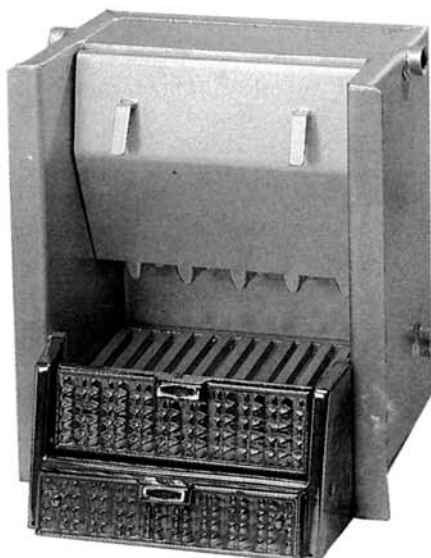


**INSTALLER PLEASE LEAVE THESE
INSTRUCTIONS WITH HOUSEHOLDER
INFORMATION, INSTALLATION AND OPERATING
GUIDE FOR FIREBIRD SUPREME BOILERS
WHEN USING OVERNIGHT FIRE READ CAREFULLY
ITS INSTRUCTION LEAFLET**

• FIREBIRD •



**FIREBIRD
SUPREME**

**MANUFACTURED TO BS 3377 - 1985
TESTED 2.1 BAR W.P.**

**This appliance is approved by
D.S.F.A.A.S. Ltd.
(Domestic Solid Fuel Appliance Approvals Scheme)**

Grate and Firefront not included in Boiler Price

INTRODUCING YOU TO FIREBIRD

Firebird Boilers are highly efficient appliances and have a number of unique features.

1. Extreme ease of cleaning - just lift off Radiant Damper Panel.
2. Design of Radiant Panel permits more heat to be radiated into room.
3. Flat surface on top of boiler allows proper throat to be formed in accordance with B.S. 8303. Please refer carefully to Figs 1. Throat dimension should NOT be less than 75mm. See 'A' Fig. 1. Angle of slope to flue must be less than 30° to vertical.
4. An optional extra is provided for convenience when building stone or brick surrounds. This consists of two side access plates - 4, 5 or 6 inches wide - these are simply fitted to sides of boiler to give access to connections at either side and avoid the problem of boiler appearing to be too far back in relation to fire surround. the depth of these plates where they fit against boiler sides is 50mm in accordance with BS 8303.
5. In situations of high draught an optional throat restrictor is available at extra cost.

6. Where it is inconvenient to use rear side tapping connections, boilers are available with front (3" back to front) tappings. If required tappings can be positioned to suit individual requirements.
7. Because of internal baffling which prevents short circuiting, flow and return connections to both cylinder and heating may be made at one side. Injector tees are then recommended.
8. The builders openings dimensions are as follows:

	Height finished Hearth	Minimum Width of Ope	Minimum Depth of Ope
16" Boiler	585m/23"	610mm/24"	360mm/14"
18" Boiler	585m/23"	660mm/26"	360mm/14"
20" Boiler	585m/23"	710mm/28"	360mm/14"
22" Boiler	585m/23"	760mm/30"	360mm/14"

9. Where standard rear, side-tappings are used adequate opening(s) should be allowed in side(s) of breast to facilitate pipe connections. Please ensure that these openings are high enough to permit sufficient rise in primary (gravity) flow pipe (See "Fitting Boiler" Section 32).

