

# **Lincat**

## **SILVERLINK 600**

### **DF4 & DC04 GAS FRYERS**

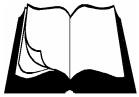
**USER, INSTALLATION, AND  
SERVICING INSTRUCTIONS FOR**

Dear Customer,  
Thank you for purchasing this Lincat product.

**This is just one of over 300 different items of catering equipment available which is constantly being extended and improved. Details are available from your local distributor or direct from us.**

**Used for the purposes for which it is intended, and with careful maintenance as outlined in this User Guide, your Lincat product will give you years of trouble free service.**

## IMPORTANT INFORMATION



Please read all of the safety and operating instructions carefully before using this product. Please pay particular attention to all sections of this User Guide that carry warning symbols and notices.

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### **WARNING!**

This is a Warning symbol. This symbol is used throughout the user guide whenever there is a risk of personal injury. Ensure that these warnings are read and understood at all times.

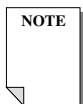
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### **CAUTION!**

This is a Caution symbol. This symbol is used throughout the user guide whenever there is a risk damaging your Lincat product. Ensure that these warnings are read and understood at all times.

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### **NOTE:**

*This is a Note symbol. This symbol is used throughout the user guide to provide additional information, hints and tips.*

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## WARNINGS AND PRECAUTIONS

It is mandatory that all appliances are installed, commissioned and serviced by a qualified and competent person as defined by the regulations in force in the country of installation.

Failure to comply will invalidate the warranty.



### WARNING!

This appliance must be installed by a competent installation engineer in accordance with the installation instructions, and should conform to the following requirements:

Do not obstruct or block the appliance flue.

Installation must include sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to health in the room in which they are installed.

It is recommended that this appliance is sited under an extraction canopy for the removal of combustion products and cooking odours.

After operation, some parts of the appliance will remain hot for a period of time. Please take care to avoid accidental burns.



### CAUTION!

All equipment must be earthed to prevent shock.

Do not connect directly to any flue, ducting or mechanical extraction system.

Installation should allow for a sufficient flow of fresh air for gas combustion.

Parts which have been protected by the manufacturer or his agent must not be adjusted by the installer or user.

This appliance is designated Category 1 and is therefore not intended for conversion from one gas type to another.

# TECHNICAL DATA

<b>Model</b>	DF4	DC04
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## Dimensions

Overall height (mm)	425	
Width (mm)	450	
Depth (mm)	600	
Weight (kg)	29.75kg	29.5kg

## Heat Input

Total heat input Natural(Gross)	11.3 kW	
Total heat input Propane(Gross)	11.3 kW	
Total heat input – Butane (Gross)	11.3 kW	

## Connection and Operating Pressures

Gas inlet connection	½" BSPT Male	
Supply Pressure - Natural	20mbar	
Supply Pressure - Propane	37 \ 50mbar	
Supply Pressure - Butane	28-30mbar	

## Operating Pressures

Natural	16.2 mbar	
Propane	25 mbar	
Butane	25 mbar	

## Gas Consumption

Total burner gas rate - Natural	1.08 m <sup>3</sup> h <sup>-1</sup>	
Total burner gas rate - Propane	0.81 kg h <sup>-1</sup>	
Total burner gas rate - Butane	0.82 kg h <sup>-1</sup>	

# COMMISSIONING

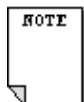
## PREPARATION

Remove all packaging and protective coatings prior to installation.

## VENTILATION

The area in which this equipment is to be installed should have sufficient fixed ventilation to comply with local legislation requirements. It is recommended that a room, or internal space, be provided with a minimum free area of 4.5cm<sup>2</sup> per kW of total heat input.

## OPERATIONAL CHECK



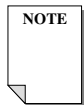
**Although all Lincat fryers are functionally checked during manufacture, commissioning must include a functional check of all controls.**

# CHECK LIST OF ENCLOSURES

Please ensure the following items are included with this piece of equipment:

Model	DF4	DC04	Tick
Warranty Card	1	1	
Connection Nipple (1/2" BSP)	1	1	
User Instructions	1	1	

## SERIAL NUMBER



Each appliance manufactured at Lincat has a unique identifying number found in the top right hand corner of the data plate attached at the rear of the appliance. Please record that number in the space provided should it be required for future reference.

Serial Number	
---------------	--

## MARK OF CONFIDENCE



Every single product that leaves our factory bears a serial plate showing the assembler's initials. It's a mark of confidence we have in our people and our manufacturing process.

