

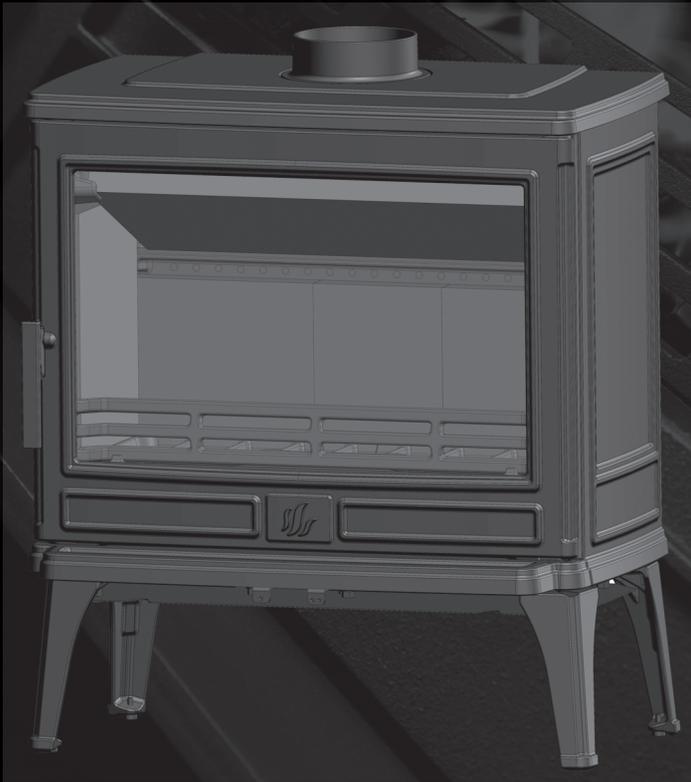


Langdale

Woodburning Cast Iron Stove • Model FB6WB

To be retained by the user for future reference

Thank you for purchasing an ACR Heat Products stove



Serial Number:

Document FB6WB 0101 • Version 1 Date 15/03/16

T E C H N I C A L M A N U A L

IMPORTANT INFORMATION

To ensure that you gain the most from your purchase, please take a few minutes to read through this manual before lighting the appliance for the first time.

Since April 2002 only registered competent installers can install solid fuel appliances. Installations carried out by non-registered installers must be inspected by local authority building control. For more information please contact hetas at: www.hetas.co.uk or telephone: 0845 6345626

- Before installation and/or use of this appliance please read these instructions carefully to ensure that all requirements are fully understood.
- This appliance must be installed by a registered engineer, or approved by building control, failure to do so may endanger life and property.
- All the instructions in this manual should work in conjunction with building regulations document J, if there is a variation the most stringent requirement should be adhered to.
- The installation of this appliance must comply with current Building Regulations and local regulations, including those referring to national and European standards need to be complied with when installing the appliance.
- Do not operate this appliance if it becomes damaged.
- Improper use, maintenance or fitting parts other than those approved by the manufacturer could lead to the appliance becoming damaged or unsafe which in turn could lead to personal injury or damage to the property and will void the warranty.
- The appliance must not be modified in anyway unless authorised by ACR Heat Products Ltd.
- The appliance should be inspected regularly to ensure the airways are clean and free from obstruction and the chimney swept at least once a year.
- The external surfaces of this appliance will be very hot to the touch when in operation and due care will need to be taken when operating the appliance to ensure safety. A fire guard should be fitted if it is likely that the elderly, infirm or children may come into contact with the appliance.
- This appliance has been designed for intermittent operation.
- This appliance must not be used as an incinerator.
- Each installation is unique to the property, the information contained in this manual may not give exact installation requirements for your installation.
- The installation must comply with Building Regulations, European Standards and Local authority bylaws.

Asbestos

This appliance contains no asbestos, if there is the possibility of disturbing any asbestos in the installation of this appliance then specialist advise must be sought and appropriate precautions taken.

Metal Parts

This appliance may contain sharp metal edges, take care when installing or servicing this appliance to avoid personal injury. Please use appropriate personal protective equipment at all times.

Before installation, please ensure that the correct model has been supplied.

