

G3203 & G3206 Pasta Boilers

INSTALLATION and SERVICING INSTRUCTIONS



This appliance must be installed and serviced by a Qualified competent person as stipulated by the Gas Safety (Installation & Use) Regulations.

IMPORTANT

The installer must ensure that the installation of the appliance is in conformity with these instructions and National Regulations in force at the time of installation. Particular attention MUST be paid to:

| | |
|--|---|
| Gas Safety (Installation & Use) Regulations | Detailed recommendations are contained in |
| Health And Safety At Work etc. Act | Institute of Gas Engineers published documents: |
| Local and National Building Regulations | IGE/UP1, IGE/UP/2 |
| Fire Precautions Act | BS6173 and BS5440 |

These appliances have been UKCA/CE-marked based on compliance with the Gas Appliance Regulations/Product Safety and Metrology Regulations for the Countries, Gas Types and Pressures as stated on the data plate.

**WARNING: TO PREVENT SHOCKS, ALL APPLIANCES WHETHER GAS OR ELECTRIC,
MUST BE EARTHED.**

On completion of the installation, these instructions should be left with the Engineer-in-Charge for reference during servicing. Further to this, the Users Instructions should be handed over to the User, having had a demonstration of the operation and cleaning of the appliance.

**IT IS MOST IMPORTANT THAT THESE INSTRUCTIONS BE CONSULTED BEFORE INSTALLING
AND COMMISSIONING THIS APPLIANCE. FAILURE TO COMPLY WITH THE SPECIFIED
PROCEDURES MAY RESULT IN DAMAGE OR THE NEED FOR A SERVICE CALL.**

PREVENTATIVE MAINTENANCE CONTRACT

To obtain maximum performance from this unit regular servicing of the appliance should be undertaken to ensure correct operation, it is functioning as intended, and safe to use. We recommend servicing in accordance with SFG20 Maintenance Schedules and as a minimum, after 2,500 hours of use, or annually, whichever comes first and that a maintenance contract be arranged with an appointed service contact. Visits may then be made at agreed intervals to carry out adjustments and repairs.



WEEE Directive Registration No. WEE/DC0059TT/PRO

At end of unit life, dispose of appliance and any replacement parts in a safe manner, via a licenced waste handler.

Units are designed to be dismantled easily and recycling of all material is encouraged whenever practicable.

Falcon Foodservice Equipment

HEAD OFFICE AND WORKS

Wallace View, Hillfoots Road, Stirling, FK9 5PY. Scotland.

SERVICELINE CONTACT

Phone: 01438 363 000

Fax: 01438 369 900

T100786 Ref.6

IMPORTANT INFORMATION

Warranty Policy Shortlist

Warranty does not cover :-

- Correcting faults caused by incorrect installation of a product.
- Where an engineer cannot gain access to a site or a product.
- Repeat commission visits.
- Replacement of any parts where damage has been caused by misuse.
- Engineer waiting time will be chargeable.
- Routine maintenance and cleaning.
- Gas conversions i.e. Natural to Propane gas.
- Descaling of water products and cleaning of water sensors where softeners/ conditioners are not fitted, or are fitted and not maintained.
- Blocked drains
- Independent steam generation systems.
- Gas, water and electrical supply external to unit.
- Light bulbs
- Re-installing vacuum in kettle jackets.
- Replacement of grill burner ceramics when damage has been clearly caused by misuse.
- Where an engineer finds no fault with a product that has been reported faulty.
- Re-setting or adjustment of thermostats when unit is operating to specification.
- Cleaning and unblocking of fryer filter systems due to customer misuse.
- Lubrication and adjustment of door catches.
- Cleaning and Maintenance
 - Cleaning of burner jets
 - Poor combustion caused by lack of cleaning
 - Lubrication of moving parts
 - Lubrication of gas cocks
 - Cleaning/adjustment of pilots
 - Correction of gas pressure to appliance.
 - Renewing of electric cable ends.
 - Replacement of fuses
 - Corrosion caused by use of chemical cleaners.

