



**IMPORTANT INFORMATION  
READ BEFORE USE  
PLEASE SAVE THESE INSTRUCTIONS**

# IMPORTANT SAFETY INSTRUCTIONS

## PLEASE READ THE FOLLOWING SAFETY INSTRUCTIONS CAREFULLY

**WARNING:** It is hazardous for anyone other than a skilled person to carry out any service or repair operation which involves the removal of any cover which gives protection against exposure to microwave energy

1. DO NOT operate empty, without food or liquid inside the oven, as this will result in overheating and may cause damage.
2. NEVER remove any fixed internal parts of the oven.
3. NEVER tamper with the control panel, door, seals, or any other part oven.
4. DO NOT obstruct air vents/filters or steam outlet.
5. NEVER hang tea towels or cloths on any part of the oven.
6. If the door seals are damaged, the oven must be repaired by an approved Engineer.
7. If the power cable is damaged in any way it MUST be replaced by an approved Engineer.
8. When handling hot liquids, foods, and containers, care should be taken to avoid scalds and burns.
9. When heating liquids using microwave only or combination function, the contents should be stirred prior to heating to avoid eruptive boiling.
10. Feeding bottles and baby food jars should be opened when heating, the contents stirred or shaken and the temperature checked prior to consumption to avoid burns.
11. Never use the oven to heat alcohol, e.g. brandy, rum etc. Also, food containing alcohol, such as Christmas pudding, can more easily catch fire if overheated.
12. Never attempt to deep fry in the oven.
13. The appliance is not intended for use by young children or infirm persons without supervision.
14. Young children should be supervised to ensure that they do not play with the appliance

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## ELECTRICAL SUPPLY

### WARNING

**This appliance must be earthed. Failure to do so may result in electric shock and death.**

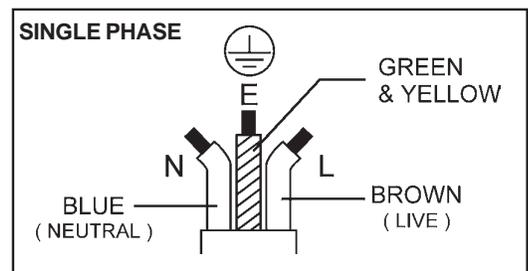
The Mealstream EC501 ( 30A ) must be connected to a separate electrical supply rated at 30 Amps by a qualified and approved electrician. A suitable 30 amp rated isolating switch with a 3mm contact gap on both poles should be fitted for each oven installed.

Establishments with standard ( Type 'B' ) circuit breakers are sensitive to 'surges' which occur on switching on freezers, refrigerators and other catering equipment, including microwave ovens. Because of this, we strongly recommend that a separate Type 'C' circuit breaker ( designed specifically for this type of equipment ) must be fitted. An individual, suitably rated circuit breaker should be fitted for each oven installed.

### SINGLE PHASE

UK models are fitted with a Blue 32Amp Plug to BS4343

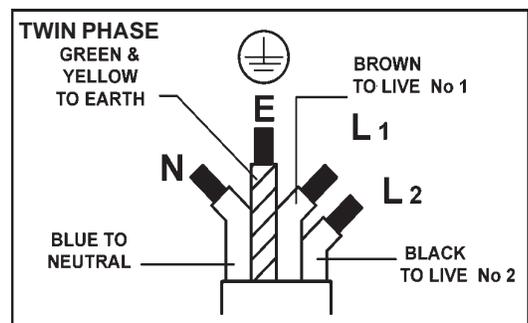
The Circuit Breaker should be rated at 45A (TypeC).



### TWIN PHASE

The Mealstream 501 oven Twin Phase models should be connected as shown.

The Circuit Breaker should be rated at 45A (TypeC).



**If you are in any doubt about your electrical supply, seek the advice of a qualified electrician**

# PRECAUTIONS TO BE OBSERVED

1. Read this manual before using your oven.
2. As with all electrical appliances, it is wise to have the electrical connections inspected periodically.
3. There is no need to switch off your oven after each function but remember to switch off at the end of the day or period of operation.
4. Microwave energy should not be used to dry linen or warm plates.
5. As with any cooking appliance, care should be taken to avoid combustion of the items within the oven.