Please make a note of the serial number of your appliance in the space provided on the front cover of this manual as this will be requested if you require technical assistance in the future.

Please also ensure that the commissioning checklist at the rear of the manual is completed in full.

Langdale Specifications

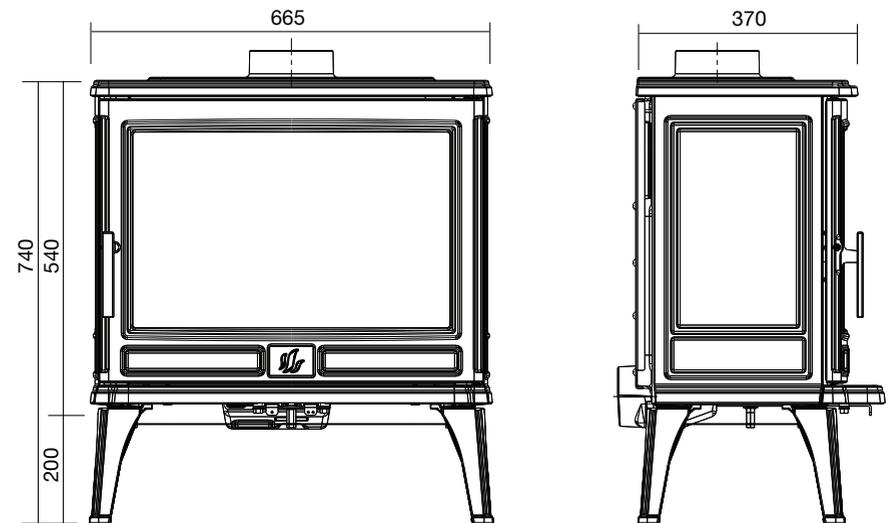
Nominal heat output	9 kW - Wood
Chimney draft required	12Pa
Height	740 mm
Width	665 mm
Depth	370 mm
Weight	136 kg
Air Requirement	2200 sq mm ***
Flue Mass Gas Flow	??g/s - Wood
CO @ 13% O ²	?? Wood vol %
Mean Flue Gas Temperature	??°C - Wood
Efficiency	??% - Wood
Log Length	Up To 500 mm

*** Please note that Building Regulations Document J advises that additional permanent air supply is required for appliances with an output of above 5Kw.

With modern properties additional air may be required as Document J suggests that adequate air would be a benefit.

- If design air permeability $\geq 5.0\text{m}^3/(\text{h}\cdot\text{m}^2)$ then 550mm²/kW of appliance rated output above 5kW
- Or
- If design air permeability $\leq 5.0\text{m}^3/(\text{h}\cdot\text{m}^2)$ then 550mm²/kW of appliance rated output
- If in doubt, please consult your registered installer for advice.

NOTE: DO NOT INSTALL IN A ROOM CONTAINING AN EXTRACTOR FAN



The Clean Air Act 1993 and Smoke Control Areas

Under the Clean Air Act local authorities may declare the whole or part of the district of the authority to be a smoke control area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area. It is also an offence to acquire an "unauthorised fuel" for use within a smoke control area unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).

The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in smoke control areas in England. In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland. Therefore it is a requirement that fuels burnt or obtained for use in smoke control areas have been "authorised" in Regulations and

that appliances used to burn solid fuel in those areas (other than "authorised" fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations.

- **The Langdale (FB6WB) has been recommended as suitable for use in smoke control areas when burning wood, as such, when the secondary air slider is in the closed position it remains open by 25mm and the tertiary air control should be fully open and is prevented from closing by a screw.**



Further information on the requirements of the Clean Air Act can be found here: <http://smokecontrol.defra.gov.uk>

Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of smoke control areas and you can contact them for details of Clean Air Act requirements.

CO Alarms

It is required by Building Regulations that whenever a new or replacement wood/solid fuel or biomass appliance is installed in a dwelling a carbon monoxide alarm to BS EN 50292:2002 must be fitted in the same room as the appliance.

The alarm should be installed according to the alarms manufacturers instructions and should not be considered a substitute for the appliance being installed correctly and regular maintenance of the appliance and flue system by a competent person.

