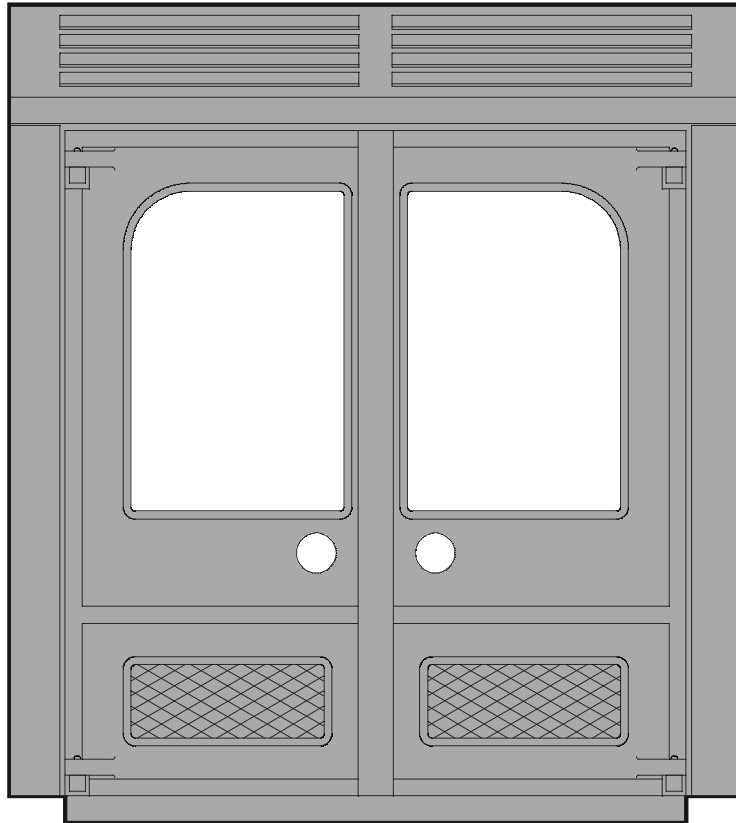


CHARNWOOD
L.A. Firefront MKII



**Operating
and
Installation Instructions**



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OPERATING INSTRUCTIONS FOR THE CHARNWOOD L.A. FIREFRONT MkII

GENERAL POINTS

Before lighting the fire check with the installer that the work and checks described in the installation instructions have been carried out correctly and that the chimney has been swept, is sound, and free from any obstructions.

WARNING There must not be an extractor fan fitted in the same room as this appliance as this can cause the appliance to emit smoke and fumes into the room.

The chimney should be swept one month after installation to clear any soot falls which may have occurred due to the difference in combustion between the appliance and the open fire.

When using the fire in situations where children or infirm people are present please use a fire guard to prevent accidents. The fire guard should be manufactured in accordance with BS 6539.

FUELS

A wide variety of fuels may be used. However, only approved smokeless fuels may be used in smoke control areas.

Smokeless Fuels

Most smokeless fuels may be burnt on this appliance including the following:

Ancit,
Anthracite Large Nuts,
Centurion,
Extracite,
Maxibrite,
Phurnacite,
Sunbrite Doubles,
Welsh Dry Steam Coal (Large Nuts).

Small sizes of fuel will tend to fall through the grate unburnt and should therefore be avoided.

The above fuels are all suitable for use in smoke control areas.

Coal

Coal doubles, trebles and cobbles may be burnt. Do not use coal singles or coal dust.

When burning coal keep the secondary air inlet open all the time. Do not smother the fire when re-fuelling - load it in two stages, allowing flames to appear above the firebed between stages.

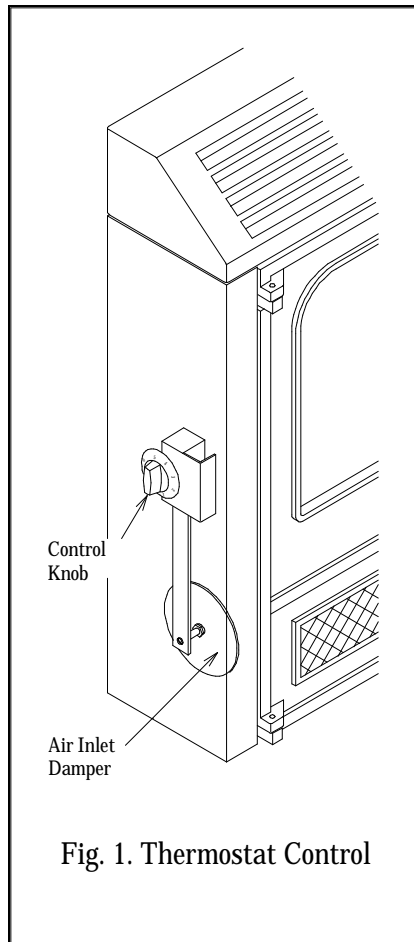


Fig. 1. Thermostat Control

Wood

Only dry, well seasoned hard woods should be used. The wood should be cut, split, and allowed to dry for at least one, and preferably two, years before use.