**If smoke is observed:**

- Switch off
- Isolate from the electrical supply
- Keep door closed to stifle any flames

- a. Ensure food is placed centrally in cavity for best results.  
When using the microwave only function, cover the food to prevent splashing the walls of the cavity.  
Food in combustible plastic or paper containers should only be used in microwave only function and checked frequently to avoid the possibility of ignition.  
Items should be **unwrapped** when using convection and combination functions.  
Eggs and whole hard-boiled eggs should **not** be heated using the microwave or combination function as they may explode.  
Food with a skin, e.g. potatoes, apples, sausages etc. should be pierced before heating.  
Food should not be heated in a completely sealed container as the build-up of steam may cause it to explode.  
Excess fat should be removed during 'roasting' and before lifting heavy containers from the oven.  
In the event of glass breaking or shattering within the oven, ensure that food is totally free of glass particles. If in doubt, dispose of any food that was in the oven at the time of the breakage.

## INSTALLATION

Remove packing material and protective film from the oven.

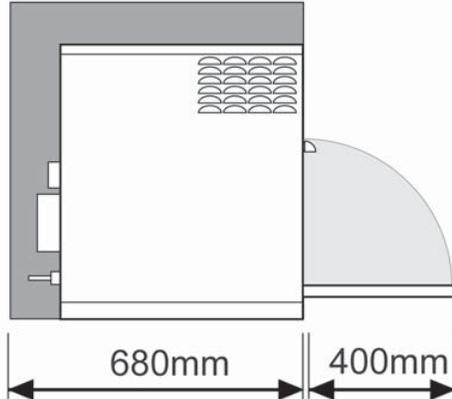
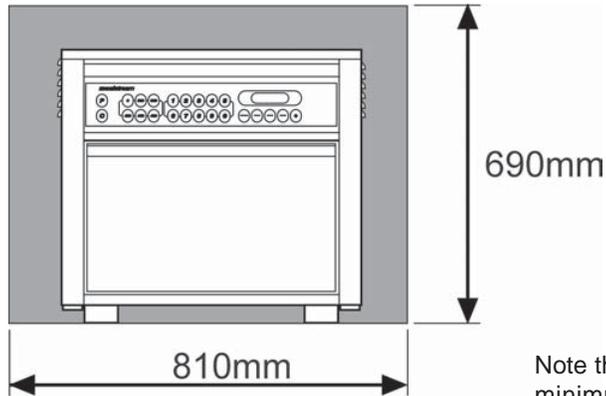
Check for obvious signs of transit damage. If necessary, inform the supplier IMMEDIATELY.

### LOCATION AND POSITIONING

Choose a site away from major heat sources.

**DO NOT** position so that hot air is drawn in from fryers, grills, griddles, etc.

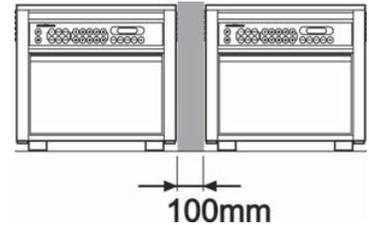
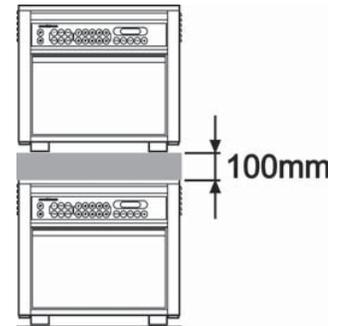
A heat barrier to the height of the oven must be installed if sited next to a hob, stove or range.



Note the minimum recommended clearance required for air flow

#### Note:

The air intake is located under each side of the oven, even with the clearance specified below it is important that airflow is as cool as possible and not pre-heated by other appliances such as fryers, grills and griddles as this will deteriorate the life and performance of the oven.



Do not stack the oven directly on top of another. Use a separate shelf or double tiered stand.