SECTION 1 - INSTALLATION

UNLESS OTHERWISE STATED, PARTS WHICH HAVE BEEN PROTECTED BY THE MANUFACTURER ARE NOT TO BE ADJUSTED BY THE INSTALLER.

1.1 MODEL NUMBERS, NETT WEIGHTS and DIMENSIONS

| Model | Width (mm) | Depth (mm) | Height (mm) | Weight (kg) |
|--------------------|------------|------------|-------------|-------------|
| G3203 Pasta boiler | 300 | 770 | 890 | 65 |
| G3206 Pasta boiler | 600 | 770 | 890 | 79 |

1.2 SITING

The unit should be installed on a level, fireproof surface in a well lit, draught free position. A clear space of 150mm should be left between the rear and sides of appliance and any combustible wall.

Each unit must be installed on a firm level floor in a well-lit draught free position. The boiler should be installed in a freestanding position to prevent any possibility of sideways tipping under force. The means of restraint may be the manner of installation, such as connection to a battery of appliances or installing the boiler in an alcove, or by separate means, such as adequate ties.

1.2.1 Anti-tipping Accessory

An anti-tipping mechanism is also available as an accessory. If these are to be fitted, the brackets must be fitted to locate the boiler in the correct position relative to any walls as detailed below. Fixing holes are provided in the boiler base to accommodate the bracket. The bracket should be fitted as detailed in Figure 1. The retaining chain has a quick release eyelet. Secure to fixing point and secure bracket to floor after alignment with anti-tipping device attached to the boiler. Adjust to slide below floor bracket.

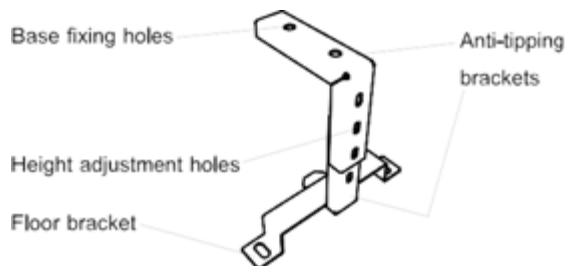


Figure 1 - Anti-tipping Bracket

Important

If appliance is to be installed in suite formation with other matching units, the instructions for all models must be consulted to determine the necessary clearances to any combustible rear wall or ventilated canopy. Some models require greater clearances than others and the largest figure quoted in individual instructions will therefore determine clearance of complete suite adjoining appliances.

1.3 VENTILATION

The appliance MUST be installed level in a well lit and draught free position. Adequate ventilation, whether natural or mechanical, must be provided to ensure sufficient fresh air for combustion and removal of combustion products and cooking vapours, which may be harmful to health.

This appliance is to be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to health in the room which they are installed.

The fresh air requirement for this appliance at a rate of 2M³/hour per kW is;

G3203: 40 M³ of fresh air per hour.

G3206: 65 M³ of fresh air per hour.

Care must be taken not to disturb the air for combustion admission and evacuation of products of combustion.

Recommendations for Ventilation of Catering Appliances are given in BS5440:2.

For multiple installations the requirements for individual appliances should be added together. Installation should be made in accordance with local and/or national regulations applying at the time. A qualified competent installer MUST BE employed.

The appliance flue discharges vertically through the grille at the top of the unit. There must be no direct connection of the flue to any mechanical extraction system or the outside air. Siting the unit under a ventilated canopy is the ideal arrangement. Remember, dirty extraction filters and drip trays may become a fire hazard due to drip-down on to equipment below. Regular cleaning of extraction filters and drip trays must be carried out.

1.4 GAS SUPPLY

The incoming service must be of sufficient size to supply full rate gas without excessive pressure drop. A gas meter is connected to the service pipe by Gas Supplier. Any existing meter should be checked by the supplier to ensure that it is of adequate capacity to pass required rate of gas for the unit, in addition to any other gas equipment that has been installed.