INSTALLATION AND SYSTEM

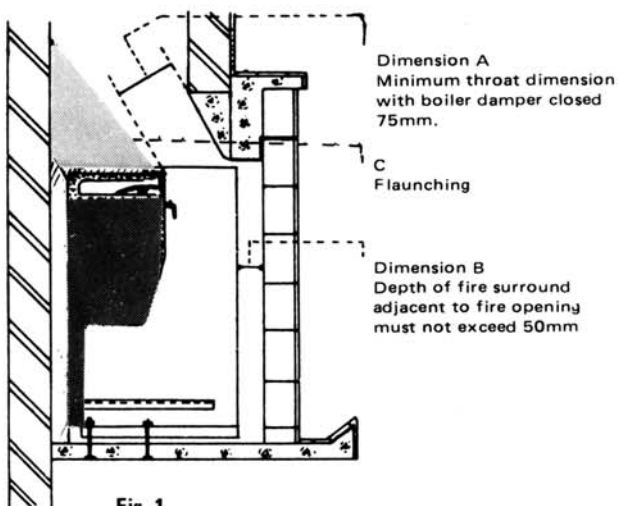
10. The following instructions are given to help you ensure a safe and efficient installation. In common with manufacturers of all high performance appliances we recommend that this unit be installed **ONLY** by fully qualified personnel who understand and adhere to all the relevant regulations pertaining to solid fuel installation, especially BS 8303, BS 6461, BS5449, BS1251, Building Regulations, Local Authority-Bye-Laws and any other specifications and regulations as they affect the installation of the appliance. Also, where it applies, follow the recommendations of The Irish Institute For Industrial Research and Standards contained in their booklet:
"Guide to the Safe Installation of Solid Fuel Central Heating".
11. **THE INSTALLER IS REMINDED OF: (a) HIS RESPONSIBILITIES UNDER THE HEALTH AND SAFETY AT WORK ACT 1974. (b) THE CAUSTIC NATURE OF FIRE-CEMENT AND THE POSSIBILITY OF DISTURBING ASBESTOS IN EXISTING INSTALLATIONS. ADEQUATE PROTECTION SHOULD BE GIVEN TO THE PERSON(S) CARRYING OUT THE INSTALLATION.**

IN PARTICULAR ENSURE THAT:

12. Before installation the chimney is swept and checked for soundness, cracks etc. and for suitability for boiler and has no obstruction or defect which could cause fumes or smoke to enter building. Installer/consultant should carefully examine existing fire and fire surround, in particular the outside head of the surround for traces of smoke or soot. This soot or smoke would indicate poor draught or down-draught. Point out that this should be corrected before boiler installation. A standard 8" or 9" diameter flue is recommended. Boilers larger than 18" may need larger dia. flue. Expert advice should be sought if necessary.

THE USE OF EXTRACTOR FAN IN THE SAME ROOM AS BOILER OR IN CONNECTING ROOM MAY RESULT IN FLUE DRAUGHT REVERSAL AND IS NOT RECOMMENDED.

13. The Builders opening and hearth must be level and smooth and the sides and back above the appliance must lead with a gradual and smooth slope up to start of flue-way at an angle less than 30° to vertical including head of any brick or stone surround. Flue should be centered over boiler so that angle of slope is the same at both sides.
14. The boiler is connected to a double-feed indirect hot-water cylinder (BS 1566 Part 1) where there is a combined hot water and central heating system.
15. A 20/25 gall galvanised or fibreglass F & E cistern is used, ensuring that the ball-valve float is copper or entirely suitable for hot water use.
16. A safety vent pipe of at least $\frac{3}{4}$ " (three quarter inch) diameter is used, leading directly from boiler to over F & E cistern.
17. A cold feed pipe of at least $\frac{1}{2}$ " (half inch) diameter is connected vertically directly to boiler from F & E cistern.
18. This cold feed must NOT have any valve or other obstruction which will prevent make up water from entering boiler.
19. A suitable high quality safety valve is fitted as near as possible to the boiler where neither safety valve nor pipe work between it and boiler can be subject to freezing up. On no account should safety valve be fitted in unheated attic space. This is made especially easy if access plates mentioned in paragraph 5 section 1, are fitted - leaking safety valves are then easily replaced.
20. Adequate frost protection is taken. All pipes are properly lagged, especially in attic space. If in doubt do not light fire until all traces of ice have disappeared.
21. Primary flow and return pipes to indirect hot-water cylinder are at least 1" (one inch) diameter and their length is kept as short as possible. Flow pipe should rise vertically or with the greatest possible rise directly from boiler.



