

# Lincat

## User, Installation, Servicing and Conversion Instructions

### Opus 800 Gas Chargrills OG8401, OG8402 & OG8403

Please make a note of your product details for future use:

Date Purchased: \_\_\_\_\_

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

\_\_\_\_\_

*Opus* **800**

Dear Customer,  
Thank you for purchasing this Lincat product.

**This is just one of over 450 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.**

***For use in GB & IE***

## **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.

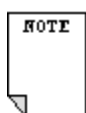
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### **CAUTION!**

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.

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 equi-potentially earth bonded.



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.

The gas supply hose and or tubing shall comply with local regulations and periodically inspected for conformity.

# TECHNICAL DATA

|              |        |        |        |
|--------------|--------|--------|--------|
| <b>Model</b> | OG8401 | OG8402 | OG8403 |
|--------------|--------|--------|--------|

## Dimensions

|                                     |           |           |            |
|-------------------------------------|-----------|-----------|------------|
| Overall Height (mm)                 | 650       |           |            |
| Width (mm)                          | 600       | 900       | 1200       |
| Depth (mm)                          | 800       |           |            |
| Weight (kg)                         | 160       |           |            |
| Cooking Surface w x d (mm)          | 500 X 620 | 700 X 620 | 1100 X 620 |
| Cooking Grid Area (m <sup>2</sup> ) | 0.31      | 0.43      | 0.68       |

## Heat Input

|                                  |        |      |        |
|----------------------------------|--------|------|--------|
| Total Heat Input Natural (Gross) | 13.8kW | 23kW | 32.2kW |
| Total Heat Input Propane (Gross) | 12.6kW | 21kW | 29.4kW |

## Individual Burner Heat Input

|                            |       |   |   |
|----------------------------|-------|---|---|
| Heat Input Natural (Gross) | 4.6kW |   |   |
| Heat Input Propane (Gross) | 4.2kW |   |   |
| Burners per appliance      | 3     | 5 | 7 |

## Connection and Operating Pressures

|                           |                               |
|---------------------------|-------------------------------|
| Gas Inlet Connection      | 1/2" BSP (R <sub>P</sub> 1/2) |
| Supply Pressure - Natural | 20mbar                        |
| Supply Pressure - Propane | 37mbar                        |

Note: Propane appliances are regulated – see

## Gas Consumption Full Rate

|                          |                                    |                                    |                                    |
|--------------------------|------------------------------------|------------------------------------|------------------------------------|
| Total Gas Rate – Natural | 1.31m <sup>3</sup> h <sup>-1</sup> | 2.19m <sup>3</sup> h <sup>-1</sup> | 3.07m <sup>3</sup> h <sup>-1</sup> |
| Total Gas Rate – Propane | 0.9kgh <sup>-1</sup>               | 1.5kgh <sup>-1</sup>               | 2.1kgh <sup>-1</sup>               |

## Individual Burner Gas Consumption Full Rate

|                    |                                    |
|--------------------|------------------------------------|
| Gas Rate – Natural | 0.44m <sup>3</sup> h <sup>-1</sup> |
| Gas Rate – Propane | 0.30kgh <sup>-1</sup>              |

## Gas Consumption Low Rate

|                          |                                    |                                    |                                    |
|--------------------------|------------------------------------|------------------------------------|------------------------------------|
| Total Gas Rate – Natural | 0.63m <sup>3</sup> h <sup>-1</sup> | 1.05m <sup>3</sup> h <sup>-1</sup> | 1.47m <sup>3</sup> h <sup>-1</sup> |
| Total Gas Rate – Propane | 0.41kgh <sup>-1</sup>              | 0.68kgh <sup>-1</sup>              | 0.95kgh <sup>-1</sup>              |

## Individual Burner Gas Consumption Low Rate

|                    |  |
|--------------------|--|
| Gas Rate – Natural | 0.21m <sup>3</sup> h <sup>-1</sup> (2.2kW) |
| Gas Rate – Propane | 0.14kgh <sup>-1</sup> (1.9kW)              |

