



GE Consumer Service Training

Technician Manual

GE Countertop Microwave Ovens 1.5 Turntable 900 & 1000 Watt Models

GE 900 Watts

JE1530GN

JES1533PN

JES1533PN

JE1450GN/WN/AN

GE 1000 Watts

JE1550GN

CMF94

Pub. No. 31-20104

IMPORTANT SAFETY NOTICE

This information is intended for use by individuals possessing adequate backgrounds of electrical, electronic and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

DISCONNECT POWER BEFORE SERVICING **IMPORTANT – RECONNECT ALL GROUNDING DEVICES**

All parts of this appliance capable of conducting electrical current are grounded. If grounding wires, screws, straps, clips, nuts or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- A. A microwave emission check should be performed prior to servicing if the oven is operative.
- B. Do not operate or allow the oven to be operated with the door open.
- C. If the oven operates with the door open:
 - 1) Instruct the user not to operate the oven and
 - 2) contact the manufacturer and the Center for Devices and Radiological Health immediately.
- D. 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
- E. Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, integrity, and connections.
- F. Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired, replaced or adjusted by procedure described in this manual before the oven is released to the owner.
- G. A microwave leakage check to verify compliance with the federal performance standard should be performed on each oven prior to release to the owner.

MICROWAVE LEAKAGE TEST

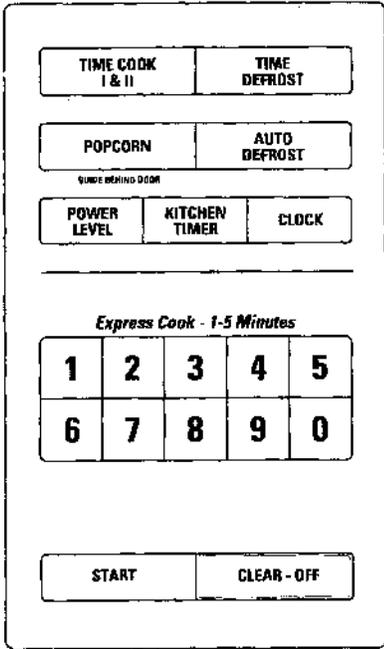
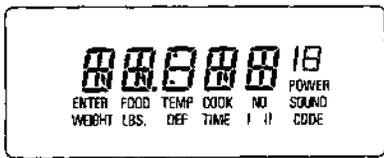
1. Place 275 ml. water in 600 ml. beaker (WB64X5010).
2. Place beaker in center of oven shelf.
3. Set meter to 2450 MHz scale.
4. Turn oven "ON" for 5 minute test.
5. Hold probe perpendicular to surface being tested and scan surfaces at rate of one inch/second. Test following areas:
 - Entire perimeter of door and control panel
 - Viewing surface of door window
 - Exhaust vents
6. Maximum leakage 4MW/CM².
7. Record date on service invoice and microwave leakage report.

NOTE: MAXIMUM ALLOWABLE LEAKAGE IS 5MW/CM². 4MW/CM² IS USED TO ALLOW FOR MEASUREMENT AND METER ACCURACY.

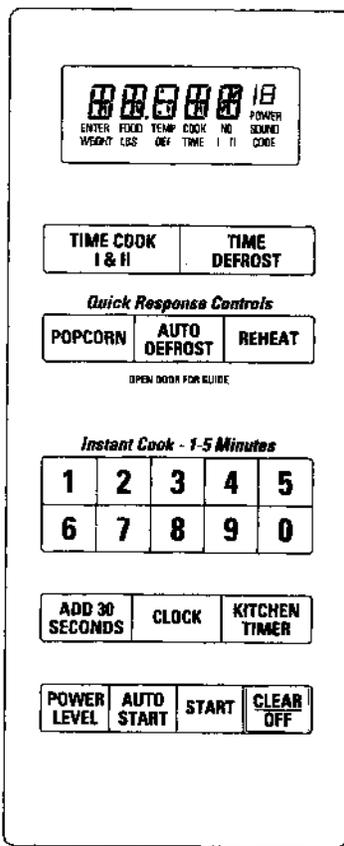
Inform the manufacturer of any oven found to have emission in excess of 5MW/CM². Make repairs to bring the unit into compliance at no cost to owner and try to determine cause. Instruct owner not to use oven until it has been brought into compliance.