# INSTALLATION

## SITING

The installer must ensure that all regulations are met and that there is an unobstructed minimum distance of 750mm from the top of the flue to the ceiling, which must be of non-combustible material.

This appliance is supplied with feet that should be fitted when it is to be mounted on either a counter top or tabletop.

If it is to be mounted on to a pedestal or stand, the feet should not be fitted and only open fronted pedestals, e.g. model CN4 or stand SLS4 should be used.

Any partitions, walls or kitchen furniture in close proximity must be of non-combustible materials and not be closer than 50mm from the sides and rear of the flue.

## INSTALLATION COMMISSIONING.

To ensure a full understanding of the correct operation of the appliance the following commissioning checks must be carried out before the appliance is handed over for use.

All operators must know how to light, safely operate and shutdown the appliance.

Although all Lincat fryers are operationally checked during manufacture, commissioning shall include an operational check of all controls and a calibration check on the thermostat.

The oil temperature should be checked once the main burner has cut-out for the second time.

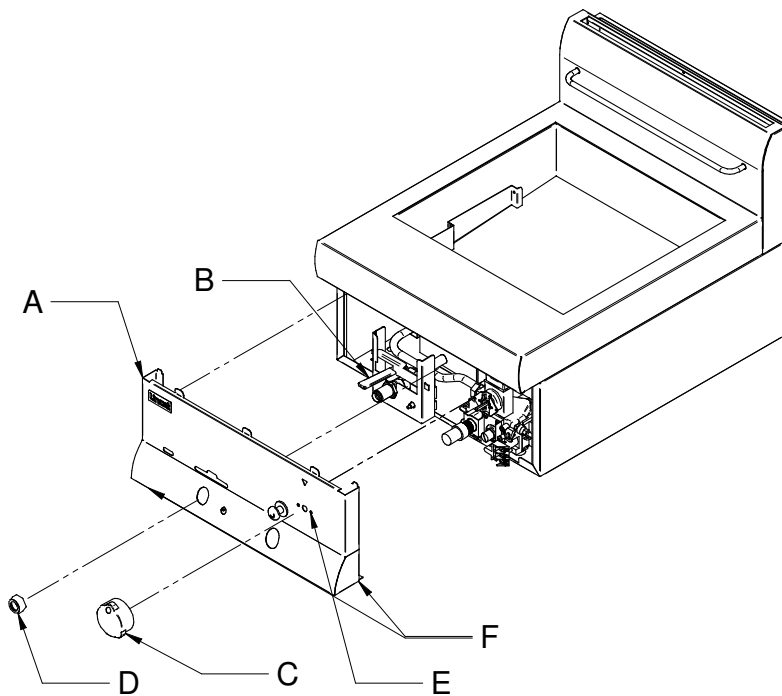
## GAS SUPPLY AND CONNECTION

Check that the gas supply corresponds to that specified on the data plate. Connection is at the rear of the unit via a 1/2" G male thread. If connection to the supply pipe is via a flexible hose, ensure that the hose used is suitable for commercial catering appliances.

### **WARNING: Black domestic hoses are not suitable for this appliance**

Connection shall comply with local regulations.

When making the connection to the appliance, secure the hexagon on the fitting to prevent rotation of the internal pipe work. An isolating cock should be fitted into the supply line close to the unit, for emergency shutdown or servicing purposes.

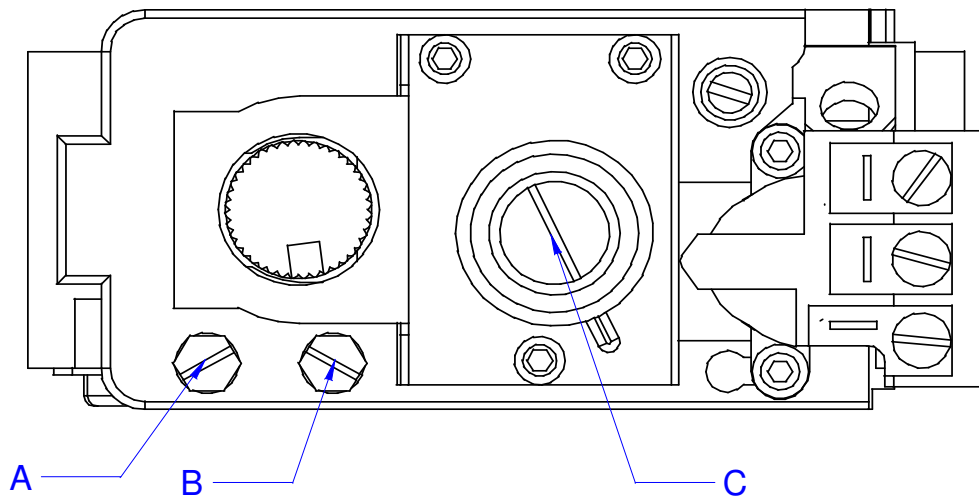


**Fig 1**

## FASCIA PANEL REMOVAL

Removing the fascia panel (**Fig 1, A**)