The multifunctional control has an in-built governor therefore an external device does not require to be fitted.

Installation pipework should be fitted in accordance with IGE/UP/2. This should not be smaller than gas inlet connection.

G3203 - Rp $\frac{1}{2}$ ($\frac{1}{2}$ " BSP)

G3206 - Rp $\frac{3}{4}$ ($\frac{3}{4}$ " BSP)

If flexible tube is used, the gas supply tubing or hose shall comply with national requirements in force. The hose shall not exceed 1.5m length. These will be periodically examined and replaced as necessary.

An isolating cock must be located close to the unit to allow shutdown during an emergency or servicing. The installation should be checked for gas tightness and purged as specified in IGE/UP/1.

1.5 ELECTRICAL SUPPLY

Not applicable to these units.

1.6 WATER SUPPLY

The appliance is intended for connection to a cold water (*potable water*) supply. **The unit must be connected in accordance with R160 and that An `Approved` double check valve or some other no less effective device providing backflow prevention to at least fluid category three shall be fitted at the point of connection(s) between the water supply and the fitting or appliance.**

Supply pressure must be within 2.5 - 7.5 bar.

The appliance must be installed in accordance with EN1717 and national water regulations in force.

A stop cock must be fitted in an easily accessible position on the supply to enable shut off if required during unit servicing. The pan is designed to be drained manually into a bucket or equivalent.

1.7 Total Heat Inputs –

| Model | Main | |
|--|----------|----------------|
| | kW (net) | Btu/hr (gross) |
| G3203 Pasta boiler Nat (I ₂ H) | 17.7 | 66,500 |
| G3206 Pasta boiler Nat (I ₂ H) | 32.5 | 122,000 |
| G3203 Pasta boiler Propane (I ₃ P) | 17.7 | 66,500 |
| G3206 Pasta boiler Propane (I ₃ P) | 33.2 | 125,000 |

1.7.1 IGNITION BURNER HEAT INPUT-

| Model | Natural (I ₂ H) | | Propane (I ₃ P) | |
|---------------|----------------------------|----------------|----------------------------|----------------|
| | kW (net) | Btu/hr (gross) | kW (net) | Btu/hr (gross) |
| G3203, G3206. | 0.3 | 1126 | 0.31 | 1164 |
| | 0.3 | 1126 | 0.31 | 1164 |

1.8 INJECTOR SIZE-

1.8.1 Natural (I₂H)

| Model | Pilot Burner | Main Burner |
|--------------------|--------------|-------------|
| G3203 Pasta boiler | NG No. 51 | 2 x Ø2.38mm |
| G3206 Pasta boiler | NG No. 51 | 2 x Ø3.2mm |

1.8.2 Propane (I₃P)

| Model | Pilot Burner | Main Burner |
|--------------------|--------------|-------------|
| G3203 Pasta boiler | LP No 35 | 2 xØ1.57mm |
| G3206 Pasta boiler | LP No 35 | 2 xØ2.15mm |

1.8.3 Cross-Lighting Burners

| Natural (I ₂ H) | Propane (I ₃ P) |
|----------------------------|----------------------------|
| NG No.N26 | LP No 16. |

1.9 GAS PRESSURE ADJUSTMENT

1.9.1 Supply Pressures

A pressure test point is fitted on the burner manifold and the operating pressure is shown in the tables below.

An adjustable governor is included in the multifunctional control on Natural Gas models. (Refer to Sections 2.6.1 setting the gas pressure and 3.7 multifunctional control)

Supply Pressure

| Gas type | mbar | inches w.g |
|--------------------------------|------|------------|
| Natural Gas (I ₂ H) | 20 | 8 |
| Propane Gas (I ₃ P) | 37 | 14.8 |

1.9.2 All Models Burner Pressure

| Gas type | mbar | inches w.g |
|--------------------------------|------|------------|
| Natural Gas (I ₂ H) | 15 | 6 |
| Propane Gas (I ₃ P) | 34.5 | 13.8 |

1.10 BURNER ADJUSTMENTS

1.10.1 Pilot

An adjustment screw is located on the multifunctional control to regulate pilot flame. Adjust pilot screw to provide a flame approximately ¾" long, projecting from each pilot burner channel. A flame larger than this will roar excessively.

