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THE GEORGIAN

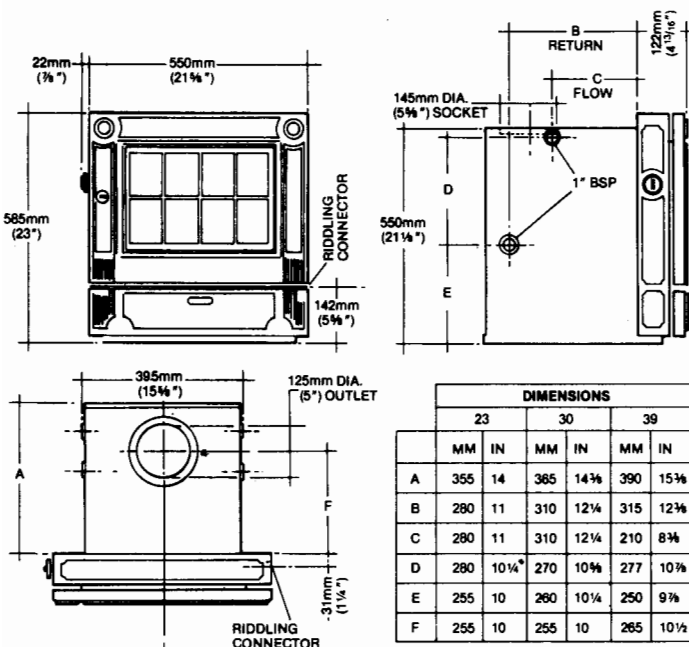


Installation Instructions for 'The Georgian' Roomheater Series

DOOR FRAME SCREWS:-

Consumer Protection Act 1987 6 OFF - CSK HD M5x12 Pozz

As manufacturers and suppliers of cooking and heating products, in compliance with Section 10 of the Consumer Protection Act 1987, we take every care to ensure, as far as is reasonably practicable, that these products are so designed and constructed as to meet the general safety requirement when properly used and installed. To this end, our products are thoroughly tested and examined before despatch.



Note: There are two sets of 'flow and return' connections on the L.H. or R.H. side of the boilers.

Performance

The Georgian Range roomheaters with boiler are intended to provide space heating and the heating of domestic hot water and radiators and have been approved by the Domestic Solid Fuel Appliances Approval Scheme.

The appliance and burning rate are controlled by the manual adjustment setting of the appliance thermostat only.

Rating	Georgian 23	Georgian 30	Georgian 39
Direct Space Heating	3.1 kW (10,500 Btu/h)	2.3 kW (8,000 Btu/h)	2.0 kW (7,000 Btu/h)
Water Heating	6.7 kW (23,000 Btu/h)	8.8 kW (30,000 Btu/h)	11.4 kW (39,000 Btu/h)
The maximum room size (of normal construction) and radiator surface that can be heated are:—			
Direct Space Heating	46.7 m ³ (1650 ft ³)	33.3 m ³ (1175 ft ³)	28.3 m ³ (1000 ft ³)
Pipe and radiator surface (no domestic hot water)	13.1 m ² (140 ft ²)	17.3 m ² (185 ft ²)	22.3 m ² (240 ft ²)
Radiator Surface (with domestic hot water)	10.7 m ² (115 ft ²)	14.9 m ² (160 ft ²)	20.0 m ² (215 ft ²)

The recommended heating surface area is based on an average heat emission of 0.5 KW/m² (160 Btu/h/ft²).

These figures are maxima and must not be exceeded.

A margin (about 10% or 1.4 m² – 15 ft²) is recommended.

Hot Water System

1. A 140 litre (30 gallons) capacity indirect hot water storage cylinder of the double feed type, complying with BS.1566 Part 1: DF Type 8 should be lagged and fixed vertically as near as possible to the roomheater.

The 28 mm minimum diameter primary flow and return pipes must not exceed 10 m (30 ft) in length and pipes longer than 5 m (15 ft) must be lagged. Ensure that the flow pipe rises continuously from the roomheater boiler to the cylinder to ensure good gravity circulation. In combined systems, the water draw-off pipes to the taps must be dead leg connection from the vent/expansion pipe.

2. One boiler flow connection (preferably that to the cylinder), must have an open vent. The connection to the boiler must be such that air cannot be trapped in the boiler. Any pipe size reduction must be made on the vertical pipe of the vented flow pipe.

The heating flow and return pipes may be 22 mm and should preferably be connected to opposite tappings to each other on each side of the boiler.

