Fisher&Paykel
appliances
Service Manual

Gas Cooktops

New Zealand, Australia, Europe

Models

CG913T & CG913TM

599266B

Manual 599266B Reprint: April 2006

The specifications and servicing procedures outlined in this manual are subject to change without notice.

The latest version is indicated by the reprint date and letter, and replaces any earlier editions.

Contents

Models covered by this manual

MODEL	PRODUCT CODE	MARKET
CG913T	80034 80033 88379 88380 88381 88382 88829	NZ AU EU GR DE DK GB
CG913TM	80032 80031	NZ AU

Service assistance

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1. Service requirements

1.1 Health and Safety

When servicing the cooktop, health and safety issues must be considered at all times. Specific safety issues are listed below with their appropriate icon. They are illustrated in the service procedures to remind service people of the issues.

Electrical safety. Isolate the cooktop from the electrical supply before servicing. Failure to do so could result in an electric shock.

Gas leak hazard. Isolate the cooktop from the gas supply if necessary before servicing and leak test after all gas related repairs.

Sharp metal edges. Take care and use appropriate protection when handling sharp metal edges to avoid laceration.

Gas fittings are **torque sensitive**, over tightening could damage them and cause a gas leak.

Heat hazard. Ensure wiring is correctly routed away from potentially hot metal parts.

Ensure the work area is clean and tidy at all times to avoid a hazard while service work is being carried out. Clean the cooktop and tidy the work area after service work is completed.

1.2 General warning

Qualified gas and electrical service people should only service this product.

2. Specifications

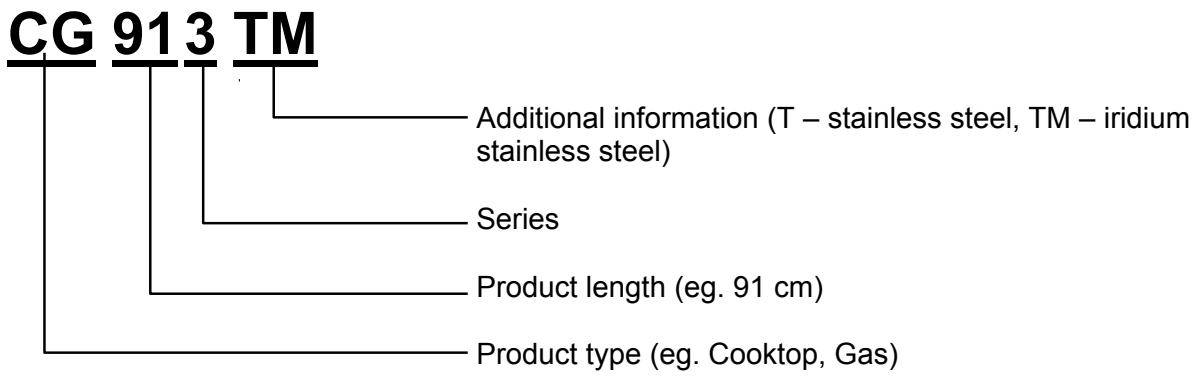
2.1 Product overview

Model	CG913T	CG913TM
Supply voltage	220/240	220/240
Flame failure auto reignition	✓	✓
Brushed stainless steel panels	✓	
Iridium stainless steel panels		✓
Wok burner	14000 BTU/h	20000 BTU/h
LED burner indicators, innovalves, shut off solenoid	✓	✓

