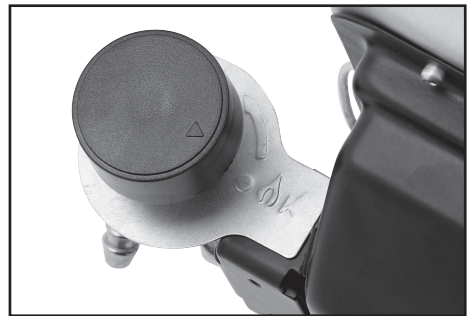


FIG.4

### 9.3 TURNING THE HEATER OFF

- Close the gas bottle valve and turn the heat control dial to the off position.
- To change propane bottle ensure gas bottle valve is closed and then unscrew the POL nut and remove the regulator. Fit regulator to new gas bottle, open the gas bottle valve and check all joints for leaks.

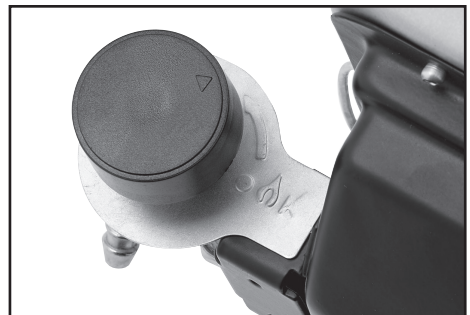


FIG.5

## 10. MAINTENANCE AND TROUBLESHOOTING

### 10.1 MAINTENANCE

Store in a well ventilated area away from combustible material, preferably in an outhouse.

**DO NOT** clean the heater when it has just been turned off. Use a soft, dry cloth.

**DO NOT** clean with aggressive, abrasive or inflammable substances. They could cause a fire or damage the heater.

Any repairs must be performed by specialised personnel and using original replacement parts.

To ensure correct operation of the burner, it is recommended to have an annual maintenance check, performed at an authorised service centre.

**DO NOT** make any modifications to the heater.

NOTE: Spiders or small insects could take up residence inside the burner or nozzle altering the flow of gas and combustion. Inspect them frequently.

### 10.2 TROUBLESHOOTING GUIDE

Problem	Possible Cause	Remedy
Gas leak	<ol style="list-style-type: none"><li>1. Regulator and hose connection.</li><li>2. Valve and hose connection.</li><li>3. Split or perished hose.</li><li>4. POL nut connection.</li></ol>	<ol style="list-style-type: none"><li>1. Brush a solution of washing up liquid and water on to all connections and look for active bubbles.</li><li>2. Tighten clips.</li><li>3. Replace hose.</li><li>4. Check POL nut fitting is tight.</li></ol>
Inefficient combustion across the ceramic plaque	<ol style="list-style-type: none"><li>1. Missing piece of ceramic fire clay.</li><li>2. Gas jet holes blocked.</li></ol>	<ol style="list-style-type: none"><li>1. Replace plaque or repair with PYRUMA (fire cement) and leave to set for approx. 48 hours.</li><li>2. Clear blockages.</li></ol>
Burner flame extinguishes during operation.	<ol style="list-style-type: none"><li>1. Low gas or empty bottle.</li><li>2. Thermal element not hot enough.</li><li>3. The wind has extinguished the flame.</li><li>4. Thermal element faulty.</li><li>5. Faulty manual valve.</li></ol>	<ol style="list-style-type: none"><li>1. Change the gas bottle.</li><li>2. Go through the start up procedure again.</li><li>3. Allow to cool before restarting. Move appliance away from draughts.</li><li>4. Replace the thermocouple. Contact your Draper stockist.</li><li>5. Replace the valve. Contact your Draper stockist.</li></ol>
Heater will not light	<ol style="list-style-type: none"><li>1. Gas cylinder valve is closed.</li><li>2. Volume control not opened fully when attempting ignition.</li><li>3. Insects inside the burner.</li></ol>	<ol style="list-style-type: none"><li>1. Turn on gas cylinder control, check for leaks.</li><li>2. Read instructions 9.2, lighting the heater process.</li><li>3. Clear blockages</li></ol>

## 11. EXPLANATION OF SYMBOLS

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### 11.1 EXPLANATION OF SYMBOLS



Read the instruction manual.

## 12. DISPOSAL

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### 12.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not dispose of WEEE\* as unsorted municipal waste.



\* Waste Electrical & Electronic Equipment.

## CONTACTS

Draper Tools Limited

UK: Hursley Road, Chandler's Ford, Eastleigh,  
Hampshire. SO53 1YF. U.K.

EU: Oude Graaf 8  
6002 NL Weert (NL)

Help Line: (023) 8049 4344

Sales Desk: (023) 8049 4333

Internet: [drapertools.com](http://drapertools.com)

E-mail: [sales@drapertools.com](mailto:sales@drapertools.com)

General Enquiries: (023) 8026 6355

Service/Warranty Repair Agent:

For aftersales servicing or warranty repairs, please contact the  
Draper Tools Help Line for details of an agent in your local area.

### YOUR DRAPER STOCKIST

RDJB1021

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