3. All installations must be fitted with a drain tap at the lowest point of the system.

The Chimney

For correct operation of the appliance, the height of the chimney from its base should not be less than 5.5 m (18 ft) and terminate above the roof in accordance with current Building Regulations and requirements as outlined in BS. 6461:1984 Parts 1 & 2.

The structural flue through the chimney should not be less than 175 mm (7 in) diameter. Pargeted lined flues, 228 x 228mm (9" x 9") must be in sound condition, and any internal offsets should not be less than 45° to the horizontal and preferably 60°. Check that the flue exit is not obstructed or reduced in size.

Open voids above the appliance must be filled in by corbelling the brickwork and flaunching the brick

then filled with Vermiculite concrete and the brickwork replaced.

The lintel to the fire opening should be in accordance with BS.1251. If the heater is not connected into the chimney with 125 mm (5 in) piping, all cavities in the gather chimney must be filled in, and any overhangs in the path of the flue gases must be removed.

Method of Installation – New Houses – Conventional Construction

The simplest method is to build a pre-cast refractory concrete slab into the brickwork 610 mm (24 in) above hearth level. This slab must have a hole 175 mm (7 in) diameter directly over the outlet of the heater, and the lined chimney is built onto the top of the slab. The heater may then be fixed in position, and the spaces around the heater and the flue connection filled with Vermiculite concrete.

The heater should be connected direct to the chimney with a short length of 125 mm (5 in) flue pipe. This is preferably placed in the lined chimney with a soft rope seal between the pipe and the lining before the heater is in position, and pulled down onto a fire cement filling in the socket outlet of the heater.

Method of Installation – New Houses – Dry Construction

Pre-cast lightweight concrete slabs are available from specialist manufacturers to form the fireplace recess, and a ceramic lined prefabricated insulated chimney is placed on top of the slabs. The heater is connected to the chimney as described above.

Installation

Due regard should be taken of the requirements of the Health and Safety at Work Act, 1974 and care must be taken in handling the appliance to the site installation with aids used wherever possible.

The caustic nature of fire cement can affect the skin when being applied and efforts should be made to remove cement from hands immediately after use by washing, or preferably use of barrier gloves. Handle the firedoor with care to ensure the glass panels remain intact.

The heater is delivered fully assembled but all fire cement joints should be examined for soundness and if necessary, resealed before installation.

1. Position the 125 mm (5 in) diameter flue pipe within the recess and above the surround opening. Temporarily wedge the flue pipe in this position.
2. Remove the ashpit door, firedoor, front and bottom firebars, ashpan and throat plate. **Note:** Do not interfere with the setting of the hinge bracket.
3. Plug any of the 1 in BSP boiler connections not required and fit half-unions as required.
4. Place the heater in position in the recess with the sealing rope compressed against the surround. Mark on the back hearth the position of the fixing holes in the ashpit base and remove the appliance. Drill and plug the back hearth and then reposition the appliance in the recess ensuring the sealing joint on the surround is complete. Screw the ashpit

base to the back hearth firmly with screws provided.

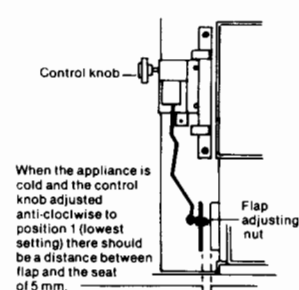
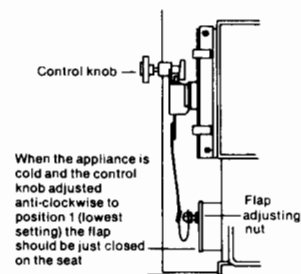
5. With the heater in position, pour a soft sand/cement mix into the space between the back and sides of the heater and the recess to a depth of about 25 mm (1 in) and tamp with a rod to ensure there is a seal formed between the outer rim of the base and the hearth.

The air passage between the hearth and the underside of the base must be kept clear.

6. Make connections to the boiler with provision for draining at the lowest point, fill with water and test.
7. Make good the brickwork around the pipes – use line mortar and fill the space around and up to the top of the heater with a Vermiculite concrete mix.
8. Connect the heater to the chimney with 125 mm (5 in) × 405 mm (16 in) long cast iron or vitreous enamelled sheet metal flue pipe and fill all around with Vermiculite concrete. Make good any opening in the chimney breast.
9. Replace the firebox throat plate, bottomgrate and front firebars, ashpan, ashpit door and firedoor. Check that the bottomgrate reciprocates correctly and the throat plate is correctly located/sealed.

