



INSTALLATION, OPERATING AND SERVICING INSTRUCTION MANUAL



K plus Combination BT Series Boiling Top, GRP Series Griddle Hot Plate and CBR Series Char Grill / Broiler with/without Oven Range

Approval No.; GMK 10703

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Owing to continual product development and improvements to its products, B&S Commercial Kitchens Pty Ltd reserves the right to change the product specifications and design without prior notice.

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STANDARD WARRANTY CONDITIONS Error! Bookmark not defined.

Product Specifications & Introduction

Appliance Name: Combination BT Series Boiling Top, GRP Series Griddle Hot Plate and CBR Series Char Grill/Broiler and Oven range

Manufactured By:	B&S Commercial Kitchen s Pty Ltd
Certificate Holder:	57 Plateau Road Reservoir Victoria 3073 Tel; + 61 3 9469 4754 Fax: +61 3 9469 4504 E-mail: info@bscommercialkitchens.com
Model Number/s:	<p>How to read model numbers; K – <u>OV</u> – <u>SBX</u> <u>X</u> – <u>CCC</u><u>Y</u> – <u>CCC</u><u>Y</u> – <u>CCC</u><u>Y</u> – <u>FF</u> – <u>BM</u> – <u>P</u> – <u>CL</u> θ ω ε ρ τ τ τ ψ υ ι ο</p> <p>θ K = K plus Series ω OV = Oven ε SB = Boiling burners X = 2, 4, 6, 8. ρ X = E or G Burner τ CCC = CBR, CGR, GRP, Y = 3, 6, 9 (300, 600 or 900mm sections) ψ FF = Fan Forced Oven υ BM = Bench mount (any model with oven cannot be bench mount) ι P = Plinth mount ο CL = Cantilever CBM=cabinet base mounted</p> <p>E.G. K– OV – SB2E – CBR3 – GRP6 – FF Is a K plus series oven with a two burner boiling top section with the E burner, 300mm char broiler section and 600mm griddle hot plate section. The oven is fan forced.</p> <p>K – OV – SB2G – CBR3 – GRP3 Is a K plus series oven with a two boiling burner top section fitted with G burners, 300mm char broiler section and 300mm griddle hot plate Section. The oven is standard convection.</p> <p>This range of appliances is also available with the Char Broiler, Char Griddle Hot Plate and Boiling Top sections without the oven section and either bench mount or in the standard height frame. When bench mounted the sections can be up to 1200 mm wide.</p>
Approval Number:	GMK 10703
Gas Types:	Natural Gas and Propane Gas

We are confident that you will be delighted with your B&S product, and that it will become the backbone of your kitchen. To ensure you receive the utmost benefit from your new B&S appliance, there are two important things you can do.

1. Ensure you read this booklet carefully and carefully follow the instructions given. Ensure that this booklet is kept in a safe and prominent location for future reference.
2. Should you be unsure of any aspect of the operation/performance, servicing and installation of the appliance, please contact your B&S dealer immediately. In most instances a phone call could answer your question.

Table 1: Nominal terminal Input Rates & Injector Sizes

Gas Type	Injector Size (mm)	MJ/h rating per burner	Test Point Pressure
Boiling Top Section			
NG	2.45 (0.41)	30.0	1.00 kPa
LPG	1.45 (0.25)	28.0	2.60 kPa
Char Broiler Grill Section			
NG	2.65 (0.41)	34.0	1.00 kPa
LPG	1.55 (0.25)	30.0	2.60 kPa
Griddle Hot Plate Section			
NG	2.00 (0.41)	22.0	1.00 kPa
LPG	1.30 (0.25)	22.0	2.60 kPa
600mm Oven Section			
NG	2.5	29.0	1.00 kPa
LPG	1.45	28.0	2.60 kPa
900mm Oven Section			
NG	2.5	29.0	1.00 kPa
LPG	1.45	28.0	2.60 kPa

Gas Pressure and Rate Details

Please note that the minimum gas inlet pressure should be at least 1.13KPa (Natural Gas) and 2.75KPa (Propane). Gas pressure must be checked when all other equipment on the same line is turned ON high.

Table 2: Standard Model General Information

	Weight (kg)	Overall Height* (mm)	Overall Depth* (mm)	Overall Width* (mm)
600mm combinations	200	1030	840	600
900mm combinations	300	1030	840	900
1,200mm combinations	400	1030	840	1,200

*Denote minimum value

Figure 1: Plumbing Connections

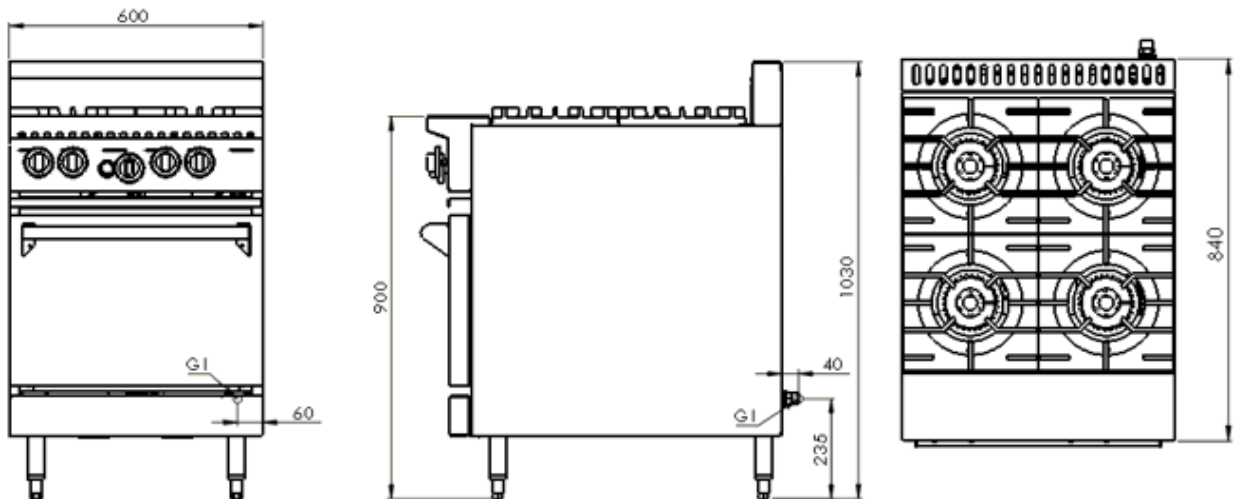


Table 3: Plumbing Connections

	Connection	Position from Floor (mm)	Position from Rear of Appliance (mm)	Position from LHS/RHS edge of Appliance (mm)
Gas Inlet (GI)	3/4" male BSP	235 (+/-5)	40 (+/-5)	60 (+/-5) RHS