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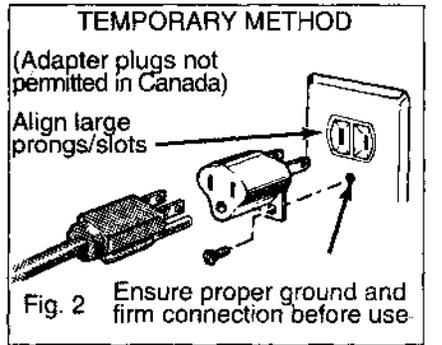
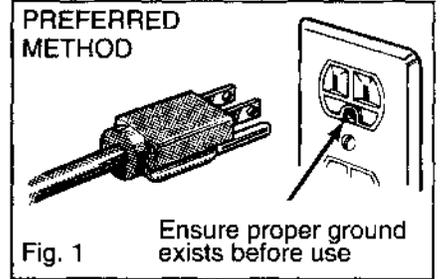
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JE1530GN

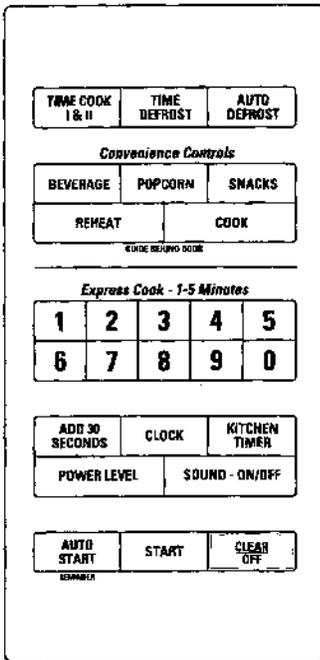
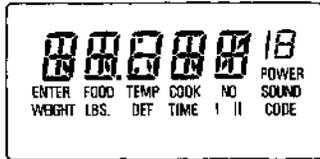


JES1533PN

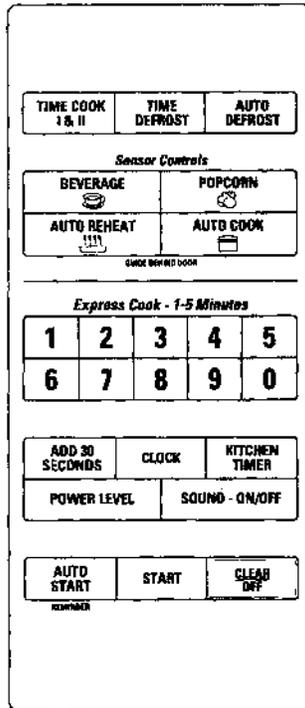
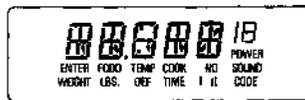


Plug Installation

Ensure proper ground exists before plugging in microwave oven. See Fig. 1 and Fig. 2.



JE1540(N)



JE1550GN

PRODUCT DESCRIPTION

Explanation of Microwave Cooking

The GE Microwave Oven uses microwave energy to produce heat in the food to be cooked. Unlike conventional ovens microwave energy will cook foods without applying external heat.

Microwaves are short electromagnetic waves of RF (radio frequency) energy, that pass through materials such as glass, paper, china and most plastics. Materials such as metal and aluminum foil tend to reflect microwaves and may be used only as recommended in the cooking instructions.

