

ELECTRIC

MODEL
NUMBER

MF1



GARLAND
menu flex

DISTRIBUTED EXCLUSIVELY TO
McDonald's

BY

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OPERATIONS MANUAL



CAUTION MICROWAVE EMISSIONS

DO NOT BECOME EXPOSED TO EMISSIONS FROM THE MICROWAVE GENERATOR OR
PARTS CONDUCTING MICROWAVE ENERGY

WARNING:

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY
DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS
THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

PLEASE READ ALL SECTIONS OF THIS MANUAL AND RETAIN FOR FUTURE REFERENCE.

**CAUTION: THIS EQUIPMENT MUST ONLY BE OPERATED WITH THE APPROPRIATE
EXHAUST ATTACHMENTS.**

**THIS EQUIPMENT "MUST" BE INSTALLED AND COMMISSIONED BY A PROFESSIONAL
FACTORY TRAINED TECHNICIAN**

FIELD TEST ONLY



GARLAND

VERY IMPORTANT PLEASE READ CAREFULLY

The QSR team is very proud to announce a new addition to our product offering. In addition to the Clam Grill manufactured exclusively for McDonald's Corp, we bring you the "Menu-Flex Oven". The "Menu-Flex Oven" is unique in many ways and you have been chosen to be one of a few to initially test it!

What's so unique about it ? Well, this is a Rapid Heat, Menu Flexible Microwave Assisted Convection Oven ! Yes, that's right, a Microwave Assisted Convection Oven. A Convection Oven that will be programmed to add a sudden burst of Microwave power when needed resulting in reduced cook times without jeopardizing the Food Quality, Taste and Safety.

The oven has a unique controller that will control menu items and categorize them! With the ovens' flexible capabilities, you can program numerous menu items to satisfy your needs.

The enclosed information will serve as a guideline through its testing phase, as well as preliminary service information for the local service representative. Please read all information thoroughly and carefully. Please fill out all pertinent information as required and if there are any questions at all, feel free to call us at 1-800-446-8367, 24 hours a day, 7 days a week... Or drop us an email at clamshell@garland-group.com.

**Thank you for working with the QSR team on this exciting
new project,
"The Menu-Flex Oven"
brought to you exclusively by:**

Garland Commercial Industries Inc.

185 East South Street
Freeland, PA 18224
Phone:(570)636-1000
Toll Free:(800)424-2411
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PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- a) Do not operate or allow the oven to be operated with the door open.
- b) Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source , and make repairs as necessary:
 - 1) interlock operation,
 - 2) proper door closing
 - 3) seal and sealing surfaces (arcing, wear, and other damage)
 - 4) damage to or loosening of hinges and latches
 - 5) evidence of dropping or abuse
- c) Before turning on microwave power for any test or inspection within the microwave generating compartments, check the magnetron , wave guide or transmission line, and cavity for proper alignment, integrity, and connection.
- d) Any defective or misadjusted components in the interlock , monitor, door seal, and microwave generation and transmission systems shall be repaired , replaced, or adjusted by procedures described in this manual before the oven is released to the owner.
- e) A microwave leakage check to verify compliance with the Federal Performance Standard should be performed on each oven prior to release to the owner.

SAFETY

Please remember that it is wiser **not** to attempt a service task if you are unsure of being able to complete it competently, quickly, and above all **safely**.

To avoid injury to you, and to protect the appliance from possible damage, please follow this Safety Code when servicing these ovens.

Before attempting to repair the oven, check it for microwave leakage.

Check that the oven is not emitting microwaves, even when supposedly not in operation.

Check that the oven is not operating continuously, whether the display indicates cooking or not.

Always discharge the HT capacitors before working on the oven using a suitably insulated 10 M ohm Resistor.

Before removing any covers from the oven, do all of the following.

- Switch off the mains supply and remove the plug from the wall socket.
or
- If the oven is hard wired, ensure that the power is turned off at the isolator switch.

Note:

The On/Off switch on the oven is **not** adequate protection against electric shock, as it does not isolate all of the internal wiring from the mains.

Upon completion of a service on a Mealstream oven, or before reconnecting the appliance to the electrical supply for testing, check all of the following points:

- All internal electrical connections are correct (see wiring diagram Pages xxxxxx).
- All wiring insulation is correct and is not touching a sharp edge.
- All Earth connections are electrically and mechanically secure.
- All door safety interlocks are secure and mechanically sound.
- The door operation is smooth, and the arms run freely in the slots.
- The door activates all three of the door interlock switches **in the correct order** (see pages xxxx).
- The temperature sensor is correctly connected to the Power PCB.

Before finishing the service call, recheck the following points:

- All of the electronics are functioning correctly, and all of the touch pads are working.
- The power output of the oven is correct.
- Microwave emission is below permissible limit - 4 mW/cm².
- Oven has correct 2 inch (50mm) air gap all round and 2 inch (50mm) above.
Airflow should not be restricted.

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INSTALLATION INSTRUCTIONS

Grounding Requirement

This appliance must be connected to a grounded, metallic, permanent wiring system, or an equipment grounding conductor should be run with the circuit conductors and connected to the equipment grounding terminal or lead on the appliance.

