

## Gas Cooktops



### MODELS

**GC901 & GC901M (USA & Canada)**

**CG901M (NZ & AUS)**

**CG901 & CG901M (GB & IE)**



## **MODELS COVERED BY THIS MANUAL**

Fisher and Paykel Titan Gas Cooktop

MODEL			CODE	MARKET	
GC901		FP	88410	USA	United States of America/Canada
GC901M		FP	88417	USA	United States of America/Canada
CG901M		FP	87816	NZ	New Zealand
CG901M		FP	87816	AUST	Australia
CG901		FP	87817	GB, IE (G20/G30)	Great Britain, Ireland
CG901M		FP	88749/ 88750	GB, IE (G20/G30)	Great Britain, Ireland

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# 1. Specifications

## 1.1 Product Dimensions

	<b>GC901/CG901</b>	<b>GC901M/CG901M</b>
Length	36" (914mm)	36" (914mm)
Width	21 <sup>1</sup> / <sub>2</sub> " (546mm)	21 <sup>1</sup> / <sub>2</sub> " (546mm)
Depth below bench/counter-top	2 <sup>9</sup> / <sub>16</sub> " (65mm)	3" (76mm)

## 1.2 Model Explanation

GC901 model is made for the US/Canadian market with auto re-ignition and Sabaf triple ring burner.

GC901M is the GC901 with "Iridium" stainless panels and a more powerful (Isphording) wok.

CG901M is for NZ / Aus / GB / IE markets with flame failure and a more powerful (Isphording) wok. It is known as an Iridium Titan Gas Cooktop.

GC901 model is made for the GB / IE market with flame failure and a Sabaf triple ring burner. It is known as Titan Gas Cooktop.

## 1.3 Bench/Counter-Top Cut-Out Dimensions for GC901/GC901 Series

	<b>Min</b>	<b>Max</b>
Length	33 <sup>7</sup> / <sub>8</sub> " (860mm)	35 <sup>1</sup> / <sub>4</sub> " (894mm)
Width	19 <sup>1</sup> / <sub>8</sub> " (486mm)	20 <sup>5</sup> / <sub>8</sub> " (524mm)
Depth for clearance	2 <sup>9</sup> / <sub>16</sub> " (65mm)(product) + <sup>3</sup> / <sub>4</sub> " (19 mm)	(ventilation) = 3 <sup>5</sup> / <sub>8</sub> " (92 mm ) below bench

## 1.4 Clearances for USA

- Minimum horizontal distances from side and back of cut-out to adjacent vertical combustible walls (extending a minimum of 18" (457mm) from above the top panel) must be 1<sup>1</sup>/<sub>4</sub>" (32mm) from the left side wall, 1"(25mm) from the right side wall and 1<sup>1</sup>/<sub>4</sub>" (32mm) from the rear wall.
- Minimum horizontal distance from front edge of counter to front side of cut-out 1<sup>1</sup>/<sub>4</sub>" (32mm). Where this reduces the distance between the back edge of the cut-out and the adjacent wall to less than 1<sup>1</sup>/<sub>4</sub>" (32 mm), this wall must be of a non combustible material.
- Minimum clearance to combustible surface centred above cooking surface 30" (762mm).
- Minimum horizontal distance between overhead cabinets installed on either side of this appliance 36" (914mm).
- Maximum depth of overhead cupboards, 13" (330mm).
- These distances shall be from the outermost edge of the top panel.

## 1.5 Clearances for Other Markets

- See Installation Instructions supplied with the product.

## 1.6 Burners & Rating

### GC901/GC901M

	Australia/New Zealand				Great Britain / Ireland GC901/M				USA/Canada GC901/M			
	NG (1kPa) MJ/h	Orifice Size (mm)	LPG (2.75kPa) MJ/h	Orifice Size (mm)	NG (I <sub>2H</sub> ) (20mbar) kW	Orifice Size (mm)	LPG (I <sub>3+</sub> ) (28-30/37 mbar) kW	Orifice Size (mm)	NG4” BTU	Orifice Size (mm)	LP11” BTU	Orifice Size (mm)
<b>Auxiliary/ Simmer</b> Front Right	3.6	0.85	2.7	0.45	1.0	0.75	1.2	0.55	3,000	0.85	3,000	0.55
<b>Semi Rapid</b> Rear Left	6.0	1.1	6.2	0.7	2.0	1.0	1.7	0.65	5,800	1.1	5,700	0.7
<b>Rapid</b> Right Rear & Front Left	8.4	1.3	8.4	0.8	2.0	1.0	2.0	0.70	8,400	1.3	8,700	0.8
<b>Wok Centre</b> 901	-	-	-	-	4.2	1.55	3.6	0.95	14,000	1.75	13,000	1.05
<b>Wok Centre</b> 901M	15	1.8	15	1.08	5.5	1.69	5.5	1.14	20,000	2.15	19,000	1.22