1. Remove the control knob (**Fig 1, C**) and undo control thermostat screws (**Fig 1, E**).
2. Remove drain valve nut (**Fig 1, D**).
3. Point the drain valve lever directly forward (**Fig 1, B**).
4. Remove screws from beneath the control panel (**Fig 1, F**) to allow control panel to be lifted forward
5. Disconnect igniter lead and remove control panel completely if necessary



**Fig 2.**

### **ADJUSTING BURNER PRESSURE**

- After removing the facia panel, (**Fig 1**) access to the pressure test points on the gas valves can be obtained.
- Using the test point (**Fig 2, A**), remove the blanking screw and attach a pressure gauge to the boss of the test nipple, to check supply inlet pressure. See “technical data table” page 4.
- Use the test point (**Fig 2, B**), to set the unit to the appropriate burner pressure. See “technical data table” page 4.
- Adjustment to the burner pressure is made with burner lit and full on, (refer to operating instructions)
- Adjustment of the burner pressure is made by removing the governor cap (**Fig 2, C**) and turning the screw clockwise to increase the outlet pressure and anticlockwise to reduce it.
- After setting refit regulator cap and tighten test point screws (**Fig 2, A, B, C**)

**NOTE:** appliances operating on Butane gas there may be some ‘yellowing’ of the flame at the burner – this is normal owing to the composition of the gas.

# USER INSTRUCTION

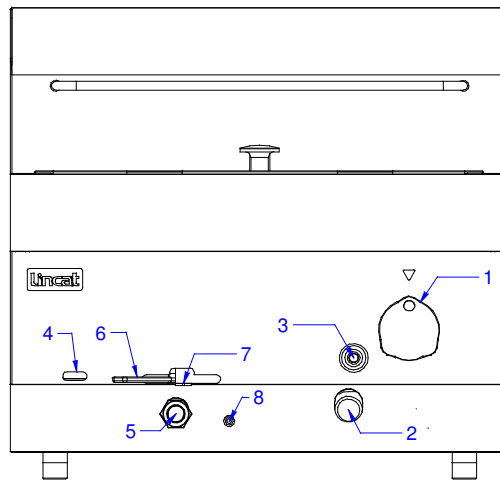
## APPLIANCE USE

This appliance is only for professional use and should only be used by qualified personnel. Ensure that the person responsible understands how to light, safely operate, clean and shutdown the appliance and is made aware of the position and operation of the gas isolating cock in the event of an emergency.

## PREPARATION FOR USE

- Ensure the drain valve is closed.
- Fill the tank with water and a little mild detergent.
- Turn the unit "ON" (see Lighting Instructions) and allow the water to boil for a short time.
- Switch "OFF" and drain off the water.
- Rinse the tank and dry thoroughly.
- Run a small quantity of oil across the base of the tank and allow to drain to waste. This will remove any residual water and provide the base of the tank with a coating of oil.
- Close the drain valve.

**Note: Lids must not be used when cooking is in progress**



**Fig 3.**

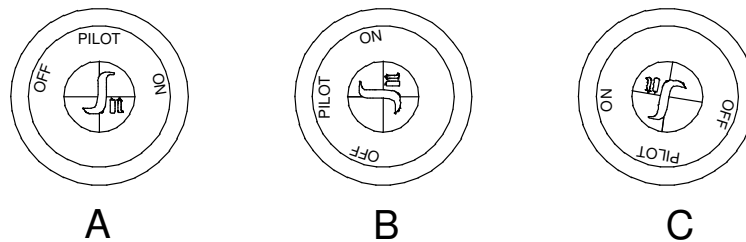
1. Thermostat knob
2. Gas valve control
3. Igniter button
4. Pilot viewing window
5. Drain valve blanking cap
6. Drain valve operating handle
7. Drain valve safety latch
8. Limit thermostat reset button



## LIGHTING SEQUENCE

Please ensure that the gas isolation valve for the appliance is turned to the open position before attempting to light this unit.