22. Flow and return pipes to radiator circuit are correctly sized. Over-sizing leads to sluggishness and slow heat up. Under-sizing leads to inadequate heat from relevant radiators - your qualified installer will correctly size these pipes. Keep all pipe runs as short as possible. Finned type radiators reduce water content and give faster heat-up if adequate fuel is consumed.
23. A pipe thermostat is properly attached to, or better still an immersion type thermostat is fitted to - primary flow pipe and adjusted to switch on circulating pump before boiling occurs.
24. The installer must leave boiler operational, with radiator system balanced and circulating pump adjusted to give correct water throughput.
25. Before filling system make sure that F & E cistern is clean and clear of all debris e.g. filings, dust, tank-connection cut outs etc.
26. Any vacant space at rear and sides of boiler is filled with suitable insulating material e.g. slag wool or vermiculite mix. Make sure any mortar finish does not interfere with damper operation.
27. **UNDER NO CIRCUMSTANCES MUST FIRE BE lit in boiler without first making sure that SYSTEM IS COMPLETELY FILLED WITH WATER AND A THOROUGH CHECK MADE FOR LEAKS.**
28. Interlinking Back-boilers with other boilers, requires considerable expertise and should only be undertaken if fully conversant with all the relevant details. Avoid interlinking procedures where unlit boilers are heated up by operating boiler. **THIS MAY LEAD TO GROSS INEFFICIENCY AND CONSEQUENT DISSATISFACTION. CONSULT EXPERT HELP IF NECESSARY.**

FITTING AND CONNECTING FIREBIRD INTO FIREPLACE OPENING

29. Use only fire cement or fire cement and sealing cord at all points requiring sealing.
30. Fit boiler into opening centrally and with its front edges in line with front of chimney breast - with some tiled surrounds it may be necessary to position boiler up to 1" forward of chimney breast, but in any case minimum dimension 'A' Fig 1 must be adhered to. Ensure that boiler is level in both directions. Fit tiled surround temporarily to ensure correct position of boiler against it. Make necessary pipe-work connections and test for leaks.
31. Attach sealing cord to the two front edges of boiler using fire cement. Re-fit tiled surround ensuring a tight seal against boiler.
32. When all pipe-work has been completed and checked, make good the openings in side of breast through which pipes are fitted. Allow for pipe expansion, do not allow cement or mortar to touch pipe-work by fitting fireproof insulation or suitable sleeving.

33. Any spaces between boiler and fire opening should be filled with insulating material as mentioned above. Builders opening above boiler must be properly and smoothly sloped to the flue. See Para. 3 and Para. 13.
34. Form flaunching on top of boiler as in "C" Fig. 1 using weak mortar or vermiculite mix, having first placed a layer of slagwool or fibreglass on boiler top-tube. This creates a proper throat in accordance with B.S. 8303.
35. All electrical and gas services (if fitted) are installed and connected by competent persons and according to all current regulations and codes of practice. Proper earthing is carried out to all electrical appliances e.g. circulators, thermostats, switches, sockets etc. All connections are tested under working pressure and soundness of all joints completely satisfactory.
36. When ALL safety checks have been made installer should check boiler and system under fire for soundness of seals and joints and that the flue operates correctly in permitting all smoke and fumes to be vented to atmosphere.

GETTING BEST RESULTS FROM YOUR FIREBIRD

37. FUEL

Your Firebird will burn a wide range of fuels. Avoid burning plastic waste as this may adhere to flue-ways and cause blockage. Smoke control regulations must be adhered to and appropriate fuels used.

Recommended fuels are:

House Coal:- Trebles or Doubles

Smokeless Fuels:- Coalite, Homefire, Rexco Royal, Welsh dry steam coal.

38. LIGHTING

Fire may be lit in usual way with paper, thin dry wood, firelighters etc. When slow burner fire is used, open air-control fully until fire is properly established. Subsequent adjustment of this control will achieve desired burning rate. Please read fire manufacturers separate instructions and Para. 49 on this Instruction Card.

39. CONTROL OF HEATING OUTPUT

Having established a proper fire and adjusted ashpit door of fire unit to ensure continuous burning at desired output, control of heating for radiators and domestic hot water is achieved by engaging operating tool. No. 1 Fig. 3 under handles of damper - See Fig. 2 - and moving it backwards or forwards. Pushed fully and strongly back fully closes damper and gives minimum heat to water and radiators and maximum radiated heat to room.