Positioning the Oven

In order to maintain adequate ventilation for air intake and exhaust, and to allow access for cleaning filters, you must allow a minimum of 2 inches (50 mm) clearance at the sides and rear of the oven, and at least 2 inches (50 mm) above (Figure 3-1).

Air intake temperature should not exceed 60°F excessive temperature will lead to reduced operating duty cycle or premature ageing of internal components.

Failure to comply with these conditions will invalidate the warranty.

NEVER Install an oven above fryers, grills, griddles or any other major heat source.

ALWAYS Place containers in the cavity carefully - impact damage may chip the vitreous enamel coating on the runners and baffle plate.

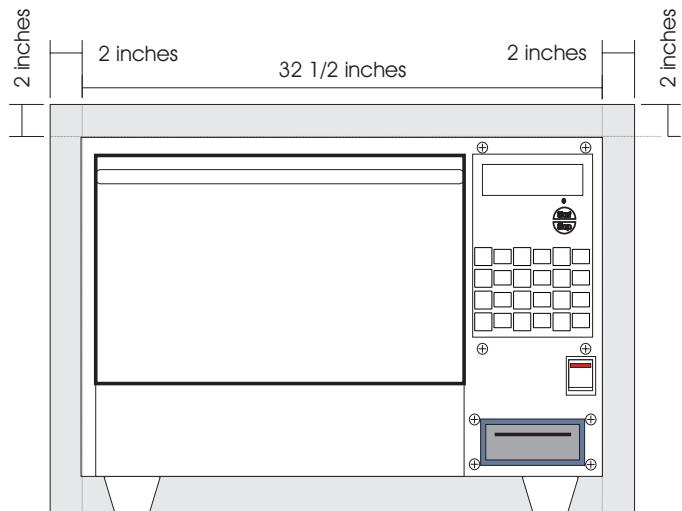


Figure 3-1 - Manufacturers Recommended Clearances

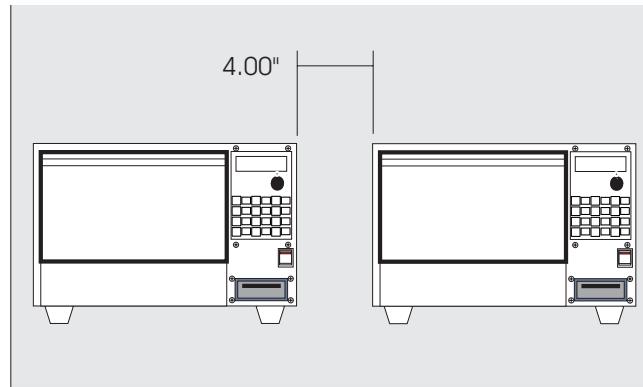
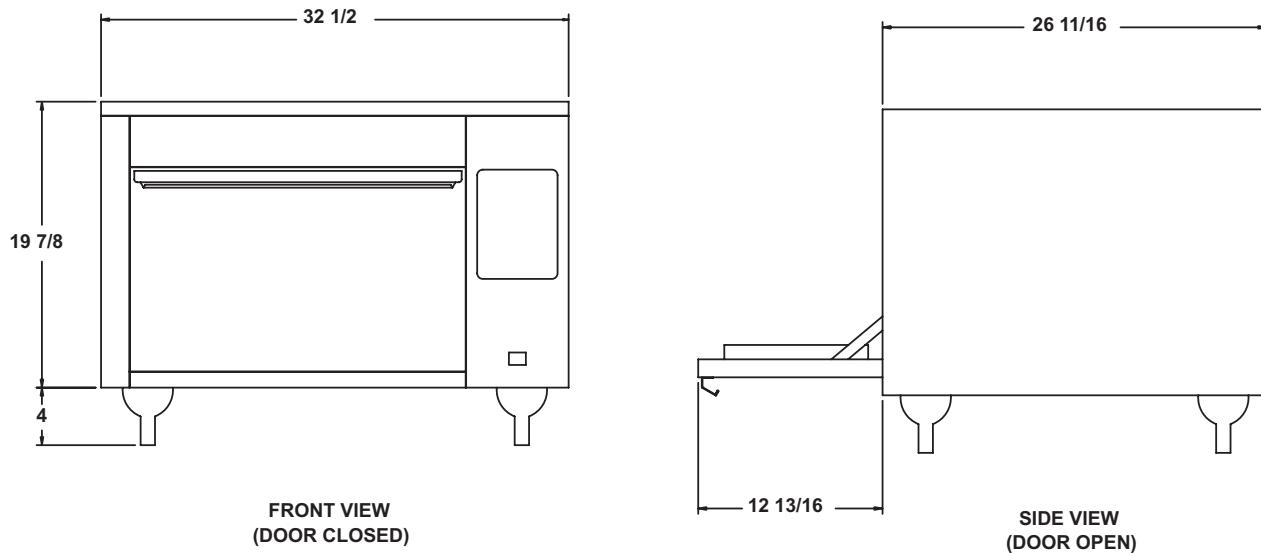