Thermostat Assembly Instructions

1. The thermostat knob is in the envelope in the boiler section and should be placed on the thermostat spindle and turned to position 1 (low).
2. (a) Set flap adjusting nut so that flap is positioned as shown in fig for 23 model.
(b) Set flap adjusting nut so that flap is positioned as shown in fig for 30 and 39 models.



THERMOSTAT SETTING FOR 23 MODEL

THERMOSTAT SETTING FOR 30 AND 39 MODELS

Fire Door Adjustment

The firedoor hinge bracket is set at the Factory and under normal circumstances should not require re-setting. If, however, re-fitting is necessary, the hinge bracket can be adjusted for lateral movement and close fitting of the fire door. Adjustment is carried out by slackening and tightening (top and bottom) the front and rear nuts securing the hinge bracket to the studs. When adjusting, ensure the sealing rope in the fire door is bedding centrally against the fitting surface of the fire box front.

pargetry between the appliance outlet and the base of the chimney flue.

Important: Failure to observe the recommended minimum sizes or methods of flue connection may lead to fume emission into the room and reduced burning rates.

Existing Chimney

The internal and external condition of the chimney should be checked **before** the appliance is installed and rectification made where necessary to prevent air leakage or porosity.

The flue through the chimney should be formed with 175 mm (7 in) diameter minimum moisture and acid resistant liners to BS.1181:1971 or precast linings as specified in the current Building Regulations 1976 and Codes of Practice for Chimneys and Flues, BS.6461:1984 Parts 1 & 2.

When repairing existing chimneys, it is recommended that the Building Inspector be consulted before the commencement of work with particular attention to the chimney height and its termination.

The chimney should be swept before installation.

New Chimney

The flue should not be less than 175 mm (7 in) diameter and its soundness confirmed by smoke testing or consulting the district S.F.A.S. who will give advice on the test method.

Ensure the chimney liners are free of any internal projections such as building jointing composition before the appliance is installed.

Factory Made Insulated Chimney

It is recommended that the internal face of the chimney, be refractory lined and otherwise comply with BS.4543.

The recommended minimum diameter is 150 mm (6 in) and chimney manufacturers should be consulted for further advice.

Chimney Terminations

All chimneys should terminate above the roof level in accordance with current Building Regulations and as outlined in BS.6461:1984 Parts 1 & 2.

However well designed, constructed and positioned, the satisfactory performance of a flue can be adversely affected by the down-draughts caused by adjacent tall buildings and trees or even nearby hills. These deflect the wind creating a zone of high pressure over the terminal causing it to blow directly down the chimney flue.

A suitable anti-downdraught terminal such as the **Marcone** will usually effectively combat low pressure down-blow but no known cowl is likely to prevent downdraught due to a high pressure zone.

Advise the user to ensure the chimney flues are thoroughly swept at a minimum of 12 monthly intervals after the appliance is commissioned.

Preparation of Builders Opening

The appliance and fireplace recess, hearth and chimney flue installation should be in accordance with the relevant recommendations of the British Codes of Practice CP.403:1974 and BS.6461:1984 Parts 1 & 2 respectively, with the boiler and heating installation complying with BS.5499 Part 1:1977.

The boiler section must also be installed in accordance with the bye laws of the Local Water Undertaking, Regulations for the Electrical Equipment of Buildings – published by the Institute of Electrical Engineers, and any relevant requirements of the Local Authority.

The appliance must only be installed in a non-combustible recess in which the hearth must be level and together with the adjacent walls, conform to the current Building Regulations. See Fig. 2.

A rectangular recess is required, not less than 410 mm (16 in) wide and not less than 395 mm (15½ in) deep from the face of the surround. Holes will be required in one or both sides for the pipework.

Surround and Hearth

The fire opening in the surround should be 560 mm (22 in) high and 410 mm (16 in) wide. The surround should not be more than 60 mm (2¾ in) thick at the fire opening and the back of the surround must be concentrically in line with the builders opening. The surround must be vertical and have a flat surface of at least 570 mm (22½ in) wide and 600 mm (23½ in) high to which the appliance can be sealed.

The builders opening back hearth must be fire resistant, solid and level with the tiled hearth positioned at right angles to the tiled surround.