**Note:** Kits of high altitude orifices are available for GC901 and GC901M models.

NG Part No. 531566 LPG part no. 531567

These orifices should be used at approximately 6000 feet or above.

Serial and model numbers are located on the underside of the product. An extra label is provided to the installer to be placed in a convenient location.

## **1.7 Controls**

NZ / Aus / GB / IE

5 x Flame Failure Valve P/N 530302

USA / Canada

5 x Standard Gas Valve P/N 530029

## **1.8 Electrical**

**NZ / Aus / GB / IE**

Mains Powered Ignition System - 220/240V 0.6VA P/N 530033

**USA / Canada**

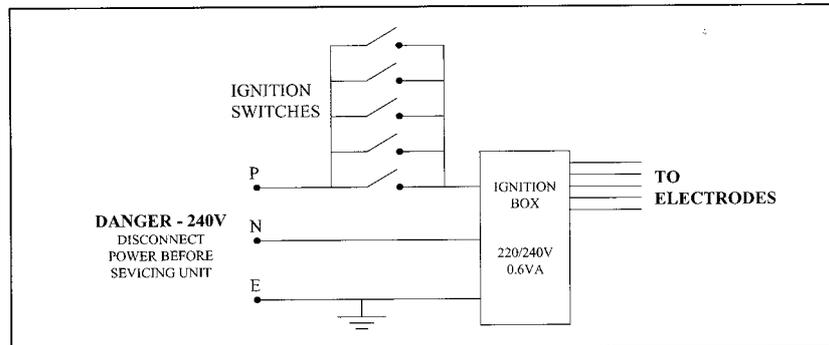
Mains Powered Auto Re-ignition System 120V 60Hz 2V A P/N 530308

## **1.9 General Warning**

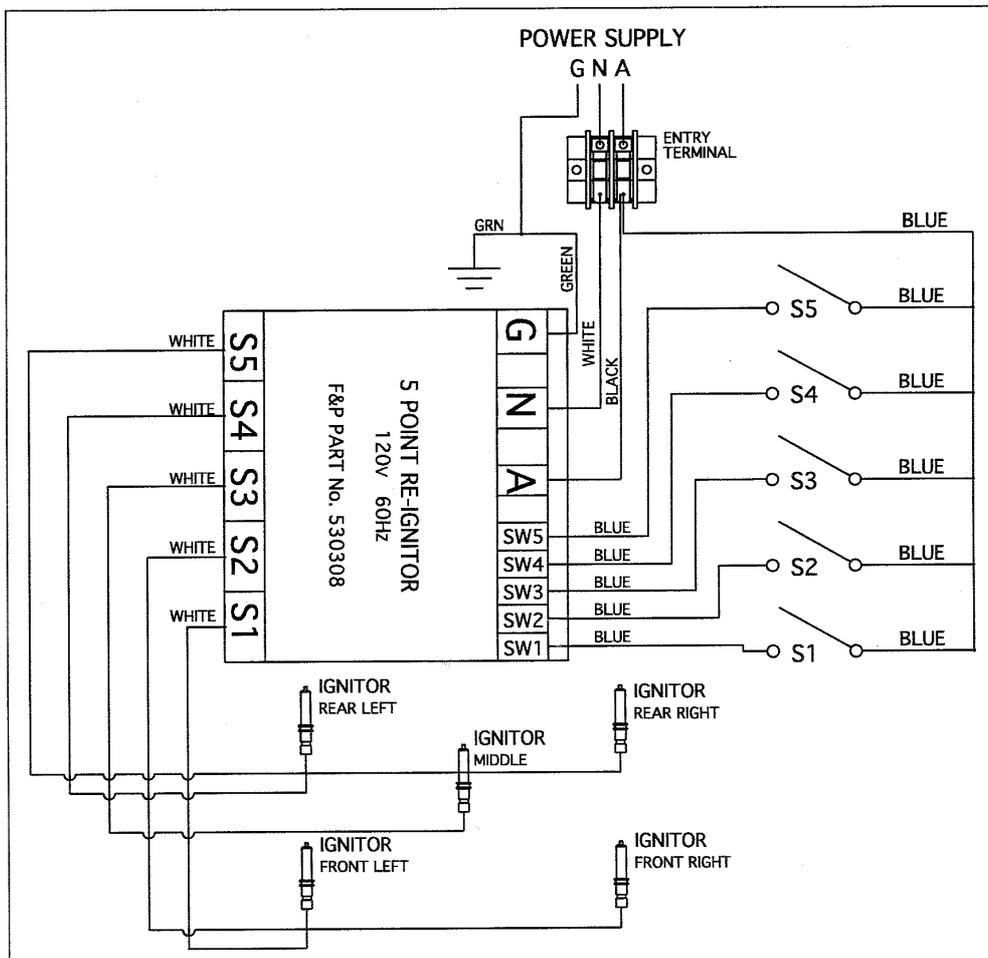
Gas products can only be installed and serviced by qualified Gas service persons.