Figure 3-2 -Center Clearance Between Ovens

SPECIFICATIONS

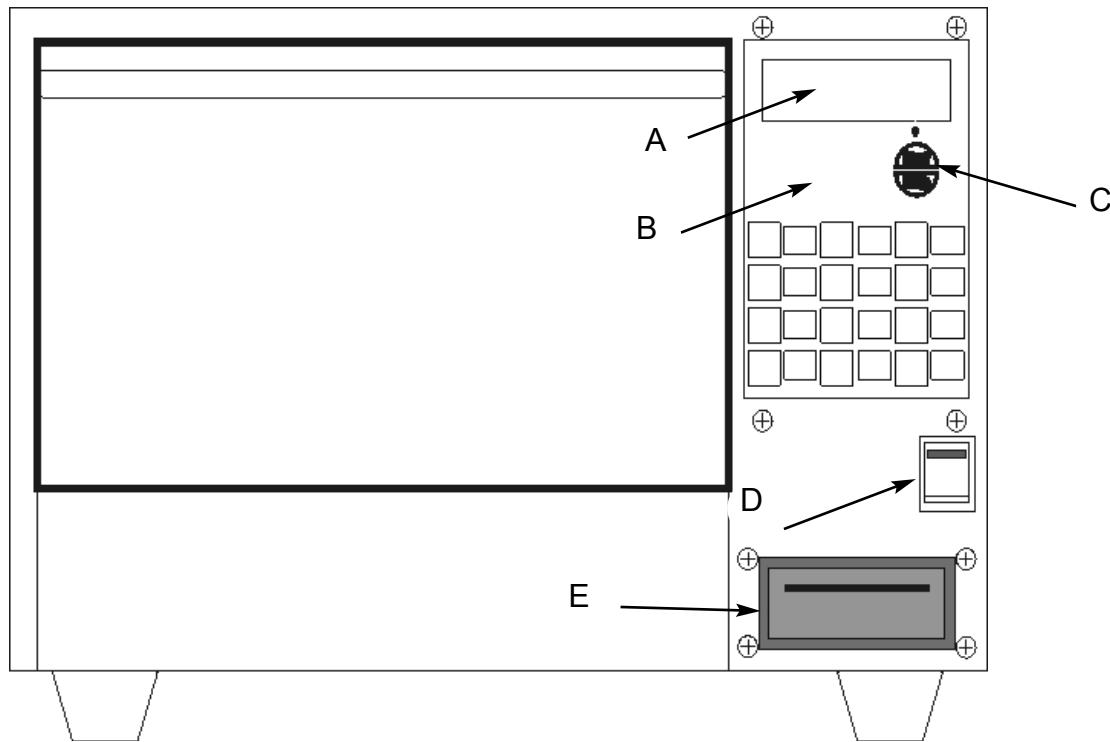


			NOMINAL AMPS PER LINE									VOLTS
			SINGLE PHASE			THREE PHASE						
TOTAL KW	KW PER PHASE		60 HZ	50 HZ	60 HZ			50 HZ				
	X	Y	Z		X	Y	Z	N	L2	L3		
6.60	3.00	6.6	0.0		12.4	27.5	15.0				208	
	3.00	6.6	0.0	27.5	10.8	23.8	13.0		15.0	12.5	240	
	3.00	6.6	0.0	30.0	11.8	26.0	14.2		16.4	13.6	220	
									15.6	13.0	230	
											*	