1. Ensure that the thermostat control knob (**Fig 3, 1**) is in the OFF position.
2. Ensure the gas valve control knob (**Fig 3, 2**) is in the off position.
3. (**Fig 4, A**) Push in and turn anti-clockwise to the Pilot position (**Fig 4, B**). The knob will now depress further.
4. Keeping the pilot control knob depressed, press the piezo ignition button (**Fig 3, 3**).
5. Ensure the pilot flame is alight, a blue flame can be seen when looking into the pilot viewing window (**Fig 3, 4**). Hold the pilot control knob in for 20 seconds to establish the pilot flame.
6. When the pilot is lit, release the pilot control knob and continue to turn fully anti-clockwise to the ON position (**Fig 4, C**).
7. If the pilot flame fails to remain lit, return the pilot control knob to the off position and repeat the process allowing a short period of time for the control to reset.
8. To operate the main burner, turn the thermostat control knob (**Fig 3, 1**) to the required temperature setting.



**Fig 4.**

## STANDBY

Once the pilot is lit, the appliance may be left on standby by leaving the pilot control knob in the pilot ignition position. (**Fig 4, B**). When in this position the appliance cannot be operated from the thermostat control knob. To re-ignite the main burners turn the pilot control knob anti-clockwise to the burner position, (**Fig 4, C**), and operate the control thermostat as normal.

**Note: Should the safety cutout thermostat operate during normal use the unit will shut down. To re-light the unit allow the oil to cool to a temperature below 200°C. Re-set the safety thermostat by depressing the red re-set button. (Fig 3, 8).**

## SHUT DOWN

When the appliance is not required, turn the thermostat fully anti-clockwise, which will shut down the main burner but leave the pilot lit ready for when the appliance is next required.

To turn the unit off completely, turn the thermostat fully anti-clockwise and the pilot knob fully clockwise.

## DRAINAGE

- Always allow the oil to cool to a maximum 55 °C before draining.
- Remove the blanking nut from the front of the unit (**Fig 3, 5**). Fit the drain pipe, which has a stowage clip under the lid, and place a suitable receptacle under the pipe outlet. Lift the safety catch (**Fig 3, 7**) and operate the tap by moving the handle (**Fig 3, 6**) to the right to drain. Remove the pipe and fit into its storage position in the lid. Replace the blanking nut and close the tap before refilling the tank.
- Take care when draining the oil that the drain bucket is not filled so full that it is difficult to handle.
- Excess oil remaining in the base of the tank can be mopped up using kitchen paper.

## CLEANING

Note: Clean the appliance with hot water and a mild detergent – do not use abrasives. In extreme conditions a branded cleanser such as “Carb ‘n’ Off ” makes cleaning easier after an overnight application.

- Isolate the appliance from the gas supply.
- Allow the oil to cool to a maximum 55 °C.
- Drain as per above instructions.
- Wash the tank and the top surface of the fryer body.
- Clean the drain tube assembly, using a tube or flue brush suitable for 15mm tube, with the drain valve in the open position. Clean by inserting the brush into both the inlet and outlet of the drain.
- Wash all parts thoroughly.
- Ensure all parts are thoroughly rinsed and dried. To ensure there is no water left in the drain tube, flush thoroughly with a small amount of clean cooking oil.
- Re-assemble by reversing the above procedure.

## OPERATOR PRECAUTIONS

Never leave the unit unsupervised whilst frying.

Always drain food of excess moisture before frying, never put water into the oil.

Overheating the oil may lead to hazardous circumstances.

Ensure oil is always maintained at the level indicated (H-High, L-Low) to avoid risk of hazardous circumstances.

Never use flammable cleaning agents on the appliance.

Under no circumstances should replenishment of the oil when the appliance is hot.



## NOTES ON FRYING MEDIA

Good quality vegetable oil is recommended. Animal fat may be used - but must always be melted first. Animal fat has a lower smoke and fire temperature than vegetable oil and taste is transferred when cooking with it (e.g. onions fried in animal fat will taint other foods i.e. fish which may follow). This does not occur when cooking with vegetable oil.

The life expectancy of oils and cooking fats will be lengthened if they are filtered regularly - food particles not removed turn rancid and reduce oil/fat quality.

Vegetable oils and animal fat are incompatible - e.g. if sausages containing a lot of animal fat are fried in vegetable oil, the oil will tend to "glue" and spoil.

The life of oil or fat will also be extended if the temperature is turned down when the fryer is not in use - otherwise if left "full-on" the oil is being subjected to needless heat treatment and thereby destroyed.

Used oil symptoms firstly indicate discolouration by darkening. The oil becomes thin its fat content having become exhausted. The next symptom is an unhealthy yellow foam which may appear on the surface, and the third and more serious one is that the oil will boil or "surge" if not changed - thereby causing damage. Be safe, not sorry. Keep your oil in good condition and ensure a healthier food product and happier customers.

