



TECHNICAL **DIAGRAMS**



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# **MAESTROWAVE**

**The Professionals' Choice**



## **Service & Workshop Manual**

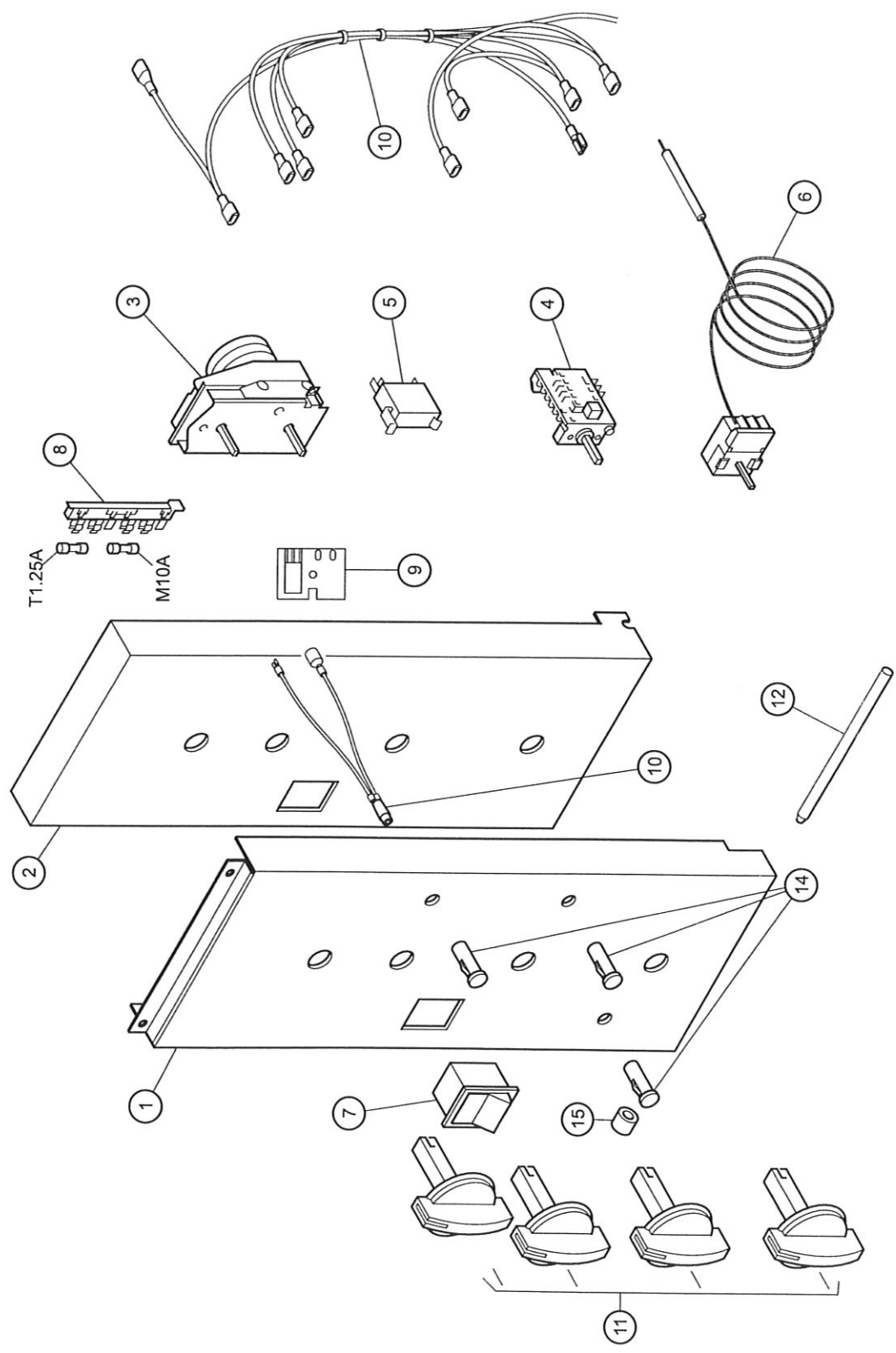