2.2 Model number

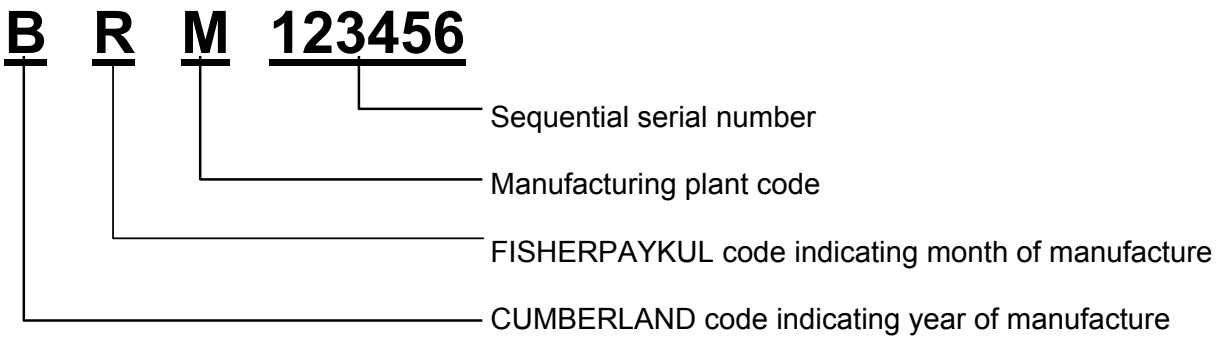
Note: A model and serial number label is located on the underside of the cooktop and on the cover of the use and care guide supplied with the product. An extra label is provided for the installer to place in a convenient location.

The model number contains information as shown in the following example:



2.3 Serial number

The serial number consists of three letters and six digits and contains the information shown in the following example:



Cumberland code

Letter	C	U	M	B	E	R	L	A	N	D
Year	1	2	3	4	5	6	7	8	9	0

Fisherpaykul code

Letter	F	I	S	H	E	R	P	A	Y	K	U	L
Month	1	2	3	4	5	6	7	8	9	10	11	12

Manufacturing plant code

A	Laundry – Cleveland, Australia
F	Refrigeration – Auckland, New Zealand
M	Range and Dishwasher – Dunedin, New Zealand
N	Laundry – Auckland, New Zealand
Q	Refrigeration – Cleveland, Australia

In the example above, the appliance was manufactured in the sixth month (June) of the fourth year (2004) at the Range and Dishwasher plant in Dunedin, New Zealand.