Place the oven on a flat surface that is LEVEL, STRONG and STABLE. Allow a minimum clearance of 50mm to the rear, top and each side to allow air to circulate freely.

The air intake is located under each side of the oven, even with the clearance specified above it is important that airflow is as cool as possible and not pre heated by other appliances such as fryers, grills or griddles.

Allow a minimum of 50mm clearance above the oven for hot air to escape.

Allow sufficient clearance, 400mm in front of the oven for the door to open fully

Do not affix labels/stickers to oven other than those applied by the manufacturer

#### WARNING:

Check that the AIR FILTERS are in place prior to operation ( see Main Features )

## SUITABLE COOKING UTENSILS

Manufacturer's instructions should be checked to determine the suitability of individual containers or utensils using each of the cooking functions.

The following chart provides general guidelines:

	combination	convection only	microwave only	
<b>Heat resistant containers</b> Toughened glass Vitreous ceramics Earthenware ( <i>porcelain, crockery, china etc.</i> )	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	Do not use items with metallic decoration.
<b>Metallic Trays</b> Metallic trays (on oven runners) <b>DO NOT USE ANY OTHER METAL CONTAINERS</b>	✓	✓	✓	Metallic trays may only be used when placed between the vitrous runners on each side of the oven cavity
<b>Plastic containers</b> Rigid, boilable, plastic containers	✗	✗	✓	Dual-ovenable plastic containers (up to certain temperatures) are now available. Check manufacturer's instructions before use
<b>Disposables</b> Combustibles (paper, card, etc) Microwave-suitable cling film	✗ ✗	✗ ✗	✓ ✓	Cling film should not come into contact with food.
<b>Other utensils</b> Tie tags Cutlery Temperature probes	✗ ✗ ✗	✗ ✗ ✗	✗ ✗ ✗	No kitchen utensil should be left in food while it is cooking

## THE USE OF METALLIC ITEMS IN COMBINATION AND MICROWAVE ONLY FUNCTIONS

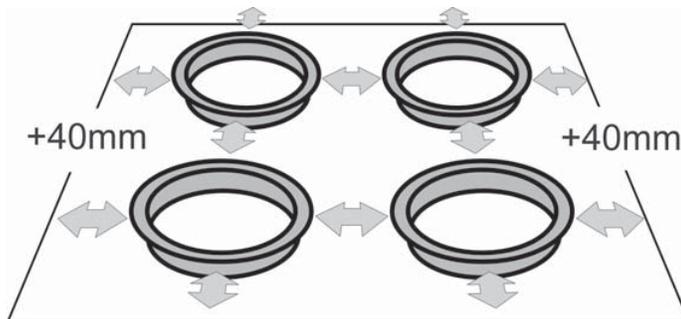
Some of the interior panels in Mealstream 501 ovens are vitreous enamel which acts as an insulator and allows safe use of metal in controlled conditions.

(The vitreous enamel tray supplied can be upturned and used as a permanent base.)

Position large metal pans and trays centrally in the oven at least 40mm ( 1.5 inches ) from side walls.



Position individual metal containers evenly at least 1.5 inches (40mm) from each other and the side walls



Avoid using metal pans greater than 2.5 inches (65mm) in depth as this may reflect microwaves and alter the time required to heat the food thoroughly.

### **WARNING:**

Care must be taken to position containers correctly. If metal containers are placed too close to each other or the sides of the oven, arcing may occur which may damage the oven.

### **WARNING:**

If a metallic, crackling sound is heard during combination or microwave only functions, open the door to stop cooking and reposition containers correctly.

If metal items (including silver serving flats) become spot burned due to arcing, discontinue their use in the oven.