### **Combi-Chef IV**

***The Ultimate Combination Microwave Oven***

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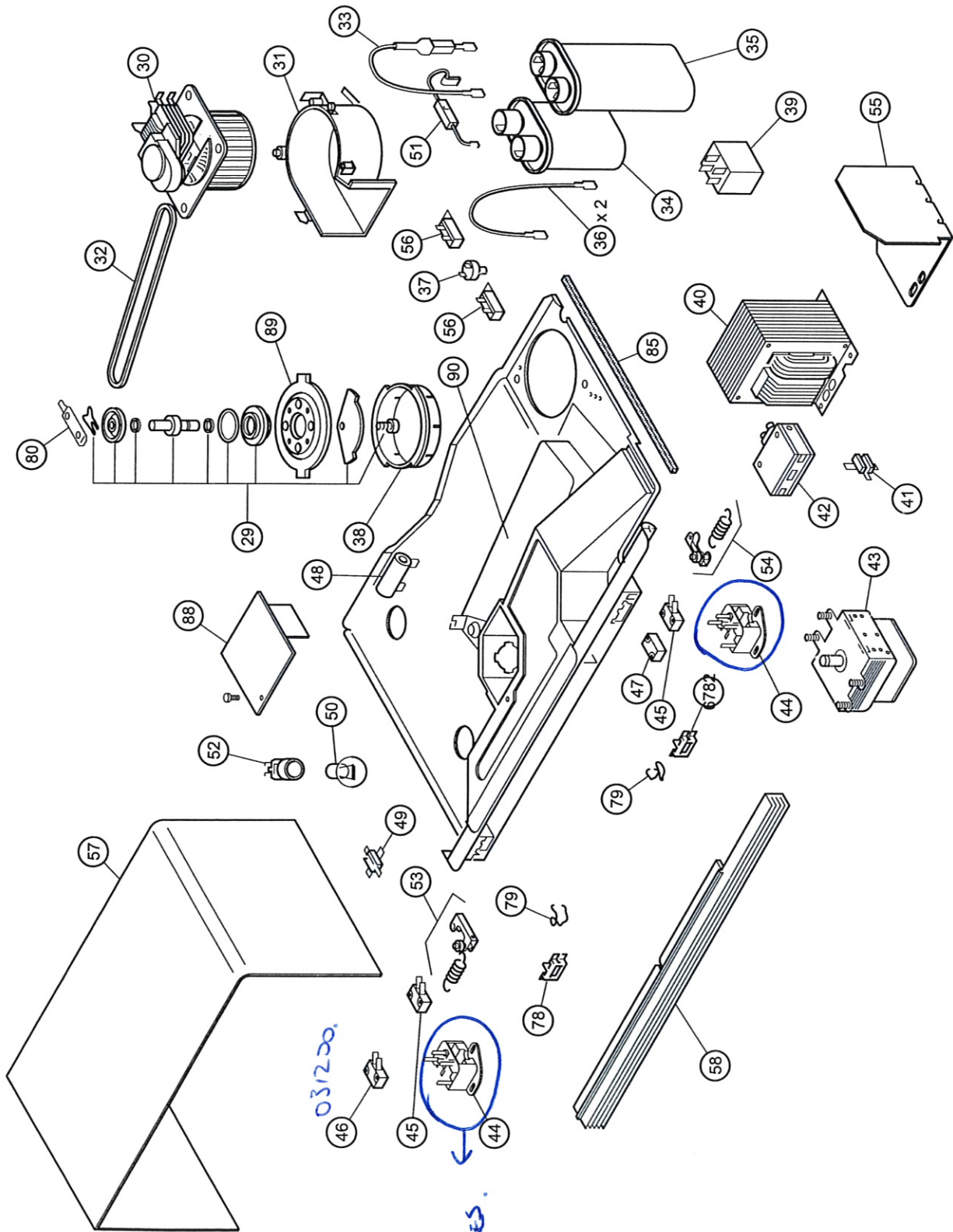
# **MAESTROWAVE** Combi-Chef IV