# 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.

# CHECK LIST OF ENCLOSURES

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

| Model             | OG8401 | OG8402 | OG8403 | Tick |
|-------------------|--------|--------|--------|------|
| Warranty Card     | 1      | 1      | 1      |      |
| Branding Grids    | 5      | 8      | 11     |      |
| Grid Scraper      | 1      | 1      | 1      |      |
| Spatula           | 1      | 1      | 1      |      |
| User Instructions | 1      | 1      | 1      |      |

For LPG (Propane) Appliances only

|                     |   |   |   |  |
|---------------------|---|---|---|--|
| Barrel Nipple       | 1 | 1 | 1 |  |
| Male – Female Elbow | 1 | 1 | 1 |  |
| Pressure Regulator  | 1 | 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 local regulations in force are met and that there is an unobstructed minimum distance of 1000mm from the top of the cooking grid to the extraction canopy, which must be of non-combustible material.

The appliance should be installed on a level surface ensuring the unit is stable and firmly located.

Any partitions, walls or kitchen furniture in close proximity must be of non-combustible materials and not be closer than 100mm from the sides and rear of the appliance.

There must be a minimum of 600mm clearance from the front of the appliance in which to operate the appliance.

## COUNTER TOP

If the appliance is to be installed on a counter top it shall be of a sturdy construction to hold the weight of the appliance.

The counter top shall be of a non-combustible material.

The appliance when installed on a suitable countertop shall be level.

The surface of the grid shall be at a safe working height.

To level the appliance on the counter top the feet of the appliance can be rotated until the appliance level is found.

The counter top and the appliance on which it is to be installed shall be beneath an extraction canopy and shall comply with the conditions of SITING above.

## GAS SUPPLY AND CONNECTION

The gas inlet connection is at the rear of the appliance on the right hand under side when viewed from the front.

The gas inlet is ½" BSP (Rp ½)

It is recommended that the gas supply line for the OG8402 and OG8403 have a diameter not less than 22mm or ¾" nominal bore.

The gas supply tubing or hose should be periodically inspected and replaced as necessary. All joints made must be leak free.

Final gas connection to the appliance and gas supply shall comply with local regulations.

When making the connection to the appliance an isolating cock should be fitted into the supply line for closing the gas supply in case of emergency shutdown or servicing purposes. The isolating cock should have unrestricted access.

The appliances listed above have been designated Cat I & Cat II for 2<sup>nd</sup> and 3<sup>rd</sup> family gases. They are flue type A<sub>1</sub>

## **SUPPLY PRESSURES**

The appliance is connected directly to the gas supply where the gas supply pressure is controlled at the source of inlet in the building or via the regulator attached to bottled gases.

Natural gas appliances are connected directly to the gas supply provided the inlet pressure is regulated up stream to 20mbar.

Propane gas appliances require the fitting of a regulator at the inlet of the appliance where the upstream pressure is regulated to 37mbar.

The set pressure for propane appliances is 30mbar with all burners in operation.

To gain access to the gas pressure test nipple the fascia panel requires removal. The test nipple is situated at the left hand end of the manifold rail.

Remove the blanking screw and attach a pressure gauge to the boss of the test nipple to check the supply pressure and/operating pressure.

## **FIRST TIME LIGHTING**

The procedure for first time lighting may only be carried out by registered personnel.

To light any individual burner it may be necessary to purge all pipe work of air. To do this through the pilots alone could take some considerable time. With the fascia panel removed the test nipple plug can be removed to bleed the pipe work of air. When there is evidence of gas flow at the test nipple the plug is to be refitted and made secure/leak free.

Refit the fascia panel and control knobs. A small amount of air will need to be purged from each of the pilot lines.