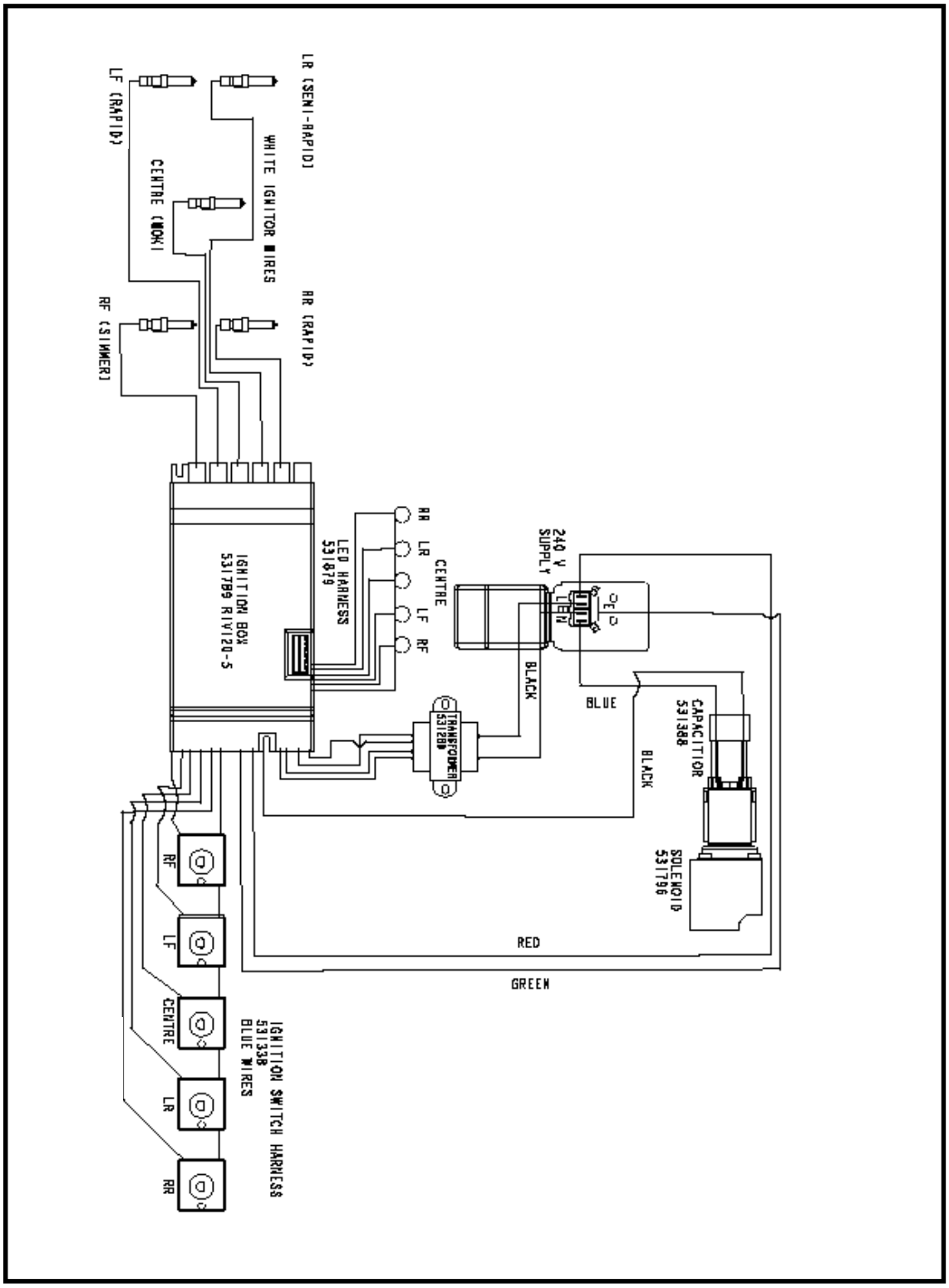
2.4 Electrical

Mains powered ignition system - 220/240V 0.6VA
Solenoid - approx. 2.0 Mohms in one direction, infinite in the other.

3. Installation requirements, burner ratings, gas jet sizes, gas conversion and low flame setting adjustment.

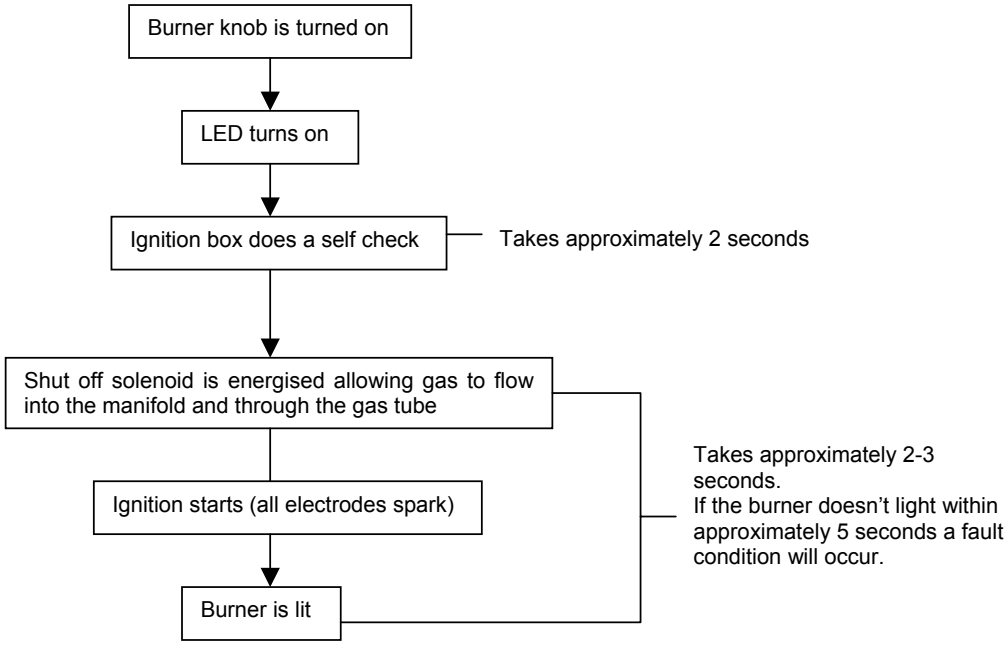
Refer to the installation instructions supplied with the product, or available on the Fisher & Paykel website - www.fisherpaykel.com