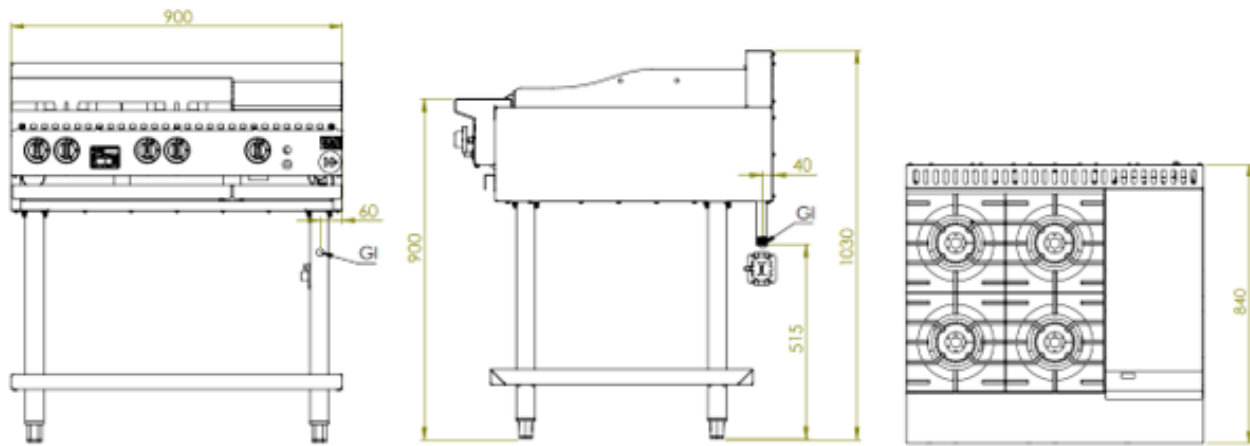


Table 3: Plumbing Connections

	Connection	Position from Floor (mm)	Position from Rear of Appliance (mm)	Position from LHS/RHS edge of Appliance (mm)
Gas Inlet (GI)	3/4" male BSP	515(+/-5)	40 (+/-5)	60 (+/-5) RHS

IMPORTANT WARNINGS



THIS APPLIANCE SHALL ONLY BE INSTALLED/SERVED BY AN AUTHORISED INSTALLER.

THIS APPLIANCE MUST BE INSTALLED IN ACCORDANCE WITH THE SPECIFIED INSTRUCTIONS AND SPECIFICATIONS.

IMPROPER INSTALLATION OR OPERATION OF THIS APPLIANCE MAY RESULT IN PRODUCT FAILURE WHICH MAY LEAD TO PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

CAUTION MUST BE TAKEN WHEN OPERATING THIS APPLIANCE TO MINIMISE RISK OF FIRE. THE APPLIANCE MUST NOT BE LEFT ON UNATTENDED.

REGULAR INSPECTIONS BY AN AUTHORISED SERVICE PERSON ARE STRONGLY RECOMMENDED TO ENSURE PROPER AND SAFE FUNCTIONING OF THIS APPLIANCE.

AFTER ANY SERVICING OR ADJUSTING OF GAS CONNECTED COMPONENTRY, GAS LEAK TEST MUST BE CARRIED OUT TO ENSURE THERE ARE NO GAS LEAKING HAZARDS.

NEVER STORE ANY FLAMMABLE LIQUIDS/VAPOURS IN THE VICINITY OF THIS APPLIANCE. NEVER SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION.

ENSURE ANY TRANSIENT PROTECTION IS REMOVED BEFORE INSTALLING THE APPLIANCE ENSURING ANY POSSIBLE DAMAGE TO THE APPLIANCE OR COMPONENTS/PARTS THAT MAY HAVE BEEN SUSTAINED DURING TRANSPORTATION IS REPORTED TO THE MANUFACTURER.

THIS APPLIANCE IS NOT INTENDED TO BE USED IN A MARINE ENVIRONMENT. ENSURE APPLIANCE IS INSTALLED IN A STABLE POSITION.

FAILURE TO FOLLOW THE INFORMATION PROVIDED IN THIS BOOKLET WILL VOID THE B&S WARRANTY AND MAY RESULT IN DAMAGE TO EQUIPMENT OR INJURY TO PERSONNEL

Please note that checking and adjusting of burner pressures on commercial catering appliances is an obligation of gasfitters.

The relevant legislation is as follows from the **Plumbing Regulations 2008** administered by the **Victorian Building Authority**:

Gas fitting work defined

- (1) Gas fitting work is the construction, installation, replacement, repair, alteration, maintenance, testing or **commissioning** of any pipe, **appliance**, flue, fitting, apparatus, control or other item that is involved with the supply or use of gas and that is fitted downstream of the outlet of a customer billing meter or a consumer's gas storage container

As per **AS/NZS5601.1**, clause 6.11.1, this gas appliance must be **commissioned** by a suitably authorized person who

- (a) Installed the appliance when gas is available at the time of installation; or
- (b) Makes gas available to the appliance if gas was not available at the time of installation

As per **AS/NZS5601.1**, clause 6.11.3, the commissioning of this appliance shall take **full account of special design features, the manufacturer's instructions and the appliance safety requirements**.

As per **AS/NZS5601.1**, clause 6.11.4, the commission of this appliance shall include all of the following;

- (a) **Testing and purging** of the appliance and installation as appropriate.
- (b) Checks to ensure the appliance is in **safe working order**.
- (c) Ignition of each **burner** of the appliance and where necessary adjustment, in accordance with the **manufacturer's instructions**.
- (d) Testing of **flue** performance.
- (e) Testing of all **safety devices** for correct operation.
- (f) **Instruction** of the consumer, where available, on the safe and correct operation of the appliance and any auxiliary equipment.
- (g) Handing of the appliance **operating instructions** to the consumer, or if the consumer is not present, leaving the instructions in a suitable location on the premises.

Installation Instructions

Regulations

The appliance **must** be installed only by authorized persons and in accordance with the manufacturer's installation instructions, local gas fitting regulations, municipal building codes, AS/NZ 5601 – Gas Installations and any other health and safety regulations, local authority, gas, electrical any other statutory regulations.