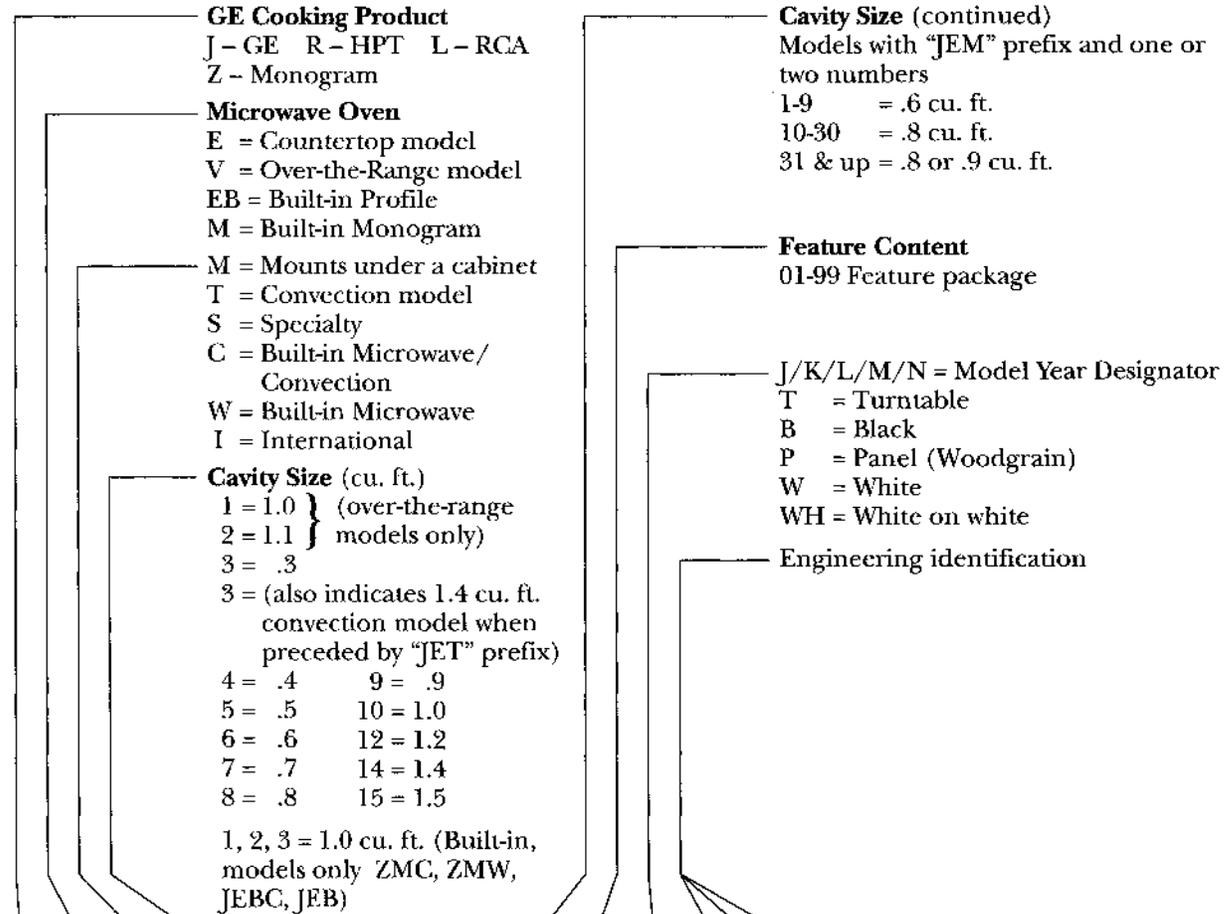
Materials with a high moisture content, like most foods, will absorb microwave energy. As the microwave energy enters the food, the food molecules align themselves with the microwave energy. Because the microwaves are changing polarity every half cycle, the food molecules are changing direction every half cycle or oscillating back and forth 4,900,000,000 times per second. This high speed oscillation causes friction between the molecules, thereby converting the microwave energy to heat.