Note: The dimension from the chimney breast brickwork surface to the sealing face of the surround may be 100 mm (4 in) provided the appliance is connected to the chimney flue with a 125 mm (5 in) internal diameter cast iron or vitreous enamelled mild steel pipe surrounded by Vermiculite concrete.
The surround brickwork and any lintel must be adequately protected from the hot flue gases. See Fig. 2.

Air Supply

A permanent unobstructed air vent is required having a minimum effective area of 125 cm² (19.6 sq in) and communicating directly to outside air or an adjacent room which itself has a permanent air vent direct to outside air.

Effect of Extractor Fan

Avoid if possible, the installation of an extractor fan in the same room as the appliance or the room where the permanent vent is located.
Compensating extra air inlets must be introduced equivalent to the capacity of the fan when fitted.

Method of Installation – Existing Houses

The traditional method is to cut a hole through the chimney breast and connect the heater to the 230 mm x 230 mm (9" x 9") chimney with a short length of 125 mm (5 in) cast iron or vitreous enamelled sheet metal flue pipe. The space around the pipe is

Commissioning

Check that the system is full of water and free from air locks.

- (i) When lighting, place paper and sticks with a small quantity of fuel onto the bottomgrate, set the thermostat knob to 8 (high) and open ashpit door, igniting the fuel with firedoor closed. When established, balance the water system.
- (ii) With the appliance under fire, check for soundness of seals/joints and that the flue functions correctly in permitting all smoke and fume to be vented through the chimney.

Testing After Commissioning

After completing the installation, the Heating Contractor should demonstrate to the user, the operation of the fire e.g. thermostat knob setting, the method of riddling and the lowering of the throat plate for cleaning purposes as well as the routine flue cleaning method.

Ensure the Operating Instructions are left in the possession of the user.

Weight

The weight of the boiler/firebox section complete with front surround/fascia for all three models is 113 Kg (250 lbs).

General Information

1. Bottomgrate bars – there are 5 grate bars of one type and 4 of another.
The five bars occupy the centre, end and two intermediate positions. The four bars fit between these. See that they are properly placed on the cross front firebar and move freely when riddled.
2. If the thermostat has been removed for any reason, refer to the thermostat adjustment or replacement instructions for the appropriate model.

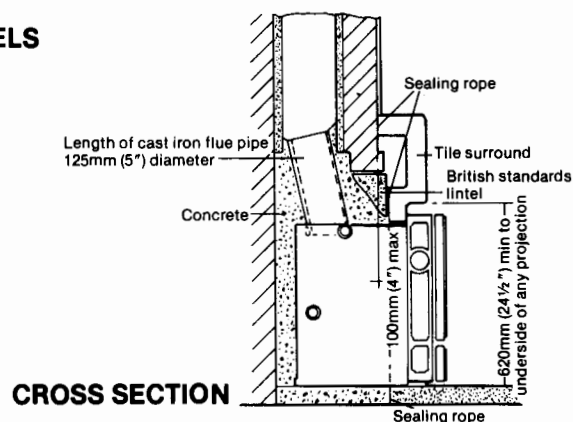
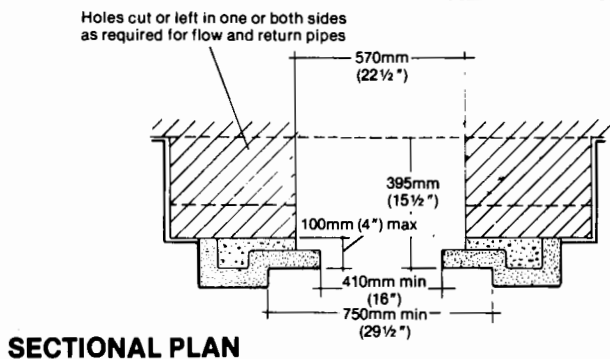
Flue Pipe

Short lengths of 125 mm (5 in) diameter plain C.I. or vitreous enamelled sheet metal flue pipes are available from your local stockist.