Data Label

The data label is located on the front of the appliance. This appliance is suitable for Natural Gas and LPG. Please ensure that the gas supply matches the Data Label ensuring that the gas supply is correct for the appliance being installed and that adequate supply pressure and volume is available – refer to appliance data plate for MJ/h consumption, injector sizes of main burners/pilots, etc.

Ventilation

The appliance should always be installed under an extraction hood. Ventilation must be in accordance with AS5601 - Gas Installations. In general, the appliance should have adequate ventilation for complete combustion of gas, proper flueing and to maintain temperature of immediate surroundings within safe limits. It is **compulsory** that this appliance is installed under an extraction hood.

The appliance shall be installed with an exhaust system comprising a hood and duct system. The hood shall be made of a material which is impervious to fat, grease and vapour. It shall be constructed so it can be readily and efficiently cleaned. Its inside faces shall be smooth and free of obstructions and all joints shall be grease tight.

The hood shall be located so as to effectively ventilate the appliance and shall extend at least 150 mm beyond the perimeter of the oven. The exhaust duct system shall be adequately sized and shall not get connected to any other ventilating or exhaust system.

As suitable grease trap shall be provided to prevent grease vapour entering the exhaust system and shall be located to avoid constituting a fire hazard and be readily accessible for regular cleaning. (please refer to AS/NZS 5601 clause 6.10.2.2 to verify clearances for ventilation.)

Combustible Surfaces

Clearances to combustible surfaces must be in accordance with AS 5601/AG 601- *Gas Installations, clause 5.12.4.5*. Install on a flat/level floor. Where the floor is not fire resistant, a fire resistant material shall be put under the appliance which shall have a fire resistance rating at least equal to that of 10mm millboard. The material shall extend at least 50mm beyond the edge of the appliance.

No combustible materials shall be located within 150mm of the appliance.

For Plinth mount the legs are removed and a concrete slab of at least 100 mm thickness is used. When the unit is Plinth mounted, the plinth depth must be no greater than 700mm.

MINIMUM CLEARANCE AROUND COOKING SURFACE AREA

The clearance to combustible surfaces from commercial catering equipment shall be as specified in the appliance manufacturer's instructions and shall not be less than the clearance specified in the table below.

	Cooking surface area	Minimum clearance in mm
A	Above the cooking surface of a gas appliance	600
B	Subject to C from a cooking surface area having an open flame cooking appliance and no means of preventing cooking vessels from overhanging the edge of the gas appliance	250
C	From the side of a cooking appliance where the combustible surface is at least 100mm below a cooking surface area	50
D	From a gas appliance flue way or rear of the gas appliance with a splashback	50
E	From the rear or side of a gas appliance which is not an open flame gas cooking appliance	50

Notes:

1. The cooking surface area is defined as being that part of the gas appliance where cooking normally takes place and does not include those parts of the gas appliance containing control knobs.
2. These clearances do not apply where an adjacent surface is of a non-combustible material or is combustible but protected with a fire-resistant material. The fire-resistant material may be covered by ceramic tiles or stainless steel to meet appropriate requirements relating to health protection.
3. Care should be taken where a combustible surface is covered by a non-combustible material for example, covering a combustible surface with stainless steel will not prevent heat transfer, and in some circumstances hazardous situation could arise.

Gas Connection

The gas connection is male 3/4" BSP and is situated at the rear of the appliance below the main body frame. The inlet is to the 3/4" elbow located at the rear of the appliance.

This appliance is available in models for fixed installation or in models fitted with lockable wheels/castors.

The appliance can be connected with rigid pipe as specified in AS5601. For fixed installation models we recommend connection with 20mm copper tube and an AGA approved isolating ball valve.

For models fitted with lockable wheels/castors an AGA approved stainless steel braided flexible hose of adequate internal diameter must be used and approved under AS/NZS 1869 and be of class B or D. The fitting of the hose must comply with the relevant sections of gas installation code AS 5601. A restraining chain or wire must be fitted. We recommend a maximum length of 1.5 M for the flexible hose. When the appliance is in position all of the wheels/castors must have the built in lock engaged to prevent any

movement of the appliance. An AGA approved isolating ball valve must also be fitted.

BEFORE CONNECTING NEW PIPE TO THIS APPLIANCE, THE PIPE MUST BE BLOWN OUT THOROUGHLY TO REMOVE ALL FOREIGN MATERIAL. FOREIGN MATERIAL IN THE BURNER AND GAS CONTROLS WILL CAUSE IMPROPER AND DANGEROUS OPERATION.

Pressure Test Point

All appliances that are dispatched from our factory are tested and adjusted according to the specifications for the required gas type. The regulator may require adjustment to achieve required gas pressure.

Check the burner pressure at the test point on the regulator. The test point pressure should be adjusted to 1.00 kPa – Natural gas or 2.60 kPa – LPG with the burners operating at maximum.

Before Leaving - Commissioning

Check **all** connections for gas leaks with soap and water. **Do not** use a naked flame for detecting leaks.

Ignite the pilot and main burners as prescribed below to ensure correct operation of gas valves, burners and ignition. When satisfied with the operation of the appliance, please instruct the user on the correct method of operation. Ensure that this instruction manual is left with owner of the appliance.

Boiling Top Section

If burner fitted with pilot and/or flame failure

- A. Ensure gas control is in the 'OFF' position.
- B. Depress operating knob of relevant burner and turn anti-clockwise to 'PILOT' position and light pilot.
- C. Observe the pilot light is established. Pilot flame should be between 10-20mm in size and be in direct contact with thermocouple (where fitted). Should the thermocouple require adjustment, lift off trivet and undo the nut holding thermocouple on pilot assembly. After adjusting reassemble in reverse order.
- D. If pilot light does not light, turn control knob to 'OFF' position, wait five minutes and repeat steps A to C.

Note. If pilot flame is smaller than the parameters described in part A, check the pilot gas line (6mm stainless steel flexible tube) for any possible blockages/crimp age. To gain access to gas control components, remove control knobs and undo screws located on either side and at the top of the front panel. Remove front panel (reassemble in reverse order).

- E. Once pilot is established turn control knob anti-clockwise to the 'HIGH' position. Examine flame.
- F. Turn control knob clockwise to the 'LOW' position. Examine flame.
- G. Turn control knob clockwise to the 'OFF' position.
- H. Repeat steps A to H for all burners.