# CONVERSION OF GAS TYPES

## CONVERSION OF GAS TYPE

### Burner Injector Changes

| Model | Gas | Inlet Pressure | Ø    | Mark | Part Number |
|-------|-----|----------------|------|------|-------------|
| All   | G20 | 20mbar         | 1.51 | 310  | JE45        |
|       | G31 | 37mbar         | 1.06 | 150  | JE34        |

### Valve Bypass Injector Changes

| Model | Gas | Ø    | Mark | Part Number |
|-------|-----|------|------|-------------|
| All   | G20 | 1.10 | N    | JE136       |
|       | G31 | 0.72 | P    | JE137       |

When converting to Propane an external regulator must be fitted to the appliance gas inlet in conjunction with a barrel nipple and or ½" BSP Male-Female 90° elbow  
 NP01 – Barrel nipple  
 CO136 – 90° male/female elbow  
 PG10 - Regulator

### Pilot Assembly Changes

| Model | Gas | Mark | Part Number |
|-------|-----|------|-------------|
| All   | G20 | 27.2 | JE19        |
|       | G31 | 22.1 | JE20        |

## Conversion from One Gas Type to Another

To convert the appliance from one gas type to another it will be necessary to remove the fascia panel.

Remove all the control knobs from the valve spindles. Ensure the control knob spring clips are not dislodged and become lost.

The fixing screws for the fascia panel are located on the underside of the fascia panel.

Remove the fixing screws and pull the fascia panel free from its locating lugs.

Each burner will require 1 pilot injector, 1 burner injector and washers, 1 bypass injector.

Follow the step by step guide to changing the necessary components for the gas conversion process.

When converting from Natural gas to Propane an external regulator must be fitted at the gas inlet of the appliance.

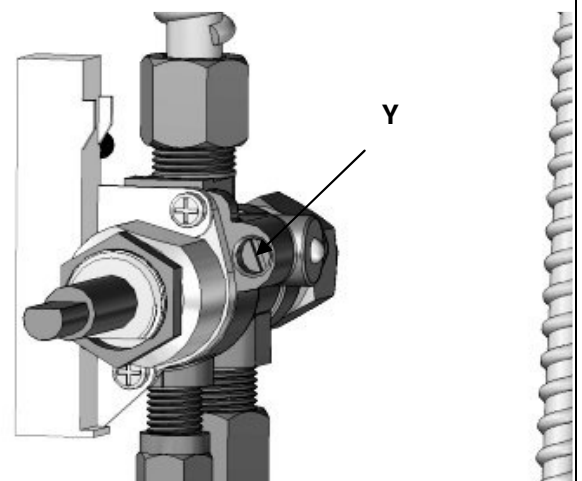
## Valve By-pass Injector

The valve by-pass injector is fitted to the right of the valve spindle.

Remove the by-pass injector 'Y' by screwing anti-clockwise.

The rubber 'O' ring fitted to the by-pass injector will offer some resistance. It may be necessary to complete the withdrawal of the by-pass injector using long nose pliers.

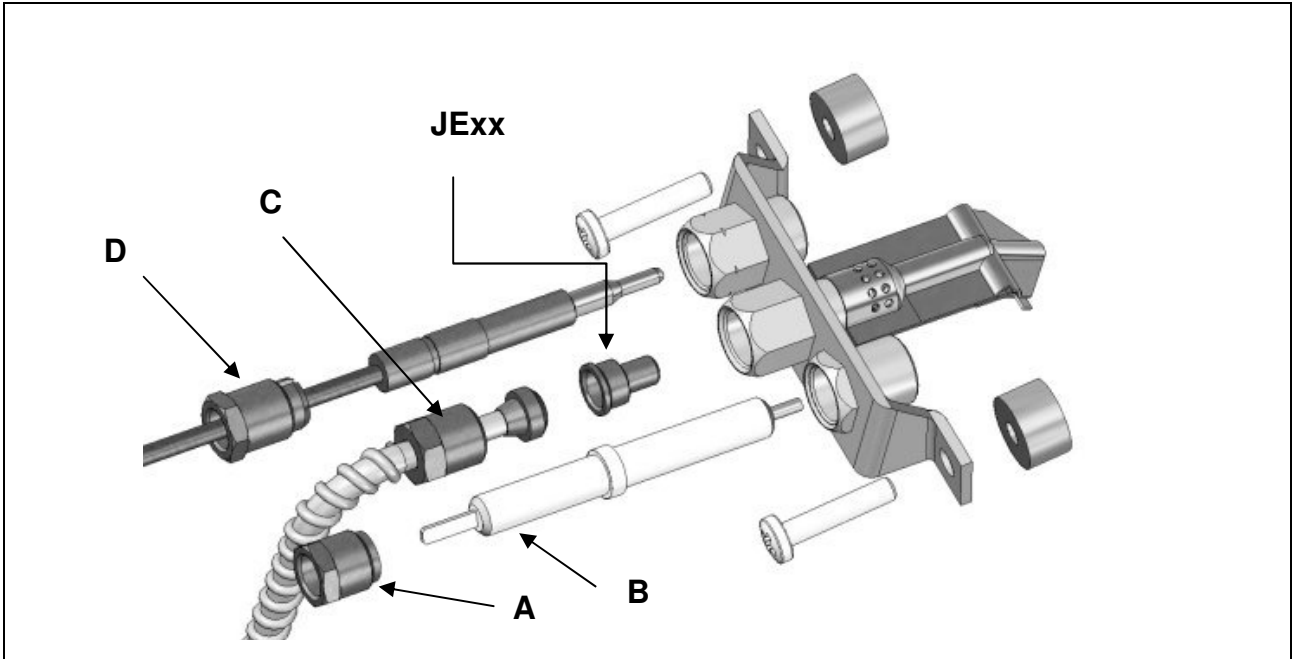
Replace the by-pass injector applicable to the relevant gas type. Ensure the by-pass injector is screwed fully home