Peat

Peat should be well dried before use. Burning wet peat will give heavy tar deposits and reduced outputs.

PETROLEUM COKE IS NOT SUITABLE FOR USE ON THIS APPLIANCE, ITS USE WILL INVALIDATE THE GUARANTEE

At first you may find it helpful to try several fuels to find the most suitable. If you are unable to obtain the fuel you want ask your supplier, or an approved fuel distributor to suggest an alternative.

DOOR OPERATION

Use the spanner type tool to open and close the doors. Turn the knob on the right hand door anti-clockwise to open and clockwise to close. When closing the doors do not push on the enamel with the tool as this can chip the enamel, instead push the doors on the door knobs.

LIGHTING

Place some paper and dry kindling wood or fire lighters on the grate and cover with a small amount of fuel. Turn the thermostat control knob to the maximum setting and light the paper or fire lighters. Close the doors and allow the fire to burn until the fuel is well ignited then load with more fuel and adjust the thermostat to the required level.

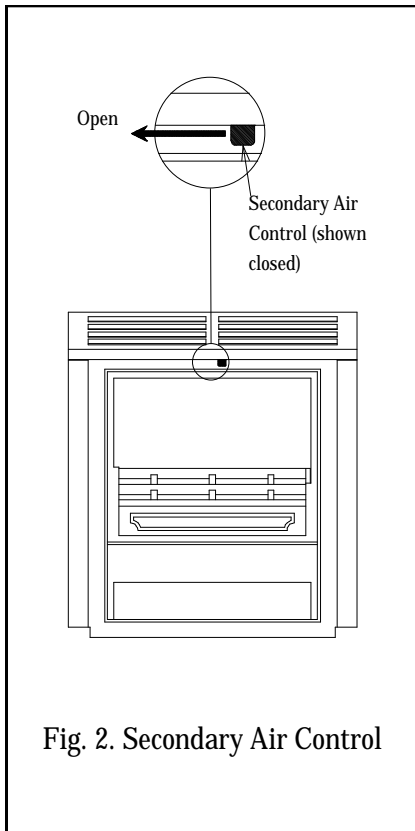


Fig. 2. Secondary Air Control

On initial lighting, the appliance may smoke and give off an odour as the silicon paint with which the firebox is painted reacts to the heat. This is normal and will cease after a short time. In the meantime the room should be kept well ventilated.

Before relighting the fire, clear the grate, and empty the ashpan.

CONTROLLING THE FIRE

The rate of burning and hence the output is controlled by the control knob on the left hand side of the appliance, shown in Fig. 1. The number at the top of the knob is the number at which it is set.

There is also a manual secondary air control which is located above the door opening as shown in Fig. 2. To adjust the setting, open the doors and use the door opening tool to move the flap to the desired position. This control should be in the closed position when burning any of the

recommended smokeless fuels except for anthracite, or homefire which should be burnt with the secondary air inlet open. The secondary air inlet should also be kept open when burning coal, wood or peat.

RUNNING THE FIRE WITH THE DOORS OPEN

The fire may be run with the doors open on occasions when an open fire effect is required. The more reactive fuels, like homefire, coal, wood and peat will burn better when the doors are open than fuels like phurnacite, sunbrite and ancit.

For safety reasons do not leave the fire unattended with the doors open and if the fuel tends to spit then use a spark guard which complies with BS 3248.

ASH CLEARANCE

The ashpan should be emptied regularly before it becomes too full. The most convenient time to remove the ash is just before de-ashing the fire since the ash will then be at its coolest. Use the tool provided to remove the ashpan.

Never allow the ash to accumulate in the ashpan so that it comes in contact with the underside of the grate as this will seriously damage the grate bars. Ensure that the air inlet damper is not prevented from closing by spilled fuel or ash.

Care should be taken to ensure that ash is cool before emptying it into plastic liners or bins.

To make ash removal easier there is a special Charnwood ash carrier available. This may be purchased from your supplier or, in case of difficulty, from ourselves.