FEATURES	JE1530(N)	JES1533(N)	JE1540(N)	JE1550(N)
TIME COOK I & II	•	•	•	•
TIME DEFROST	•	•	•	•
AUTO DEFROST	•	•	•	•
POWER LEVEL	•	•	•	•
KITCHEN TIMER	•	•	•	•
CLOCK PAD	•	•	•	•
POPCORN (S=SENS T=TIMED)*	T	T	T	S
QUICK REHEAT: BEVERAGE*, SNACKS, COOK			•	
EXPRESS COOK*/INSTANT COOK* (1-5)	•	•	•	•
REHEAT		•	•	
NUMBER PADS	•	•	•	•
ADD 30 SECONDS*		•	•	•
SENSOR CONTROLS: BEVERAGE*, AUTO REHEAT*, AUTO COOK			•	•
SOUND ON/OFF			•	•
CHILD LOCKOUT			•	•
START	•	•	•	•
AUTO START		•	•	•
CLEAR/OFF	•	•	•	•
OVEN CAVITY LIGHT	•	•	•	•
CLOCK	•	•	•	•
WARRANTY	1 YR C/I	1 YR C/I	1 YR I/H	1 YR I/H
WARRANTY ON MAG-PART ONLY	10 YRS	5 YRS	10 YRS	10 YRS
LINE CURRENT	13 AMPS	13 AMPS	13 AMPS	13.5 AMPS
LINE WATTS	1500	1500	1500	1500
MAG POWER (IEC-705)	900 W	900 W	900 W	1000 W
TOUCH CONTROL SYSTEM	•	•	•	•
CLOCK 1:00-12:59	•	•	•	•
TIMER (0-99 MIN 99 SEC)	•	•	•	•
CAVITY DIMENSIONS (WxHxD)	← 15-15/16" x 10-11/16" x 14-13/16" →			
CASE DIMENSIONS (WxHxD)	← 23-9/16" x 13-7/16" x 15-7/8" →			
NET WEIGHT	44	44	44	45

*INSTANT ON

Reading the Identification Tag

Every GE microwave oven has a model identification tag – a nameplate – attached. The location of attachment varies from one unit to another. This nameplate, when properly read, gives you specific information on that particular model.



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GENERAL ELECTRIC CO. LOUISVILLE, KY 40225 UL LISTED 725F
E70049

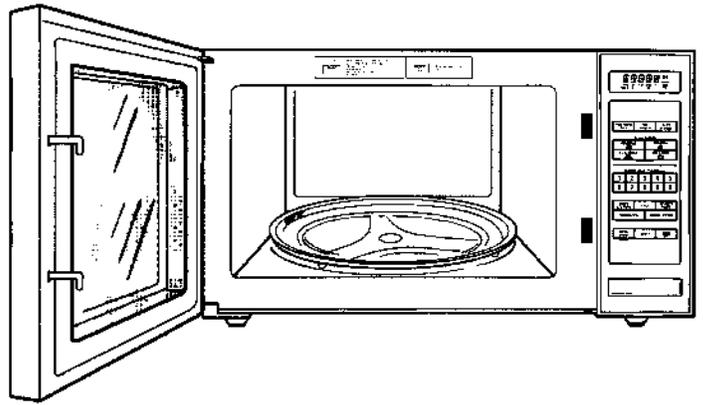
HOUSEHOLD MICROWAVE OVEN

MODEL NO. J VM150J 001	SERIAL NO. LD940719S	MANUFACTURED JUNE – 1990
KW: 1.35 VAC/HZ: 120/60	WARRANTY: 1 YEAR FULL	FCC ID A3L9QN150J GENERAL ELECTRIC MADE IN KOREA

THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUB CHAPTER J

1.5 TURNTABLE COUNTERTOP MICROWAVE

An upgraded redesign of the 1.5 cu. ft. countertop microwave will be introduced in the GE model line late in the summer of 1994. The non-sensor version JE1530, JE1533, and JE1540 will have an IEC cooking wattage rating of 900 watts. The sensor version JE1550GN will be rated at 1000 watts (IEC). These units will weigh approximately 45 pounds.