If appliance is not fitted with pilot and/or flame failure.

- A. Ensure gas control is in the 'OFF' position.
- B. Depress operating knob of relevant burner and turn anti-clockwise 180° to the 'LOW' position and light burner. Examine flame.
- C. Turn control knob clockwise to the 'HIGH' position. Examine flame.
- D. Turn control knob clockwise to the 'OFF' position.
- E. Repeat steps A to D for all burners.

Adjusting aeration of pot burner (if required)

ALWAYS USE CAUTION WHEN REMOVING TRIVETS AND BURNERS, SURFACE MAY BE HOT.
If necessary to adjust aeration to burners;

- To adjust primary air on boiling top burners, remove front burners by lifting the burner at the rear, and then slowly pulling it towards the splashback (rear) of the appliance. Adjust the grub screw located on the side of the venturi section, and then slide the venture in our out accordingly. (Clockwise: more interruption, Anti-clockwise: Less interruption). Replace burner and light. Repeat the process if necessary for all burners.

Char Grill/broiler / Griddle hot plate Section

- A. Select appropriate knob. Ensure the control knob is in the 'OFF' position. If not, turn control knob clockwise until it is in the 'OFF' position.
- B. Push knob, and turn knob anti-clockwise to 'PILOT' position.

- C. Whilst keeping the knob pushed in, press and release piezo ignition three to four times to ignite pilot. Should piezo electrode not spark, ensure piezo ignition lead is firmly fitted at the rear of the piezo control as well as underneath the sparking electrode.
- D. Continue to hold the knob for 30 seconds after the flame appears on the pilot. Release the knob. The pilot should remain lit. Observe that the pilot light is a rich blue color by looking up between the front control panel and spillage tray. Pilot flame should be between 10-20mm in size and be in direct contact with thermocouple. Should the thermocouple require adjustment, access to it can be gained by lifting char grill grates, and volcanic rock tray. Undo the nut holding thermocouple onto pilot assembly and adjust. After adjusting reassemble in reverse order. If pilot fails to remain lit, push down the control knob and turn clockwise to the 'OFF' position. Wait for five minutes before attempting to re-light (repeat steps A to D). Should pilot still not light, ensure pilot flame is hitting thermocouple and adjust as required.
Note. If pilot flame is smaller than the parameters described in part D, check the pilot gas line (6mm stainless steel flexible tube) for any possible blockages. To gain access to gas control components, remove control knobs and undo screws located on either side and at the top of the front panel. Remove front panel (reassemble in reverse order).
- E. Once the pilot is lit, push down and slowly turn the knob anti-clockwise to the 'HIGH' position. Observe flame is rich blue in color. Adjust aeration to burner if required. To adjust aeration, remove char grill grate from appliance by lifting and pulling towards the front of the appliance. Slowly lift volcanic rock tray upwards (volcanic rocks may be removed from tray for greater ease in removing rock tray) and remove towards the front of the appliance. Remove burner locking pin located under the burner support bar at the rear of the burner. Lift rear part of the burner gently and pull towards the splashback of the appliance. Loosen screw of butterfly valve at the inlet and adjust. Reassemble in reverse order.
- F. Adjust the size of the flame as required by turning knob anti-clockwise.
- G. To turn burner off whilst keeping pilot lit, turn knob clockwise to the 'PILOT' position.
- H. To turn pilot off, turn knob clockwise to 'OFF' position.
- I. Test for all burners

Oven Section

- A. Turn oven control knob to the pilot position
- B. Depress knob and at the same time press the piezo igniter to light the pilot. For first time operation this process may need to be repeated several times
- C. Once pilot is established continue to keep the knob depressed for at least 30 seconds.
- D. Turn knob to desired temperature setting.
- E. When cooking is finished the oven control knob can be turned back to the pilot position until the next cook or if desired the pilot can be turned off by turning the knob back to the off position.

In the event the appliance fails to operate correctly, check the following;

1. Data plate to ensure correct gas type and pressure (adjust if necessary)
2. Adjust aeration by adjusting air shutter located at the front of the venture of the main burner.
3. Injector sizes – check against data plate and installation manual
4. View pilot size and adjust if required.

In case appliance fails to operate correctly after all checks have been carried out, please contact;

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Operating Instructions



WARNING!

- **DO NOT** spray aerosols in the vicinity of this appliance while it is in operation.
- **DO NOT** store or use flammable liquids or items in the vicinity of this appliance.
- Prior to lighting, smell the area surrounding the appliance for gas (please note that as some gas types are heavier than air, we recommend the operator to also smell the floor around the appliance)
- In the event you smell gas: **DO NOT** light any appliance. **DO NOT** touch/operate any electrical switch or phone in your building. Call the local gas supplier **immediately** and follow their instructions

IMPORTANT WARNING!

WHEN USING GRIDDLE HOT PLATE FOR FIRST TIME, PLEASE ENSURE THE GRILL PLATE IS CLEANED USING WARM SOAPY WATER TO ENSURE ALL PROTECTIVE OILS APPLIED DURING THE PRODUCTION PROCESS ARE REMOVED, OTHERWISE FOOD CONTAMINATION MAY OCCUR. REPEAT IF NECESSARY

WHEN USING CHAR GRILL FOR FIRST TIME, PLEASE ENSURE THE CHAR GRILL IS CLEANED USING WARM SOAPY WATER TO ENSURE ALL PROTECTIVE OILS APPLIED DURING THE PRODUCTION PROCESS ARE REMOVED, OTHERWISE FOOD CONTAMINATION MAY OCCUR. REPEAT IF NECESSARY

ENSURE NO OR MINIMAL AMOUNTS OF OIL AND FOODSTUFFS FALL INTO THE BURNER AREA WHILST COOKING. FAILURE TO DO SO MAY AFFECT THE EFFICIENT AND SAFE OPERATION ON THE APPLIANCE AND MAY AVOID WARRANTY.

Figure 2: Knowing Your Appliance



Boiling Top Lighting Instructions

Models with Pilot and/or Flame Failure

1. Ensure the control knob is in the 'OFF' position. If not, turn control knob clockwise until it is in the 'OFF' position.
2. Push knob, and turn knob anti-clockwise to 'PILOT' position. (Ignite rear burners first to reduce risk of injury).
3. Whilst keeping the knob pushed in, light pilot.
4. Continue to hold the knob for 30 seconds after the flame appears on the plot. Release the knob. The pilot should remain lit. **If pilot fails to remain lit, push down the control knob and turn clockwise to the 'OFF' position. Wait for five minutes before attempting to re-light (repeat steps 1-4).**
5. Once pilot lit, push down and slowly turn the knob anti-clockwise to the 'HIGH' position.
6. Adjust the size of the flame as required by turning knob anti-clockwise.
- 7.