Use a poker to clear the firebed of ash.

REFUELLING

Keep the firebox well filled (the fuel may be sloped up from the front firebars), but do not allow fuel to spill over the top of the front fire bars. Take care that fuel does not project over the front fire bars or damage to the glass may be caused when the doors are closed. If any pieces of fuel have been inadvertently loaded onto the top of the throat plate, then remove them using the scraper tool.

OVERNIGHT BURNING

Empty the ashpan, if necessary, and then clear the firebed of ash. If the fire is very low then it may be necessary to add a little fuel and turn the air control up to maximum for a brief period until the fire is burning brightly before filling with fuel. Turn the air control to a low setting. Some experimentation may be necessary to find the setting most suitable for the particular fuel used and the draw on the chimney.

For overnight burning the fire doors must be closed.

To revive the fire, empty the ashpan if necessary, poke the fire, and turn the air control knob to maximum.

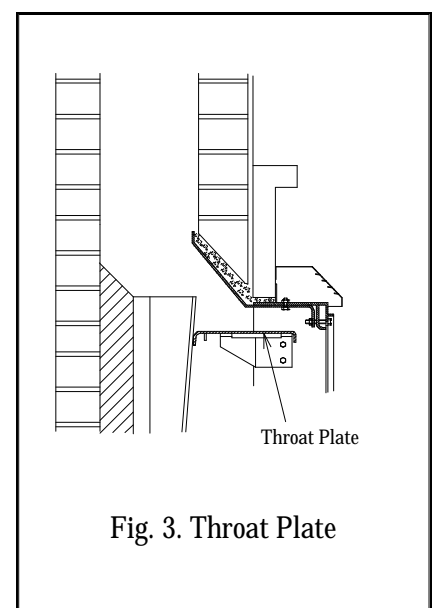


Fig. 3. Throat Plate

When the fire is burning well load on more fuel as necessary and turn the control knob to the desired setting.

THROAT PLATE AND FLUEWAY CLEANING

It is important that the throat plate, (shown in Fig. 3.) and all the appliance flueways are kept clean. They should be cleaned at least monthly, and more frequently if it is found necessary.

The throat plate and flueways may be cleaned with a low fire still burning. Use the scraper tool to scrape any sooty deposits to the front of the plate until they fall off into the fire. Check that all soot deposits have been removed from the back of the plate, it may sometimes be necessary to let the fire out and remove the plate to clean it thoroughly.

More soot will be deposited on the throat plate and in the flueways if the appliance is run at low levels for long periods. If this is the case then more frequent cleaning will be necessary.

CLEANING AND MAINTENANCE

The appliance is finished in vitreous enamel. To clean the surfaces simply wipe over with a dry cloth. Abrasive pads and scouring cleaners must not be used as these will damage the finish. Care should be taken not to knock the enamel with hard objects as it will chip.

The glass in the doors is a special ceramic glass which will withstand the heat of the fire. Before cleaning the glass open the doors and allow them to cool. Clean the glass using a damp cloth and then wiping over with a dry cloth. Any stubborn deposits on the glass may be removed with a proprietary fire glass cleaner or ceramic hob cleaner. Some deposits on the glass may be burnt off simply by running the fire at a fast rate for a few minutes. Do not use

abrasive cleaners or pads as these can scratch the surface which will weaken the glass and cause premature failure. Aerosol spray cleaners should not be used near the appliance whilst it is under fire.

If the fire is going to be out of use for a long period (for instance in the summer) then to prevent condensation, and hence corrosion, the thermostat should be left at the maximum setting and the main doors left ajar. It is also advisable to sweep the chimney and clean out the fire.

After long periods where the fire has been out of use, the chimney and appliance flueways should be cleaned before lighting.

For the fire to operate correctly it is important that the door seals are in good condition. Check that they do not become worn or frayed and replace them when necessary.

CHIMNEY SWEEPING

The chimney should be swept at least twice a year.

First remove the front firebars and the throat plate. Then sweep the chimney ensuring that soot is removed from all horizontal surfaces after sweeping.

After clearing any soot from within the fire, replace the throat plate and the front firebars.

Different types of sweeps brushes are available to suit different flueways. For standard brick chimneys a wire centre sweeps brush fitted with a guide wheel is recommended. For prefabricated insulated chimneys the manufacturers instructions with regard to sweeping should be consulted.

TROUBLE SHOOTING

Fire Will Not Burn.

