

Thank you for purchasing a Sealey Heater. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.



IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS AND CAUTIONS. USE THIS PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.

1. SAFETY INSTRUCTIONS

1.1. PLUG & MAINS POWER SUPPLY

- ☐ **WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:**
 You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage. You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices. A Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a Residual Current Device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician. You may obtain a Residual Current Device by contacting your Sealey dealer.

You must also read and understand the following instructions concerning electrical safety.

NOTE: 110 volt heaters are usually operated by connecting to a transformer or a generator. Check to ensure all supply equipment is compatible with the rating of the heater.

- 1.1.1. The **Electricity at Work Act 1989** requires all portable electrical appliances, if used on business premises, to be tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.
- 1.1.2. The **Health & Safety at Work Act 1974** makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of the appliance operators. **If in any doubt about electrical safety, contact a qualified electrician.**
- 1.1.3. Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply. See 1.1.1 and 1.1.2 and use a Portable Appliance Tester.
- 1.1.4. Ensure that cables are always protected against short circuit and overload.
- 1.1.5. Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that none are loose.

1.1.6. **Important:** Ensure that the voltage marked on the appliance matches the power supply to be used and that the plug is fitted with the correct fuse - see fuse rating on right.

1.1.7. **DO NOT** pull or carry the appliance by the power cable.

1.1.8. **DO NOT** pull the plug from the socket by the cable.

1.1.9. **DO NOT** use worn or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician.

When an ASTA/BS approved UK 3 pin 13 amp plug is damaged, cut the cable just above the plug and **dispose of the plug safely.**


Fit a new plug according to the following instructions (UK only - see diagrams on right).

a) Connect the **GREEN/YELLOW earth wire to the earth terminal 'E'.**

b) Connect the **BROWN live wire to the live terminal 'L'.**

c) Connect the **BLUE neutral wire to the neutral terminal 'N'.**

d) **After wiring, check that there are no bare wires, that all wires have been correctly connected, that the cable outer insulation extends beyond the cable restraint and that the restraint is tight.**

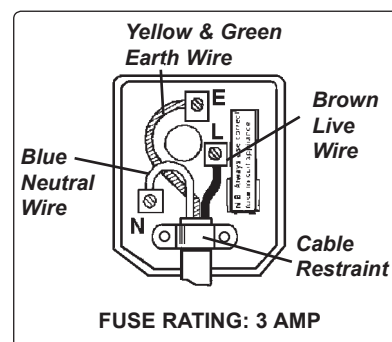
Double insulated products, which are always marked with this symbol , are fitted with live (brown) and neutral (blue) wires only.

To rewire, connect the wires as indicated above - **DO NOT** connect either wire to the earth terminal.

- 1.1.10. If an extension reel is used it should be fully unwound before connection. A reel with an RCD fitted is preferred since any appliance plugged into it will be protected. The cable core section is important and should be at least 1.5mm², but to be absolutely sure that the capacity of the reel is suitable for this product and for others which may be used in the other output sockets, we recommend the use of 2.5mm² section cable.