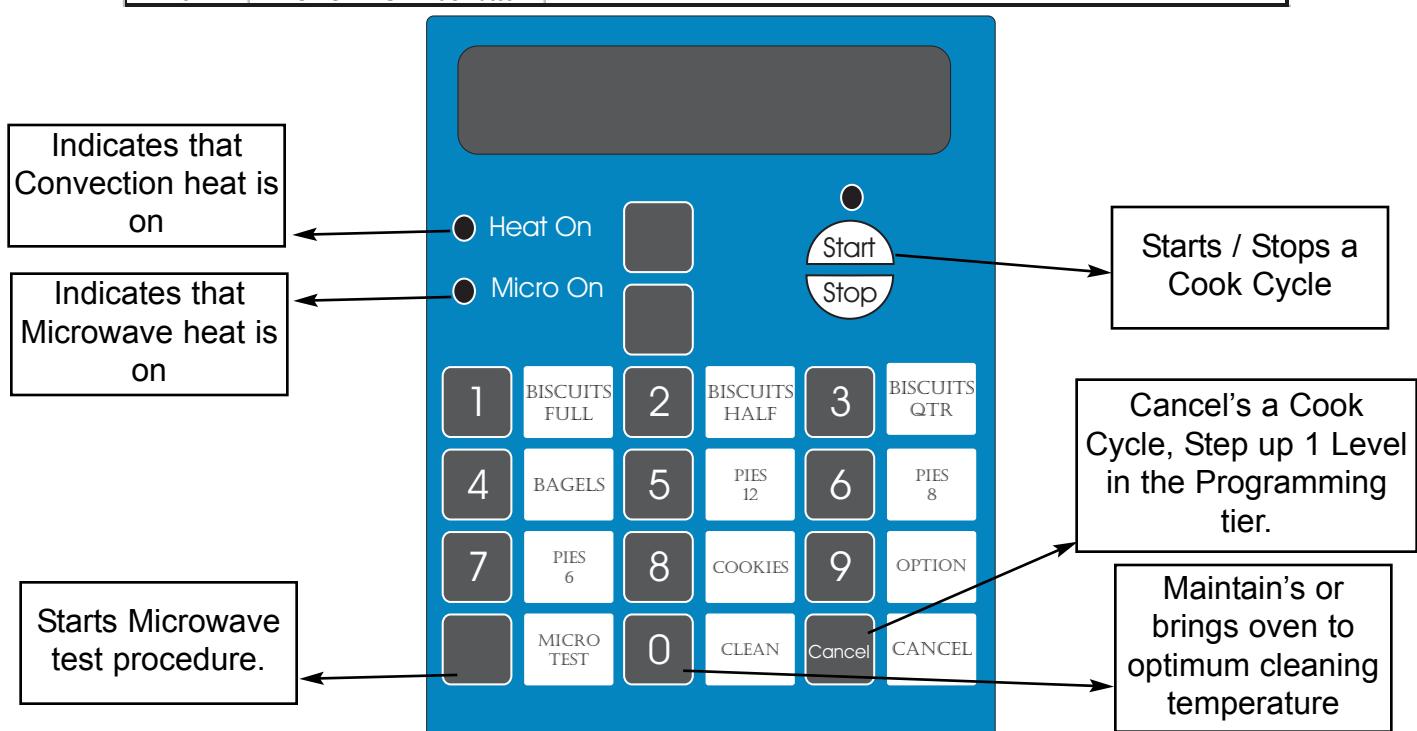
SPECIFICATIONS

Power Output	Microwave 100%	1425W
	Convection	3000W
	Combination	1425W + 3000W
External Dimensions	Height	23.5 inches (597mm)
	Width	32.5 inches (826mm)
	Depth	28.3 inches (719 mm)
Manufacturers Recommended clearances	Height	32 inches (815 mm)
	Width	31.5 inches (795 mm)
	Depth	25 inches (635 mm)
Internal Dimensions	Height	10.2 inches (260mm)
	Width	19.3 inches (490mm)
	Depth	14.2 inches (360mm)
	Capacity	1.73 ft ³ (48.99 litres)
Weight	Nett	198 lb.s (90 kg)
	Gross packed	233 lbs (106 kg)
Construction	Cavity Casework	304 Stainless Steel
Settings	Microwave Temperature Timer	

DESCRIPTION OF OVEN CONTROLS



Letter	Description	Function
A	Oven Display	Displays Current Menu Item Selected, and current status of Oven
B	Oven Controller	Controls all menu items, times, temperatures, & microwave power.
C	Start / Stop Button	Starts / Stops Cook Cycles.
D	Main Power Switch	Turns Oven Power On or Off.
E	Card Reader (Inactive)	For Future Use
F	"Heat On" Light	Indicates that Convection oven heat is ON
G	"Micro On" LED	Indicates that Microwave Oven power is ON
H	CANCEL Pushbutton	
I	CLEAN Pushbutton	
J	MICRO TEST Pushbtton	



NORMAL OPERATION

Power Up

Upon power up of the Garland Menu-Flex oven controller will display “OFF”, and will be in the “OFF” mode.

“OFF” Mode

There are various options in the “OFF” mode.

1. Pressing the TEMP button – Checks the actual temperature of the oven.
2. Pressing and Holding the PROG button for 3 seconds – Enters the program mode.
3. Pressing any numbered button – Selects a menu item.

IDLE Mode

The IDLE mode is when the oven is up to set temperature and stabilized within +/- 20 Degrees Fahrenheit of the selected menu items set point.

20 Degrees Above Set Temperature -
“TOO HOT”

20 Degrees Below Set Temperature -
“TOO COOL”

The controller will alternately display one of the above Messages and the selected menu item if the temperature sensed is +/- 20 Degrees Fahrenheit of the selected menu items set point.

If ANY of the above-mentioned “TOO HOT” or “TOO COOL” scenarios exist, initiating a cook cycle will be PROHIBITED until proper operating temperature is reached.

Checking Temperatures

You may check the actual oven temperature by pressing the TEMP button.

You may also check the actual oven temperature and the set point for a specific menu item by pressing the number of that menu item and pressing TEMP within 3 seconds.

The controller will return to its previous menu setting after 3 seconds.

Starting a cook cycle

You may start a cook cycle as long as the display doesn't flash “TOO COOL” or “TOO HOT”. - Load product and **PRESS START / STOP BUTTON**.

Cook Mode

When the operator presses the START/STOP button to initiate a cook cycle, the START/STOP LED turns on and the first line of the display will show that menu item that is being cooked. The second line will show the time remaining in the cook cycle.

Ex:

BISCIUTS
REMAINING 01:30

Upon completion of the cook cycle, the display will show “REMOVE” in the second line of the display window, and an audible alarm will sound.

Ex:

BISCIUTS
REMOVE

Audible Alarm

The audible alarm can be programmed in the controller for either “MANUAL” or “AUTO”.

- Under the MANUAL mode, the audible alarm will sound at the end of the cook cycle, and will continue to sound until the operator presses the START/STOP button.
- Under the AUTO mode, the audible alarm will sound at the end of the cook cycle, and sound for ONLY 5 seconds.

Cancelling a Cook Cycle

The operator can cancel a cook cycle at any time by pressing and holding the START/STOP button for 3 seconds. The audible will sound for 1 second, and the controller will return to the IDLE mode.

NOTE!

If the door is opened during the cooking cycle, the cook timer will stop and the controller will read “DOOR OPEN” on the second line of the display. The cooking cycle will continue when the door is shut.