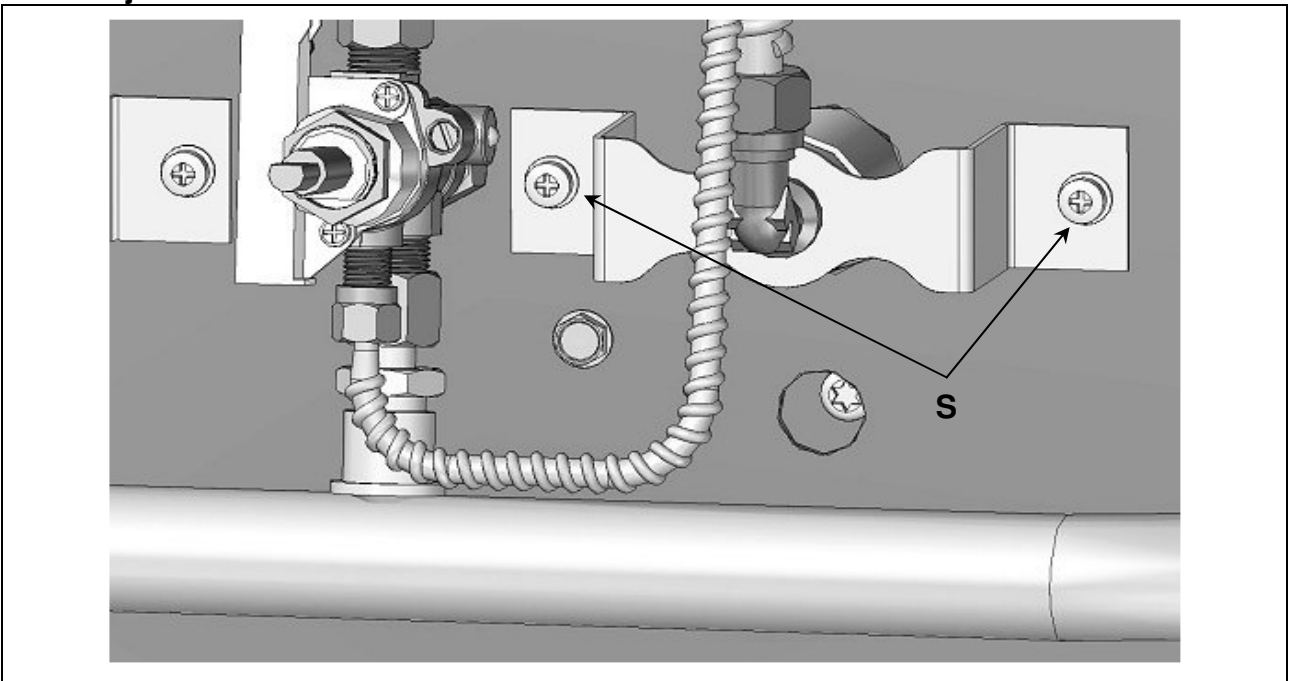
## Pilot Injector Removal

Remove the fascia panel as detailed previously to gain access to the valves and pilot assemblies.