## 2. Wiring Diagrams

### 2.1 Schematic Wiring Diagram for CG901 Series Gas Cooktops Ignition Circuit (NZ, Aust, GB, IE)



### 2.2 Schematic Wiring Diagram for GC901 Series Gas Cooktops Ignition Circuit (USA & Canada Only)



### **3. Replacement of Burner Orifice & Low Setting Adjustment**

#### **3.1 Minimum Setting or Turn Down**

**Note: This is not possible in the UK and Ireland as the gas valves have been sealed.**

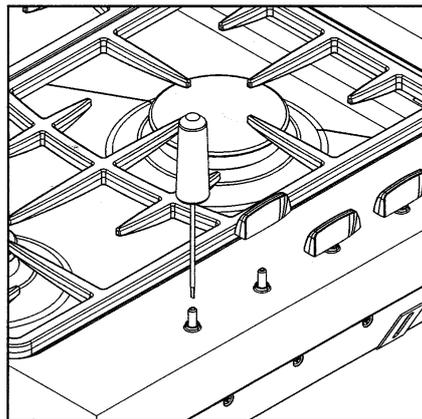
This has been set at the factory but can be checked after the correct pressure has been reached. To adjust for minimum setting, if needed, you will need a 2.5 diameter x 45mm ( $\frac{7}{64}$ " diameter x  $1\frac{3}{4}$ " ) screwdriver. (In the USA, this Screwdriver is available as Part No. FB200467.)

Remove the knobs.

Ignite the burner and turn the valve spindle to its minimum position.

Rotate the turn down screw (down the hole in the valve spindle). Rotate slowly until a minimum regular flame is achieved. (The flame will diminish when the screw is turned clockwise and increase when turned counter-clockwise).

When the setting is right check regulation by quickly rotating the valve spindle from the maximum to the minimum delivery position. The flame must not go out. Replace the knob.



### 3.2 Conversion to Different Gas Type

**Note:** For GB / Ireland, the products must not be converted between gases. The gas valves have been sealed.

Burners can be used with NG or LPG types of gas, provided that the injector orifice appropriate for the gas delivered are installed. Use a 7mm (<sup>9</sup>/<sub>32</sub>" ) box spanner or socket to remove the orifice.

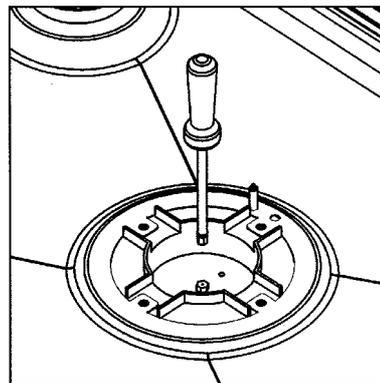
To change the injector orifice on all burners except the GC901M/CG901M Wok burner:-

Turn off the electrical and gas supplies.

Ensure all gas valves are turned off.

Remove all burner heads.

Unscrew the orifice using a 7mm socket and replace them with the correct ones. (Size numbers stamped on side e.g. 70 = 0.70mm)

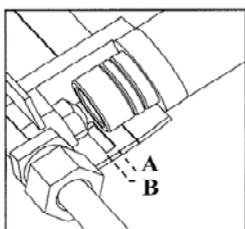


Reset minimum setting (see Section 3.1).

The adhesive label supplied with the orifice kit can be placed over the existing gas type label to indicate the change.