1.2. GENERAL SAFETY

- ☐ **WARNING!** Disconnect heater from mains supply before servicing or performing maintenance. Replace or repair damaged parts. Use genuine parts only. Unauthorised parts may be dangerous and will invalidate the warranty.
- ✓ Ensure continuous ventilation is provided to the heater operating area. A ventilation opening must run to the outside of the premises where the heater is to be operated. The opening must be 100cm² for every kW and must also be divided equally between floor and high level of the heater operating area.
- ✓ Keep the heater clean and in good working order at all times.
- ✓ Only use paraffin, kerosene or diesel to fuel the heater, in accordance with the instructions contained in this manual.
- ✗ **DO NOT** use the heater if damaged. Take immediate action to repair or replace damaged parts. Use an authorised service agent only.
- ✗ **DO NOT** allow untrained persons to operate the heater and **DO NOT** operate the heater without the cover.
- ✗ **DO NOT** exceed the 100W/m³ limit considering the volume of the empty operating location.
- ✗ **DO NOT** use a naked flame to try and ignite the heater.
- ✗ **DO NOT** use the heater near inflammable, combustible or explosive materials - liquids, solids or gases.
- ✗ **DO NOT** leave the heater unattended whilst in use. Switch the heater off and unplug from the mains supply, before leaving the area.
- ✗ **DO NOT** obstruct the air inlet and outlet sections of the heater. Keep immediate area clean and tidy.