## **Control Panel Parts**



# **MAESTROWAVE** Combi-Chef IV

## Microwave & Cabinet Parts

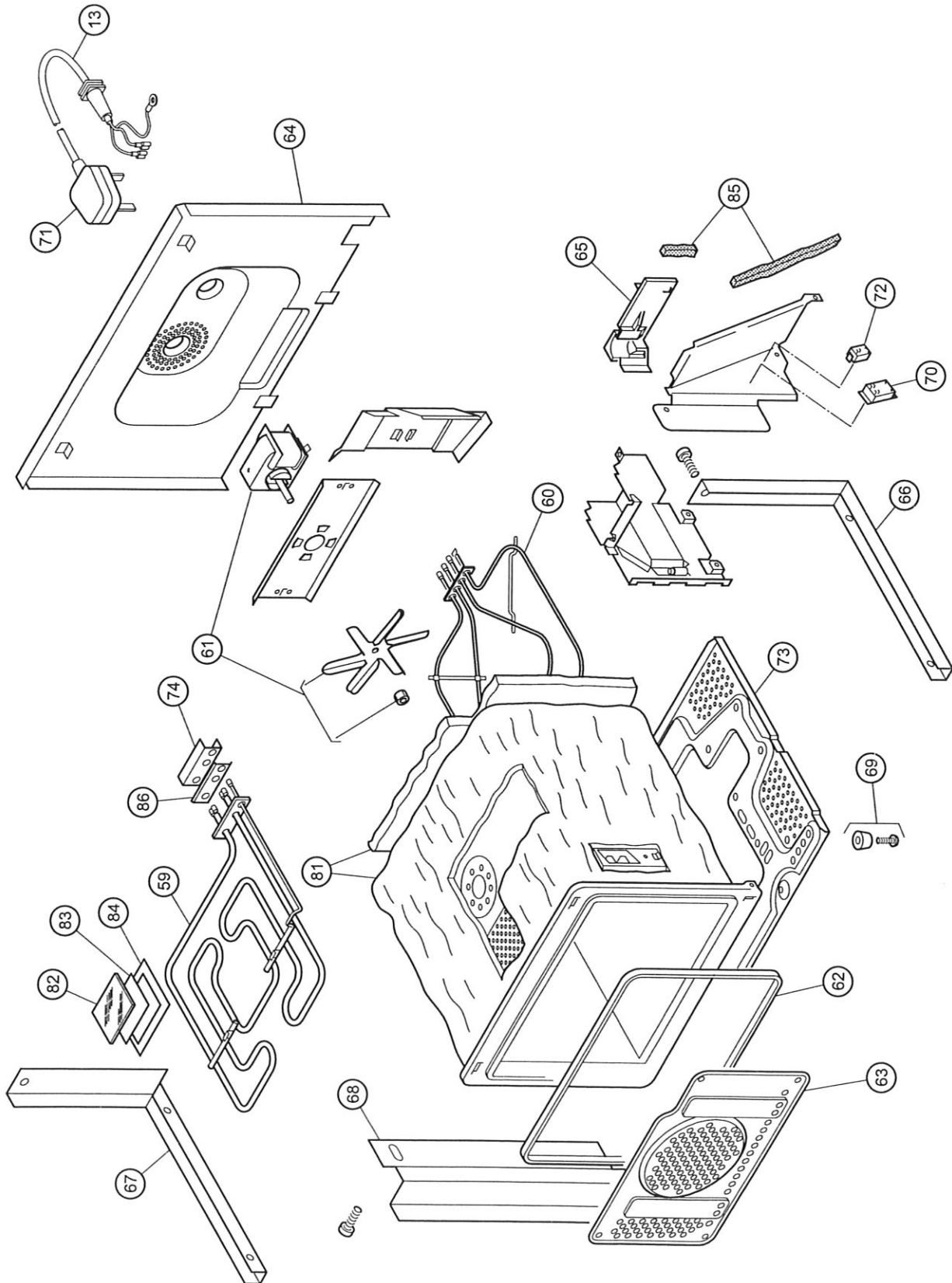


How to SWITCHES.

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# **MAESTROWAVE** Combi-Chef IV