**To change the injector orifice for the GC901M/CG901M Wok burner:-**

1. Turn off the gas and electricity supplies.
2. Remove burner heads.
3. Remove the eleven screws that hold the hob tray to the burner bodies.
4. Lift out the tray. There will be an electrode wire attached. Disconnect this at the blue spark box.
5. Loosen locking screw and slide the venturi tube into the burner tube a short distance to allow access to the orifice. Lock the venturi tube in this position.
6. Use a 10mm ring spanner to unscrew the orifice and replace with the correct size.
7. Reset the venturi position aligning the end of the venturi tube with the edge of the slot in the bracket below it. See figure and table below. Some fine adjustment may be required to suit local conditions. If the venturi is adjusted too far out, the flames will have yellow tips. If the venturi is too far in, the flame will lift off from the burner ports and will be noisy.
8. Reset minimum setting (see Section 3.1).



Market	Gas Type	Venturi Position
USA/Canada	NG	A
USA/Canada	LPG	B
NZ/AUST	NG	A
NZ/AUST	LPG	B
GB/IE	NG	B
GB/IE	LPG	B

**Note:** Kits of high altitude orifices are available for GC901/M (these are also suitable for CG901/M models) NG Part No. 531566 LP Part No. 531567. These orifices should be used at approximately 6000 feet (1830 m) or above.

## **To change the gas pressure (4" NG, 11" LP): (USA/Canada Only)**

1. Unscrew the cap from the regulator.
2. Check the orientation of the plastic conversion plug, and if necessary, unscrew, turn over and screw back in (wide section away from cap for LP and against cap for NG - see diagram below for appropriate orientation).
3. Replace the regulator cap.
4. Test gas pressure (test point provision on side of regulator). When converting the regulator for different settings, the function of the regulator must be checked at a pressure at least 1"WC (249Pa) above the specified manifold pressure.



NG



LPG

## **4. Trivet Feet**

### **4.1 Replacement**

The trivet feet can be replaced if required. The replacement feet are available in a repair kit called 531852P kit repair foot trivet 901. The feet should be glued in with high temperature silicone sealant, 200°C rated.

## **5. Removal of Product Top Panel**

### **5.1 How to Remove Product Top Panel**

Lift off trivets/grates and burner heads.

Pull off knobs.

On CG901/M Flame Failure model unscrew the nut securing the flame failure probe on the simmer burner using a 7 mm ( $\frac{9}{32}$ " ) box socket.

Remove the two screws (four screws for wok burner) holding each burner. (To prevent damaging the screw head use a No. 1 Philips screwdriver.)

Lift off top panel hinging from the back. Note: The edge on stainless models can be sharp. (The auxiliary electrode unplugs from the ignition box if you want to get the hob out of the way.)

If you need to change the top panel, the Simmer burner electrode may be removed by unlatching the locating spring.

To replace, reverse the procedure.

## **6. Removal of Cooktop from Bench/Counter-Top**

It is probably easiest to service the internal components (gas valves, electronics) by removing the top panel rather than removing the product from the bench (see Section 4).

### **6.1 To Remove the Product from the Bench/Counter-Top**

Disconnect the electrical supply.

Turn off gas supply and disconnect.

Loosen the clamping brackets at the front/sides (underneath).

Lift product out.

**Note:** Fit a new blue sealing washer when re-connecting the gas supply. (Part number 530132). Tighten the floating nut to firm finger tight plus  $\frac{1}{4}$  of a turn (90° of rotation).

## **7. Replacement & Servicing of Electronic Ignition**

### **7.1 To Replace an Electrode**

Disconnect from power.

Remove the product top panel - (see Section 4).

Unlatch the appropriate locating spring and remove the electrode. Replace

Reassemble in reverse order.

### **7.2 To Replace Ignition Box**

Disconnect from power.

Remove the product top panel - (see Section 4).

Unplug the electrodes and the multiway plug from the ignition box.

Replace the box. The ignition box is held down by double sided foam tape.

For the auto re-ignition box.

Electrode wires must be plugged into correct terminals. Terminal Numbers on the ignition box correspond to:

- #1: Front left burner
- #2: Front right burner
- #3: Middle burner
- #4: Rear left burner
- #5: Rear right burner

Reassemble in reverse order.

## **7.3 To Replace the Microswitch Harness (GC901 USA & Canada Only)**

Disconnect from power.