- ✗ **DO NOT** use the heater in closed rooms, living areas, basements or below ground level.
- ✗ **DO NOT** use an external fuel tank. Only use fuel tank fitted to the heater.
- ✗ **DO NOT** over-fill the fuel tank. Wipe up any spilt fuel immediately.
- ✗ **DO NOT** attempt to fill the fuel tank whilst the heater is operating. Switch it off first and allow to cool.
- ✗ **DO NOT** stand or place any object less than 2 metres from the heater's output.
- ✗ **DO NOT** operate the heater when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- ✗ **DO NOT** touch the heater outlet when first switched off as it will be very hot and will take time to cool.
- ✗ **DO NOT** unplug the heater to switch it off. Use the ON/OFF switch. This will allow the cooling fan to run for a further 90 seconds after shutdown.
- ✓ Ensure that the heater is correctly turned off when not in use, and store in a safe, dry, child-proof area.



2. SPECIFICATIONS

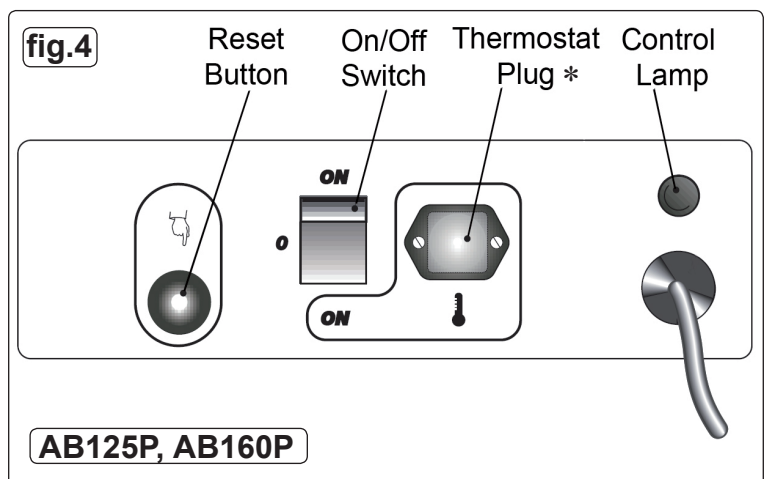
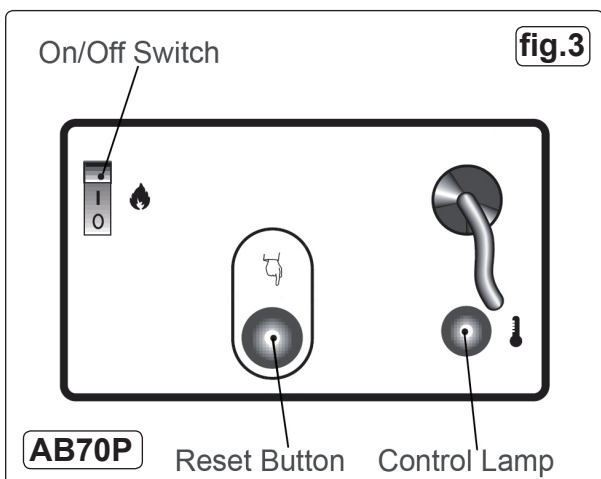
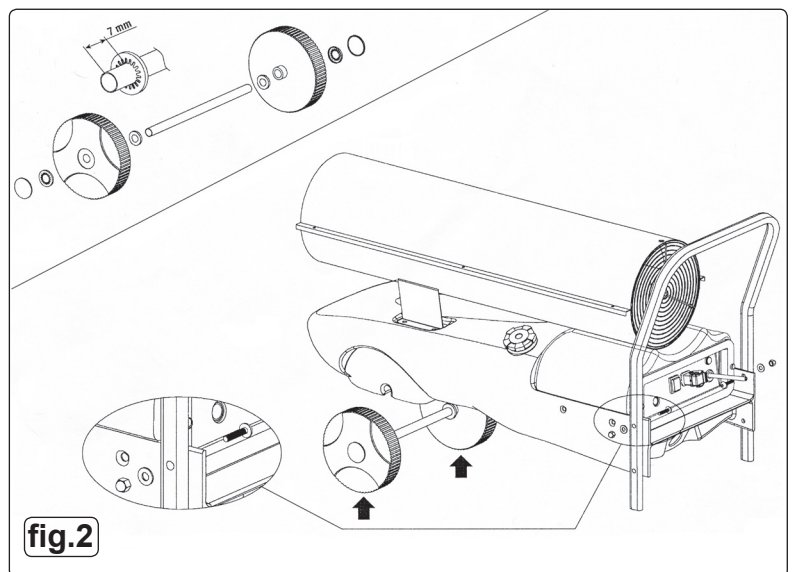
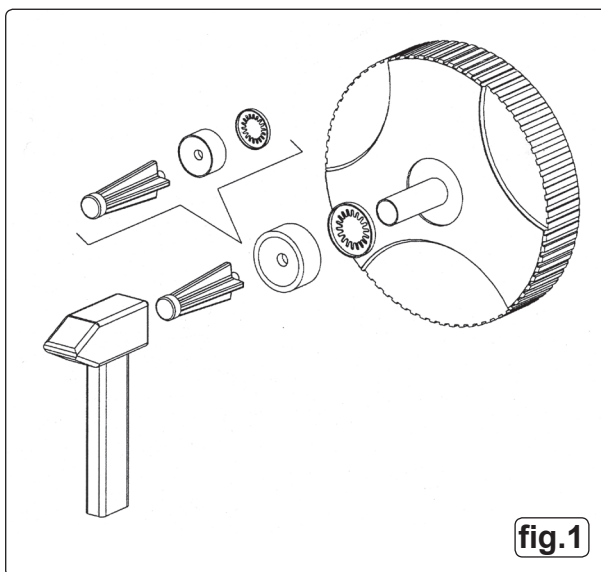
Range features a Danfoss gear pump system, stainless AISI 430 steel combustion chamber with aluminised heat exchangers offering 100% thermal efficiency. Portable model AB70P is fitted with a carry handle. AB125P and AB160P are fitted with large rubber wheels for easy manoeuvrability. AB125P and AB160P have a toughened hydrocarbon resistant polyethylene fuel tank. Models feature heavy-duty filler cap and easy access outlet fuel filter. Made in the EU.