During the cooking cycle the PROG button is disabled and the operator will NOT be permitted to enter the programming mode.

How to - Normal Operating Modes

There are four (4) recipes programmed in the controller:

- **Breakfast – Breakfast items EARLY AM**
- **LATE AM**
- **Lunch – Lunch Menu Items**

Each recipe allows for 11 different products for each numbered button on the controller.

1. Cook Temperature
2. Cook Time
3. Microwave Delay
4. Microwave Power Level
5. Microwave Time
6. Soak Time
7. Staged Heat
8. Fan Cycle
9. Upper Heater Duty Cycle
10. Lower Heater Duty Cycle

Product Cooking

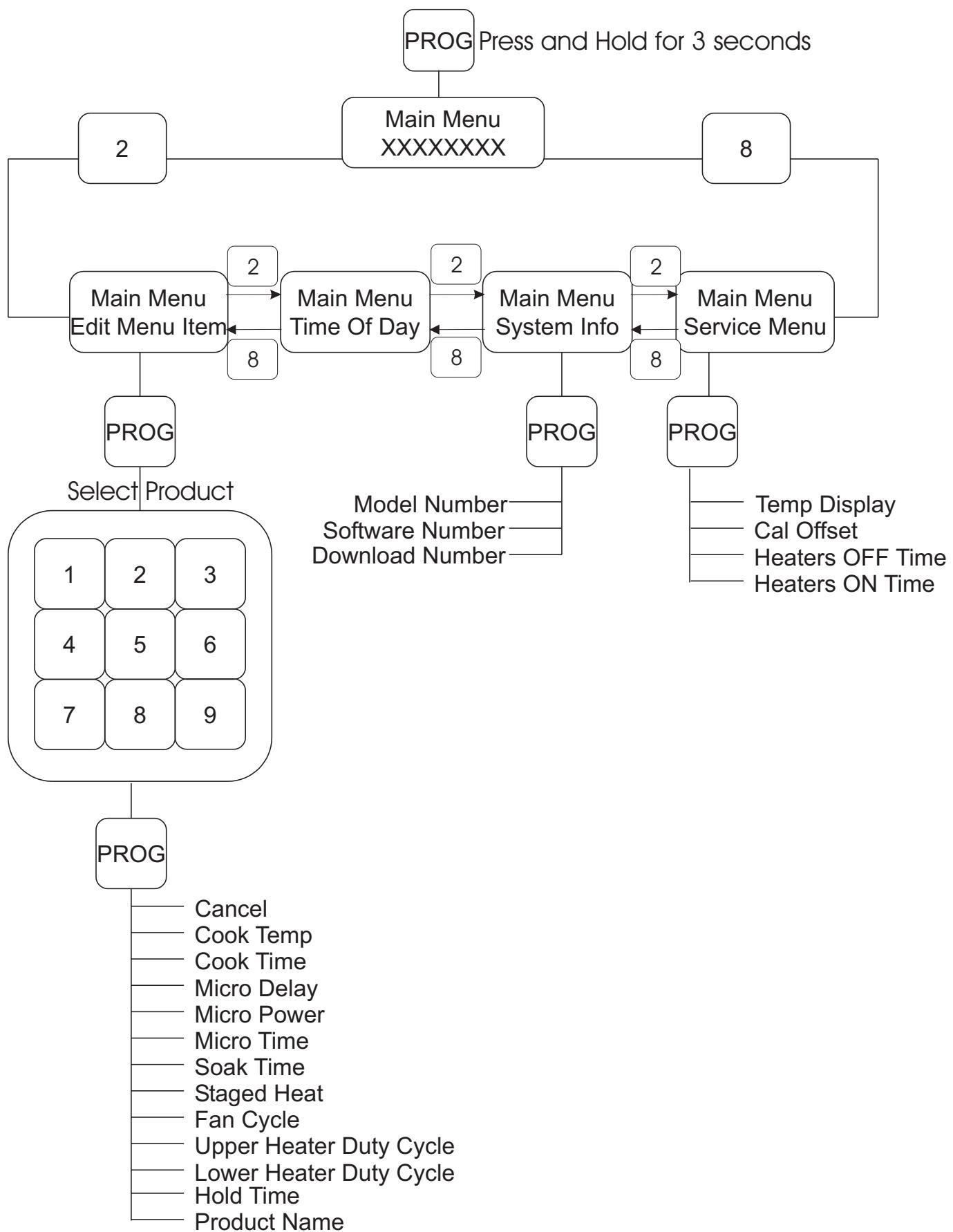
When a cook cycle is started:

1. The selected menu items' programmed cook timer is initiated and begins to time down.
2. The selected menu items' set point temperature is monitored and maintained.
3. The HEAT ON LED light is on when the convection oven heaters are heating.
4. The MICRO ON LED light is on when the microwave assist is called for.
5. **Microwave Delay** - The time in which the controller waits during the cook cycle before the microwave assist turns on.
6. **Microwave Power Level** – The Power Level of the Microwave assist.
7. **Microwave Time** – The time in which the Microwave assist is active inside of the oven.
8. **Soak Time** – Soak Time is an idle period for the oven helping to equilibrate temperature of product.