Installation Instructions

Location of the unit

Clearances to non-combustible materials

There is a recommended minimum clearance of 150mm at each side of the appliance. A clearance of 150mm is required at the back of stove (if the rear wall has a thickness of 200mm or more this measurement can be reduced to 50mm) a minimum clearance of 300mm is required above the appliance.

Clearances to combustible materials

There must be a minimum clearance of 250mm at each side and 250mm at the rear of the appliance from any combustible materials. If using single wall flue pipe, there must be a clearance of at least 3 times the diameter of the flue pipe (e.g. 125mm diameter pipe = 375mm minimum clearance) from any combustible materials e.g. wooden beam.

Curtains and soft furnishings should be a minimum of 1m away from the appliance.

Adequate space should be provided for servicing the appliance.

We do not recommend that plasma televisions and expensive artwork are hung over the fireplace.

Please remember that this appliance has been designed to provide heat and if installed into a recess enough space should be left around the appliance to enable the heat produced to rise and escape from the recess back into the room.

Hearth Requirements

The appliance must stand on a level fireproof hearth with a minimum thickness of 12mm. The hearth temperature created by this stove is below 100°C the hearth must protrude at least 300mm in front of the appliance and 150mm either side of the appliance.

The appliance shall be installed on a floor with an adequate load bearing capacity. If an existing construction doesn't meet with prerequisite, suitable measures (e.g. load distributing plate) shall be taken to achieve it.

Flue Requirements

The chimney must comply with current Building Regulations. Provision must be made to provide access for cleaning the appliance, the flue gas connector and the chimney flue.

The flue must be:

- ✓ In sound condition and provide sufficient draft (minimum 12pa)
- ✓ Suitable for use with solid fuel burning appliances
- ✓ Be able to clean the entire length of the flue system without removal of the appliance
- ✓ Free from deposits
- ✓ Well insulated
- ✓ At least 4.5m in height

The flue must not be:

- ✗ Shared with other appliances
- ✗ Weight bearing on the appliance
- ✗ A smaller diameter than the appliance flue collar size (150mm)

Assembly of the unit

This appliance is equipped with a pre-fitted manufacturer's smoke exempt stop. Under no circumstances should it be tampered with or removed unless expressly authorised by a competent person and the appliance is not installed in a smoke exempt area.



If the appliance is to be installed in a non smoke exempt area you can remove the restricting screw on the secondary air control (indicated by the two holes) to allow full movement of the secondary air slider.

The appliance is supplied pre-assembled with the flue spigot in the top exit position.

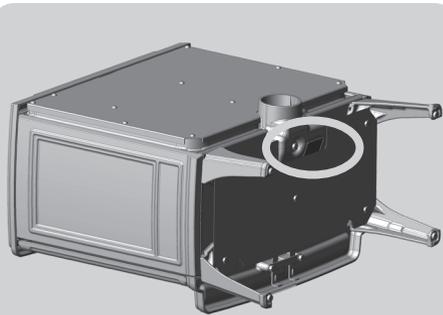
If you intend to install the appliance using a rear flue connection, the blanking plate should be swapped over as follows:



- Remove the internal baffle plate



- Remove the rear metal plate from the back of the stove
- Remove the rear blanking plate
- Remove the flue spigot from the top exit by removing the securing bolts and rope seal
- Refit the rope seal and flue spigot to the rear exit and secure with the bolts
- Refit the blanking plate to the top exit using the rope seal and retaining bar



The stove incorporates a knock out destructive panel (circled) that can be removed if extra airflow is required for safe combustion.

This is located on the underside of the unit and the bottom air intake casting can be removed by undoing the 13mm retaining bolt.

Make sure the modified casting is replaced.

Operating your stove

Please note that during the first firing, we recommend a small fire is lit and that you slowly increase the temperature to enable the various parts to expand normally.

You may also experience fumes and a haze being given off by the stove during the first firing and possibly for the next couple of firings as the paint cures. This is normal but please ensure that the room is well ventilated during this period.

 The appliance should not be operated in mild weather with smokeless fuel. Under certain weather circumstances e.g. fog the chimney will not draw sufficiently and could cause asphyxiation. Either await better weather conditions or burn wood only.