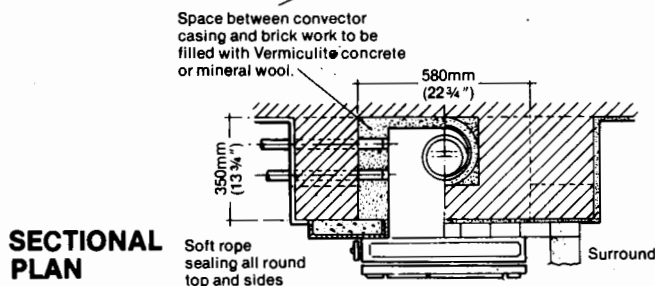
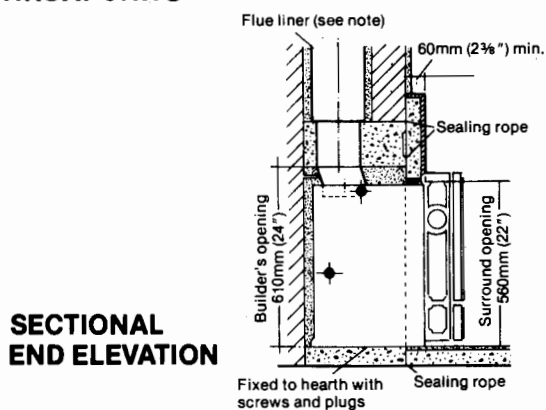
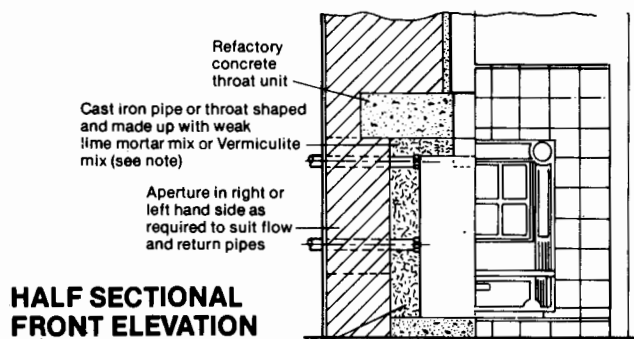
Replacement parts if required are available from your local stockist.

FIG. 2

RECESSES WITH LINTELS



RECESSES WITH THROAT UNITS



Note: Space between brickwork and flue lining to be filled with:
1. Vermiculite mix (6 parts Vermiculite to 1 part cement) or
2. Weak lime mortar mix.
To allow for expansion of linings do not use sand and cement mix.

With Rayburn's policy of continuous product improvement, the Company reserves the right to change specifications and make modifications to the appliance described and illustrated at any time.

THE GEORGIAN

by Rayburn Heritage

Operating Instructions for 'The Georgian' Roomheater Series

Health and Safety at Work Act 1974

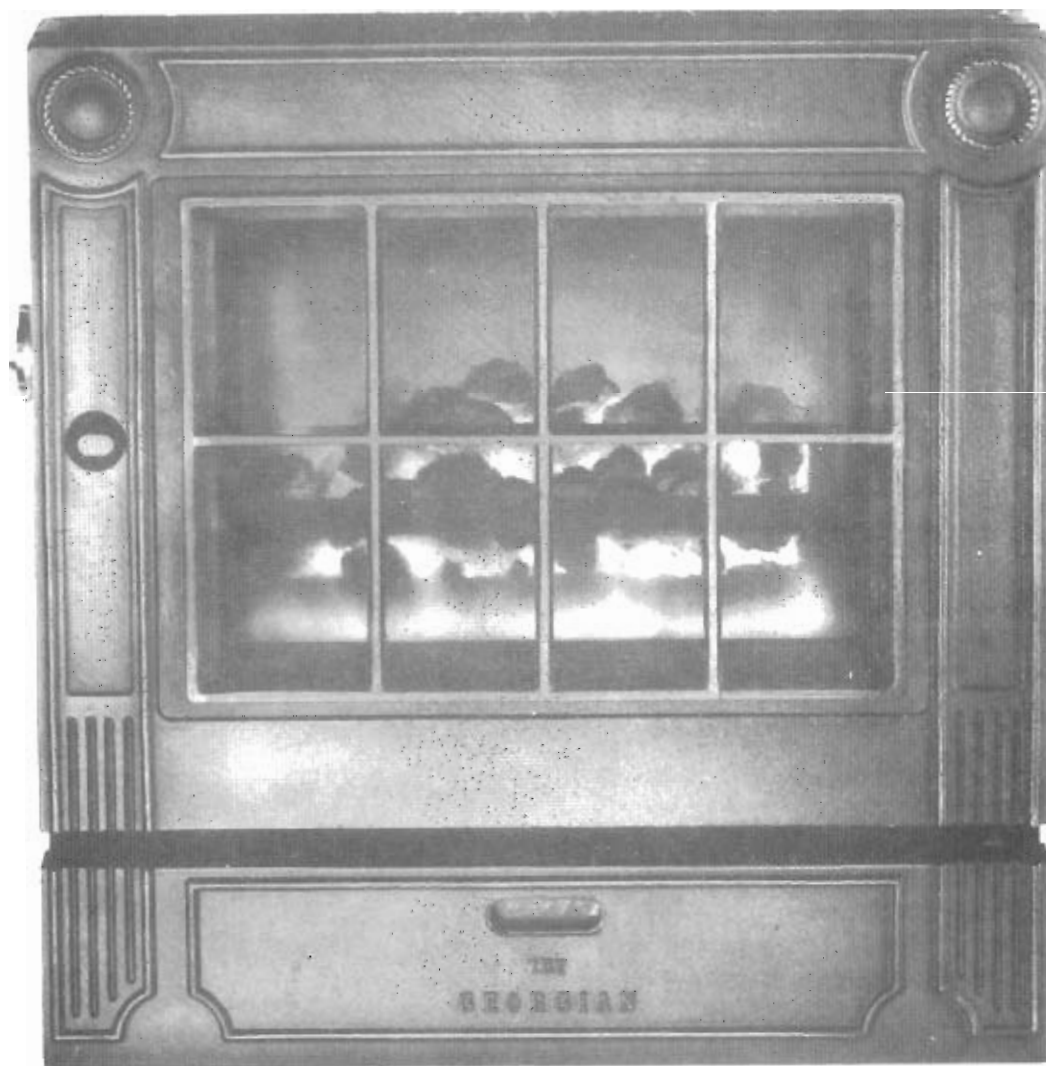
As manufacturers and suppliers of cooking and heating products in compliance with Section 6 of the Health and Safety at Work Act 1974 we take every care to ensure, as far as is reasonably practicable, that these products are so designed and constructed as to be safe and without risk to health when properly used and installed. To this end, our products are thoroughly tested and examined before despatch.