Remove the product top panel - (see Section 4).

Lift off microswitch assembly and replace.

Reassemble in reverse order.

## **8. Gas Valves**

### **8.1 To Change a Gas Valve**

Turn off the gas and electricity supplies.

Remove the burner heads.

Remove the screws that hold the top panels to the burners and remove the panels.

Lift off the microswitch assembly. (GC901 USA & Canada only.)

Disconnect the microswitch wires from the valve assemblies. (CG901 NZ, Aust, GB, IE).

Disconnect the copper thermocouple conductor tubes from the valve assemblies (CG901, NZ, Aus, GB, IE)

Disconnect the gas supply at the male 1/2" BSP floating nut fitting at the rear of the cooktop.

Disconnect the aluminium tubes from the valve outlets.

Remove the screws holding the manifold bracket to the base pan and remove the manifold.

Replace the gas valve on the manifold tube.

Reassemble in the reverse order. Fit a new blue sealing washer when re-connecting the gas supply (Part number 530132). Tighten the floating nut to firm finger tight plus  $\frac{1}{4}$  of a turn (90°).

Leak test all gas connections before refitting the microswitch assembly. Block each injector orifice in turn and open the valve to leak test the gas connections beyond the valve. We recommend Rocol Leak Detection Spray.

Check turndown setting (see Section 3.).

Replace product top panel.

## **8.2 To Service a gas Valve**

Remove product top panel.

Remove circlips from each gas valve to free the microswitch assembly.  
Lift off microswitches.

Unscrew the two Philips screws on the top of the gas valve.

Gently lift out the valve cone, clean with solvent.

Re-grease with high temperature grease. (e.g. ROCOL HT, Otimol HT2EP, Ragasine Moly LM).  
Replace.

Move it around, remove excess grease, remove and check holes in the core or body are not blocked, replace.

Open and close the valve several times.

Check for leaks with aerosol leak detection spray (e.g. Rocol) and re-assemble in reverse order.

## **9. Problem Solving Auto Re-ignition (USA & Canada models)**

### **9.1 Gas Doesn't Light – No Spark**

Check the electricity supply.

Check spark gap is not too wide (burners sitting correctly).

Check electrodes/burners are clean (use rubbing alcohol and an old toothbrush).

Check continuity from the box to the electrode and from the burner or earthing point to the earth connection on the box.

Check the high tension leads are not coiled, as this may result in a loss of voltage to the electrode. (Use correct length leads and locate in correct position.)

Check for damage to the wire insulation and that the leads are not against parts that will heat up during operation.

### **9.2 Gas Doesn't Light – Spark but no Ignition**

Check the cooktop and regulator are set up for the correct gas type and pressure (factory set for NG).

Check location of ignitors and make sure spark gap is not too wide.

Check the burner components including the burner cap are sitting correctly.

Check electrodes/burners are clean (use rubbing alcohol and an old toothbrush).

Check the high tensions leads have not been coiled, as this may result in a loss of voltage and a spark of insufficient energy to ignite the gas. (Use correct length leads and locate in correct position.)

### **9.3 Sparking Continuously after Ignition**

Check the polarity of the electrical supply is correct to the ignition box (incorrect polarity will cause a problem.)

Check electrodes are clean (use rubbing alcohol and an old toothbrush).

Check the cooktop is correctly earthed (lack of earthing **will** cause a problem).

Check the cooktop and regulator are set up for the correct gas type and pressure (factory set for NG). Check the correct jets are used for each burner.

#### **9.3.1 Determine the Problem Burners**

1. Turn all the burners off.
2. Turn on one burner at a time to check which are OK and which continue sparking after ignition. With each, check the high position, the low position and the behaviour with a large pot, before turning it off and moving on to the next burner.
3. If the problem occurs with either the front left or right rear rapid burners, replace with new burner spreader (Part No. 531605).
4. If the problem occurs with the central 'triple ring' burner, check that the ceramic body has not been damaged. Replace with a new electrode (Part No. 531679P).
5. Check each burner lights and doesn't continue sparking.

### **9.4 Flame Goes Out on Low Setting**

Check the cooktop and regulator are set up for the correct gas type and pressure (factory set for NG).

Check the burners low setting is correct (see Section 3.1).

### **9.5 Flame is Distorted or Large and Yellow**

Check the cooktop and regulator are set up for the correct gas type and pressure (factory set for NG).

Check the burner components including the burner cap are sitting correctly.