Check that:

a) the air inlet is not obstructed in

any way,

- b) chimneys and flueways are clear,
- c) a suitable fuel is being used,
- d) there is an adequate air supply into the room,
- e) an extractor fan is not fitted in the same room as the fire.

Fire Blazing Out Of Control.

Check that:

- a) the doors are tightly closed,
- b) the air control knob is turned down to the minimum setting,
- c) the air inlet damper is closed (at the bottom left of the appliance), and that it is not prevented from closing completely by a piece of ash,
- d) a suitable fuel is being used,
- e) the door seals are in good condition.

Fume Emission.

Warning Note: Properly installed and operated this appliance will not emit fumes. Occasional fume from de-ashing and re-fuelling may occur. Persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist then the following immediate actions should be taken:

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

The most common cause of fume emission is flueway or chimney blockage. For your own safety these must be kept clean.

Freezing

Do not light the fire if there is any possibility that any parts of the heating system may be frozen.

Chimney Fires.

If the chimney is thoroughly and regularly swept, chimney fires should not occur. However, if a chimney fire does occur turn the control knob to the minimum setting, and tightly

close the doors of the appliance. This should cause the chimney fire to go out in which case the control should be kept at the minimum setting until the fire in the appliance has gone out. The chimney and flueways should then be cleaned. If the chimney fire

does not go out when the above action is taken then the fire brigade should be called immediately.

After a chimney fire the chimney should be carefully examined for any damage. Expert advice should be sought if necessary.

INSTALLATION INSTRUCTIONS FOR THE CHARNWOOD L.A. FIREFRONT MkII

GENERAL POINTS

The Charnwood L.A. Firefront is intended to be fitted into open fireplaces either with an existing fireback or with an existing backboiler.

It will fit both 400 and 450mm (16 and 18") fire openings and may be used with tapered or rectangular boilers or firebacks.

There are some specific requirements for the fire surround and fire opening which must be met in order to allow a satisfactory installation. These are shown in the section titled "Hearth and Fireplace" - please check them carefully.

HEALTH AND SAFETY PRECAUTIONS

Please take care when installing the appliance that the requirements of the Health and Safety at Work Act 1974 are met.

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact wash with plenty of water.

No asbestos is used in this product, however, if there is a possibility of disturbing any asbestos in the course of installation then appropriate action must be taken.

There must not be an extractor fan fitted in the same room as the fire as this can cause the appliance to emit fumes into the room.

There must be an adequate air supply into the room in which the appliance is installed totalling at least 100 square cm. (16 square inches) to provide combustion air. This is particularly necessary if the room is double glazed.

In addition to these instructions the requirements of BS:8303 and BS:6461 Pt 1&2; 1984 must be fulfilled. Local Authority Bylaws and Building Regulations regarding the installation of Solid Fuel burning appliances, flues and chimneys must also be observed.

CHIMNEY

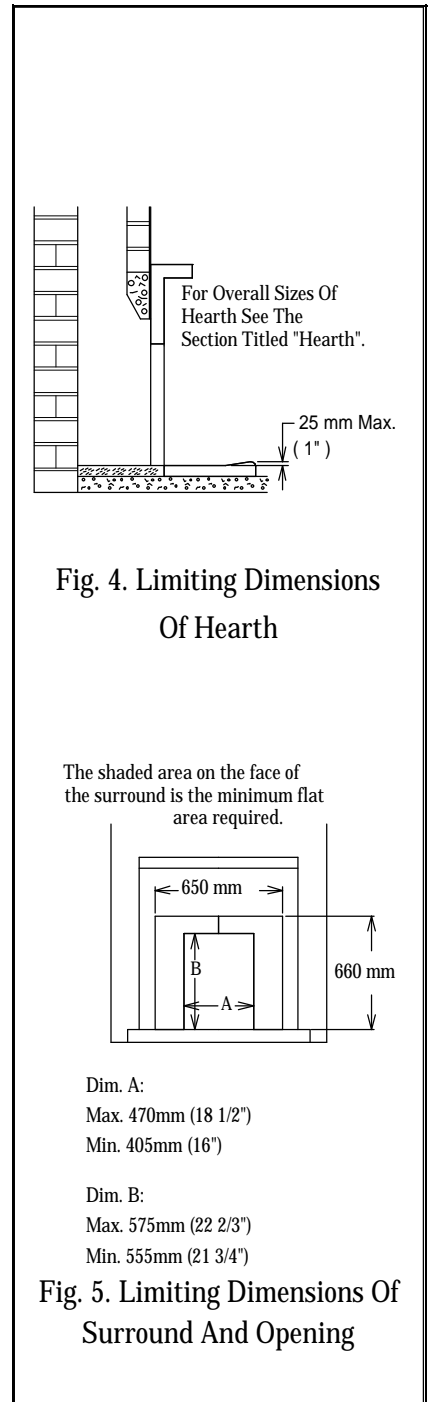
In order for the appliance to perform satisfactorily the chimney height must not be less than 4 metres measured vertically from the outlet of the appliance to the top of the chimney. The chimney should preferably be 175 mm (7 inches) or 200mm (8 inches) internal diameter or square with sides of 175mm or 200mm internally and **MUST NOT BE LESS THAN 150mm (6 INCHES) INTERNAL DIAMETER OR 150 x 150mm INTERNAL SQUARE.**