The appliance user should check with their installer that the chimney has been examined and confirmed for soundness, the chimney has been swept prior to

the roomheater installation and is free of any obstructions.

The 'Georgian' Roomheater Series has been approved by the Domestic Solid Fuel Appliances Approval Scheme (D.S.F.A.A.S.) and may be used for any of the following —

1. Space heating and combined domestic hot water supply and radiators
2. Space heating and heating of pipes and radiators only



Recommended Fuels

Sunbrite Doubles, Coalite, Phurnacite, Rexco, Royal, Welsh Dry Steam Coal (Large Nuts) and Anthracite Stove Nuts.

House coal or petroleum coke must not be used

Fuels should be stored under cover.

Note: Refer problems about fuel suitability or quality to fuel supplier.

It is most important that the fuels should be of the correct size for room heaters otherwise the appliance will not give a satisfactory performance.

To Light the Fire

(i) Sticks and Paper

- Open the firedoor, Fig. 1. and remove the ashpit door Fig. 2.
- Lay a liberal supply of wood/paper on the grate together with a small quantity of fuel and light the paper.
- When blazing, close the firedoor, Fig. 1, replace the ashpit door Fig. 2 and set the thermostat control knob to 8 (high) Fig. 5.
- With fire established fill firebox up to the top of the front firebar and sloping upwards to the back.
- Close and lock the firedoor, Fig. 1 with the operating tool.
- Adjust the thermostat knob, Fig. 5, to give the desired rate of burning.

(ii) Gas Burner

- Open the firedoor (Fig. 1) and remove the ashpit door (Fig. 2) and ashpan (Fig. 3)
- Fill the firebox up to the top of the front firebar and sloping towards the back.
- Close the firedoor (Fig. 1) and light the gas burner placing it in the ashpit with the ends supported by the sockets on the ashpit sides (Fig. 4).
- When the fuel is well alight remove the burner, replace the ashpan (Fig. 3) and the ashpit door (Fig. 2).

Note: Do not allow the gas to burn for more than 15 minutes.

- Set the thermostat knob (Fig. 5) to the desired number.

To Regulate Burning

Maximum burning rate is obtained with the thermostat control knob set to 8 (high) and 1 (low) minimum rate. Adjust as required to suit the fuel and the heating desired.

A fully fuelled fire will last four hours at the maximum recommended burning rate before refuelling is required. Avoid clinker formation which indicates overfiring and always check that the ashpit door is correctly located.

Caution: Do not run the appliance with the ashpit door removed as this will overheat the appliance and cause permanent damage.

Overnight Banking and Daytime Slow Burning

De-ash thoroughly before refuelling and ensure there is a sufficient amount of hot fuel in the firebed before loading.