In the rare event of a malfunction due to overheating or a chimney fire, the air slides should be shut down completely and the fuel allowed to burn out. In the event of a chimney fire, once the air slides have been closed completely, dial 999 for assistance. If the appliance has overheated, the appliance and flue will need to be inspected for any damage before it can be operated again.

Recommended Fuels

✓ **Wood:** hardwood such as ash, oak and beech which have been cut for at least 2 years and stored under shelter. The logs should have a maximum moisture content of 20%. Maximum log length 300mm, maximum width 125mm.

Prohibited Fuels

Green wood: i.e wood which is less than 2 years old with a moisture content of above 20%

✗ **Recovered wood:** i.e pallets, railway sleepers etc. These will have been chemically treated and will pollute the atmosphere and possibly overheat the appliance.

✗ **Smokeless fuel:** No type of solid fuel should be used with this stove.

✗ **Housecoal or bituminous coal:** these fuels will soot up the airways of the stove and possibly overheat the appliance.

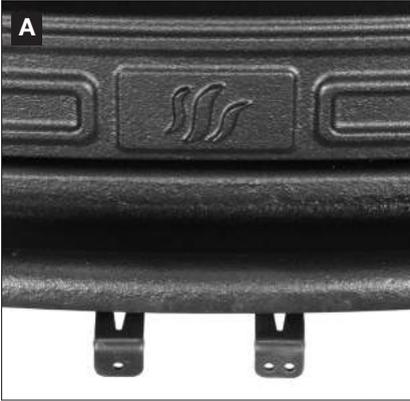
✗ **Petroleum based coke:** over 20% - this will overheat the appliance and possibly damage the unit.

✗ **Liquid fuels.**

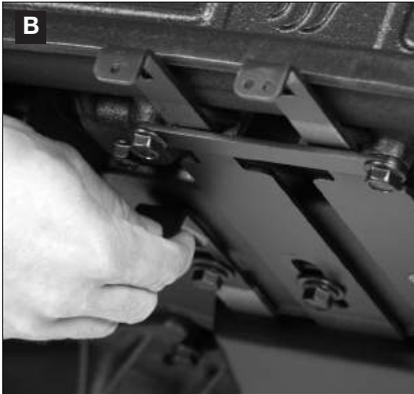
Always check with your dealer or directly with the manufacturer as using the incorrect fuel may invalidate your guarantee and damage your appliance.

Operating your stove

Instructions for use with wood



A Pull the secondary air slider (marked with a double hole) fully forward and open the primary air slider (marked with a single hole) fully by pulling the lever forward.



B Pull the tertiary air slider (Marked with no holes located under the body of the appliance) out by approximately 50%

- Lay firelighters or rolled up newspapers on the grate and add a small amount of kindling wood to the top. Place 1 or 2 small logs on the top.

- Light the newspaper or firelighters using a long taper and push the door closed but do not engage the locking handle fully.
- When the fire is burning fiercely, after a couple of minutes add more logs and close the door.
- When the fire has become established, close the primary air (marked with a single hole) down by pushing the lever inwards.
- The burning rate can be altered by moving the secondary air slider (marked with a double hole) - push the lever inwards to close down and pull outwards to increase the burn rate.

C Care should be taken to ensure that the logs are not placed higher than the log guard allows. This stove features a split log guard to allow differing loads to be managed, only alter the log guard when the appliance is fully cold.

Re-fueling

When refueling the stove **always refuel onto a bed of hot embers**, fully open the secondary and primary air controls until the new fuel is well alight, before adjusting the air controls for the desired setting.

If there is insufficient burning material in the firebed to light a new fuel charge, excessive smoke emission can occur. Refuelling must be carried out onto a sufficient quantity of glowing embers and ash that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed, add suitable kindling to prevent excessive smoke.

Operating your stove

Fuel overloading

Never overload the stove - it will work very well with two medium sized logs. The amount of fuel specified in this manual should not be exceeded, overloading can cause excess smoke.

Daily Maintenance

The ashpan should be checked and emptied regularly.

- **You should never allow the ashes in the pan to build up to the level of the grate.**

If they are allowed to build up, the grate will become sandwiched between the ash below it and above it. This will overheat the grate and cause distortion and premature wear.