## Oven & Cavity Parts

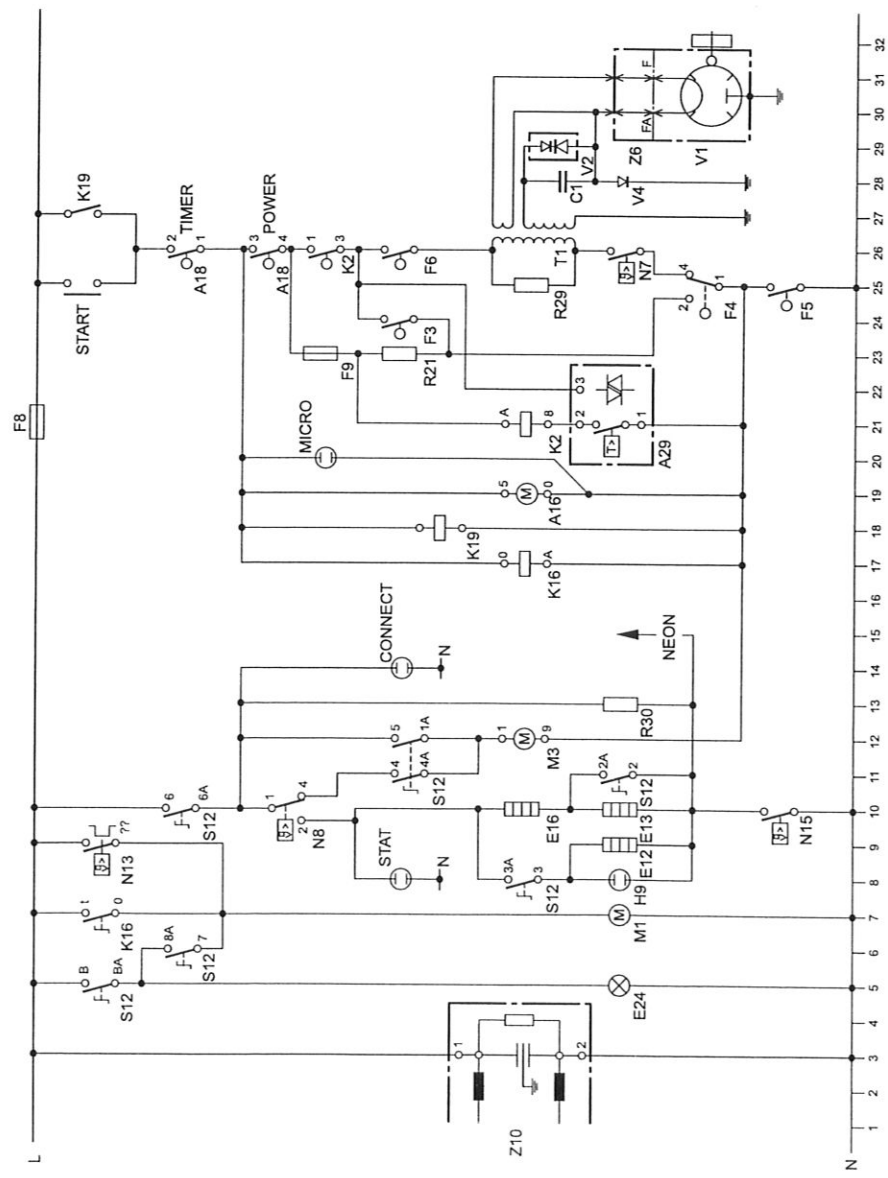




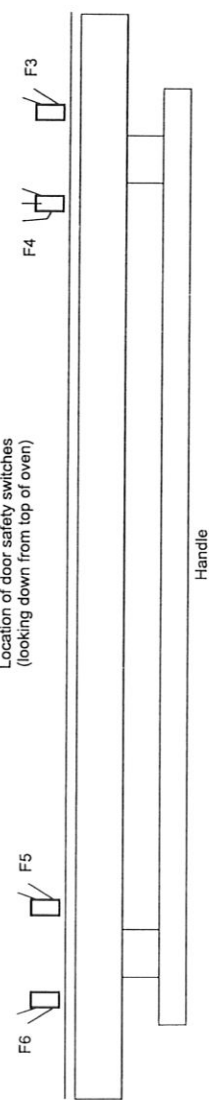
# MAESTROWAVE Combi-Chef IV

## Wiring Diagram

- A18 combined timer switch
- A29 delay control
- D1 high voltage capacitor
- E12 bottom element 487W/230V
- E13 bottom element 471W/87V
- E16 grill element 2000W/230V
- E24 oven lamp 40W
- F3 safety switch
- F4 safety switch
- F5 safety switch
- F6 safety switch
- F8 fuse 10A
- F9 fuse 1.25A
- H9 temperature control lamp for oven
- K2 power relay
- K16 cooling fan relay
- K19 start relay
- M1 cooling fan blower
- M3 air circulation blower
- N7 temperature limiter
- N8 oven thermostat
- N13 cooling blower thermostat
- N15 temperature limiter
- R21 resistor 30W
- R29 heating resistance 5kW
- R30 heating resistance 5kW
- S12 pre-selection switch
- T1 high voltage transformer
- V1 magnetron
- V2 protector diode
- V4 high voltage diode
- Z6 interference suppressor
- Z10 interference suppressor EFl filter



Location of door safety switches (looking down from top of oven)



The Combined Timer/ Power switch (A18) must be "on" before the microwave circuit can operate. The microwave is then started by pressing and releasing the START button. Relay K19 is energized and a contact closes to provide power to the microwave circuit.