4. Wiring diagram for CG913 series cooktops



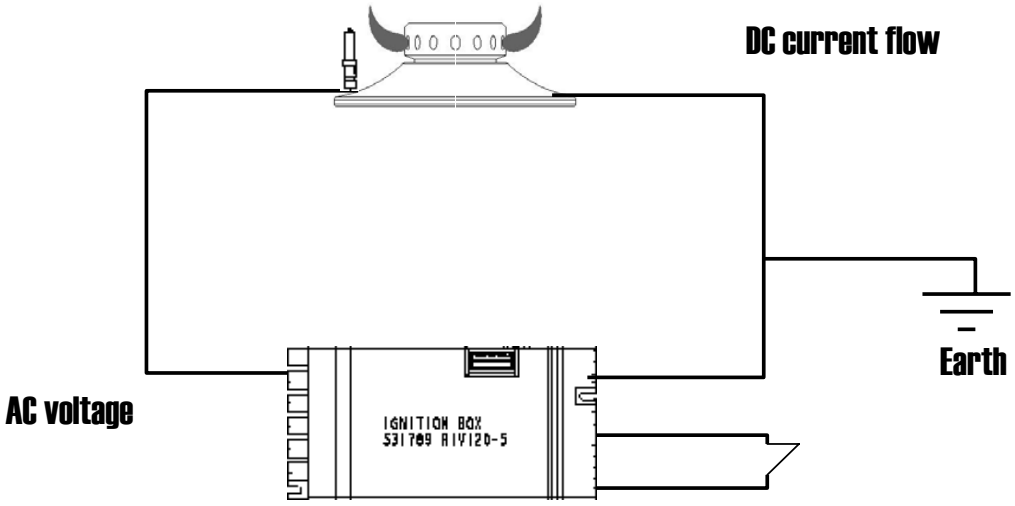
5. Ignition, flame sensing and auto reignition

5.1 Ignition sequence



5.2 Flame sensing

The ignition box senses when a flame is lit using flame rectification current sensing. The AC voltage supplied from the ignition box is rectified to a DC current that is monitored at the ignition box. This is achievable due to the characteristics of the electrical circuit created by the ignition box, electrode, flame and burner.



Note: There is a cam in each switch in the ignition switch loom and a specific electrode location at the ignition box for each burner. This identifies to the ignition box which burner to flame sense. For this reason the electrodes cannot be swapped between burners. (refer to Section 4 or 6.4 for the correct electrode location and the corresponding burner)

5.3 Auto reignition

The ignition box will sense when a flame has gone out (when a burner knob is in the ON position) and try to reignite the flame. All the electrodes will spark during reignition.

During reignition the ignition box allows a period of approximately five seconds for the burner to light. If a flame is not sensed in this period a fault condition will occur.

5.4 Fault conditions

There are two fault conditions that will result with the red LEDs flashing. The faults can be distinguished by the speed at which the LEDs flash. The fault conditions are:

- the burner has failed to light within a five second period during normal use or while trying to auto reignite. (slow pulse flash)
- there has been an interruption to the power supply during use. (rapid pulse flash)

In both fault conditions all the controls must be reset to the OFF position for the fault to be cleared.