Operation with door left open

Operation with the door open can cause excess smoke. The appliance must not be operated with the appliance door left open except as directed in the instructions.

Air controls left open

Operation with the air controls or appliance dampers open fully can cause damage to the appliance. The appliance must not be operated with air controls, appliance dampers or door left open except as directed in the instructions.

- **Never leave the stove unattended until the new fuel is well alight.**

Persistent fume emission is dangerous and must be investigated.

If fume emission persists, open doors and windows to ventilate the room and let the fire die. Have the chimney inspected for blockages and clean if required. Do not relight the fire until the cause has been found. We recommend that you seek professional advice.

This appliance has been designed to be burned with the door closed at all times other than when refueling.

It should not be operated as an open fire.

Typical refueling intervals for wood is 1 hour and smokeless fuel is 2 hours.

Troubleshooting

Problem	Probable Cause	Action Recommend
Fire difficult to start / goes out	• Green wood / wet wood	Use hardwood logs with a maximum moisture content of 20%
	• Logs are too large	Use kindling and small logs to start the fire and once established use split logs
	• Not enough primary air	Open air control
	• Insufficient draft	Check the flue is not obstructed
Fire burns too quickly	• Too much draft	Reduce the air control
	• Excessive draft	Install a draft stabiliser
Smokes on initial lighting	• Flue is cold	Burn paper and kindling to increase heat in flue
Smokes while burning	• Insufficient draught	Check the flue is not obstructed
Low heat output	• Poor quality wood	Use seasoned Hardwood (this has a Higher calorific value)

Maintenance

We recommend that the appliance is serviced annually by a competent engineer to ensure it's continued safe operation.

The chimney should be swept at least once a year together with the flue pipe connection. Care should be taken to ensure that there is not a build up of soot on the baffle and in the airways of the appliance.

If the appliance has not been operated for long periods, the flue should be inspected and swept before use to ensure there are no blockages within the flue.

The grate should be cleaned regularly and the ashpan emptied daily.

Never allow the ash in the ashpan to overflow allowing ash to be in contact with the underside of the grate.

This will overheat the grate and cause premature wear and distortion.

- The internal vermiculite panels of the appliance should be checked regularly for soundness. If any wear and tear is found, we recommend these parts are replaced immediately.
- Check the rope door seals are intact and are not worn. These should be replaced on an annual basis to ensure the correct operation of this appliance.
- The glass can be cleaned using a soft damp cloth or a ceramic glass cleaner (available from your local stockist)

Use only replacement parts recommended by the manufacturer.



To remove the internal vermiculite baffle: Firstly remove the front fuel retaining bars. Then slightly lift the baffle and ease one of the side bricks forward by pulling the front edge of the side brick into the



combustion chamber. Remove the second side brick in the same manner, the flue baffle can now be removed by lowering the front edge and rotating the baffle and removing through the front door.

Commissioning Check List

Please tick boxes when each procedure is completed

- Ensure the serial number has been recorded on the front of this manual for any future use
- Ensure the door seals are in good condition and that the glass is secured correctly in the door (do not over tighten the glass as this will prohibit its expansion and could cause the glass to crack)
- Ensure that all internal components are fitted correctly (these may have shifted in transit)
- Ensure that the appliance operates correctly during the first firing
- Ensure the customer is aware that fumes may be given off during the first firings as the paint cures
- Advise the customer on the safe operation of the appliance
- Leave the instruction manuals, operating tool and glove for the customer's use.
- Record the flue draught reading of the appliance