For optimum high boiler output **when burning smokeless fuels** the damper should be set at 10mm open position. This is simply achieved by pulling damper **fully** forward and then pushing gently back until **stop** is felt.

It is now set at 10mm open. Until experience is gained a visual check will ensure correct position. Damper may be closed by pulling forward a little and then **strongly** pushing fully back. For bituminous coal and other fuels open damper as far as necessary to obtain required heat output.

Best general performance will be achieved by ensuring that fuel is not allowed to burn lower than bottom of lift-off damper panel. Use of too much "slack" on firebed will restrict output to radiators and water. Break "slack" seal by poking if increased heat to water and radiators is required. When burning coal at very high rates, do not allow cinders and clinker to build up at back of fire under tubes. This can severely restrict output.

(Refer also to Fire Operating Instructions).

40. **CLEANING**

FOR BEST RESULTS AND CONTINUED HEATING EFFICIENCY SIMPLY LIFT OFF RADIANT PANEL/DAMPER AT REGULAR INTERVALS AND SCRAPE OFF ALL DEPOSITS WITH CLEANING TOOL. IF A SMALL FIRE OF DRY KINDLING IS PLACED AT REAR OF GRATE ALLOWING LONG FLAMES TO RISE BETWEEN TUBES, IT WILL SOFTEN DEPOSITS AND EASE CLEANING. USE LONG HANDLED FIREBIRD SCRAPER (4-Fig. 3) AND PROTECTIVE GLOVES.

41. It is important that the chimney is cleaned on a regular basis. i.e. at least once a year for smokeless fuels, twice a year for bituminous coal.

ASH REMOVAL

42. More even burning, better control and longer grate life can be achieved by not permitting ashpan to fill up and block air passage through grate. The ashpan should therefore be emptied every day and unnecessary damage to firebars (grate) will be avoided. It is recommended that ashes be removed after riddling the fire following overnight burning. ASHES SHOULD BE PLACED ON A NON-COMBUSTIBLE FLOOR OR ON THE GROUND WELL AWAY FROM ALL COMBUSTIBLE MATERIALS, PENDING FINAL DISPOSAL. If ashes are buried in soil or otherwise dumped, they should be retained in a closed container until thoroughly cooled. Ashpan is removed by lifting off ashpit door, carefully engaging handle supplied with fire unit in ashpan and withdrawing it using protective gloves. Make sure ashpan is not too full for easy handling. IT IS OF UTMOST IMPORTANCE TO REPLACE ASHPIT DOOR CORRECTLY.

OVERNIGHT BURNING with overnight Fire Unit

43. Where the extension (deepening) plate is used, it should be placed in position last thing at night to provide additional fuel capacity and safety during overnight burning. Before re-fueling with small fuel for overnight operation, the fire should be raked clear of ash. the drop-front should be closed up and the ashpit door fully closed to ensure minimum rate of burning. Check that no spilled ash interferes with the proper closing of this door. In sluggish chimneys and rooms with questionable air supply, experience may show the necessity to keep it (ashpit door) open a little. The drop front should be in the 'up' position for overnight burning, and where boiler is fitted, ensure that its damper is closed. Remember to use fireguard/sparkguard.

FROST AND ICE

44. IN COLD WEATHER HOUSEHOLDERS SHOULD ALWAYS REMEMBER TO CHECK THAT NO PART OF SYSTEM IS FROZEN. DO NOT HESITATE TO CALL FOR EXPERT HELP IF IN DOUBT.

WARNING

45. Properly installed and operated, this appliance will not emit fumes. Occasional fume from de-ashing and re-fuelling may occur. Persistent fume emission must not be tolerated. If fume emission does persist then the following immediate actions should be taken:
- (a) Open doors and windows to ventilate room.
 - (b) Let fire out or eject and safely dispose of fuel from appliance.
 - (c) Check for flue or chimney blockage, and clean if required.
 - (d) **DO NOT ATTEMPT TO RE-LIGHT FIRE UNTIL CAUSE OF FUME HAS BEEN IDENTIFIED AND ELIMINATED.** If necessary get professional advice. Refer any problems about fuel suitability or quality to fuel suppliers.
46. The use of extractor fan in the same room as boiler or in connecting room may result in flue draught reversal and is not recommended.
47. In draught proof modern homes with double glazing it may be necessary to arrange for separate fresh air intake to fire in order to prevent draughting problems.