6. Servicing Procedures

Refer to the Service requirements before servicing, Section 1 page 6

6.1 To remove the hob top and tray

1. Lift off the trivets and burner components.
2. Remove the knobs.
3. Remove the screws securing each burner.
   - To prevent damaging the screw head use a No. 1 Phillip's head screwdriver.
4. Lift the hob tray out of the hob top.
5. Remove the hob top.

6.2 To remove the cooktop from the bench

Note: It is easier to service the internal components by removing the hob top and tray rather than removing the product from the bench.

1. Unplug the electrical supply lead.
2. Turn off the gas supply and disconnect the inlet gas pipe.
3. Loosen the cooktop clamping brackets.
4. Lift the cooktop out of the bench.

6.3 To remove an electrode

1. Remove the hob top and tray.
2. Remove the electrode locating clip on the burner bowl.
3. Unplug the electrode lead from the ignition box.

6.4 To remove the ignition box

1. Remove the hob top and tray.
2. Remove the LED bracket by pulling it upwards and unplug the LED harness from the ignition box.
3. Unplug the electrode leads and the multi-way plugs from the ignition box.

Note: The electrode leads must be plugged into the correct terminals on the ignition box. Terminal numbers on the ignition box correspond as follows:

S1	Front right burner
S2	Front left burner
S3	Middle burner
S4	Rear left burner
S5	Rear right burner
S6	Not used

6.5 To remove the ignition switch loom

1. Remove the hob top and tray.
2. Lift the loom switches off the gas valves and unplug from the ignition box.

6.6 To remove the transformer

1. Remove the hob top and tray.
2. Remove the LED bracket by pulling it upwards and unplug the LED harness from the ignition box.
3. Fold back the lugs holding the transformer to the basepan.
4. Disconnect the wiring from the transformer to the terminal block and ignition box.

Note: The black supply wires are not polarity dependent.

6.7 To remove a gas valve

1. Remove the cooktop from the benchtop.
2. Remove the hob top and tray.
3. Remove the ignition switch loom.
4. Remove the LED bracket by pulling it upwards and unplug the LED harness from the ignition box.
5. Disconnect all the aluminium tubes from the gas valve outlets.
6. Remove the screws securing :
   - the manifold bracket to the base pan.
   - the solenoid block to the basepan.
   - the manifold support bracket to the basepan.
7. Remove the wires from the solenoid.
8. Remove the manifold.
9. Remove the gas valve from the manifold.

Note: Leak test all gas connections. Block each injector orifice in turn and open the valve to leak test the gas connections beyond the valve.

- Check and adjust the low flame setting.

6.8 To service a gas valve

1. Remove the hob top and tray.
2. Remove the ignition switch loom.
3. Remove the screws on the body of the gas valve.
4. Gently lift out the valve cone and clean with solvent.
5. Regrease the cone with high temperature grease.
6. Refit and rotate the cone.
7. Lift out the cone, remove any excess grease and check the holes in the cone and the valve body are not blocked.
8. Reassemble the valve assembly.
9. Open and close the valve several times.
10. Check the valve for leaks and reassemble the cooktop in reverse order.