Models without flame failure

1. Ensure the control knob is in the 'OFF' position. If not, turn control knob clockwise until it is in the 'OFF' position.
2. Push knob, and turn knob anti-clockwise to 'LO' position.
3. Whilst keeping the knob pushed in, light burner. **If burner fails to light, push down the control knob and turn clockwise to the 'OFF' position. Wait for five minutes before attempting to re-light (repeat steps 1-3).**
4. Adjust the size of the flame as required by turning knob clockwise.

Boiling Top Shutdown Procedures

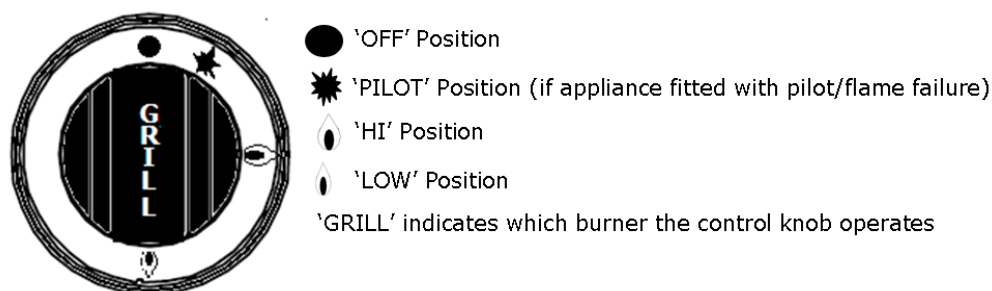
Models with Pilot and/or Flame Failure

1. To turn burner off, turn knob clockwise to the 'OFF' position.
 2. To turn burner off whilst keeping pilot lit, turn knob clockwise to the 'PILOT' position.
 3. To turn pilot off, turn knob clockwise to 'OFF' position.
- NOTE: Do not allow a period greater than 5 seconds to elapse between steps 2-3 for the following instructions.**

Models without flame failure

1. To turn burner off, turn knob clockwise to 'OFF' position.

Figure 3: Control Panel – Grill Plate / Char Grill



● Marking located above control knob indicates settings prescribed above when vertically aligned with icons above.

Char Grill/Broiler Lighting Instructions

1. Select appropriate knob. Ensure the control knob is in the 'OFF' position. If not, turn control knob clockwise until it is in the 'OFF' position.
2. Push knob, and turn knob anti-clockwise to 'PILOT' position.
3. Whilst keeping the knob pushed in, press and release piezo ignition three to four times to ignite pilot.
4. Continue to hold the knob for 30 seconds after the flame appears on the pilot. Release the knob. The pilot should remain lit. Confirm pilot is lit by looking up between the front control panel and

spillage tray. **If pilot fails to remain lit, push down the control knob and turn clockwise to the 'OFF' position. Wait for five minutes before attempting to re-light (repeat steps 1-4).**

5. Once pilot lit, push down and slowly turn the knob anti-clockwise to the 'HIGH' position.
6. Adjust the size of the flame as required by turning knob anti-clockwise.
7. To turn burner off whilst keeping pilot lit, turn knob clockwise to the 'PILOT' position.

Char Grill/Broiler Shutdown Procedure

1. To turn pilot "OFF", turn knob clockwise to 'OFF' position.
2. Ensure main burner and pilot are extinguished.

Griddle Hot Plate Lighting Instructions

1. Select appropriate knob. Ensure the control knob is in the 'OFF' position. If not, turn control knob clockwise until it is in the 'OFF' position.
2. Push knob, and turn knob anti-clockwise to 'PILOT' position.
3. Whilst keeping the knob pushed in, press and release piezo ignition three to four times to ignite pilot.
4. Continue to hold the knob for 30 seconds after the flame appears on the pilot. Release the knob. The pilot should remain lit. Confirm pilot is lit by looking up between the front control panel and spillage tray. **If pilot fails to remain lit, push down the control knob and turn clockwise to the 'OFF' position. Wait for five minutes before attempting to re-light (repeat steps 1-4).**
5. Once pilot lit, push down and slowly turn the knob anti-clockwise to the 'HIGH' position.
6. Adjust the size of the flame as required by turning knob anti-clockwise.
7. To turn burner off whilst keeping pilot lit, turn knob clockwise to the 'PILOT' position.

In the event when griddle plate burner/pilot is not lighting properly with the piezo, you can manually try and light the burner by pulling out the spillage tray and by using a long gas lighter. Please make sure to inform the manufacturer if piezo doesn't work or if the burner fails to light. Do not try to lift the griddle plate manually as it is very heavy and might lead to injury and damage to the appliance.

Griddle Hot Plate Shutdown Procedure

1. To turn pilot "OFF", turn knob clockwise to 'OFF' position.
2. Ensure main burner and pilot are extinguished.

Oven Section

- A. Turn oven control knob to the pilot position
- B. Depress knob and at the same time press the piezo igniter to light the pilot. For first time operation this process may need to be repeated several times
- C. Once pilot is established continue to keep the knob depressed for at least 30 seconds.
- D. Turn knob to desired temperature setting.
- E. When cooking is finished the oven control knob can be turned back to the pilot position until the next cook or if desired the pilot can be turned off by turning the knob back to the off position.

Maintenance and Care

To ensure longevity and continued performance efficiency of you appliance, a good cleaning and maintenance program is paramount. In general the use of steel wool, abrasive cloths/cleansers/powders **should not** be used to clean this appliance

Daily Checks & Service

Boiling Top

- Look for any foreign materials in burner area, leaks, damaged knobs and any other signs that the appliance is not ready and safe for operation. Inspect burner area and ensure pilots are in position

near the burner, and that the pilot flame when ignited is blue in color and approximately 20-40mm in length. If fitted with thermocouple ensure pilot flame is in contact with it. Call the manufacturer if you see any problems. Always ensure that area surrounding pilot and thermocouple is clear of any fats, oils or foodstuffs.