Main Burner

The burners have fixed aeration inlet and injector orifices. NO ADJUSTMENT IS AVAILABLE.

SECTION 2 - ASSEMBLY and COMMISSIONING

2.1 ASSEMBLY

The unit is packed as a complete assembly, except flue and water tap faucet. To fit, slide flue over upstand on hob rear and secure with fixings along lower front and rear edges. Slot basket hanger over knurled nuts and hand-tighten.

Fit faucet to top of water tap and fully tighten.

2.2 APPLIANCES ON CASTORS

For units on castors, refer to guidelines in BS6173.

Warning: Appliances on Castors.

When the boiler is supplied with castors it should be connected to supply piping by means of a connector for moveable appliances. In addition, a restraining chain should be connected between appliance and wall. Ensure this restraint is re-connected when unit is returned to original position.

2.3 CONNECTION TO A GAS SUPPLY

Gas supply piping and unit connection must be installed in accordance with regulations listed on front page of this document.

A gas isolating cock must be fitted to the supply in a position that is readily accessible to operator.

2.4 CONNECTION TO AN ELECTRICAL SUPPLY

Not applicable to these units.

2.5 CONNECTION TO A WATER SUPPLY

Connect water supply as detailed in Section 1.6.

Ensure drain valve is closed and fill pan with fresh water to maximum level mark.

2.6 PRE-COMMISSIONING CHECK

Prior to operation, ensure that all packing material has been removed from unit.

2.6.1 Setting The Gas Pressure

It is necessary to check gas pressure during commissioning. A suitable pressure gauge must be connected to test point on supply manifold.

- a) Ensure pan is filled with water.
- b) Turn on main gas valve at supply.
- c) Light burners as detailed in User Instructions. The supply pipes may contain air therefore it may be necessary to repeat lighting procedure.
- d) Adjust multifunctional control pressure governor to relevant setting as detailed in Section 1.9 of this document. The screw should be turned clockwise to increase pressure and anti-clockwise to reduce it. Check again after 15 minutes of operation.
- e) Disconnect pressure gauge from test point. Replace sealing screw and test gas tightness.
- f) Ensure thermostat satisfactorily operates around boiling point. It should be possible to establish conditions of simmer (*pulsing heat*) and continuous boiling.
- g) Check for water leaks at inlet, fill tap, drain valve and pan.
- h) Position a water collector at drain outlet. Ensure drain valve closes effectively and opens with ease.

2.7 INSTRUCTION TO USER

After installing and commissioning the unit, hand User Instructions to operator or purchaser. Ensure details to light, turn off, use and clean are properly understood. The locations of main gas and water isolating valves should be made known to user and the procedure for operation in event of an emergency should be demonstrated.

SECTION 3 - SERVICING and CONVERSION

MAINTENANCE CHECK

Regular servicing of the appliance should be undertaken to ensure correct operation, it is functioning as intended, and safe to use. We recommend servicing after 2,500 hours of use, or annually, whichever comes first.

Any maintenance schedule should be carried out in accordance with SFG20 Maintenance Schedules. Should any issues with the integrity of the components be identified these should be replaced. If the appliance is not considered safe the unit should be removed from service and the responsible person advised why the unit is not safe to use and what remedial action is needed. Contents of the maintenance schedule should be agreed with the maintenance provider.

Important

BEFORE ATTEMPTING ANY SERVICING, ENSURE ISOLATING COCK IS TURNED OFF AND THAT IT CANNOT BE INADVERTENTLY TURNED BACK ON.

ENSURE UNIT HAS ADEQUATELY COOLED PRIOR TO ANY MAINTENANCE.