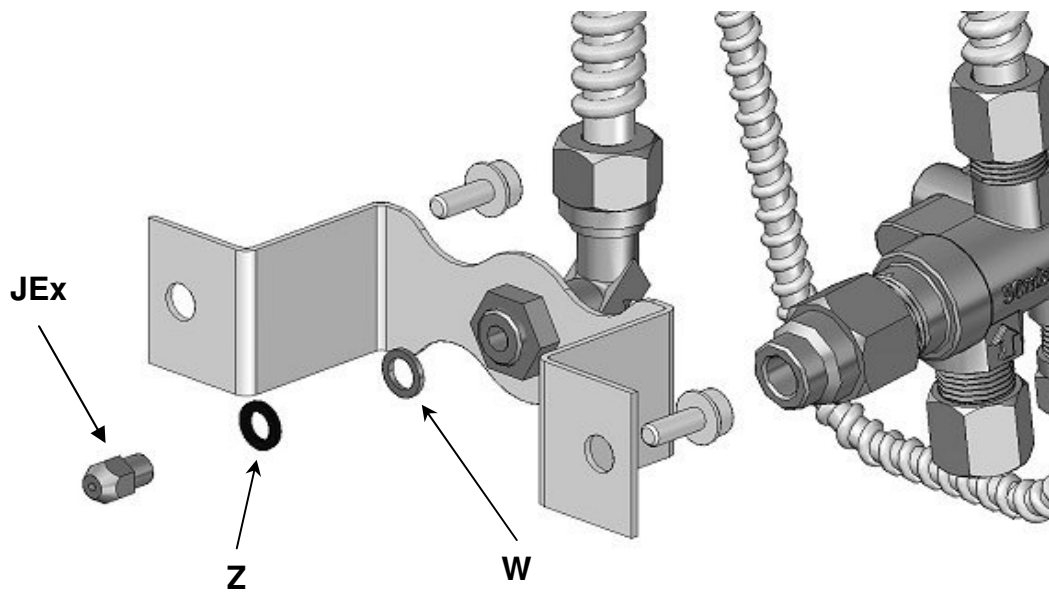


To change the pilot injector very carefully loosen the ignitor retaining nut A and withdraw the ignitor B  
Loosen and the pilot feed pipe nut C and withdraw the pilot feed pipe from the pilot assembly  
The pilot injector, JExx, can be removed and replaced with the appropriate injector applicable to gas type  
Refit the pilot feed pipe and secure nut C  
Refit the ignitor B  
Secure the ignitor with the retaining nut A taking care as to not to over tighten.  
Note: Over tightening nut A can lead t fracture of the ignitor, B

## Burner Injector



Remove the screws S from the bracket  
Loosen the the burner feed pipe nut at the valve, this will allow the pipe and bracket to swivel



Remove the injector JEx together with the fibre washer Z and the copper washer W  
Replace with the new injector applicable to the gas type being converted with a new fibre and copper washer  
Refit the bracket  
Tighten the burner feed pipe nut  
Check connections are leak free

# 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 shut down the appliance and is made aware of the position and operation of the gas isolating cock in the event of an emergency.

## ROUTINE CLEANING

It is important that users of the appliance shall systematically check and clean down as necessary areas of the grill that have accumulated oils, fats and other combustible debris from previous cooking.



**This is to prevent the potential risk of fire.**

Cleaning of the appliance and its parts must be done when the appliance is cold and before the start of service.