Parts Information

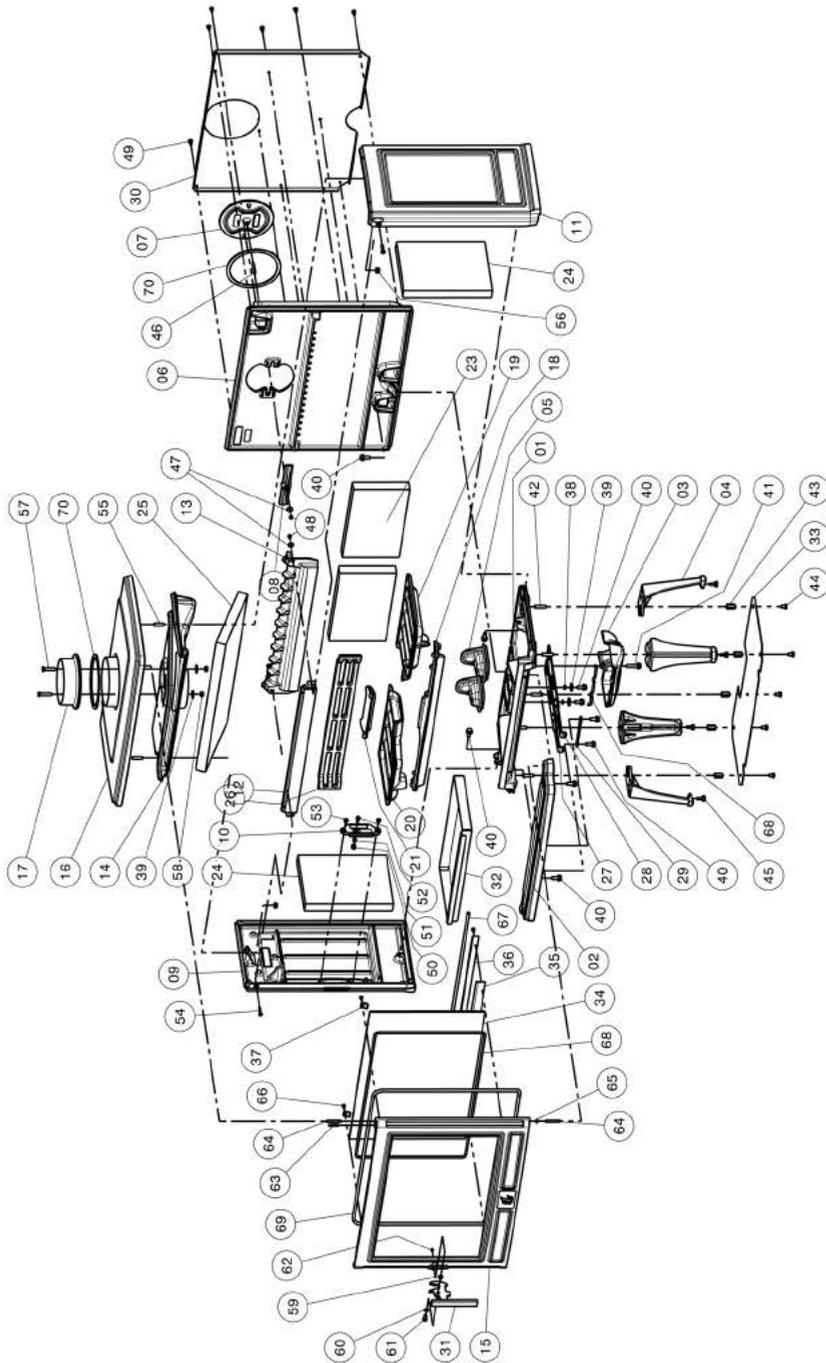


Diagram No.	Part No.	Description
1	03-09266-000	Base Casing
2	03-05639-000	Ashlip
3	03-00395-000	Air Intake Section Cast with KO Panel
4	03-52287-000	Leg 200mm
5	03-37696-000	Cast Air Tunnel
6	03-02496-000	Rear Casing
7	03-15366-000	Cast Blanking Plate
8	03-07216-000	Blanking Plate Locking Bar
9	03-79288-000	Left Cast Panel
10	03-03198-000	Door Lock Casing
11	03-79291-000	Right Cast Panel
12	03-24488-000	Lower Front Casing
13	03-37124-000	Air Deflector
14	03-38224-000	Internal Top Casing
15	03-15519-000	Bare Door Casing
16	03-69244-000	Top Casing
17	03-00314-100	Flue Collar 150mm Diameter Inside
18	03-66234-000	Grate Support
19	03-66571-000	Grate Right - Wood Only
20	03-66572-000	Grate Left - Wood Only
21	03-05404-000	Access Plate
23	03-77580-000	Chamotte Rear Brick
24	03-77531-000	Chamotte Side Brick
25	03-77579-000	Vermiculite Baffle Plate
26	03-77468-000	Log Retainer
27	03-38016-000	Primary Air Slide
28	03-38017-000	Secondary Air Slide
29	03-31452-000	Clamping Plate - Air Slider
30	03-38223-000	Air Tunnel Plates
31	02-27046-000	Door Handle
32	03-05243-000	Ashpan
33	03-28162-000	Bottom Heat Shield
34	03-26394-000	Glass
35	03-26180-000	Glass Retaining Bracket - Bottom
36	03-29066-000	Bttom Rope Bracket Door
37	03-26101-041	Glass Retaining Bracket - Top
38	03-13612-000	Air Slider Spacer
39	03-18710-000	Air Slider Washer
40	03-22201-041	Air Slider Screw M8X20
41	03-22204-041	Air Intake Retaining Screw M8X35
42	03-19508-000	Leg Retaining Screw M8X25
43	03-16110-000	Heat Shield Retaining Spacer
44	03-19310-000	Heat Shield Retaining Screw M8X12
45	03-76320-000	Leg Levelling Bolt M6X20
46	03-19505-000	Blanking Plate Stud M6X35
47	03-18701-000	M6 Washer
48	03-19410-000	M6 Nut
49	03-18002-000	Rear Heat Shield Retaining Screw M6X12
50	03-13623-041	Handle Catch Bushing
51	03-13619-100	Handle Catch Nut
52	03-19304-000	Handle Catch Bolt M6X16
53	03-18601-041	Handle Catch Plate Retaining Bolt M6X12
54	03-18605-041	Side Casing Bolt M6X30
55	03-19507-000	Top Casing Stud M8X20
56	03-22203-041	M8 Nut
57	03-19735-000	Flue Collar Bolt M8X40
58	03-19401-000	Flue Collar Nut M8
59	03-13644-041	Handle Bushing Inside
60	03-16601-000	Handle Bushing Outside
61	03-20360-000	Handle Bolt M6X16