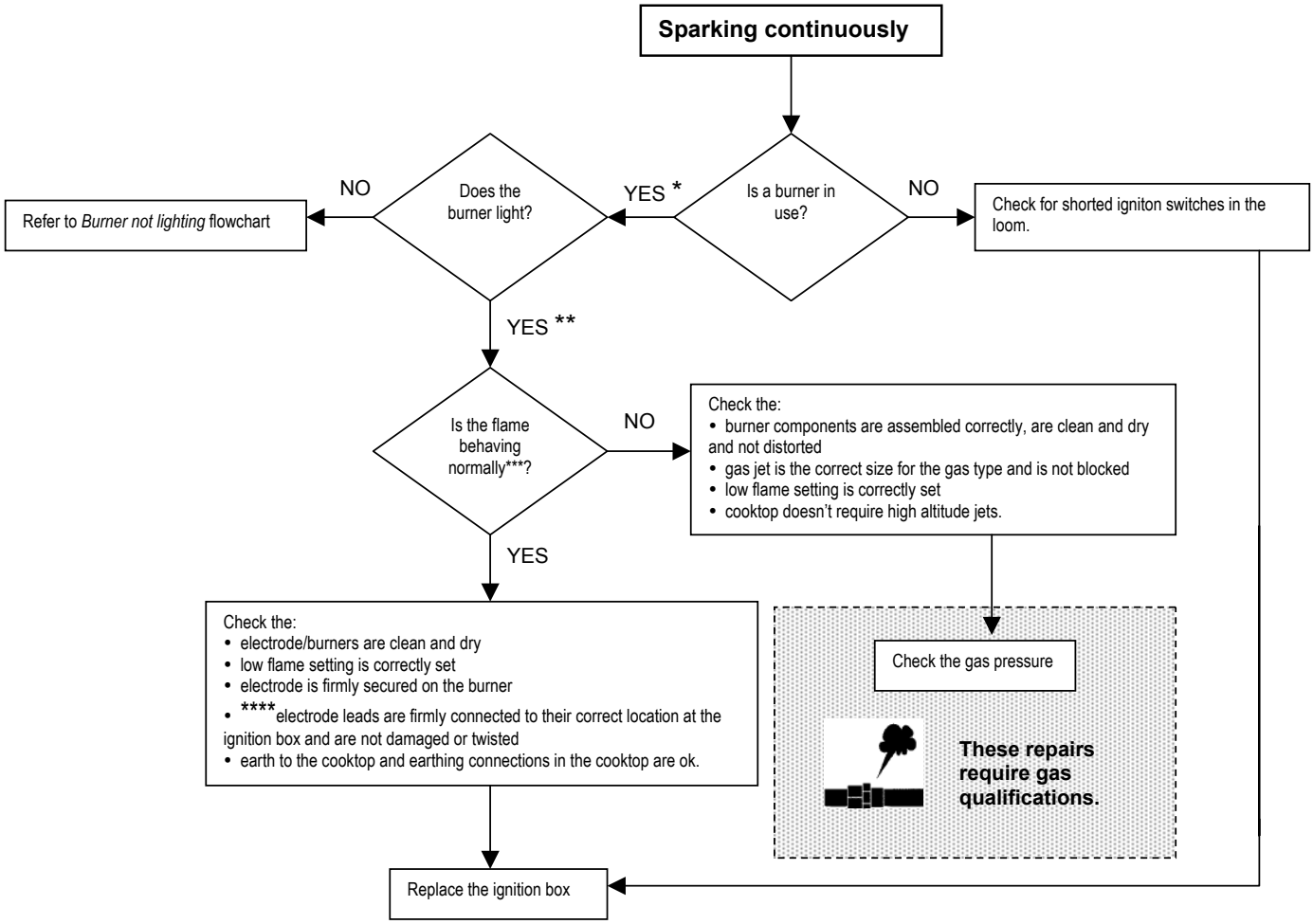
6.9 To remove the solenoid

1. Remove the manifold. (refer Section 6.7)
2. Remove the screws from the side of the manifold bracket securing the solenoid.
3. Separate the solenoid from the manifold.

Note: Check the o-ring in the replacement solenoid has a light layer of grease. Take care not to pinch the o-ring when reinserting the manifold.

- Check for leaks.

7. Fault finding



NOTES

* The electrode should only spark for approx. 5 seconds before going into a fault condition – red LED flashing slowly. If it doesn't fault after 5 seconds, replace the ignition box.

** This indicates the flame is not being detected.

*** Flame not normal – distorted, too big, yellow, lifting off burner

**** The correct electrode location at the ignition box -

Terminal	Burner
S1	Front right
S2	Front left
S3	Middle
S4	Rear left
S5	Rear right
S6	Not used

599266B – CG913 Gas cooktop