FEATURES DESCRIPTION

POWER UP

At power up or after a power interruption the display lights all segments and function indicator words for 15 seconds, and then "RESET".

CLOCK

To set the clock, touch CLOCK and enter the time of day. The display will flash "TIME". Touch START (or CLOCK) to start the clock.



CHILD LOCK-OUT

The control panel can be locked out to prevent the microwave from being accidentally started.

To Lock the Control:

- Press and hold the CLEAR/OFF pad for about 3 seconds.
- The display will beep twice and show LOCK and then return to the time of day.
- An "L" will be displayed to indicate that the control panel is locked.
- If control is attempted to be used "LOCK" will be displayed then return to time of day.



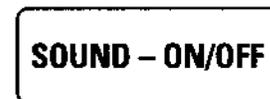
To Unlock the Control:

- Press and hold the CLEAR/OFF pad for about 3 seconds.
- Control will beep twice and return to time of day.

SOUND ON/OFF

This feature will turn the beeper on or off.

- Touch the SOUND ON/OFF pad once for sound.
- Touch the pad again for no sound. If the sound has been turned off, the display will show "OFF" and then return to the time of day. A small "NO SOUND" will be displayed.



CLEAR/OFF

When this pad is touched, it shuts off the oven and erases all settings (except for the time of day).



POWER LEVELS AND DUTY CYCLE

The control has 10 power levels, 1-10. The chart indicates the time in seconds that the magnetron is on and off during the 30 second duty cycle.

POWER LEVEL	BEST USES
High 10	Fish, bacon, vegetables, boiling liquids.
Med-High 7	Gentle cooking of meat and poultry; baking casseroles and reheating.
Medium 5	Slow cooking and tenderizing such as stews and less tender cuts of meat.
Low 3	Defrosting without cooking; simmering; delicate sauces.
Warm 1	Keeping food warm without overcooking; softening butter.

Power Level	Mag On	Mag Off
1	4	26
2	7	23
3	10	20
4	13	17
5	16	14
6	19	11
7	22	8
8	25	5
9	28	2
10	30	0

COOKING COMPLETE REMINDER

After the completion of all defrost and cook cycles (except Temp. Cook/Hold) the control will beep once every minute until door is opened or CLEAR pad is touched.

KITCHEN TIMER

The KITCHEN TIMER is a no power HOLD feature which can be used for four timing functions:

- Operates as a minute timer.
- Can be used to "Delay Start" cooking. (Time Cook or Temp Cook only.)
- Can be used as a hold setting after defrost.
- Could be used while another program is running.

To Use Kitchen Timer While Another Program is Operating:

1. Set up other program.
2. Touch KITCHEN TIMER pad.
3. Enter the amount of time you want by touching the number pads.
4. Timer will automatically start in 3 seconds, no need to touch start.

TIME COOK 1 & 2

The Time Cook function can be programmed for **one** or **two** time cook cycles in the same program. The two cycle feature is useful if a power level change is desired during the cooking operation. Each function can be set for a maximum of 99 minutes and 99 seconds.

Time Cook 1 & 2 can be programmed in any sequence but it will always execute **Time Cook 1** first.

TIME DEFROST

The defrost setting is approximately 30% power. Touch time defrost and enter time.

**KITCHEN
TIMER**

**TIME COOK
I & II**

**TIME
DEFROST**

ADD 30 SECONDS

The ADD 30 SECONDS feature provides “instant on” at high power (10) for 30 seconds or can be used to add 30 seconds to any **timed** function.

EXPRESS COOK/INSTANT COOK (No Function Pad)

This “instant on” feature will provide 1-5 minutes of cooking at power level 10 as soon as it is selected.