62	03-21701-000	Handle Bolt Retaining Grub Screw M6X6
63	03-17806-000	Door Hinge Retaining Pin 6X30
64	03-58610-100	Bottom/Top Hinge Pin 6X45
65	03-16501-000	Bottom Hinge Pin Washer
66	03-19801-041	Glass Retaining Plate Screw M5X10
67	04-26420-000	Fiberglass Round 8mm Seal (Door)
68	04-23419-000	Fiberglass Round 6mm Seal (Glass)
69	04-26408-000	Door Seal Round 8mm
70	04-26422-000	Fiberglass Flue Collar Gasket 10x3

Warranty Information

The specifications within this document are provided for information purposes only and are under no circumstances binding.

With the aim of constantly improving our products, all modifications considered necessary may be made without notice.

This manual is correct at time of printing.

Our appliances are guaranteed against faults and hidden defects subject to the following conditions:

The appliance must have been installed by a registered competent installer (e.g. HETAS) or inspected by local authority Building Control.

The appliance must be installed and operated in accordance with our instruction manual.

The guarantee is for a period of 10 years on the appliance body from the date of purchase.

The following components are considered as consumables and are excluded from the guarantee:

- Grates
- Rope seals
- Ashpan
- Internal vermiculite panels
- Glass
- Baffle plates

Your statutory rights are not affected by this warranty.



Warranty Claim Form

Customer Name:

Customer Address:

Daytime Tel: Mobile Tel:

Model Name: Model Number:

Serial Number: Date of purchase:

Date of installation:

Installer's Name and address:

Installer's Registration Number:

Building Control Certificate Number:
(if not installed by a registered competent installer)

Dealer Name and address:

In the unlikely event of a warranty claim, please return the above claim form to:

ACR Heat Products Limited, Unit 1, Weston Works,
Weston Lane, Tyseley, Birmingham, B11 3RP, England.

• Tel: 0121 706 8266

• Fax: 0121 706 9182

• E-mail: enquiries@acrheatproducts.co.uk

• www.acrheatproducts.co.uk



ACR Heat Products Limited, Unit 1, Weston Works,
Weston Lane, Tyseley Birmingham B11 3RP, England.

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- Fax: 0121 706 9182
- www.acrheatproducts.co.uk