Fuel fire up to the top of the front firebar sloping the firebed upwards to the back of the firebox. Close or nearly close the thermostat by setting the knob to No. 1 setting. Experience will indicate the setting that provides the best results with the fuel being burnt.

Note: Difficulty in obtaining banking can sometimes be overcome by the use of smaller size fuel, e.g. Sunbrite Singles.

Water Heating

The supply of hot water is dependent on the rate of burning and is greatest with the thermostat set at 8 (high), and least when the thermostat is set at 1 (low).

The boiler is designed to heat radiators as well as supply domestic hot water. Fuel consumption will be higher when heating radiators and these should be turned off when not required.

De-ashing and Ash Removal

- Riddle the bottomgrate by engaging the operating tool square plug in the square socket at the bottom R.H. side of the appliance. Rotate tool up and down until the fire appears free of ash. Riddle the grate at least twice daily (more often if required) and always before re-fuelling.
- Open the ashpit door with the operating tool. Fig. 2.
- Insert the operating tool in ashpan and remove to empty. See Fig. 3. Allow to cool before placing contents in a plastic bin or liner.

Note: Empty the ashpan at regular intervals and do not allow ash to accumulate in the ashpan until it touches the underside of the bottomgrate otherwise it will very soon destroy the bottomgrate.

The continued presence of shale, stone or clinker in the firebed will reduce burning rates. To remove shale or stone from the firebed, open the firedoor and rake the fire upwards with a poker to bring the shale or stone to the top and remove with tongs. The type of fuel and the thermostat setting, govern the frequency of fuelling.

Convected Air

Keep the air space below the ashpit door clear so that air can circulate around the appliance.

Fume Emission Warning Note

Properly installed and operated this appliance will not emit fumes.

Occasional fumes 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:

- Open doors and windows to ventilate room.
- Let the fire out or eject fuel from appliance.
- Check for flue or chimney blockage, and clean if required.
- Do not attempt to relight fire until cause of fume has been identified, if necessary seek professional advice.

2

Appliance Cleaning

The top of the throat plate should be swept on a monthly basis to prevent flyash deposits restricting the flueway and prevent fume emission and reduced water outputs and burning rates.

- a. Open the firedoors, remove the front firebar and insert operating tool into throat plate front location. Fig. 6.
Pull forward about 25mm (1in) and the throat plate will hinge from the back of the firebox to enable

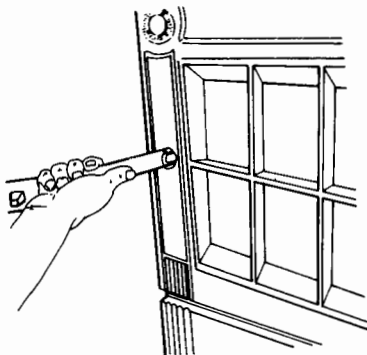


FIG. 1 OPENING FIREDOOR



FIG. 2 REMOVE ASHPIT DOOR

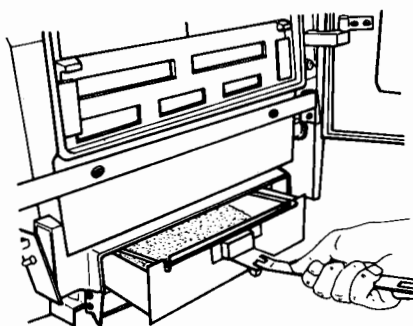


FIG. 3 ASHPIT REMOVAL

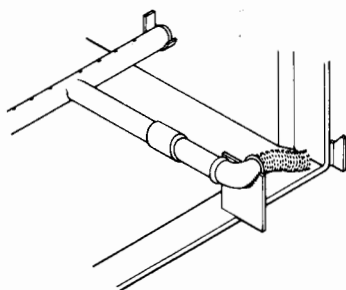


FIG. 4 LOCATION OF GAS POKER IN ASHPIT

the front to be lowered.

- b. Insert the flexible flue brush into the flue pipe outlet and brush surface deposits downwards. Remove all fallen surface deposits from throat plate and re-locate in the reverse manner previously described. See Fig. 7.
- c. Replace front firebars and close firedoor.