## INTRODUCTION

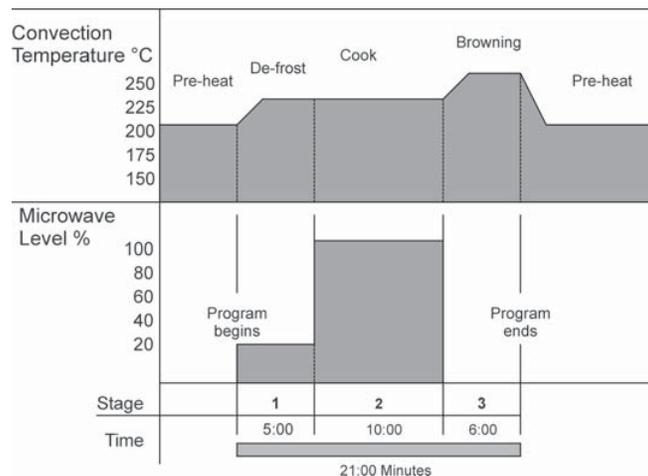
The Mealstream 501 oven offers catering kitchens the flexibility of three heating functions; microwave only, convection only, and combination cooking.

Combination cooking enables high quality results to be achieved in a fraction of the time taken by conventional cooking, particularly when baking, browning, roasting, grilling or producing gratinee dishes.

Once established, precise instructions for combination or convection cooking of selected items may be programmed into the ovens memory so that they can be repeated easily and accurately.

### Multi-Stage Programming

The Mealstream EC501 offers even greater flexibility by allowing multi-stage programming. This enables the exact conditions required for quality results to be set according to the food type.



A typical 3-stage program is shown. The Oven is pre-heated at 200°C. Stage 1 begins by applying a gentle microwave power of 25% (ideal for defrosting) while the convection temperature rises to 225°C. In Stage 2 the microwave power increases to maximum (100%). In the final, browning stage the convection temperature is increased to 250°C with no microwave energy applied.

This is only one example of an infinite number of possible multi-stage programs that can be created and stored. Programs can have one, two, or three stages.

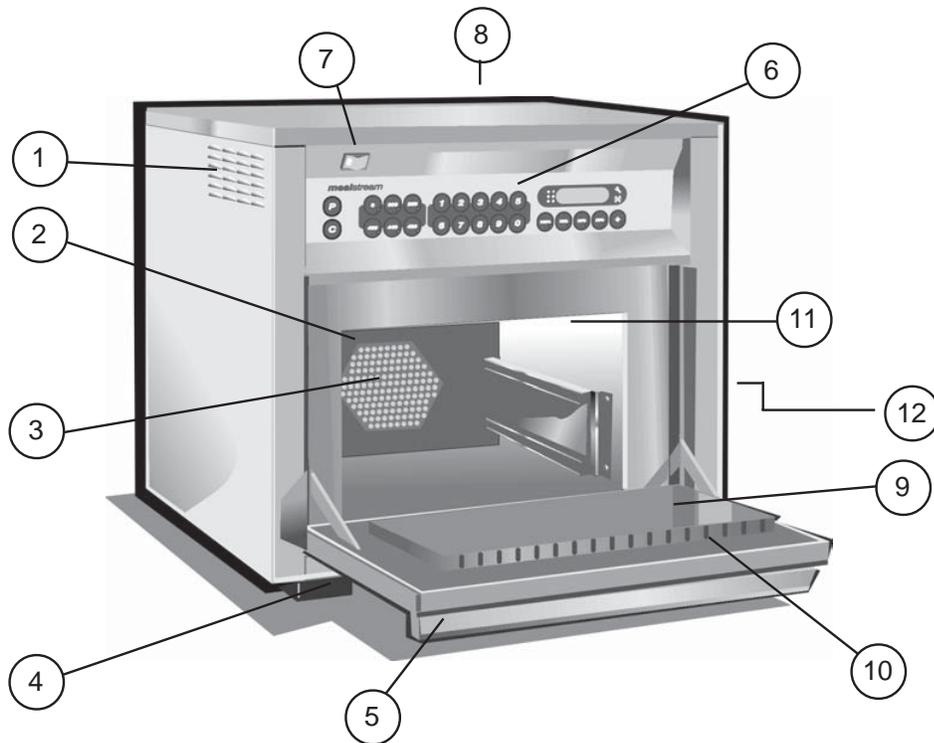
#### Note:

Remember convection temperature takes time to change. Do not expect an instant response when a different temperature is activated.