Please note also, that "spent" oil will have a lower flash point than new oil and therefore present a greater fire hazard. Also avoid overflow from over-wet loads or over-large batches.

In time, oil/fat may build up as a dried-on residue on tanks, baskets etc., although this can be minimised on baskets by regular washing in hot water and detergent. If subsequently, it cannot be removed by normal cleaning, various branded cleansers are available such as "Carb 'n' Off" which makes removal easy after overnight application. Carb 'n' Off is available from us Part No. FCB01.

If a fryer is to be out of use for a lengthy period, drain and clean the tank. Lightly oil tanks below the batter plate with cooking oil.

### **FROZEN FOODS**

When cooking frozen food, it is advisable to defrost the food before use. Cooking of frozen food will affect the heating recovery time, lowering your cooking output.

### **FRYING TIPS**

- Always use a good quality oil or fat, preferably oil which has a high breakdown temperature e.g. pure vegetable oil.
- Do not exceed the recommended cooking temperature stated by the supplier.
- Always maintain the oil at the correct level.
- Do not use the Fryer until the oil is at its correct temperature.
- Only use very clean oil and filter it daily.
- Skim the surface of crumbs and pieces that float, to prevent burning and contaminating the oil.
- Keep the pan clean.
- Do not overload the baskets.
- Use batter plate only if free frying of fish is required.

### **OIL CAPACITY**

<b>Model No.</b>	<b>Capacity (litres)</b>
DF4	8.5
DC04	8.5

Note: The recommended frying weight is 750g (0.75kg) per basket.

# SERVICING

## ROUTINE SERVICE

**We recommend that competent authorised service agents carry out all servicing, other than routine cleaning. In addition to that, a service should take place every 6 months.**

**Please see page 18 “Service” for information on authorised service agents.**

- Carry out a general check on the installation paying particular attention to the following:-

Has the unit been installed using the correct hose?

Does the unit have a safety chain?

Does the equipment have a separate isolation valve?

- Check all components for correct operation and replace where necessary.
- Visually check the burner operation, closely observing the flame picture and look for evidence of any debris or damage. Remove burner and clean or replace as necessary.
- Check burner pressure and adjust where necessary. See “insulation instructions”
- Clean pilot assembly and check that it is burning cleanly.
- Ensure that the flue is clear.
- Carry out a gas soundness check.

## SERVICE ACCESS

Note: Access to most of the components referred to in this section can only be gained by separating the base/sides of the appliance from the tank assembly. See Base and hob top separation (**Fig, 5**)

## BASE AND HOBTOP SEPARATION

**Note: The fryer must be emptied of oil and disconnected from the gas supply before proceeding.**

- Remove the control panel as per (**Fig1**).
- Detach the flue back by removing screws at back of unit holding flue to body.
- Loosen the nut holding the drain tap valve to the drain tap bracket.
- Remove the safety lock arm latch (**Fig 5, 1**).
- Undo the limit stat nut and free the limit stat.
- Disconnect limit stat wiring to interrupted t/couple.
- Disconnect the wiring from the control stat.
- The body and hob are interlocked by 3 steel hooks and slots on each side – to separate, push hobtop back until hooks disengage the lift hob and tank assumedly clear of the base and sides.



Take care as the limit thermostat and safety stat will remain attached to hobtop – do not damage the capillaries.