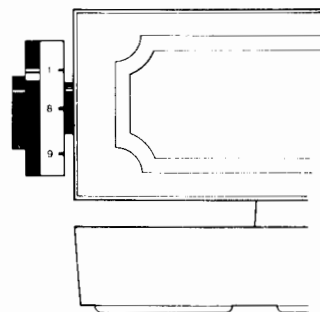


FIG. 5 THERMOSTAT SETTING WITH ROOMHEATER NOT IN USE

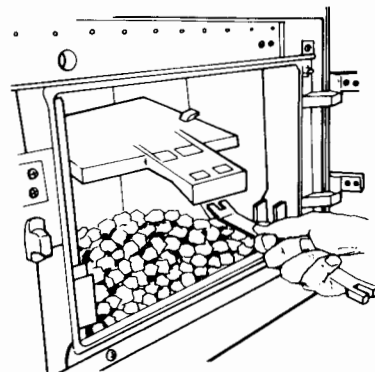


FIG. 6 FLUE CLEANING

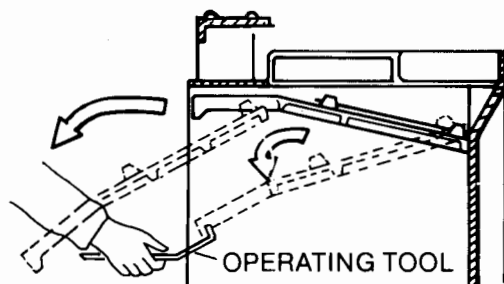


FIG. 7 LOWERING & REMOVING FLUE RESTRICTOR PLATE

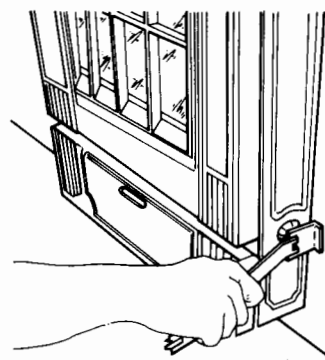


FIG. 8 RIDDLING

Chimney Sweeping – At Least Once Annually

Neglect of chimney sweeping can lead to dangerous fume emission.

The chimney can only be swept through the appliance front.

- Open the firedoor and remove the front firebar and bottomgrate bars.
- Engage the operating tool in the throat plate front location and draw it forward about 25mm (1 in). Allowing it to tilt, continue to draw it forward by hand until it is free of the firebox and place on floor.
- Insert the chimney sweeping brush through the flue pipe in the top of the firebox and then push up into the main flue. See Fig. 8.
After cleaning the flue, replace all removed appliance components using the reverse procedure to its removal.

Cleaning

Use a damp cloth or proprietary brand of cleaner to clean the fire front. **Do not use cleaning powder or**

paste. Do not wash the fire front when it is hot.

With use, the inside face of the glass door may become coated with dust and deposits. To clean the glass, allow it to cool and then wipe it with a damp cloth and polish with a dry one.

Precautions

If the fire is not used when there is a danger of frost, the whole system should be drained.
Never light the fire if the water system is frozen.

When not in use, remove all the fuel and ashes. Leave the thermostat knob at a high setting to allow a constant stream of air to pass through the heater.

Do not remove the ashpit door when the firedoor is closed and the fire alight.

Replace the individual bottomgrate bars as and when they burn out to ensure efficient burning.

Replacement parts if required are available from your local stockist.

SPARE PARTS

GEORGIAN 23

Part No.	Description	No. Required
S-1-20	Front Firebar	1
8500	Bottomgrate (Top Members)	5)
8501	Bottomgrate (Bottom Members)	4) ONE SET
17555-23	Ashpan	1
16905 L H	L.H. Side Firebrick Front	1
16906 L H	L.H. Side Firebrick Rear	1
16905 R H	R.H. Side Firebrick Front	1
16906 R H	R.H. Side Firebrick Rear	1
15736	Throat Plate	1
17569	Firedoor Glass Panels	4 – ONE SET

GEORGIAN 30

Part No.	Description	No. Required
S-1-20	Front Firebar	1
8682	Bottomgrate (Top Members)	5)
8683	Bottomgrate (Bottom Members)	4) ONE SET
17555-30	Ashpan	1
14374 L H	L.H. Side Firebrick	1
14374 R H	R.H. Side Firebrick	1
15737	Throat Plate	1
17569	Firedoor Glass Panels	4 – ONE SET

GEORGIAN 39

Part No.	Description	No. Required
S-1-21	Front Firebar	1
8682	Bottomgrate (Top Members)	5)
8683	Bottomgrate (Bottom Members)	4) ONE SET
17555-39	Ashpan	1
15599	Throat Plate	1
17569	Firedoor Glass Panels	4 – ONE SET

4



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