DURING THE SOAK TIME, THE UPPER ELEMENT, THE LOWER ELEMENT, AND THE FAN MOTOR ARE TURNED OFF

TO DISABLE THE SOAK TIME, SET THE SOAK TO “0”

PROGRAM LOGIC CHART



PROGRAMMING MODES

TO ENTER THE PROGRAMMING MODE, THE UNIT MUST BE IN THE "OFF" OR "IDLE" MODE.

To Change the Remove Time

1. PRESS and HOLD the PROG button for 3 seconds. Controller will display:

MAIN MENU

EDIT MENU ITEM

2. **PRESS** the PROG button **1X**. Controller will display **“SELECT PRODUCT→”**
3. **SELECT** the desired menu item button with a number on the controller.
4. Controller will display the menu item.
5. **PRESS** the PROG button **3X** until **“COOK TIME XX:XX”** appears in the display.
6. **ENTER** the desired cook time with the corresponding numbered buttons.

**Ex. Entering 4 minutes for menu item
that is set for 3:45 will follow like:**

Enter 0-4-0-0 for 4 Minutes

7. Controller will display " **Remove Time**
XX:XX "
8. **PRESS** the **START/STOP** button to exit
the programming mode and return to the
menu item previously selected.

All Timers programmed in the MenuFlex are timers programmed in “MM-SS” format:

To Change the Cook Temperature

1. PRESS and HOLD the PROG button for 3 seconds. Controller will display:

MAIN MENU

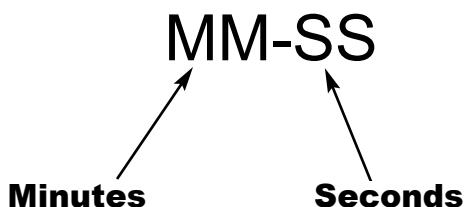
EDIT MENU ITEM

2. **PRESS** the **PROG** button **1X**. Controller will display "**SELECT PRODUCT→**"
3. **SELECT** the desired menu item button with a number on the controller.
4. Controller will display the menu item.
5. **PRESS** the **PROG** button **2X** until "**COOK TEMP XXXF**" appears in the display.
6. **ENTER** the desired cook temperature with the corresponding numbered buttons.

Ex. Entering 345° F for menu item that is set for 400° F will follow like:

Enter 3-4-5 for 345 degrees

7. Controller will display " **REMOVE TIME XXX** ".
8. **PRESS** the **START/STOP** button to exit the programming mode and return to the menu item previously selected.



PROGRAMMING MODES

To Change the Microwave Delay Time

The Microwave Delay Time is the time in which during the cook cycle, the controller will be delayed before the Microwave Time starts.

For more information see page xx.

1. PRESS and HOLD the PROG button for 3 seconds. Controller will display:

MAIN MENU
EDIT MENU ITEM

2. PRESS the PROG button 1X. Controller will display ".SELECT PRODUCT→"
3. SELECT the desired menu item button with a number on the controller.
4. Controller will display the menu item.
5. PRESS the PROG button 4X until "MICRO DELAY XX: XX" appears in the display.
6. ENTER the desired Microwave Delay time with the corresponding numbered buttons.
7. **Ex. Entering 4 minutes for menu item that is set for 3:45 will follow like:**

Enter 0-4-0-0 for 4 Minutes

8. Controller will display " MICRO DELAY XX: XX "
9. PRESS the START/STOP button to exit the programming mode and return to the menu item previously selected.

IMPORTANT NOTE: All Timers programmed in the MenuFlex are timers programmed in "MM-SS" format:

MM-SS
Minutes Seconds

To Change the Microwave Power

The Microwave Power is the percentage of power that the magnetron puts out during the Microwave Time.

For more information see page xx.

1. PRESS and HOLD the PROG button for 3 seconds. Controller will display:

MAIN MENU
EDIT MENU ITEM

2. PRESS the PROG button 1X. Controller will display ".SELECT PRODUCT→"
3. SELECT the desired menu item button with a number on the controller.
4. Controller will display the menu item.
5. PRESS the PROG button 5X until "MICRO PWR XXX%" appears in the display.
6. ENTER the desired Microwave Power with the corresponding numbered buttons.

Button 2 - Increases Microwave Power in increments of 5%.

Button 8 - Decreases Microwave Power in increments of 5%.

7. Controller will display " MICRO POWER XX%"
8. PRESS the START/STOP button to exit the programming mode and return to the menu item previously selected.

PROGRAMMING MODES

To Change the Microwave Cook Time

The Microwave Cook Time is the Time DURING THE COOK TIME that the Microwave power is ON.

For more information see page xx.

1. PRESS and HOLD the PROG button for 3 seconds. Controller will display:

MAIN MENU EDIT MENU ITEM

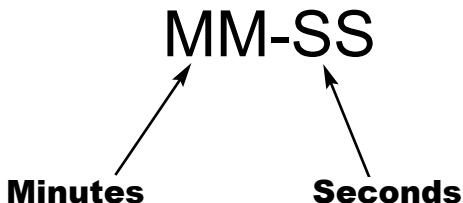
2. PRESS the PROG button 1X. Controller will display "SELECT PRODUCT→"
3. SELECT the desired menu item button with a number on the controller.
4. Controller will display the menu item.
5. PRESS the PROG button 6X until "MICRO TIME XX:XX" appears in the display.
6. ENTER the desired Microwave Time with the corresponding numbered buttons.