Care should be taken when de-frosting in a hot oven. Defrost first thing in the morning when the oven is still cold.

The instructions outlined in this guide are intended to ensure the safety and long life of your Merrychef oven.

## MAIN FEATURES



### 1 AIR OUTLETS

These vents on the side and rear panels enable air which has been used to cool internal components to escape. It will not allow microwave energy to escape into the environment. They must be kept free from obstruction.

### 2 OVEN CAVITY

The cavity is constructed mainly from stainless steel and vitreous enamelled panel on the door. It must be kept clean see CLEANING).

### 3 CONVECTION FAN

The fan draws air over the heating elements and into the cavity over the edges of the rear baffle plate, producing perfect heat distribution for combination cooking. The metal grill covering the fan must be kept clean and free of debris (See CLEANING)

### 4 AIR INLET FILTERS (LEFT & RIGHT)

Situated at the left and right hand side of the base at the front. These are part of the ventilation system and must be kept free of obstruction and cleaned on a daily basis.

### 5 DOOR HANDLE

This is a rigid bar which is pulled downwards and towards you to open.

### 6 CONTROL PANEL

See page 10.

### 7 ON/OFF SWITCH

When switched ON, the control panel will illuminate. The fan and ventilation system will also operate.

### 8 RATING PLATE

Found on the rear panel, this states the serial number, model type, electrical specifications and Merrychef address and telephone number.

### 9 DOOR

This is a precision-made energy barrier with three microwave safety interlocks. It must be kept clean (see CLEANING section ). The door should NOT be used to support heavy dishes.

### 10 DOOR SEALS

These ensure a tight seal around the door. They should be kept clean and checked regularly for signs of damage. At the first sign of wear they should be replaced by an approved Service engineer.

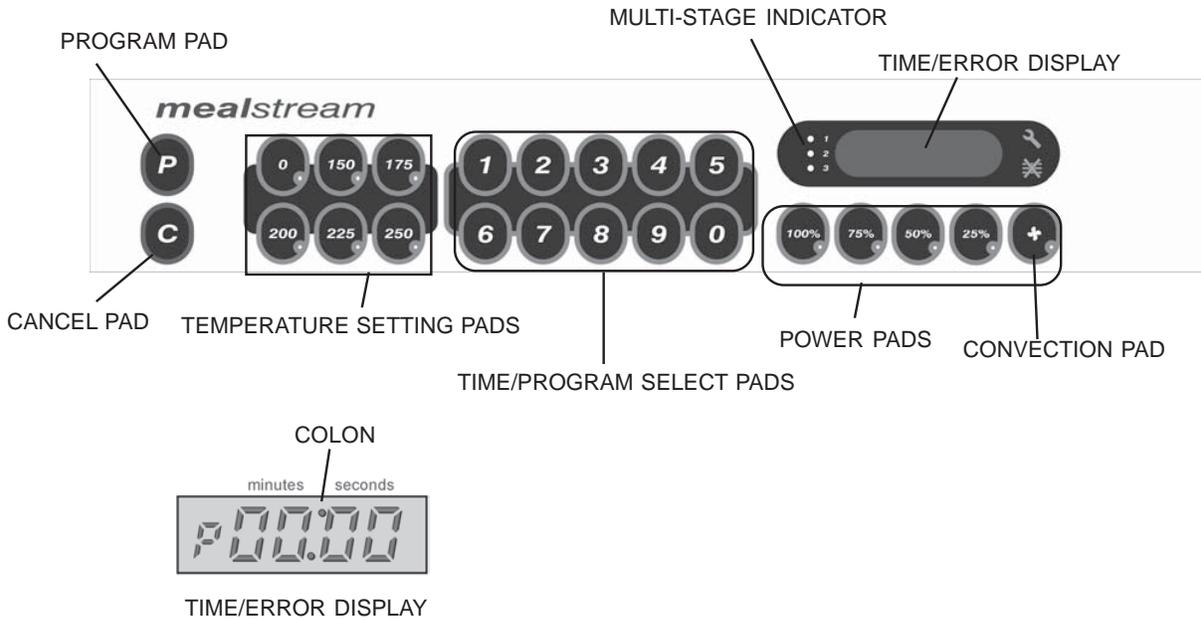
### 11 TEMPERATURE SENSOR

This monitors the temperature inside the oven . Care should be taken when cleaning to prevent damage.