AUTO START

The AUTO START function provides a 12-hour delay start for any program or sequence of programs. Since it is a 12-hour timer, the start time can be delayed up to a maximum of 11 hours and 59 minutes.

NOTE: The time-of-day clock must be set for the AUTO START function to work.

To Use Auto Start:

1. Touch AUTO START pad.
2. Enter the time of day you want the oven to start. Be sure microwave oven shows the correct time of day.
3. Enter desired cooking program.
4. Touch START pad. The oven will automatically start at the desired time.

REMINDER (Use Auto Start Pad)

The Reminder feature, like an alarm clock, will signal (fast beeps) when a desired time of day is reached.

To Use Reminder:

1. Touch AUTO START pad.
2. Enter the desired time of day (11 hours and 59 minutes maximum) that you want the oven to signal. Clock must show correct TOD.
3. Touch START pad (REM will be in display).
4. When desired time is reached oven will signal with fast beeps until clear pad is touched or door is opened.

NOTE: This feature cannot be used with or during any cooking function.

AUTO DEFROST (NON-SENSOR FEATURE)

The Auto Defrost function automatically sets the defrosting time and power levels by entering the weight of the frozen food. The weight must be entered in tenths of pounds. Use conversion guide and auto defrost guide in Use and Care.

At the end of the total defrost time, the control “BEEPS” and displays “HOLD” (no power) for the appropriate time associated with that code. At the end of the “HOLD” time the control “BEEPS” as it does for the end of the cooking mode.

TO USE AUTO DEFROST:

1. Touch AUTO DEFROST.
2. Enter food weight, use conversion guide and auto defrost guide.
3. Touch START.

ADD 30 SECONDS

1

2

3

4

5

AUTO START

START

AUTO START

START

REm

AUTO DEFROST

1.2
ENTER WEIGHT

START

When the oven reaches approximately half of the total defrosting time, the control "BEEPS" and the display flashes "TURN" as a signal to turn the food over for the remainder of the defrost time.

IMPORTANT: The magnetron power will continue to defrost even if food is not "turned". "Turn" will continue to flash in the display.



BEVERAGE (TIMED 1:20 per serving)

This feature is used to reheat a beverage the size of a cup, one serving. The serving size can be changed to 2 or 3 serving size by touching that number right after touching the beverage pad.

COOK (TIMED)

The oven sets the cooking time and power level for a specific food category.

1. Touch COOK.
2. Enter food code.
3. Enter weight.
4. Touch START.

NOTE: To display the remaining cooking time, touch the COOK pad.

POPCORN (TIMED 2:00 per bag)

The popcorn feature is a pre-timed function that allows one touch cooking for prepackaged microwave popcorn in the 3.0-3.5 ounce range.

TO USE POPCORN

1. Remove the outer wrapper from the microwave popcorn and place package in center of oven floor per manufacturer's instructions.
2. Touch POPCORN pad. POP flashes, oven turns on instantly.

HOW TO ADJUST THE POPCORN PROGRAM TO PROVIDE A SHORTER OR LONGER COOKING TIME

If popcorn is undercooked you can make an adjustment by adding time.

- Touch the POPCORN pad and then touch #9, this will add 20 seconds more cooking time.

If popcorn is overcooked you can make an adjustment by subtracting time.

- Touch the POPCORN pad and then touch #1, this will subtract 20 seconds of cooking time.

SNACKS

This feature sets the time and power level for cooking or warming many common type foods and different quantities. Use snack code guide (1-6).

1. Touch SNACKS pad.
2. Touch number pad of desired food code (food item appears on display).
3. A number pad is needed next to tell the quantity that is being cooked. (1-4, codes 5 & 6 you must enter weight).
4. Touch START.