- Clean the exterior surfaces of the appliance with a clean, damp cloth soaked with mild detergent to remove any food stuffs, oils, dust and any other materials.
- Ensure the primary water drain (located in gutter) is cleared of any food stuffs during operation of the appliance and on completion of use of the appliance.
- The spillage trays located under the main body of the appliance should be removed (by pulling out) and any carbonised foodstuffs and oils should be removed using a clean, damp cloth soaked in a mild detergent.

Char Grill/Broiler

- Look for any foreign materials in burner area, leaks, damaged knobs and any other signs that the char grill is not ready and safe for operation.
- Inspect burner area and ensure pilots are in position near the burner, and that the pilot flame when ignited is blue in color and approximately 10-20mm in length. Ensure pilot flame is in contact with thermocouple.
- Call the manufacturer if you see any problems.
- Always ensure that area surrounding pilot and thermocouple is clear of any fats, oils or foodstuffs.
- Clean the stainless steel surfaces of the char grill table with a clean, damp cloth soaked with mild detergent to remove any food stuffs, oils, dust and any other materials. The spillage tray located at the front of the char grill grates should be removed (by pulling up and out) and any carbonised foodstuffs and oils should be removed using a clean, damp cloth soaked in a mild detergent.
- Char grill grates should always be cleaned to avoid tainting of food. Scrape clean between each batch of product (particularly when foods are dissimilar) towards the waste gutter at the front of the plate, and into the collection drain located in the centre of the gutter.
- The spillage tray located under the control knobs should be removed (by pulling out) and any carbonised foodstuffs and oils should be removed using a clean, damp cloth soaked in a mild detergent.

Griddle Hot Plate

- Look for any foreign materials in burner area, leaks, damaged knobs and any other signs that the grill plate is not ready and safe for operation.
- Inspect burner area and ensure pilots are in position near the burner, and that the pilot flame when ignited is blue in color and approximately 10-20mm in length. If fitted with thermocouple ensure pilot flame is in contact with it. Call the manufacturer if you see any problems.
- Always ensure that the area surrounding pilot and thermocouple is clear of any fats, oils or foodstuffs.
- Clean the stainless steel surfaces of the griddle plate table with a clean, damp cloth soaked with mild detergent to remove any food stuffs, oils, dust and any other materials.
- The spillage tray located under the control knobs should be removed (by pulling out) and any carbonised foodstuffs and oils should be removed using a clean, damp cloth soaked in a mild detergent.
- Griddle Hot plate should always be cleaned to avoid tainting of food. Scrape clean between each batch of product (particularly when foods are dissimilar) towards the waste gutter at the front of the plate, and into the collection drain located in the centre of the gutter.

Oven

- Wipe out inside of oven
- Check and clean away any spills that may accumulate over burner covers

Fortnightly Checks & Service

Clean Boiling Table Trivets and Burners

- Remove trivets and soak in hot water with a mild detergent for a period of one hour. Ensure trivets are dried prior to replacing on appliance.

- To clean burners, firstly remove trivets and gently remove the upper lid of burner by gently pulling up. Soak upper lid in hot water with a mild detergent for a period of one hour. Ensure burner lids are dried prior to replacing onto lower part of burner. While upper lid is soaking, clean lower part of burner with a clean damp cloth soaked in a mild detergent.

Clean Char Grill/Broiler Grates and Burners

- Remove char grill grates and soak in hot water with a mild detergent for a period of one hour. Ensure grates are dried prior to replacing on appliance.
- To clean burners, firstly remove char grill grates and gently remove the volcanic rock support tray. Remove burner locking pin located under char grill burner, lift burner from the rear and pull towards the splashback.
- Soak burner in hot water with a mild detergent for a period of one hour. Ensure burners are dried prior to replacing

Yearly Checks & Service

- **The appliance should be inspected and adjusted periodically by a qualified service person as part of any kitchen maintenance program.**
- **B&S recommends that this appliance is inspected at least annually by an authorized service technician as follows:**
 - Inspect the table inside-out for excessive build-up of any fats, oils and foodstuffs.
 - Inspect that the burners and other components (i.e. pilots, thermocouples, etc.) are in good condition and functioning properly.
 - Inspect all gas connections for leaks and ensure all connections are tightened properly.
 - Ensure burner manifold pressure is in accordance with that specified on the data plate of the appliance.
 - Inspect all gas connections for leaks and ensure all connections are tightened properly.

In case of difficulties contact B&S Commercial Kitchen Appliances Pty Ltd or their authorised service agent.

Servicing Instructions

WARNING!



- Servicing shall be carried out by authorised personnel **only**. Failure to do so will void the B&S warranty and may result in damage to equipment or injury to personnel.
- Before commencing any disassembly/assembly of gas controls, please ensure the gas supply is turned off (isolated).

FAILURE TO DO SO WILL VOID THE B&S WARRANTY AND MAY RESULT IN DAMAGE TO EQUIPMENT OR INJURY TO PERSONNEL.

Abnormal Operation

Any of the following are considered to be abnormal operation and may require servicing;

- Incomplete ignition of burner/Burner failing to keep alight.
 - Check burner is not blocked
- Yellow tipping of the burner flame.
 - Check aeration of burner
- Gas valves which are difficult to turn.
- Burner failing to keep alight.

Gaining access to gas system – Boiling Top Section

1. To gain access to boiling top burners and pilot assembly, lift off trivets. **Note:** Use extreme care when lifting off trivets as they may still be hot from appliance operation.
2. To adjust aeration of burners. To adjust front row boiling top burners, remove front burners by lifting the burner at the rear, and then slowly pulling it towards the splashback (rear) of the appliance off the injector. Adjust the interrupter screw located at the top end of the venturi section as required (Clockwise: more interruption, Anti-clockwise: Less interruption). To adjust back row boiling top burners, remove rear burners by lifting the burner at the rear, and then slowly pulling it towards the splashback (rear) of the appliance off the injector. Adjust the interrupter screw located at the top end

- of the venturi section as required (Clockwise: more interruption, Anti-clockwise: less interruption). Reassemble in reverse order
3. To replace or to service gas cocks, remove the front panel by pulling off the control knobs and undoing the screws located on either side of the front panel. Pull off panel. Remove burners as described under 2 above.
 - a. *For models with no thermocouple and pilot light*
 - i. Undo union nut connecting gas cock to manifold located at the top of gas cock.
 - ii. *For models with pilot light only.*
 - iii. Follow steps as per 3. i. then undo nut attached to flexible tubing connecting pilot light outlet on gas cock to pilot light.
 - iv. *For models with pilot light and thermocouple*
 - v. Follow steps as per 3. ii. then undo nut attaching thermocouple to gas cock located at the rear of the gas cock.
 4. Gently remove gas cock from spigot. Reassemble in reverse order.
 5. The pilot light located on the RHS of the burner can be removed from the gas cock as under 3 ii, and then unscrewing the nut under the pilot located on the pilot assembly bracket.
 6. The thermocouple can be removed from the gas cock as under 3 iii, and then unscrewing nut under the thermocouple bulb located on the pilot assembly bracket.
 7. Replace in reverse order.