Model No:	AB70P	AB125P	AB160P
Output:	20kW / 68,300Btu/hr.	36kW / 122,900Btu/hr	45kW / 157,000Btu/hr
Supply:	230V / 3A.	230V / 3A	230V / 3A
Airflow:	206cfm.	356cfm	824cfm
Tank Capacity:	17ltr.	42ltr	42ltr
Automatic Shut Off:	Yes.	Yes	Yes
Fuel:	Paraffin/Diesel.	Paraffin/Diesel	Paraffin/Diesel
Running Time per Tank (approx):	10hrs.	13hrs	11hrs
Heated Volume:	17,500ft ³ / 496mtr ³ .	29,143ft ³ / 826mtr ³	37,188ft ³ / 1,053mtr ³
Net Weight:	20kg.	25kg	42kg
Gross Weight:	23kg.	29kg	45kg
Optional Thermostat (ABT04):	No.	Yes	Yes

WARNING! This heater is not suitable for use with Bio-Diesel; use of Bio-Diesel will damage the filter and seals. Damage caused by use of Bio-Diesel will not be covered by warranty.

3. INSTALLATION

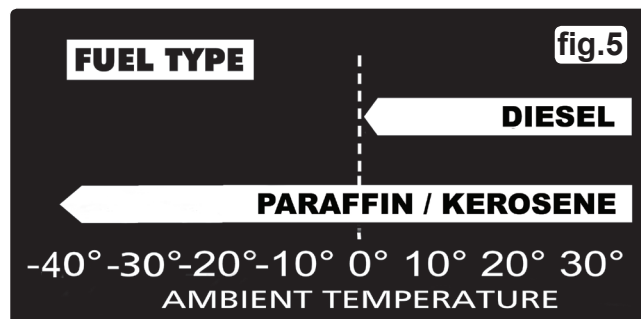
- 3.1. Unpack the heater and check contents. Should there be any damaged or missing parts contact your supplier immediately.
- 3.2. Assemble wheels, washers etc. onto axle as shown in figs.1 and 2. and then push-fit the complete axle into the underside of the fuel tank.
- 3.3. Fit handle to the heater, position as shown in fig.2 and fix into place using four sets of allen bolts, washers and domed nuts. Securely tighten all fixings.
- 3.4. Site the heater in the location to be heated. Ensure all safety instructions in Section 1 are complied with regarding positioning of heater.



* For optional thermostat please order Model No. ABT04

4. OPERATION

- 4.1. **WARNING!** Air contaminants taken into the heater may affect the heat output, damage the unit and may cause health problems. Example: Bodyshop filler dust will damage the motor bearing, clog the filter and compressor and contaminate the combustion chamber causing flame flutter and health hazards. If contaminants are present the heater must be supplied with ducted clean air. **Please note that any parts damaged by filler dust will not be covered by warranty. Additionally, a cleaning charge will be made for any heaters damaged by filler dust.**
- 4.2. **VENTILATION.** Minimum recommended opening for fresh air intake, AB70P - 2000cm², AB125P - 3600cm², AB160P - 4500cm². **WARNING!** Only use the heater in well ventilated areas. Careful consideration must be given to the placing of the heater to provide safe and comfortable heating. Ensure continuous ventilation is provided to the heater operating area. Allow at least 100cm²/kW heater output, see above. This should be divided equally between floor and high level.
- 4.3. **Operating the heater**
The heater has been designed to run on either paraffin, kerosene or diesel and will produce the correct heat output with these fuels.
- 4.4. Ensure that the unit is unplugged from the mains supply.
- 4.5. Fill the fuel tank with paraffin or diesel. **Do not** over-fill and wipe away any spillage before using the heater.
Note: If using diesel in extremely cold conditions, mix a small amount of paraffin with the diesel, to prevent it from freezing (see fig.5).
- 4.6. Connect the heater to an electrical supply outlet and switch on the heater, (upper ON position on AB125P and AB160P, fig.4). The heater will ignite and will build to its maximum heat in approximately two minutes.
IMPORTANT! Model No's AB125P and AB160P can be connected to a remote thermostat or timer device (not supplied) via the socket situated on the control panel (fig.4). If no thermostat is connected, then the socket cover supplied **MUST** be inserted over the socket or the heater will not operate. If a thermostat or timer is required, connect it via the socket situated on the control panel, and when switching the heater on, switch to the lower ON position (with the thermostat symbol). Control the heater by setting the required temperature/time on the thermostat or timer.
NOTE: If starting for the first time or after the fuel tank has been run empty, the heater may not start and it will be necessary to run the start-up sequence again, by pressing the Re-set button, possibly more than once, until the heater starts up.
Do not move the heater whilst it is operating, always shut the heater down and allow it to cool before moving.
- 4.7. **Always shut down the heater using the ON/OFF switch. Leave the heater plugged into the mains supply for at least 3 minutes.**
The heater is fitted with a timer that allows the fan to continue to rotate for approximately 2 minutes after shutdown to cool the combustion chamber and release residual heat. NEVER SHUT DOWN THE HEATER BY PULLING THE PLUG OUT.
DO NOT touch the heater outlet as this will remain hot for some time. When not in use, store in a safe, dry, childproof location.
NOTE: The heaters have a pre-purge time, and an after cooling time. This means that a) the burner will ignite approximately ten seconds after the motor starts and b) the fan will run for approximately two minutes after shut down. This is a normal and correct operation.
- 4.8. If, after a period of time, the heat output begins to fall, this indicates that either the heater requires maintenance or that the environmental conditions the heater is operating in, are not correct.
- 4.9. These heaters are fitted with an electronic flame control box which will stop the heater in case of any malfunction. They are also equipped with an overheat thermostat safety cut-out which will stop the heater in case of over-heating. The thermostat will re-set automatically. The causes of the over-heating or malfunction will need to be discovered and eliminated before re-starting the heater by pressing the re-start button.