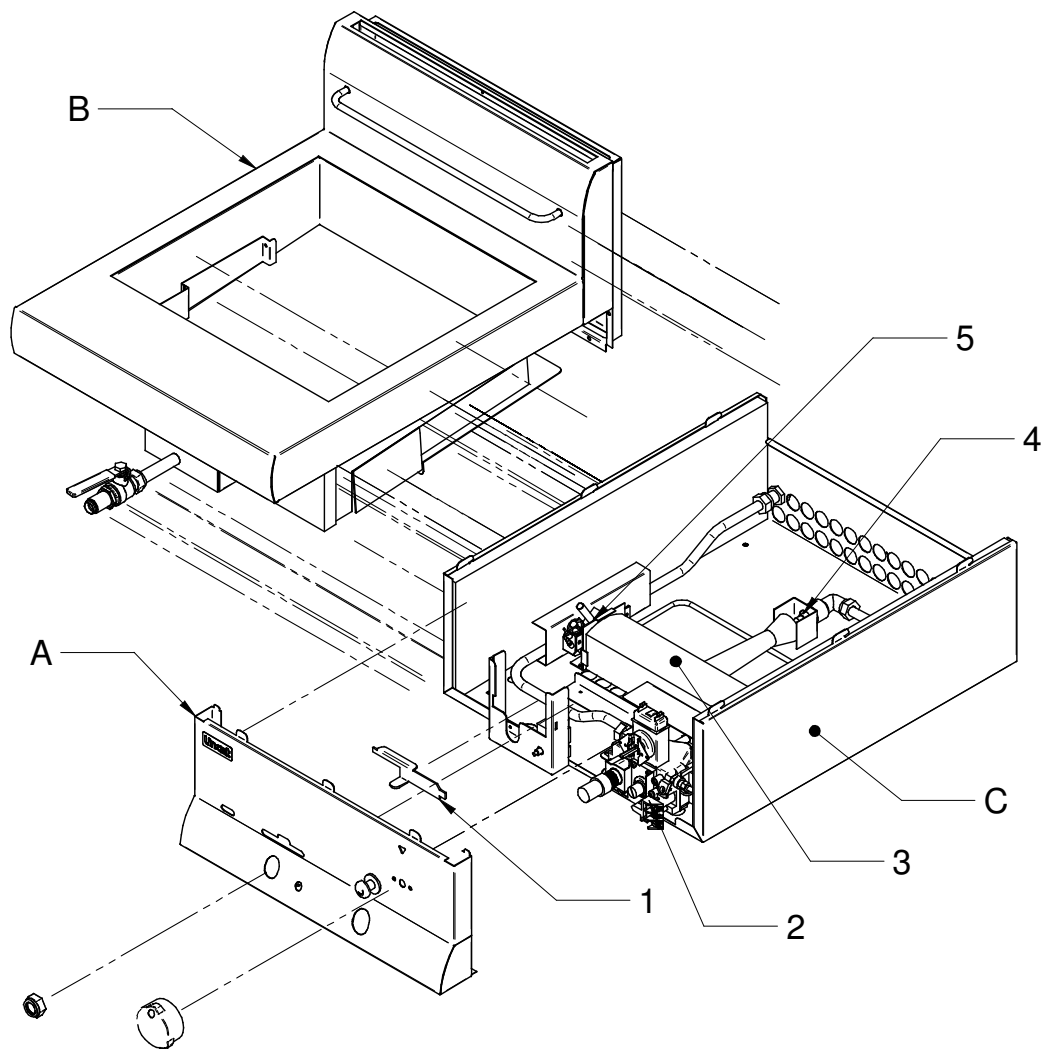


Fig 5

- Carry out any work necessary and reassemble in reverse order.

# COMPONENT REPLACEMENT

## High limit thermostat

- Remove the facia panel see **(Fig 1)**.
- Undo tank gland.
- Undo limit thermostat nut and withdraw phial from bracket.
- Withdraw phial from tank.
- Thermostat can now be removed
- Replace in reverse order, ensuring correct phial location within the tank bracket.

## Control thermostat

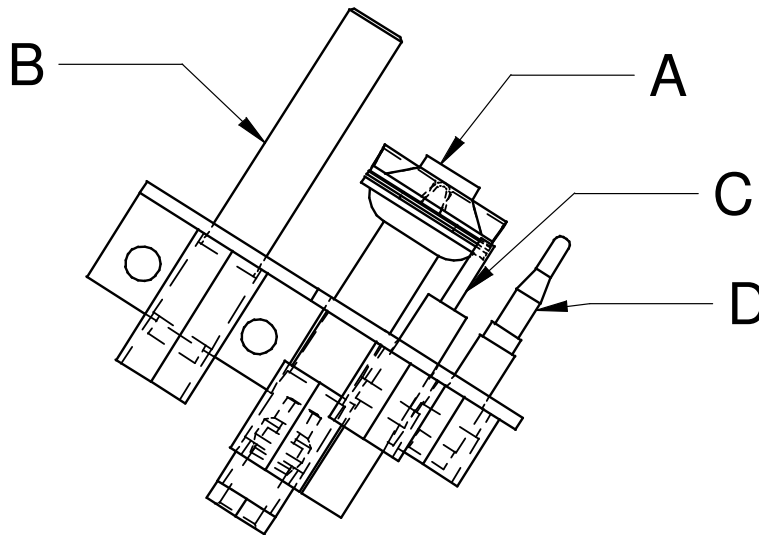
- Remove the facia panel see **(Fig 1)**.
- Remove thermostat from the control panel.
- Undo the small centre nut of the tank gland and ensure capillary is free to move.
- Withdraw the thermostat phial from the tank.
- Replace in reverse order, ensuring correct phial location within the tank bracket.