Gaining Access to Gas Components – Grill Plate

1. To gain access to griddle plate burners and pilot assembly, and gas cocks, remove front panel.
2. To remove front panel;
 - a. Remove the front panel by pulling off the control knobs and undoing the screws located on either side of the front panel.
 - b. Slowly lift panel forward and remove piezo ignition lead from piezo control by gently pulling lead out of piezo control.
 - c. Lift panel off by pulling forward.
 - d. To replace panel, REASSEMBLE IN RVERSE ORDER.

Replacing/Serviceing Gas Cocks, Thermocouples, Piezo Ignition, Pilot and Burner – Grill Plate

1. To replace or to service gas cocks, remove the front panel as described under 2 above.
 - a. Undo union nut connecting gas cock to manifold located at the top of gas cock.
 - b. Undo nut attached to flexible tubing connecting pilot light outlet on gas cock to pilot light.
 - c. Undo nut attaching thermocouple to gas cock located at the rear of the gas cock.
 - d. Undo nut attaching burner gas hose to gas cock located on the right of the gas cock.
 - e. Gently remove gas cock from spigot.
 - f. REASSEMBLE IN REVERSE ORDER.
2. The pilot light assembly located on the RHS of the burner can be removed from the gas cock as under 3.
 - a. Unscrew the wing-nut under the pilot assembly located on the pilot assembly bracket, and gently pull forward.
 - b. Unscrew the nut under the pilot located on the pilot assembly bracket.
 - c. REASSEMBLE IN REVERSE ORDER.
3. Should the ignition fail, check the following:
 - a. The thermocouple is in the pilot flame. The thermocouple must be hot in order to generate power to operate the gas cock magnet.
 - b. The thermocouple is operating. To lift the magnet, it should be generating approximately 650millivolts. If not functioning correctly, it should be replaced.
 - c. Check magnet for sticking and/or correct seating. If faulty, replace. Should the gas cock need to be placed, ask for part number: Bromic 21S-B.If pilot needs to be replaced, ask for part number: SIT Delta Pilot 034. If thermocouple needs to be replaced, ask for part number: SIT Target Thermocouple 014.

4. To remove burner;
 - a. Follow step as per 3, undo wing-nuts located under burner support bar.
 - b. Gently lift burner up, tilt forward and pull out.
 - c. REASSEMBLE IN REVERSE ORDER.

Gaining Access to Char Grill Burner

1. To gain access to char grill burner;
 - a. Remove char grill grate from appliance by lifting and pulling towards the front of the appliance.
 - b. Slowly lift volcanic rock tray upwards (volcanic rocks may be removed from tray for greater ease in removing rock tray) and remove towards from the front of the appliance.
 - c. Remove burner locking pin located under the burner support bar at the rear of the burner.
 - d. Lift rear part of the burner gently and pull towards the splashback of the appliance.
 - e. REASSEMBLE IN REVERSE ORDER

Adjusting Burner Aeration – Char Grill

1. Access burner as under 1 above.
 - a. Loosen screw of butterfly valve at the inlet and adjust
 - b. REASSEMBLE IN REVERSE ORDER

Replacing/Serviceing Gas Cocks, Thermocouples and Pilot – Char Grill

1. Front panel must be removed. To remove front panel, remove the front panel by pulling off the control knobs and undoing the screws located on either side and at the top of the front panel.
 - a. Slowly lift panel forward and remove piezo ignition lead from piezo control by gently pulling lead out of piezo control.
 - b. Lift panel off by pulling forward.
 - c. REASSEMBLE IN REVERSE ORDER.
2. To replace or to service gas cocks, remove the front panel as described above.
 - a. Undo union nut connecting gas cock to manifold located at the top of gas cock.
 - b. Undo nut attached to flexible tubing connecting pilot light outlet on gas cock to pilot light.
 - c. Undo nut attaching thermocouple to gas cock located at the rear of the gas cock.
 - d. Undo nut attaching burner gas hose to gas cock located on the right of the gas cock.
 - e. Gently remove gas cock from spigot.
 - f. REASSEMBLE IN REVERSE ORDER.
3. The pilot light assembly located on the RHS of the burner can be removed from the gas cock as above.
 - a. To access pilot assembly, remove grates and volcanic rock tray as described under 1.
 - b. Unscrew the screw holding the pilot assembly.
 - c. Unscrew the nut under the pilot located on the pilot assembly bracket.
 - d. REASSEMBLE IN REVERSE ORDER
4. Should the ignition fail, check the following:
 - a. The thermocouple is in the pilot flame. The thermocouple must be hot in order to generate power to operate the gas cock magnet.
 - b. Check the thermocouple is operating (it should be generating approximately 12-13millivolts—closed circuit). If not functioning correctly, it should be replaced).
 - c. Check magnet for sticking and/or correct seating. If faulty, replace. Should the gas cock need to be placed, ask for part number: Bromic 21S-B.If pilot needs to be replaced, ask for part number: SIT Delta Pilot 034. If thermocouple needs to be replaced, ask for part number: SIT Target Thermocouple 014.

Gaining Access to Oven Burner and Oven Pilot Burner

1. To remove oven burner
 - a. Open the bottom burner cover located under the door.
 - b. Lift out the cast iron spillage tray.
 - c. Remove the screws holding the burner in the brackets and remove the burner.
 - d. If the pilot burner needs cleaning this can also be done at this time by undoing the screw holding the pilot in position, releasing the feed tube nut and then remove the pilot assembly.

Replace Oven Thermostat

1. To remove Oven thermostat

- a. Remove control panel as described in replacing gas cocks.
- b. Remove right side oven side panel by removing screws at front and rear of panel.
- c. Remove the oven capillary tube from the bracket inside the oven and gently feed the capillary out of the oven compartment.
- d. Release the inlet and outlet and the pilot connection to the thermostat and remove the thermostat.
- e. Replacement is in reverse order.