Thermal switch A29 and relay K2 are part of a "slow start" circuit. Initially, when contact K19 closes, current is fed via F9, R21 and F3 to neutral via the H V transformer. A few milliseconds later relay K2 operates and K2 contact shorts out R21 to start the cooking.

The contacts of "pre selection" switch (S12) control the convection circuit. The heating elements are the grill (E16), and the bottom elements (E12 and E13)

- For the convection mode, the S12 contact (3, 3A) is closed and contact (2, 2A) is open
- For the grill mode, the S12 contact (3, 3A) is open and contact (2, 2A) is Closed

A thermostat (N8) is set to 'heating' when contact 1 is made to contact 2 and is off when contact 1 is made to 4. When using grill with fan assist, contact 4 operates M3 fan for the periods the element is not being heated.

## Troubleshooting Guide

### Microwave is not working.

- Check that the door switches are operating correctly.
- Check that the door switch holder has not moved.
- Check 1.25 amp fuse, if blown, check the HV circuit. (Any component in the HV circuit that is faulty can blow the fuse).
- Check the Capacitors and Diodes.
- Magnetron cold after running, check that the heater is not open circuit.

### Microwave only works when start button is held on.

- Check K19 relay.

### Resistor 'R21' glows red on cook.

- Check door switches F4.
- Check K2 is operating.
- Check the windings on the HV transformer for signs of burning as this could cause excessive current to be drawn and the resistor to burn out.

### 10 Cooling fan does not work correctly.

- If fan runs when in convection mode, K16 relay contacts are not closing.
- If fan runs slowly or is jamming, replace it.

### Antenna not turning

- Check that the stirrer belt has not broken.
- Check the antenna shaft to ensure that the ceramic has not broken.
- Check for burning on the wave-guide channel (Figure 90) \*
- Check that the stirrer cover has been correctly fitted.

\* *If the wave-guide channel is burnt it is recommended that it should be replaced, as well as the stirrer assembly and the magnetron.*

### Convection Faults

#### Oven does not reach temperature.

- Check thermostat by setting the temperature to the minimum setting, neon light should go out if temperature is reached. If it does not, replace the thermostat.
  - If the thermostat is correctly functioning check the upper and lower elements for resistance. **E12  $\approx$  110  $\Omega$**  **13E  $\approx$  16  $\Omega$**  **E16  $\approx$  26  $\Omega$** .
  - If the elements are functioning correctly then check switch S12 connections
- 2-2A** and **3-3A**.

<b>2-2A</b> →	CONVECTION OPEN	GRILL CLOSED
<b>3-3A</b> →	CLOSED	OPEN

#### Door does not close.

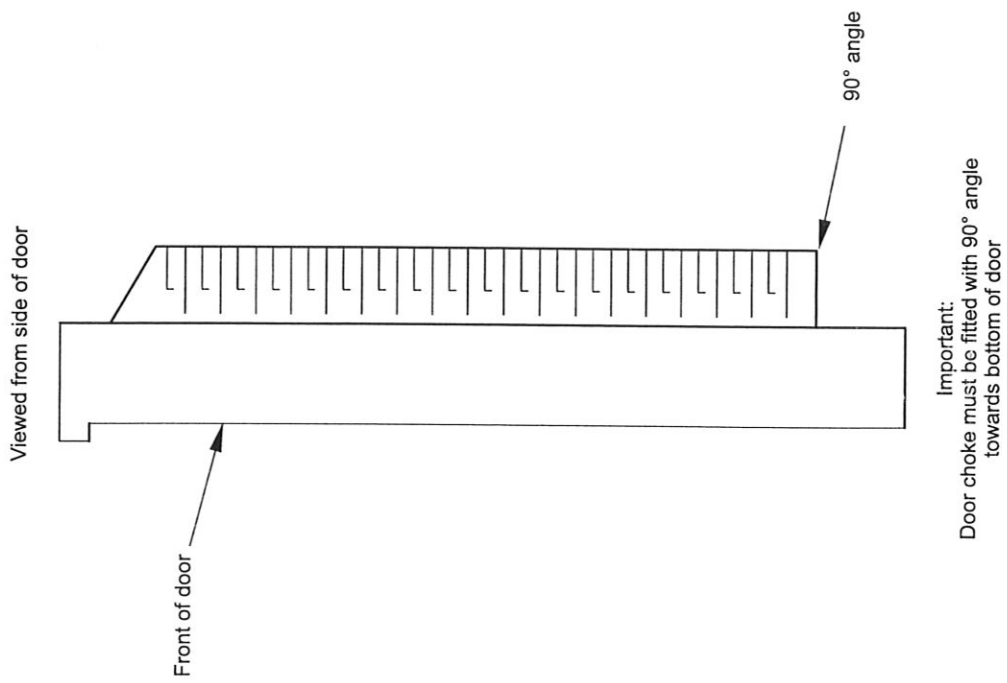
- Check that the door has not been damaged.
- Check that the inner door has been correctly fitted, this only applies if the door glass has recently been changed (Page 6).
- Check that the lower part of the cavity has not been bent inwards, as constant drooping of the door or placing heavy objects on the door could cause this to happen. \*\*