## Control Valve (Fig 5, 2)

- Removal of the hobtop and facia as per **(Fig, 5)**.
- Disconnect all wires connections on valve terminals.
- Undo pilot feed pipe.
- Undo supply pipe and burner pip unions.
- Remove screws from each side of valve support brackets.
- Withdraw valve.
- Replace in reverse order.
- Reset burner pressure as per "Installation instructions"

### Separating Pilot assembly (Fig 6)

1. Remove the two screws under the base that hold the burner bracket onto which the pilot assembly is mounted.
2. Remove screws to separate burner from pilot assembly.
3. Undo pilot gas feed pipe from pilot assembly (**Fig 6,A**).
4. The pilot assembly can now be accessed replace in reverse order.



**Fig 6**

### Thermocouple (Fig 6, D)

- After separating, the pilot assembly steps 1 – 4.
- Undo thermocouple retaining nut and remove from pilot assembly.
- Disconnect at interrupter and withdraw thermocouple.

### Thermopile (Fig 6, B)

- After separating, the pilot assembly steps 1 - 4.
- Undo the thermopile-retaining nut and withdraw from pilot assembly.
- Disconnect thermopile lead at valve connections.

### Electrode (Fig 6, C)

- After separating, the pilot assembly steps 1 - 4.
- Remove the igniter cable from the electrode.
- Undo retaining nut and remove electrode from pilot assembly.

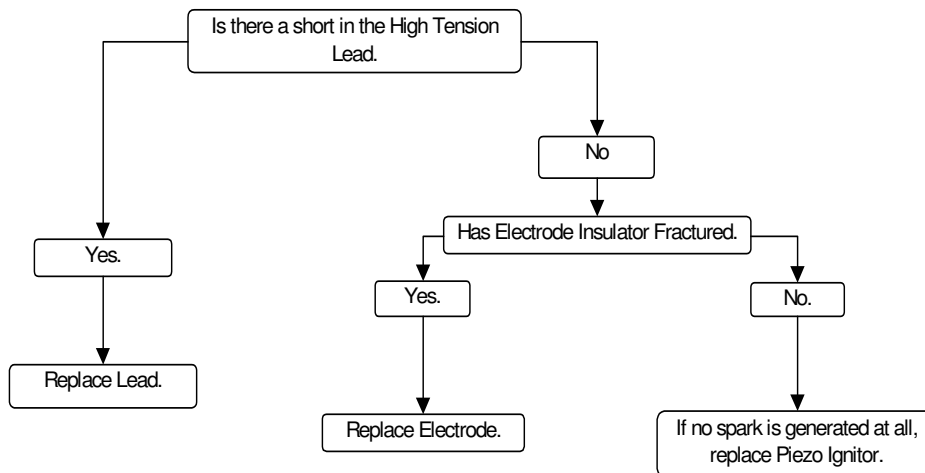
# SPARE PARTS LIST

The following components are listed with Lincat reference part number.

Description	Part number
Piezo Igniter	IG12
Igniter lead	IG06
Igniter Electrode	IG15
Pilot Assembly	PI08
Thermopile	TC20
Interrupted Thermocouple	TC38
Control Thermostat	TH95
Safety limit Thermostat	TH96
Gas Control Valve	VA20
Burner	BU17
Burner Jet (Natural)	JE06
Burner Jet (Propane)	JE36