5. MAINTENANCE

IMPORTANT! We strongly recommend that heater servicing is arranged during the summer months to avoid being left without heating during the winter.

- WARNING!** Unplug the heater from the mains power supply before opening or servicing. See Section 1 regarding electrical safety and maintenance.
Use authorised parts only. Unauthorised parts may be dangerous and will invalidate the warranty.
Should the heater require service or maintenance, a suitably qualified engineer should carry this out, or contact your local Sealey service agent.
- 5.1. **General Cleaning.** Keep the heater clean; wipe the outer case with a slightly dampened, clean cloth, do not use abrasives. Clean fuel tank with a dry cloth. Oil wheels if necessary. Remove top cover and clean inside with compressed air. Check heater for damage and immediately repair or replace with authorised parts.
- 5.2. **Electrodes.** Remove cover for access. Check HT cables and for correct attachment of HT connectors to the electrodes. Clean electrodes and check that the plug gap is 2.5 to 3mm (AB70P) or 3mm (AB125P & AB160P) (fig.6). If using paraffin - check on a monthly basis (or if there are starting problems). If using diesel, clean plug every 50 hours.
- 5.3. **Fuel filter.** Remove the in-line filter and wash it in paraffin. If very soiled, replace with a new one.
- 5.4. **Fan.** Fan blades should be cleaned every 500 hours (depending on environment). Remove the upper cover and clean the fan blades with a paraffin moistened cloth or very light solvent. Dry fan thoroughly using compressed air. Replace outer case.

6. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Fan motor does not start.	<ol style="list-style-type: none"> 1. No electrical supply. 2. Incorrect setting on Thermostat/control. 3. Thermostat/control defective. 4. Motor defective. 5. Motor bearings defective. 6. Burnt out condensor. 	<ol style="list-style-type: none"> 1. Check mains power supply, wire, plug, fuse and switch. 2. Check settings, ensure it is higher than room temperature. 3. Replace. 4. Replace Motor. 5. Replace Motor. 6. Replace condensor.
Fan Motor starts, but the ignitor does not spark.	<ol style="list-style-type: none"> 1. Igniter defective. 2. Flame control box defective. 3. Photocell defective. 4. Not enough or no fuel at burner. 5. Solenoid defective. 	<ol style="list-style-type: none"> 1. Check HT leads/connections, electrode settings/cleanliness, replace HT transformer. 2. Replace control box. 3. Clean or replace Photocell. 4. Check motor pump plastic coupling, check fuel line system and fuel filter for leaks, clean or replace fuel nozzle. 5. Check connections, clean or replace Solenoid.
Fan Motor starts, heater emits smoke.	<ol style="list-style-type: none"> 1. Not enough combustion air. 2. Too much combustion air. 3. Fuel contaminated. 4. Air leak in fuel circuit. 5. Not enough or no fuel at burner. 6. Too much fuel at burner. 	<ol style="list-style-type: none"> 1. Ensure air inlet and outlet are clear, check setting of combustion air flap, clean burner disc. 2. Check setting of combustion air flap. 3. Drain fuel and refill tank, clean or replace fuel filter. 4. Check fuel line and fuel filter for possible leaks. 5. Check pump pressure, clean or replace fuel nozzle. 6. Check pump pressure, replace fuel nozzle.
Heater does not stop.	<ol style="list-style-type: none"> 1. Solenoid defective. 	<ol style="list-style-type: none"> 1. Replace solenoid coil or complete solenoid.

WARNING! *This heater is not suitable for use with Bio-Diesel; use of Bio-Diesel will damage the filter and seals. Damage caused by use of Bio-Diesel will not be covered by warranty.*



Environmental Protection.

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycle centre and disposed of in a manner which is compatible with the environment.

When the product is no longer required, it must be disposed of in an environmentally protective way.

NOTE: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

IMPORTANT: No liability is accepted for incorrect use of this product.

WARRANTY: Guarantee is 12 months from purchase date, proof of which will be required for any claim.

INFORMATION: For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.



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Original Language Version

AB70P, AB125P & AB160P

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