Before installation the chimney must be swept and checked, it must be in good condition, free from cracks and blockages, and should not have an excessive cross sectional area (e.g. greater than 250mm x 250mm). If you find that the chimney is in poor condition then expert advice should be sought regarding the necessity of having the chimney lined. If it is found necessary to line the chimney then a lining suitable for Solid Fuel must be used.

If it is found that there is excessive draw in the chimney then a draught stabilizer should be fitted.

HEARTH AND FIREPLACE

The appliance must be installed in a fireproof hearth and fireplace. Please ensure that the fireplace is suitable



for the higher temperatures that will be reached compared to an open fire. If reconstituted stone or marble is used then ensure that the binder will withstand temperatures up to 400°C -

this will rule out most conglomerate marbles.

The fireplace must conform to the dimensions shown in Figs. 4 & 5. A standard tapered lintel must be fitted above the fire opening to protect the back of the fire surround.

The Firefront relies on the seal between the unit and the fireplace - a smooth sealing surface 50mm (2") wide must be provided around the fire opening. If necessary by rendering or fitting a metal frame.

The fire must be situated at least 300 mm (12 inches) from any combustible material. The positioning of the appliance and the size of the hearth are governed by building regulations for Class 1 appliances. These building regulations state that the hearth must extend in front of the appliance by at least 300 mm (12 inches) and to the sides of the appliance by at least 150 mm (6 inches). If in doubt as to the positioning of the appliance expert advice should be sought either from the supplier or the local building inspector.

PREPARATION OF FIREPLACE

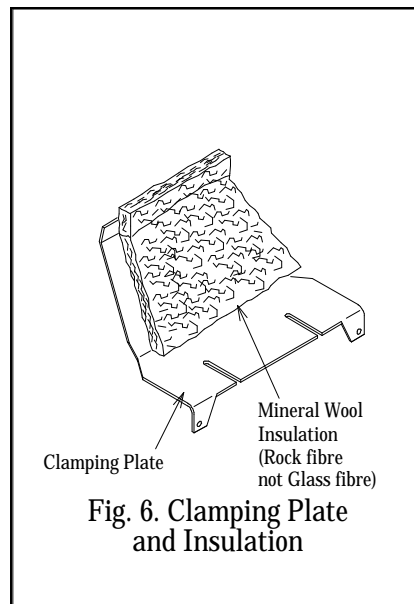
The hearth, surround and opening for the appliance must conform with Figs. 4 and 5. The flat area around the opening must be a minimum of 650 mm wide and 660 mm high. Ensure that the hearth and the base in the opening are flat, level, and at right angles to the surround.

Before fitting the L.A. Firefront remove the front of the existing fire. On high output boilers the boiler damper should be removed but any boiler doors may be left in place provided it will be possible to remove them for cleaning after the Firefront is fitted. Place the Charnwood Firefront in the opening and check that it will fit correctly. Try fitting the Charnwood grate and the ashpan, note if any brackets on the existing

boiler need removing. Ensure that the clamping plate can be fitted. Remove the Charnwood Firefront from the opening. Any brackets on the front of the boiler that interfere with the grate or ashpan will need to be carefully removed. If necessary the clamping plate may be modified to suit the installation, but any modifications must not prevent the plate from functioning correctly.

FITTING THE FIRE

If the Firefront is being fitted into a 450mm (18") fireplace then fit 2 M6 x 35mm bolts to each side of the Firefront, into the holes provided, to



keep it central in the fire opening. The bolts must be fitted so that 25mm protrudes from each side.

Ensure that the throat plate brackets are not fitted at this stage - it will not be possible to fit the clamping plate if they are fitted.