WHEN WORK IS COMPLETED, CHECK UNIT PERFORMANCE IS CORRECT AND CARRY OUT ANY NECESSARY ADJUSTMENTS AS DETAILED IN SECTION 1.

After carrying out any servicing or exchange of gas carrying components -

ALWAYS CHECK FOR GAS TIGHTNESS!

3.1 GAS CONVERSION CHECK LIST

CHANGE MAIN INJECTORS CHANGE PILOT INJECTORS
CHANGE CROSS LIGHTING INJECTOR MODIFY MULTIFUNCTIONAL CONTROL
CHANGE DATAPLATE

To convert from Natural to Propane gas, remove regulator mechanism. Replace with blanking plate supplied with conversion kit.

To convert from Propane to Natural gas, remove blanking plate. Replace with regulator mechanism supplied with conversion kit.

All relevant injectors to be changed to suit gas type. Adjust pressure. (as detailed in Sections 1.8.&1.9)

3.2 BURNERS

Burners should be cleaned periodically to maintain maximum performance. These are best cleaned with a soft wire brush. Blocked parts require to be cleared using a metal broach. Any material pushed into burner should be shaken out via air inlet.

3.2.1 Removal of Burner Assembly

Turn off main gas supply to unit. Remove fixings that secure pilot and cross-lighter assemblies to main burner and drop assemblies slightly. Disconnect compression joint above manifold. Remove fixings that retain burner assembly front cross strap to side runners. Pull burner assembly forward (*approx. 25mm*) and drop it slightly to clear front cross strap. While supporting weight of assembly, push it back to clear rear strap from runners and lower to withdraw. Replace in reverse order.

3.2.2 Removal of Pilot Burner

Isolate main gas supply to unit. Disconnect pilot supply pipe compression nut and remove pipe from pilot burner. Withdraw injector. Undo thermocouple retaining nut and remove thermocouple from pilot burner. Undo thermopile retaining nut and withdraw thermopile. Pull lead from spark electrode.

Undo nuts that secure pilot burner bracket to burner. Withdraw pilot burner assembly. Replace in reverse order.

3.3 CLEANING THE INJECTORS

Injectors should be periodically cleaned using a wooden splinter or soft wire. Avoid use of metal reamers as these may distort or increase size of orifice.

3.3.1 Removal of Main Burner Injectors

Isolate main gas supply.

Use a 10mm open-ended spanner to remove injector.

3.3.2 Removal of Pilot/Cross-Lighting Injectors Isolate main gas supply. Undo pilot/cross lighter supply pipe compression nut and remove pipe from pilot/cross lighter burner.

Withdraw injector. Replace in reverse order.

3.4 FLAME FAILURE THERMOCOUPLE

Undo nuts at pilot assembly and valve body.

Disconnect thermocouple interrupter from terminal block.

3.5 PIEZO IGNITER/SPARK ELECTRODE

The igniter is a piezo spark type. The electrode is mounted upon pilot burner bracket and switch is adjacent to MFC. The lead has a push on connection at both ends.

3.5.1 Removal of Igniter Switch

Remove igniter lead connection to switch.

Undo fixings that secure switch flange to control compartment and remove device.

Replace in reverse order.

3.5.2 Removal of the Electrode

Remove igniter lead connection from electrode and remove nut located below electrode. Withdraw electrode downward from pilot burner bracket.

Replace in reverse order.

3.6 THERMOSTATS

The user thermostat is an EGO, snap action control with adjustment of temperature up to continuous boil.

The overheat thermostat is an EGO model with interrupter that will cut burner operation if the pan overheats (*e.g. - no water in pan*)

Note

Manual intervention is required to reset control in event of cut-out.

To Reset Safety Thermostat

Allow pan to cool down.

Remove black plastic safety cover and push reset button. Fill pan with cold water to level mark

Warning: Filling an overheated pan with water is dangerous and may cause damage to pan structure.