### Areas to Check

- **Branding grids** – The spaces between the grids may become clogged and will need to be cleaned to ensure even and clean cooking. Regular use of the scraper supplied with the appliance will help keep the tops and the spaces of the branding grid clean and clear.
- **Radiant caps** – The tops of the radiant caps will require brushing down to remove build up of debris and ash that may have accumulated from previous cooking. They may be removed to ease cleaning and must be refitted before use.
- **Debris Collection Drawers** – The drawers will need to be emptied of debris and cleaned from old fats and oils that may have accumulated from previous cooking.

## LIGHTING SEQUENCE

The operation of each burner is identical. Each valve has its own built in piezo ignition. To light the gas at a burner, select the corresponding control knob.



If the appliance has stood unused for any length of time it may be necessary to purge the pilot lines of air. To purge the pilot lines of air depress and rotate a control knob until spring tension is felt. Maintain the knob in the depressed position for 20-30seconds and then fully rotate to the ignition position. Repeat as necessary until the gas ignites at the pilot.

- Depress the control knob and rotate 90° anti-clockwise to the position marked with a stylized star to light the gas at the pilot.

Should the pilot not light the first time maintain the control knob in this position for a few seconds to allow a free flow of gas through to the pilot. Return the control knob to the 'OFF' position and repeat the lighting sequence.

A portion of the pilot flame can be seen through the viewing port on the fascia panel.

- After establishing the flame at the pilot; maintain the control knob in the depressed position for approximately 15 seconds to retain the flame at the pilot. Confirmation of the established flame is made by releasing the control knob.

If the pilot flame goes out repeat the process until the flame is maintained.

Leave the pilot lit for a further 45-60 seconds to allow the flame failure sensing element to heat to its full potential.

- To light the gas at the corresponding burner rotate the control knob to any point between the low rate and full rate as denoted by the small and large stylized flames on the control knob. When lit a portion of the flame at the burner can be seen through the viewing port on the fascia. After a few minutes there will be an evident glow radiating from the burner through the radiant cap.

### **COOKING ZONES**

Cooking zones are controlled by the gas valves. The cooking temperature can be controlled at any point between the low rate and the full rate.

After lighting, each zone can be left on pilot standby.

### **DEBRIS COLLECTION DRAWERS**



It is recommended that each drawer is filled with a small volume of water before the start of service. Any fats or oils from the cooking process falling through to the drawers will form a film on the water whilst heavier pieces of debris will lie on the base of the drawer.

At regular intervals during quieter times of service the drawers should be periodically checked for the level of water and emptied of collected debris as necessary.

### **USING THE APPLIANCE**

For first time use it is recommended that the branding grids are 'seasoned'.

To season the grids, lightly coat the cooking surfaces with cooking oil. Place the grids back on to the appliance and heat the grids to season.

Before the start of daily service flip the branding grids and heat at full power for 10 minutes to carbonize the previous day's deposits. Remove debris using the scraper. Lower the temperature of the zones to the desired cooking temperature.