Ex. Entering 4:00 for menu item that is set for 3:45 will follow like:

Enter 0-4-0-0 for 4 Minutes

7. Controller will display " MICRO TIME XX: XX ".
8. PRESS the START/STOP button to exit the programming mode and return to the menu item previously selected.

IMPORTANT NOTE: All Timers programmed in the MenuFlex are timers programmed in "MM-SS" format:



To Change the Soak Time

The Soak Time is the time the microwaves, and convection heat can penetrate the product inside the oven.

For more information see page xx.

1. PRESS and HOLD the PROG button for 3 seconds. Controller will display:

MAIN MENU EDIT MENU ITEM

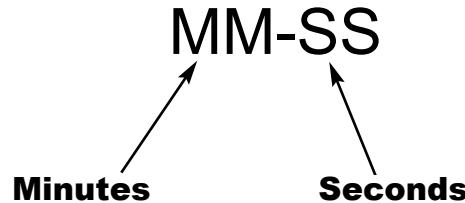
2. PRESS the PROG button 1X. Controller will display ".SELECT PRODUCT→"
3. SELECT the desired menu item button with a number on the controller.
4. Controller will display the menu item.
5. PRESS the PROG button 7X until "SOAK TIME XX:XX" appears in the display.
6. ENTER the desired Soak Time with the corresponding numbered buttons.

Ex. Entering 4 Minutes for menu item that is set for 3:35 will follow like:

Enter 0-4-0-0 for 4 Minutes

7. Controller will display " SOAK TIME XX: XX ".
8. PRESS the START/STOP button to exit the programming mode and return to the menu item previously selected.

IMPORTANT NOTE: All Timers programmed in the MenuFlex are timers programmed in "MM-SS" format:



PROGRAMMING MODES

To Change the Upper Heater Duty Cycle

The Upper Duty Cycle is the percentage of time that the upper heating elements are on during the Cook Time.

For more information see page xx.

1. **PRESS** and **HOLD** the **PROG** button for 3 seconds. Controller will display:

MAIN MENU
EDIT MENU ITEM

2. **PRESS** the **PROG** button **1X**. Controller will display "**SELECT PRODUCT→**"
3. **SELECT** the desired menu item button with a number on the controller.
4. Controller will display the menu item.
5. **PRESS** the **PROG** button **10X** until "**UPPER HEATER XXX%**" appears in the display.
6. **ENTER** the desired Upper Heater Duty Cycle Power with the corresponding numbered buttons.

Button 2 - Increases Upper Heater Duty Cycle by increments of 5%.

Button 8 - Decreases Upper Heater Duty Cycle by increments of 5%.

7. Controller will display " **UPPER HEATER XXX%** "
8. **PRESS** the **START/STOP** button to exit the programming mode and return to the menu item previously selected.

To Change the Lower Heater Duty Cycle

The Lower Duty Cycle is the percentage of time that the lower heating elements are on during the Cook Time.

For more information see page xx.

1. **PRESS** and **HOLD** the **PROG** button for 3 seconds. Controller will display:

MAIN MENU
EDIT MENU ITEM

2. **PRESS** the **PROG** button **1X**. Controller will display "**SELECT PRODUCT→**"
3. **SELECT** the desired menu item button with a number on the controller.
4. Controller will display the menu item.
5. **PRESS** the **PROG** button **11X** until "**LOWER HEATER XXX%**" appears in the display.
6. **ENTER** the desired Lower Heater Duty Cycle Power with the corresponding numbered buttons.

Button 2 - Increases Lower Heater Duty Cycle by increments of 5%.

Button 8 - Decreases Lower Heater Duty Cycle by increments of 5%.

7. Controller will display " **LOWER HEATER XXX%** "
8. **PRESS** the **START/STOP** button to exit the programming mode and return to the menu item previously selected.

PROGRAMMING MODES

To Change the STAGED HEAT Status

The Staged Heat Function is the Degree Hysteresis in which the heating elements will cycle.

For more information see page xx.

1. **PRESS** and **HOLD** the **PROG** button for 3 seconds. Controller will display:

MAIN MENU
EDIT MENU ITEM

2. **PRESS** the **PROG** button **1X**. Controller will display "**SELECT PRODUCT→**"
3. **SELECT** the desired menu item button with a number on the controller.
4. Controller will display the menu item.
5. **PRESS** the **PROG** button **8X** until "**STAGED HEAT (YES/NO)**" appears in the display.
6. To select the desired **STAGED HEAT** status, **PRESS BUTTON 2** to scroll between **YES** or **NO**.
7. Controller will display "**STAGED HEAT (YES / NO)**"
8. **PRESS** the **START/STOP** button to exit the programming mode and return to the menu item previously selected.

To Change the FAN CYCLE Status

The Fan Cycle Status is the status in which the Convection Fan will operate in conjunction with the Heating Elements.

For more information see page xx.

1. **PRESS** and **HOLD** the **PROG** button for 3 seconds. Controller will display:

MAIN MENU
EDIT MENU ITEM

2. **PRESS** the **PROG** button **1X**. Controller will display "**SELECT PRODUCT→**"
3. **SELECT** the desired menu item button with a number on the controller.
4. Controller will display the menu item.
5. **PRESS** the **PROG** button **9X** until "**FAN CYCLE (YES/NO)**" appears in the display.
6. To select the desired **FAN CYCLE** status, **PRESS BUTTON 2** to scroll between **YES** or **NO**.
7. Controller will display "**FAN CYCLE (YES / NO)**"
8. **PRESS** the **START/STOP** button to exit the programming mode and return to the menu item previously selected.