### 12 STEAM VENT (on rear of oven )

This enables steam to escape and prevents build up of condensation. It will not allow microwave energy to escape.

# CONTROL PANEL



## POWER PADS

There are 4 Microwave Power Pads to select from: 25%, 50%, 75%, and 100%. A light will indicate the one in use.

## CONVECTION PAD

This is used when foods only require browning( no microwave)

Note: when cooking the MICROWAVE and CONVECTION pads start the cycle and timer. You may alter power levels during a manual cooking cycle. When cooking is interrupted, a light will flash as a reminder that the time is being held (see PAUSE).

## TIME/PROGRAM SELECT PADS

These pads are used for setting the cooking time in 1 second steps to a maximum of 30 minutes. They are also used for programmes from 01-10

## TEMPERATURE SETTING PADS

These pads are used to set the convection temperature. A light will indicate the temperature set. Selecting the '0' key will switch convection off. If a temperature key is pressed and held the current oven temperature will be displayed in the time display window.

## CANCEL/ CALLBACK 'C' PAD

Cancels all timed cooking cycles, pre-programmed operations and stop the microwave energyt does not alter the oven temperature . If the oven is hot food will continue to cook and should be removed from the oven immediately. This pad will also cancel any incorrect operations. It will not erase programs. It can also be used to view the details of stored programs.

(see CALL BACK)

## PROGRAM 'P' PAD

Activate or set program

## TIME AND PROGRAM DISPLAY

Shows the time set in minutes and seconds and counts down in 1 second steps during a cooking cycle.

Also displays error messages and oven temperature.

(PROBLEM SOLVING )

The program display indicates the program number selected. 'PP' indicates programming

## MULTI-STAGE INDICATOR

Indicates stage in multi-stage cooking

## COLON

When programming the colon will flash to indicate the time may now be entered.

## ON/OFF SWITCH

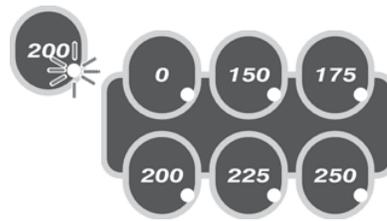
## ERROR DISPLAY

## OPERATING INSTRUCTIONS: MANUAL MODE

The oven can be operated in manual or programmed mode. It is important to understand manual mode prior to attempting program operation.

- 1 Switch the oven on
- 2 Set the required oven temperature by pressing one of the TEMPERATURE SETTING PADS 150°, 175°, 200°, 250°. The light in the pad will flash to indicate it has been selected.

Note: The temperature within the oven cavity will now begin to rise. It may take up to 15 minutes to reach the value if the oven is cold when you start.



- 3 When the oven temperature is within 25°C of the set level the light will no longer flash. WAIT UNTIL THIS TEMPERATURE IS REACHED before using the oven.

- 4 Set required cooking time by pressing the numeric TIME SELECT PADS

Example: 2 Minutes 35 seconds

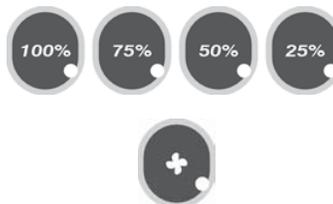
Only valid times of Minutes and Seconds will be accepted.

e.g. 1minute 1 second *not* 61 secs

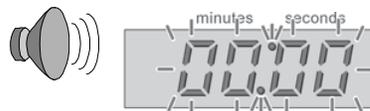


- 5 Taking all the necessary precautions to ensure you do not burn yourself, place the food into the cavity and close the door. Always keep the period that the door is open to a minimum.