COOK GUIDE

CODE	FOOD	DISPLAY	TIME
1	Canned Veggies	VEG 1	14 sec/oz
2	Frozen Veggies	VEG 2	34 sec/oz
3	Fresh Veggies	VEG 3	41 sec/oz
4	Potatoes	PotAt	29 sec/oz
5	Fish	FISH	23 sec/oz
6	Chicken	Chikn	28 sec/oz
7	Ground Beef, Pork, Turkey	Meat	23 sec/oz
8	Bacon	bACON	55 sec/oz
9	Frozen Pizza	PIZ	37 sec/oz

SNACKS GUIDE

CODE	FOOD	DISPLAY	TIME	QTY
1	Bakery – Rolls	bREAd	20 sec/item	1-4
2	Sandwiches	SANdW	50 sec/sand.	1-2
3	Leftover Pizza	PIZ	45 sec/slice	1-4
4	Dessert Toppings	TOP	20 sec/serv.	1-4
5	Soups	SOUP	14 sec/oz	8-40 oz
6	Cheese Dip	CHEEZ	9 sec/oz	4-16 oz

REHEAT

The REHEAT feature is a short term program to automatically reheat a previously cooked food.

1. Touch REHEAT pad.
2. Select a number pad from 1-6 to select a food group.
3. Touch START.

NOTE: Reheat codes 1-5 allows you to heat up to 3 servings. Just touch the number pad 2 or 3 before start.

REHEAT GUIDE

CODE	DISPLAY	TIME/PER SERVING
1	PASTA	2:00
2	MEATS	1:00
3	VEGS	1:10
4	BEV	1:20
5	SAUCE	2:30
6	PLATE	3:30

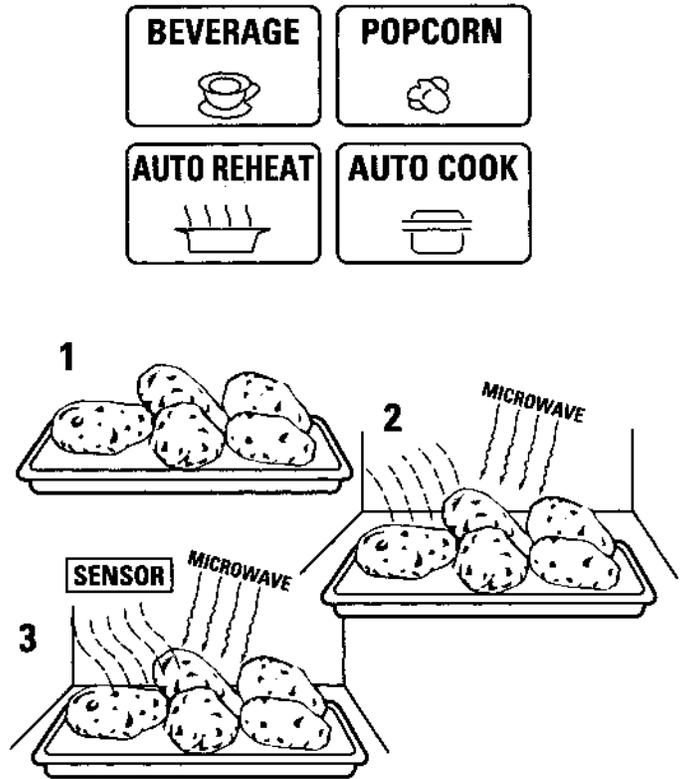
SENSOR COOKING CONDITION (JE1550GN model only)

Using the AUTO COOK, POPCORN, BEVERAGE or AUTO REHEAT function, the foods are cooked without calculating time, power level or quantity. When the oven senses enough steam from the food, it relays the information to the microprocessor which will calculate the remaining cooking time and power level needed for best results. When the food is cooked, water vapor is developed. The sensor "senses" the vapor and its resistance increases gradually. When the resistance reaches the value set according to the menu, supplementary cooking is started.

The time of supplementary cooking is determined by experiment with each food category and entered into the microprocessor.