TEMPERATURE CONVERSION

C	F	C	F	C	F	C	F	C	F
27	80	54	128	80	176	107	224	134	272
27	81	54	129	80	177	107	225	134	273
28	82	55	130	81	178	108	226	134	274
28	83	55	131	81	179	108	227	135	275
29	84	56	132	82	180	109	228	135	276
30	85	56	133	83	181	110	229	136	277
30	86	57	134	83	182	110	230	137	278
31	87	57	135	84	183	111	231	137	279
31	88	58	136	84	184	111	232	138	280
32	89	59	137	85	185	112	233	138	281
32	90	59	138	85	186	112	234	139	282
33	91	60	139	86	187	113	235	139	283
33	92	60	140	86	188	114	236	140	284
34	93	61	141	87	189	114	237	141	285
34	94	61	142	88	190	115	238	141	286
35	95	62	143	88	191	115	239	142	287
36	96	62	144	89	192	116	240	142	288
36	97	63	145	89	193	116	241	143	289
37	98	63	146	90	194	117	242	143	290
37	99	64	147	90	195	117	243	144	291
38	100	64	148	91	196	118	244	144	292
38	101	65	149	91	197	119	245	145	293
39	102	65	150	92	198	119	246	146	294
40	103	66	151	93	199	120	247	146	295
40	104	66	152	94	200	120	248	147	296
41	105	67	153	94	201	121	249	147	297
41	106	68	154	94	202	121	250	148	298
42	107	68	155	95	203	122	251	148	299
42	108	69	156	95	204	122	252	149	300
43	109	70	157	96	205	123	253	149	301
43	110	70	158	97	206	124	254	150	302
44	111	71	159	97	207	124	255	151	303
44	112	71	160	98	208	125	256	151	304
45	113	72	161	98	209	125	257	152	305
45	114	72	162	99	210	126	258	152	306
46	115	73	163	99	211	126	259	153	307
46	116	74	164	100	212	127	260	153	308
47	117	74	165	101	213	127	261	154	309
48	118	75	166	101	214	128	262	154	310
48	119	75	167	102	215	128	263	155	311
49	120	76	168	102	216	129	264	156	312
49	121	76	169	103	217	130	265	156	313
50	122	77	170	103	218	130	266	157	314
50	123	77	171	104	219	130	267	157	315
51	124	78	172	105	220	131	268	158	316
52	125	78	173	105	221	131	269	158	317
52	126	79	174	106	222	132	270	159	318
53	127	79	175	106	223	133	271	159	319

TEMPERATURE CONVERSION

C	F	C	F	C	F	C	F	C	F
160	320	187	368	213	416	240	464	267	512
161	321	187	369	214	417	241	465	267	513
161	322	188	370	214	418	241	466	268	514
162	323	188	371	215	419	242	467	268	515
162	324	189	372	216	420	242	468	269	516
163	325	189	373	216	421	243	469	269	517
163	326	190	374	217	422	243	470	270	518
164	327	191	375	217	423	244	471	271	519
164	328	191	376	218	424	244	472	271	520
165	329	192	377	218	425	245	473	272	521
166	330	192	378	219	426	246	474	272	522
166	331	193	379	219	427	246	475	273	523
167	332	193	380	220	428	247	476	273	524
167	333	194	381	221	429	247	477	274	525
168	334	194	382	221	430	248	478	274	526
168	335	195	383	222	431	248	479	275	527
169	336	196	384	222	432	249	480	276	528
169	337	196	385	223	433	249	481	276	529
170	338	197	386	223	434	250	482	277	530
171	339	197	387	224	435	241	483	277	531
171	340	198	388	224	436	241	484	278	532
172	341	198	389	225	437	252	485	278	533
172	342	199	390	226	438	252	486	279	534
173	343	199	391	226	439	253	487	279	535
173	344	200	392	227	440	253	488	280	536
174	345	201	393	227	441	254	489	281	537
174	346	201	394	228	442	254	490	281	538
175	347	202	395	228	443	255	491	282	539
176	348	202	396	229	444	256	492	282	540
176	349	203	397	229	445	256	493	283	541
177	350	203	398	230	446	257	494	283	542
177	351	204	399	231	447	257	495	284	543
178	352	204	400	231	448	258	496	284	544
178	353	205	401	232	449	258	497	285	545
179	354	206	402	232	450	259	498	285	546
179	355	206	403	233	451	259	499	286	547
180	356	207	404	233	452	260	500	287	548
181	357	207	405	234	453	261	501	287	549
181	358	208	406	234	454	261	502	288	550
182	359	208	407	235	455	262	503	288	551
182	360	209	408	236	456	262	504	289	552
183	361	209	409	236	457	263	505	290	553
183	362	210	410	237	458	263	506	290	554
184	363	211	411	237	459	264	507	291	555
184	364	211	412	238	460	264	508	291	556
185	365	212	413	238	461	265	509	292	557
186	366	212	414	239	462	266	510	292	558
186	367	213	415	239	463	266	511	293	559



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