# SERVICING

## SERVICE

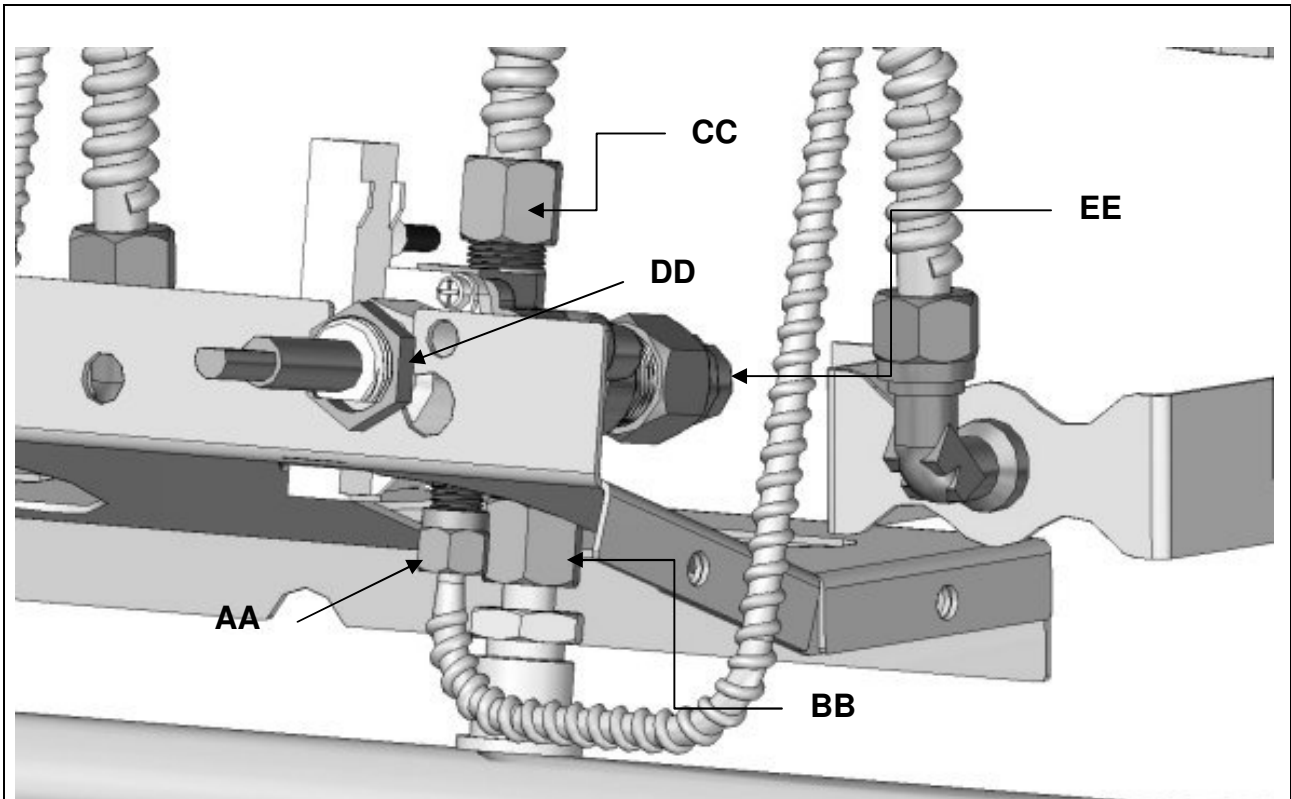
The only **end user** service operation permitted is the routine cleaning and inspection of external parts of the appliance. The only maintenance operation permitted is the replacement of parts by approved and qualified representatives appointed by Lincat Ltd.

Visual inspection shall determine that:

- Branding grids are not clogged and excessive carbon build up has been removed
- Debris collection drawers are in an acceptable clean condition including surge bars
- Radiant caps are free from excessive build up of carbon
- Splash back and hob top are in an acceptable clean condition
- Equi-potential earth bond is attached
- Flexible gas supply hose (where fitted) is of a sound condition and the safety restraint chain/cable is attached
- All gas taps function correctly in terms of lighting pilots and burners

# COMPONENT REPLACEMENT

## Valve Body



Loosen the pilot feed pipe nut AA and withdraw the pilot feed pipe from the valve body  
Loosen the valve inlet nut BB  
Loosen the burner feed pipe nut CC and free the burner feed pipe from the valve body  
Loosen the valve body nut DD  
Loosen and remove the thermocouple nut EE (not shown) at the rear of the valve  
Disconnect the ignitor lead from the ignitor at the pilot assembly (not shown)  
After the valve has been replaced and fitted all pipework connections must be checked and verified leak free.

## Thermocouple

To remove the thermocouple loosen the nut D as shown on the pilot injector change details  
Loosen the thermocouple nut EE as detailed above.

The nut D is lightly crimped to the thermocouple body; it can be teased free of the thermocouple and re-used.

Replace the new thermocouple and secure fittings.