- 6 To cook the food using a combination of convected heat and microwave press one of the POWER PADS either 100%, 75%, 50% or 25%. To cook using convection only press the button marked with the fan symbol.



- 7 The timer will now count down. When the remaining time reaches zero an audible signal will be given. Remove the food from the cavity.



### WARNING:

**DO NOT APPLY MICROWAVE ENERGY WHEN OVEN IS EMPTY**  
**DO NOT USE THE OVEN WITHOUT CLEAN AIR FILTERS IN POSITION**

To familiarise yourself with the controls place a bowl containing approximately 1.5 litres of water in the oven.

The cavity temperature can be checked at any time by pressing the selected temperature button. The cavity temperature in °C will be displayed.

Convection only cooking can be carried out without setting a time  
 Combination and convection only cooking may be carried out on a rising temperature but extra attention must be given to timings

### TO STOP THE COOK CYCLE

The cycle may be stopped and cancelled at any time by pressing the CANCEL PAD



### PAUSE

The cycle may interrupted by opening the oven door. On opening the door the timer will be held at this point and the light on the relevant POWER PAD (microwave or convection) will flash to indicate an interrupted cycle.

TO CONTINUE the cycle close the door, an audible warning sounds as a reminder to press

### Note:

when the cycle is interrupted or stopped the oven will remain at the temperature set and the food inside the oven will continue to cook

## PROGRAMMING NUMBER PADS ( 0-9 )

Pre-programming allows repetitive cooking procedures to be stored for ease of use.

Each program can comprise up to three stages, allowing at each independent control of Convection temperature, Stage time and Microwave power level. However, programs must be used with caution since if the food to cook varies in weight or density then good results and more importantly adequately cooked food may not be achieved. Therefore, it is vital that all food prepared for service should be checked to ensure that core temperatures have been achieved.

1 Press and hold PROGRAM PAD until a flashing 'P' appears in the PROGRAM DISPLAY

2 Lights on the TEMPERATURE SETTING PADS flash to indicate that a temperature must be selected.

Press the pad for the required temperature, the light on the selected pad will continue to flash, the others will go out.

3 Enter required cooking time by pressing the TIME SET PADS (The display colons flash to indicate a time is required).

Only valid times of Minutes and Seconds will be accepted.

e.g. 1 minute 1 second *not* 61 secs

4 To cook the food using a combination of convected heat and microwave press one of the POWER PADS 100%,75%,50% or 25%.

To cook using convection only press the button marked with the fan symbol.

### To save as a single stage program

Press the required number pad



example: stage 1 saved as Program 8

The program details are displayed momentarily as the program is saved.

### To save as a multi-stage program

Follow steps 1– 4 for each stage of cooking and on completing press the PROGRAM PAD to enter a second and third stage of cooking to the program.

Press the required number pad to save the program.



example: stage 1, stage 2, stage 3 saved as Program 8

An amount of experimentation will be required to determine the correct program for a particular product.

Check program details on the flashing display. Settings can be changed by stepping back through the program using the CANCEL BUTTON.



- Enter a valid time up to 30 minutes e.g. 1 minute 1 second *not* 61 seconds.
- Information may be programmed into the memory whether the oven is hot or cold.
- To review a program use CALLBACK see page 14.

We recommend you keep a note of program instructions for future reference.

## RUNNING A PROGRAM

### Using number pad keys to run a programme

Programs 0 to 9 can be recalled using the number pad keys. The following procedure should be used to activate these programs.

- 1 Pre-heat the oven to the required starting temperature by pressing a TEMPERATURE SETTING PAD. Wait until the selected temperature light stops flashing.



You can check the oven temperature by pressing the Temperature pad again

example: 200°C

- 2 Avoiding contact with hot surfaces, place the food item to be cooked in to the oven and close the door.

- 3 Press the PROGRAM PAD the 'P' will appear in the PROGRAM DISPLAY.