SHUTTING DOWN BOILER FOR EXTENDED PERIODS

48. Careful attention should be given to boiler and fire before shutting down for summer or other long periods in order to minimise corrosion and condensation. The appliances should be thoroughly cleaned and all ash and deposits removed. Open damper **FULLY** to achieve maximum ventilation of heat exchange surfaces and likewise open ashpit door a little.

RE-LIGHTING AFTER SHUT-DOWN

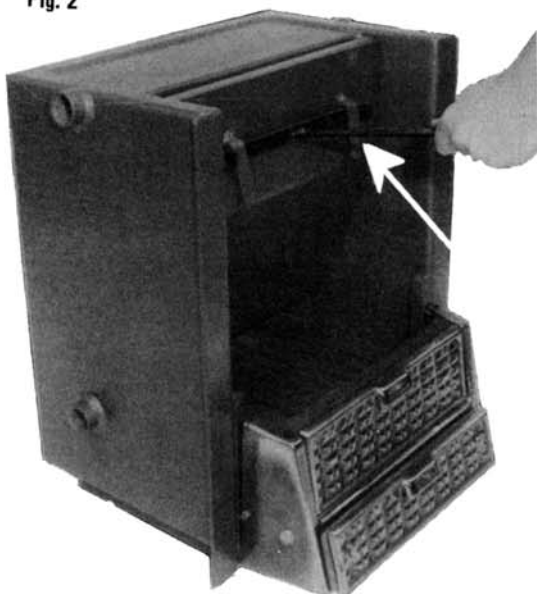
49. Check that boiler and fire are clean and free from any foreign matter. Check chimney for cracks and ensure that flue is free of any obstructions - nests etc., clean if necessary. Ensure that all parts are in place and that boiler damper and ashpit door are functioning properly. Examine heating system and ensure that F & E cistern contains water to correct level and that its ball-valve is operating correctly and that central-heating circulator is operational. Proceed to light fire as in 'Lighting' Para. 38. Re-read this Instruction Card in full.

OBSERVE SAFETY PRECAUTIONS

50. Never leave a house unattended with an unprotected fire. The user should use a fireguard/sparkguard in the presence of children and old or infirm people. Fireguards used should be manufactured in accordance with BS 6539. Ensure at all times that proper control and supervision is maintained.

Remember, we are concerned that our product is properly installed in your home to give best results. We are at your disposal to answer any queries which may arise.

Fig. 2



**Grate and Firefront
not included in Boiler Price**

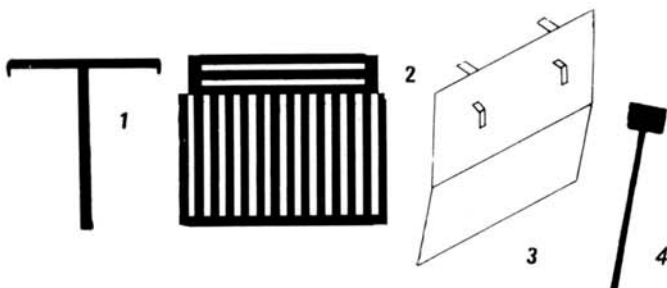


Fig. 3

SPARES LIST

	16" Boiler	18" Boiler	20" Boiler	22" Boiler
1. Damper Operating Tool and Cleaning Tool	16001	18001	20001	22001
2. Grate	16002	18002	20002	22002
3. Radiant Panel	16003	18003	20223	22003
4. Long Handled Firebird Scraper	16004	18004	20004	22004

This appliance is fully protected by patents and patent applications in Ireland, Great Britain and abroad. All rights are reserved and copyright appropriately applies.

Our policy is one of continuous research and development. We therefore reserve the right to change, without prior notice, the design or specification of our products at any time and be without obligation to make similar changes in products previously produced.

Manufactured
By



FIREBIRD BOILERS

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