In the event of failure with full pan, replace safety stat.

3.6.1 Removal of Operating Thermostat

Isolate main gas supply and drain cooled water from pan.

Remove control knob from user thermostat and undo fixings alongside user thermostat spindle.

Undo control panel fixings. Follow thermostat phial capillary tube to pan boss in front wall and undo small compression nut that seals tube.

Remove phial cover plate from inside pan and withdraw thermostat phial. Disconnect thermostat electrical connections prior to removing thermostat.

Replace in reverse order.

3.6.2 Recalibration of User Thermostat

Remove knob from thermostat spindle taking care not to rotate it in either direction as this would change setting. Steady spindle and rotate calibration screw clockwise to decrease and anti-clockwise to increase the temperature.

3.6.3 Checking the User Thermostat Calibration

Using a reliable thermometer immersed 25mm below water surface at pan centre. Measure water temperature when a steady condition has been established.

It is important that calibration is set to guarantee continuous boiling at top end.

3.6.4 Replacement of Safety Thermostat

Isolate gas supply and drain cooled water from pan. Undo fixings that secure safety thermostat to bracket.

Follow thermostat phial capillary tube to pan boss in front wall and unscrew small compression nut that seals tube.

Remove phial cover plate from pan and withdraw phial. Disconnect wires from terminal block.

Re-assemble parts in reverse order.

3.7 MULTIFUNCTIONAL GAS CONTROL (MFC)

Unit is fitted with an SIT 820 Nova mV control incorporating cock, governor, valve and flame failure device.

3.7.1 Removal of Multifunctional Control (MFC)

Isolate main gas supply.

Remove cover plates that surround MFC.

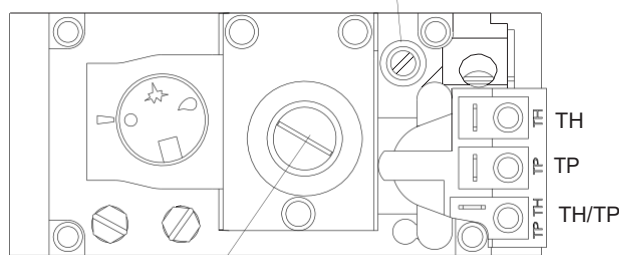
Disconnect thermocouple connection on MFC and pull thermocouple clear. Undo thermopile connections and withdraw.

Undo main gas inlet and outlet connections to MFC and withdraw control. Replace in reverse order taking care when reconnecting thermocouple.

DO NOT overtighten as this may cause damage, hand tight plus a quarter turn is sufficient.

SIT Nova Multifunctional Control (MFC)

Pilot adjustment screw



Burner pressure adjustment screw

3.8 GOVERNOR

A governor is built in to the multifunctional control.

Refer to Sections 1.9 and 3.7.

3.9 DOUBLE CHECK VALVE

A double check valve is fitted at water inlet. This component is maintenance free.

If a replacement is required, ensure flow direction arrow points in the direction of intended flow.

This device must always be fitted to prevent contamination of potable water supply.

3.10 WATER TAP

Located at rear hob.

Turn off water supply before disconnecting tap.

To replace tap, remove fascia panel, door and side panel to gain access. Replace in reverse order.

To gain access to internal head work, undo hex fitting behind control lever and remove.

Upon completion, ensure assembly is watertight.

3.11 DRAIN VALVE

If drain valve requires replacing, ensure pan is drained before removing valve.

Ensure replacement is fitted in correct orientation.

Upon completion, ensure valve opens and closes effectively.

SECTION 4 - SPARES

When ordering spare parts, always quote unit type and serial number.

This information can be found on the data plate attached to base panel.

The following parts may require replacing during the life of this appliance;

- Safety thermostat

- Spark igniter

- Spark ignition electrode

- Operating thermostat

- Multifunctional control (*MFC*)

- Thermocouple c/w interrupter

- Thermopile

- Pilot assembly