\*\* *If the cavity is bent, it should be returned to RH Hall (microwave) Ltd., for workshop inspection.*

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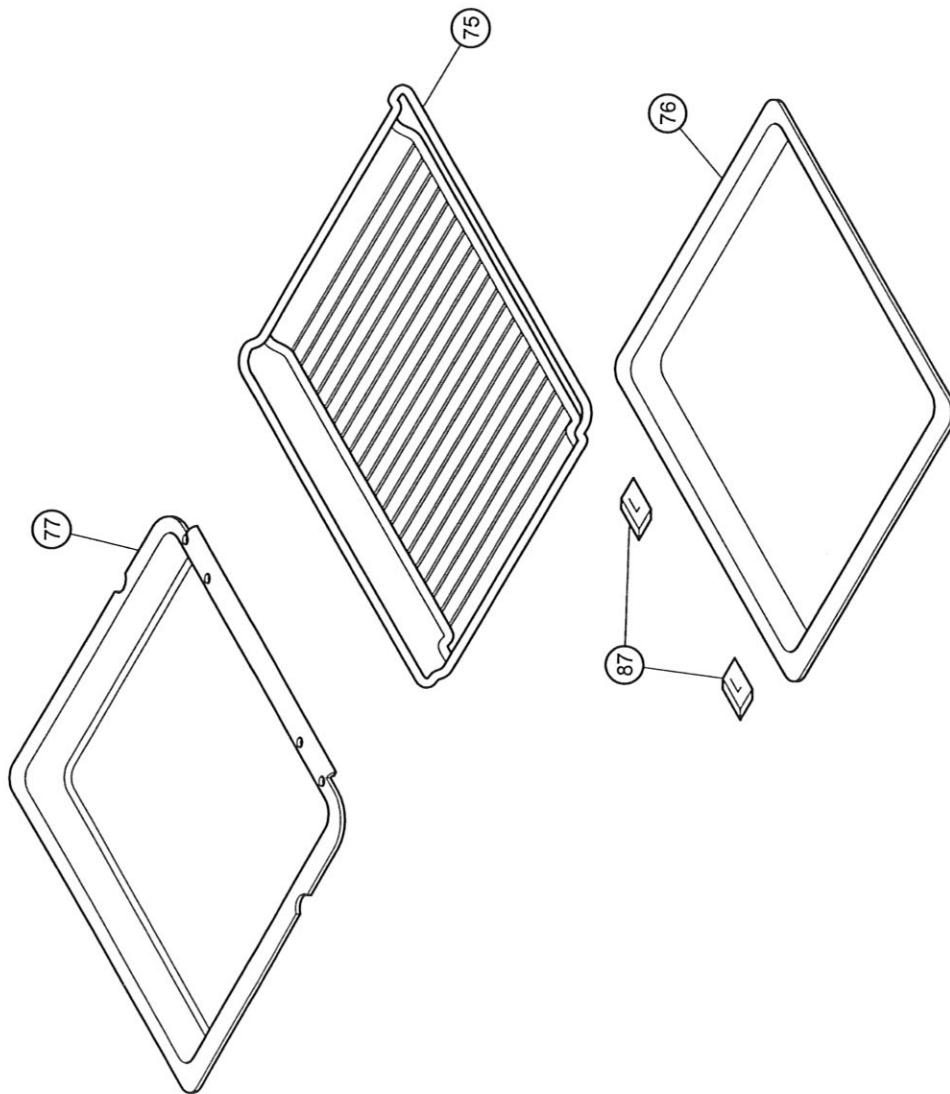
## **Door Choke Position**

IMPORTANT WHEN FITTING NEW INNER DOOR GLASS AND SEAL



# ***MAESTROWAVE* Combi-Chef IV**

## **Miscellaneous**





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