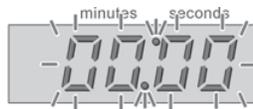


Press the number pad key you wish to activate (0-9) The program number and total cooking time appear on the display and the first stage indicator will light.

example: Program 8



The program will now operate with the total remaining time displayed counting down on the display (all stage time added together). When the time reaches "0:00" an audible signal will be given.



- 4 Remove the food from the oven and close the door.

### CALL BACK

CALL BACK to review a program allows the program to be reviewed stage by stage.

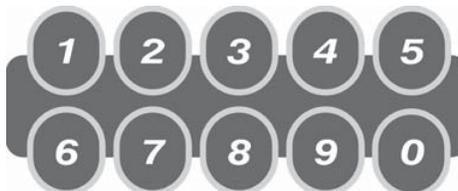
Press and hold the CANCEL PAD. After a few seconds the TIME DISPLAY will blank.



- 1 ●
- 2 ●
- 3 ●



Now press one of the program numbers on the NUMBER PAD (0-9).



The display will show the contents of that program. This will be shown with temperature, time and power level illuminated one stage at a time for a few seconds.

#### Note:

If the required starting temperature has not been reached, an error code is displayed (E:6). If this happens remove food from the oven IMMEDIATELY and wait until the required temperature light stops flashing. Begin again from Step 2.

At the end of the programmed cycle, the oven temperature will revert to that set before the cycle began

### TO STOP THE COOK CYCLE

The cycle may be stopped and cancelled at any time by pressing the CANCEL PAD.



### PAUSE

The cycle may be interrupted by opening the oven door. On opening the door the timer will be held at this point and the light on the relevant POWER PAD (microwave or convection) will flash to indicate an interrupted cycle.

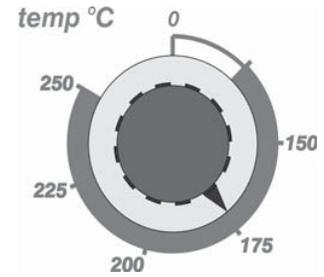
TO CONTINUE the cycle close the door, an audible warning sounds as a reminder to press any power pad to restart the timer.

To review a program use CALLBACK

## MANUAL CONTROLS ( MODEL RD501 )

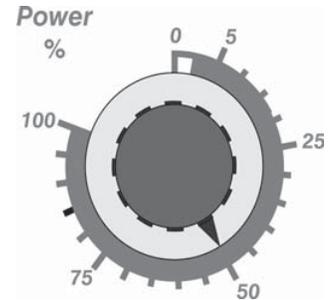
- 1 Switch on oven.
- 2 Set required oven temperature by turning the temperature control dial clockwise. The convection temperature indicator will illuminate until the set temperature is achieved. For best results, wait for this to happen. The indicator will go on and off as temperature within the oven is maintained.

e.g. 175°C



- 3 Set required microwave power level by turning the microwave control dial.

e.g. 50%



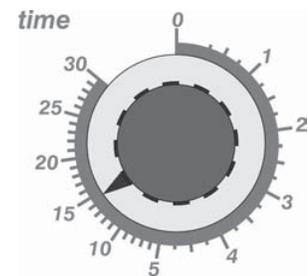
- 4 Set required cooking time by turning the time set dial clockwise.

e.g. 15 Minutes

- 5 Press the START button. The start indicator will illuminate and timer will count down to zero.



A buzzer alerts the operator when cooking is completed.



### Note:

- For microwave only cooking, the convection temperature dial should be set to '0'. For best results the oven should be cold.
- For convection only cooking, the microwave dial should be set to '0'. Convection only cooking can be carried out without setting a time.
- Care should be taken when defrosting in a hot oven. Products should be turned frequently to prevent 'edge- burning'. For best results, defrost first thing in the morning when the oven is still cold.
- Combination and convection only cooking may be carried out on a rising temperature but extra attention must be given to timings.
- Microwave heating may be introduced part-way through a manually set convection only cycle. However, we strongly recommend that only the most experienced microwave operator uses this facility as the microwave energy will then be on a time set for convection cooking.
- Cooking may be interrupted by opening the door ( PAUSE ). Close the door and touch the start button to continue.