## Burner Replacement

Replacing the burner requires significant component disassembly; for details contact Service Agent

# SPARE PARTS LIST

| Part number | Part description                       | Used on |
|-------------|--|---------|
| BP45        | Cast Branding Grid                     | All     |
| BU29/S      | Ceramic Plaque Burner                  | All     |
| CO113       | Copper Washer                          | All     |
| CO248       | Olive 8mm                              | All     |
| CO254       | Tube Nut                               | All     |
| CO52        | Stud Elbow 8mm                         | All     |
| CO53        | Lock Nut                               | All     |
| FE40        | Adjustable Foot                        | All     |
| IG03        | Ignitor Electrode                      | All     |
| IS571       | User Manual                            | All     |
| JE136       | Bypass Injector Natural Gas            | All     |
| JE137       | Bypass Injector Propane Gas            | All     |
| JE34        | Burner Injector Propane Gas            | All     |
| JE45        | Burner Injector Natural Gas            | All     |
| KN507       | Control Knob                           | All     |
| MA166       | Manifold                               | OG8401  |
| MA167       | Manifold                               | OG8402  |
| MA168       | Manifold                               | OG8403  |
| PI03A       | Pilot Body                             | All     |
| PI03B       | Pilot Thermocouple Nut                 | All     |
| PI03C       | Ignitor Nut                            | All     |
| PI03D       | Olive Nut                              | All     |
| PI03E       | Olive                                  | All     |
| RC03M       | Radiant Cap                            | All     |
| SC06        | Scraper                                | All     |
| SP08        | Pilot Spacer                           |         |
| TU05        | Valve Inlet Tube                       | All     |
| TU08        | Flexi Tube 8 X 150                     | All     |
| TU09        | Flexi Tube 4 X 300                     | All     |
| VA70        | Control Valve (complete with fittings) | All     |
| VA70A       | Control Valve Body                     | All     |
| VA70B       | Lock Nut                               | All     |
| VA70C       | Compression Nut 8mm                    | All     |
| VA70D       | Compression Nut 4mm                    | All     |
| VA70E       | Olive 4mm                              | All     |
| WA08        | Fibre Washer                           | All     |

# FAULT FINDING

## User Fault Finding

Pilot not lighting

Check gas supply is on  
Turn on the gas supply

Gas supply is on but pilot not lighting

Check for spark at ignitor  
The spark can be seen by looking through the inspection slots on the control panel.

There is a spark at the ignitor  
See note on lighting sequence

Spark cannot be seen at ignitor  
Contact Service Agent

## Service Agent Fault Finding

Gas supply is on but pilot not lighting

Check for short in ignitor lead or ignitor  
Replace valve\*  
or  
Replace ignitor electrode  
\*Ignitor lead is an integral part of the valve

Pilot lighting but will not stay lit

Check thermocouple integrity  
Replace thermocouple



## SERVICE INFORMATION

For help with the installation, maintenance and use of your **Lincat** equipment, please contact our service department:

**UK: 01522 875520**

For non-UK customers, please contact your local Lincat dealer

All service work, other than routine cleaning should be carried out by one of our authorised service agents. We cannot accept responsibility for work carried out by other persons.

To ensure your service enquiry is handled as efficiently as possible, please tell us:

- Brief details of the problem
  - Product code
  - Type number
  - Serial number
- } All available on serial plate

Lincat reserve the right to carry out any work under warranty, given reasonable access to the appliance, during normal working hours, Monday to Friday, 08:30 to 17:00.

### GUARANTEE

This unit carries a comprehensive UK mainland twelve month/2 year warranty. The guarantee is in addition to, and does not diminish your statutory or legal rights.

The guarantee does not cover:

- Accidental damage, misuse or use not in accordance with the manufacturer's instructions
- Consumable items
- Damage due to incorrect installation, modification, unauthorised service work or damage due to scale, food debris build-up, etc.

The manufacturer disclaims any liability for incidental, or consequential damages. Attendance is based on reasonable access to the appliance to allow the authorised technician to carry out the warranty work.

Service calls to equipment under warranty will be carried out in accordance with the conditions of sale. Unless otherwise specified, a maximum of 15 minutes of administrative time, not spent directly carrying out servicing work, is provided for within the warranty. Any requirement for staff attending the call to spend greater time than 15 minutes due to administrative requirements, such as on health and safety risk assessments, will be chargeable at the prevailing rate.