Replace Oven Thermocouple Lead

1. To remove Oven thermocouple
 - a. Remove control panel as described in replacing gas cocks.
 - b. Remove right side oven side panel by removing screws at front and rear of panel.
 - c. Remove the rear and side oven heat deflectors.
 - d. Lift out the spillage tray.
 - e. Remove the screws holding the burner brackets and remove the burner.
 - f. Release the nut holding the thermocouple into the pilot assemble and feed the thermocouple out the side of the oven.
 - g. Replacement is in reverse order.

Table 4 : Troubleshooting

FAULT	POSSIBLE CAUSE	CHECKS
Pilot light not igniting	Blockage of pilot	Check pilot injector is not blocked as described in servicing instructions – pilot and flame safeguard
	Adjustment of pressure from flame failure control	Check gas pressure to pilot as described under servicing instructions – adjustments
Pilot light not establishing	Positioning of thermocouple	Check connection of the thermocouple to the control is not loose.
	Faulty thermocouple	Adjust positioning of thermocouple to ensure pilot flame is hitting thermocouple
	Faulty flame failure control valve	Contact manufacturer or authorised service agent
Pilot established, main burner not lighting	Faulty thermocouple	Contact manufacturer
	Faulty flame failure control valve	Contact manufacturer
Oven temperature incorrect	Faulty calibration of thermostat	Contact manufacturer or authorised service agent
	Capillary bulb may have been removed from bracket	Clip bulb back into holding bracket

To obtain further service information concerning this appliance, please contact;

B&S Commercial Kitchens Pty Ltd

57 Plateau Road

Reservoir VIC 3073

Tel.: + 61 3 9469 4754 Fax.: + 61 3 9469 4504 E-mail: info@bscommercialkitchens.com



STANDARD WARRANTY CONDITIONS

B&S Commercial Kitchens Pty Ltd of 57 Plateau Road, Reservoir, Victoria (hereinafter called 'B&S') undertakes by this warranty, that B&S or its agent will pay for the cost of labour and parts which B&S or its agent find defective for:

K+ Range - eighteen (18) months from date of installation/hand over for projects.

B+S Black Range – twenty four (24) months from date of installation/hand over for projects.

Verro Range – thirty six (36) months from date of installation/hand over for projects.

The liability of B&S under this warranty is limited to the repair or replacement of defective goods or components. All other costs including, without limitation, cartage, carriage and installation shall be borne by the purchaser.

IMPORTANT

Prior to requesting a service call, please be sure that cooking equipment is being used and maintained in accordance with the instruction manual provided with your cooking equipment. Please also be sure that your cooking equipment has been installed in accordance with the manual by a qualified installer. All cooking equipment must be commissioned by installer upon completion of installation. Failure of these procedures will result in non-warranty service costs.

Warranty labour is supplied free of charge during business hours (8 a.m. to 4 p.m. AEDST) Monday to Friday. Should warranty work be requested outside of our normal working hours, a labour charge will be applied equivalent to a normal hour rate, with out of hours penalty rates. Penalty rates amount must be borne by the purchaser. Claims for non-covered parts, no faults found, travel over 100km or other items outside our standard terms and conditions will be chargeable. Note: Any extra time spent on site due to required inductions etc. is not covered by warranty.

1. This warranty applies only for mainland Australia and Tasmania, and does not cover any service consequent upon accident, alterations, misuse, fire, flood or act of God. Warranty for New Zealand is twelve (12) months parts and labour for K+, B+S Black & Verro Ranges.
2. This warranty is valid only if the appliance has been installed in accordance with local regulations by a duly authorised person, and the B&S installation instructions provided with the appliance. If in doubt, please contact B&S or their representative for further information. No responsibility will be accepted for defects or damages by improper installation, for changes to the product not authorised by B&S or for the operation outside the technical specifications of the appliance.
3. This warranty is conditional upon the appliance being used in normal commercial catering operations.
4. This warranty is the only express warranty given by the Company. No person has authority to change or to add to these obligations and liabilities.
5. The Company has the right to determine whether or not a fault is caused by faulty workmanship or material or that any part is defective.
6. This warranty does not apply to any loss suffered through or resulting from the non-operation or the ineffective operation of the cooking appliance or any part of the cooking appliance.
7. This warranty does not extend to goods and components thereof manufactured either entirely or substantially of glass or similar substances, light globes, infrared or quartz tubes and electrical controls or elements.
8. While the goods are in custody of the seller for investigation or repair, they shall be at the risk of the purchaser and no liability shall attach to the Company, its servants or agents for any damage occasioned to, or loan of, the goods whatsoever.
9. All warranties are non-transferable and are only applicable to the original end user (purchaser).
10. All warranty work must be carried out by a B+S approved service technician.

The Purchaser must give notice to the Company immediately upon it becoming aware of the alleged defect and in any event before the expiration of the appropriate warranty period.

B+S will endeavour to have a service technician on site for all warranty service requests within a 24 hour period or by end of next business day at the latest. All warranty requests must be in writing by either lodging a warranty request through B+S website or be emailing clientservices@bscommercialkitchens.com. Details of installer such as contact name, business name, telephone number and license number must be provided to avoid any delays.

11. Nothing in this warranty, however, shall be construed as affecting any rights you may have under the Trades Practices Act or any other Commonwealth or State Legislation which gives you rights which cannot be modified or excluded by agreement.

12. SPECIAL PROVISIONS – NOT COVERED BY WARRANTY

- Cleaning of spark and ignition sensors is not covered by warranty. Damage caused by oils, water and foodstuffs falling into burners or pilots will not be covered under warranty.
- Cleaning of burners due to blockage of burner orifices caused by foodstuffs and/or oils is not covered by warranty.
- Breakage of pilot knobs, knee valve handles and knee wands are not covered under warranty.
- Thermocouples, piezo leads and ignitors are only covered by twelve (12) months parts and labour across K+, B+S Black and Verro ranges.

- Seizure of gas cocks and knobs.
- Cleaning of blocked drains.
- Damage caused by lime scale and/or corrosion.
- Parts not supplied by B+S or a B+S authorised service technician.
- Damage caused by rodents and insects.
- Scheduled general maintenance.
- Normal wear and tear of parts
- Filters for DSK Deck Steamers

Additional costs are payable for:

Accommodation, cost of transport such as flights/ferries, poor access and waiting times.

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