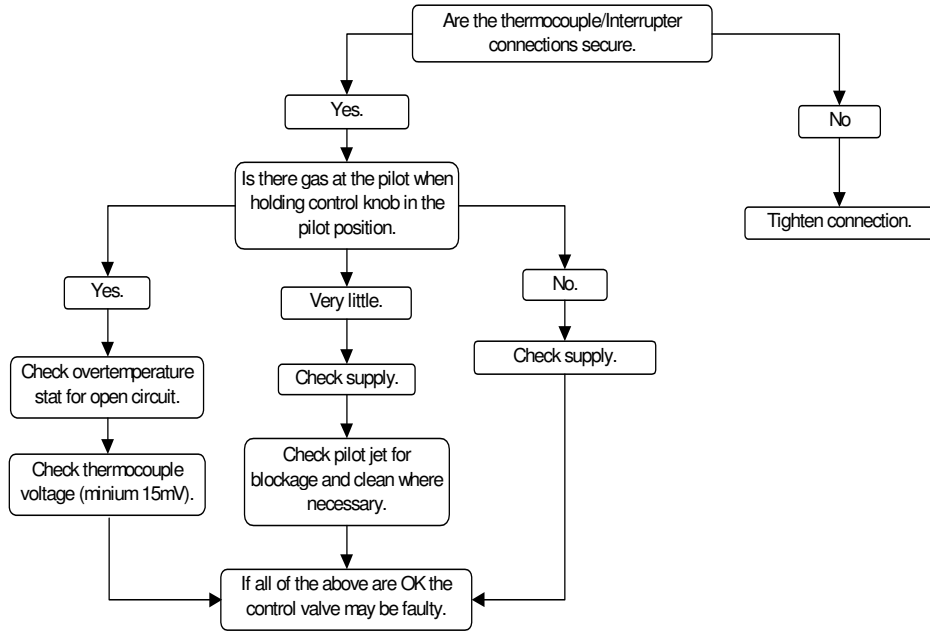
# FAULT FINDING

**Piezo Ignitor not sparking.**

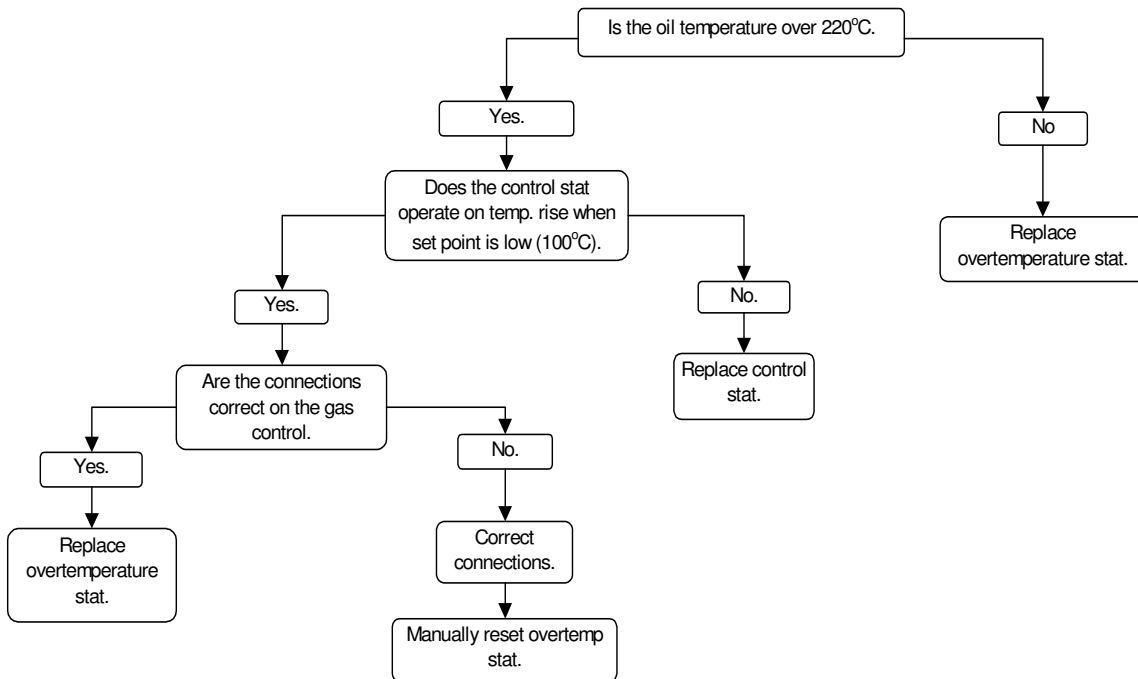




### Pilot burner will not light or stay lit.



### High limit thermostat operates.



## SERVICE INFORMATION

Gas catering equipment should be routinely serviced to ensure a long trouble free life. It is recommended that this appliances is serviced every 6 months by a competent gas engineer.

For help regarding the installation, maintenance and use of your LINCAT equipment, please call:-

### LINCAT GROUP SERVICE HELP DESK

 **+44 (0) 1522 875520**

#### **AUTHORISED SERVICE AGENTS**

We recommend that all servicing other than our authorised service agents carry out routine cleaning. We cannot accept responsibility for work carried out by other persons.

Please quote both the model and serial numbers from the data plate attached to the unit. Give brief details of the service requirement.

If possible please quote the product code of the part number you require.

Work carried out under warranty will normally be undertaken only during normal working hours, i.e. Monday to Friday, 8.30 a.m. - 5.30 p.m.

#### **CONDITIONS OF GUARANTEE**

The guarantee does not cover:-

- 1) Accidental breakage or damage
- 2) Operational misuse, wear and tear from normal usage, incorrect adjustment, or neglect.
- 3) Incorrect installation, maintenance, modification or unauthorised service work.

## Notes