Offer the Firefront up to the fireplace so that the sealing flange comes within 5mm of the surround, ensure that the Firefront is central in the fireplace and mark the hearth through the holes in the base of the side flanges. Remove the Firefront and drill the hearth at the points

marked using an 8.0 mm masonry bit. Place the plugs provided in the hole.

Run the sealing rope around the firefront, behind the sealing flange and apply fire cement. Fit the appliance into the opening ensuring that it is central.

Lay the insulation provided on the clamping plate. Fit the clamping plate and insulation into the fire front so that the bottom comes underneath the top of the fire front, see Fig. 7. Loosely fit the two clamping bolts. Loosely fit the two tensioning bolts, pulling the clamping plate towards the front of the fire.

Push the base of the fire tight up against the fire surround and fit the two screws through the base of the side sealing flanges.

Tighten the tensioning bolts and then tighten the clamping bolts.

Ensure that there is sufficient gap between the clamping plate and the boiler or fireback - the gap must not be less than 60mm (2-1/4"), make any adjustments or modifications to meet this requirement.

Smooth the fire cement around the sealing flange making sure that it makes a good seal. Remove any excess fire cement. Inside the Firefront seal the sides and bottom to the boiler, hearth and fire surround using fire cement.

THERMOSTAT

Before lighting the fire check the cold setting distance of the thermostat.

With the control knob at the minimum setting the flap should be closed as shown in Fig. 8. To adjust the distance slacken the locking nut and adjust as necessary. When set correctly re-tighten the locking nut. Ensure that the flap opens and closes freely as the knob is turned.

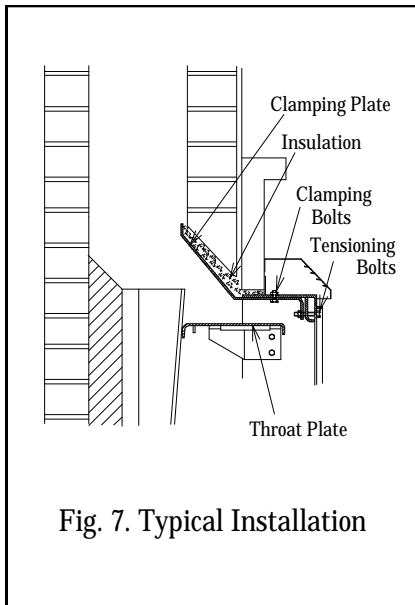


Fig. 7. Typical Installation

ASSEMBLY

Bolt the two throat plate brackets onto each side of the fire using the M8x20 bolts, ensure that the nuts are outside the firebox, see Fig. 7. The brackets are handed and must be fitted so that they angle in towards the centre of the fire.

Fit the throat plate, ensure that it can be lowered and raised easily. Push the throat plate as far back as it will go.

Fit the front grate, it should rest on top of the existing fire grate.

Fit the front firebar, ensure that the raised parts on the front of the front grate engage with the recess at the bottom of the front firebar.

Fit the side panels, hood and top grid onto the appliance. Instructions for this are enclosed with the panel pack.

Fit the plastic bung in the hole in the Right Hand Side Panel.

COMMISSIONING

On completion of the installation and after allowing a suitable period of time for the fire cement and mortar to dry out, the fire should be lit and checked to ensure that smoke and fumes are taken from the appliance up the chimney and emitted safely. Also check all joints and seals.

On completion of the installation and commissioning please leave the operating instructions with the customer and advise on the use of the fire and any controls on the system.

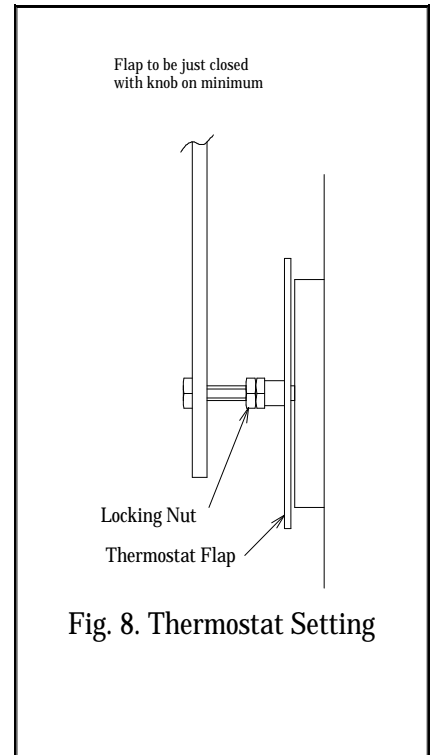


Fig. 8. Thermostat Setting