An example of how the sensor works:
(AUTO COOK, 4)

1. Potatoes at room temperature. Vapor is emitted very slowly.
2. Heated potatoes. Moisture and humidity are emitted rapidly.
3. The sensor detects the moisture and humidity and calculates cooking time and variable power.



SENSOR COOKING PREFERENCE CONTROL

When using the sensor assisted cooking codes Auto Reheat and Auto Cook (Codes 2-7) it is possible to adjust the oven cooking time by 10%.

By immediately touching the number 1 pad after touching the Auto Reheat pad and Auto Cook pad (Codes 2-7) the oven will turn off 10% sooner.

By pressing the number 9 pad the oven will cook 10% longer.

AUTO COOK (SENSOR MODEL)

The AUTO COOK feature will automatically microwave at pre-programmed power levels and determines the proper amount of cooking time. This feature has 8 codes (Generic quantities and types of food are used).

- **Code 1** is designed for reheating foods quickly, turns the oven off automatically as soon as the sensor detects steam from the foods.
- **Codes 2-7**, When these codes are selected the oven determines how much additional cooking time is needed after steam has been sensed,

AUTO COOK GUIDE

CODE	DISPLAY	MAX. TIME
1	VEG 1	6:30
2	VEG 2	12:30
3	VEG 3	8:30
4	PotAt	8:00
5	FISH	6:30
6	Chikn	10:00
7	Meat	10:00

automatically switches to TIME COOK and signals. The word "AUTO" on the display is then replaced by countdown numbers indicating remaining cooking time. When the signal is heard, the oven door may be opened for stirring, turning or rotating food.

To Use AUTO COOK:

1. Touch AUTO COOK pad.
2. Enter desired code.
3. Touch START.

To Adjust Auto Cook Time by 10% on cooking codes 2-7:

- Adding a 1 after the pre-selected cooking code will subtract 10% of the cooking time.
- Adding a 9 after the pre-selected cooking code will add 10% to the cooking time.

Example: If code 6 cooks chicken more done than wanted, enter code 61 and it will cook 10% less time. Auto code 6 will show in the display, the number 1 will not.

AUTO REHEAT (SENSOR MODEL)

With this feature the oven automatically adjusts its heating time to various types and amounts of pre-cooked food by sensing the steam that escapes as food heats. Do not open the oven door while the word "RHEAT" is displayed, steam escaping will affect oven performance.

AUTO REHEAT is an instant on function. No need to press start after selecting AUTO REHEAT.

NOTE: Best results are obtained with foods you want to steam or retain moisture (must be covered). Maximum heating time is 3:45.

BEVERAGE (SENSOR MODEL)

This instant on pad reheats beverages by sensing the steam with the sensor system.

NOTE: Maximum heating time is 3:45.

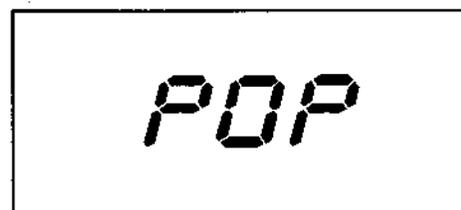
POPCORN (SENSOR MODEL)

The POPCORN feature is a preprogrammed function that uses the humidity sensor to automatically select the correct cooking time.

NOTE: This feature works best when the popcorn contents are in the 3.0-3.5 ounces range. Maximum heating time is 2:40.

To Use Popcorn:

1. Remove the outer wrapper from the microwave popcorn.
2. Open oven door and place package of popcorn in the center of the oven floor as directed by the manufacturer's instructions. Close oven door.
3. Touch POPCORN pad. "POP" flashes. Oven turns on instantly.



4. The popcorn sensor automatically calculates the cooking time. After the popcorn sensor detects steam, the oven signals and displays remaining cooking time needed.
5. When cooking is completed, the oven signals and flashes "End". Open the door and remove the popcorn.

How to adjust the Popcorn Program to provide a shorter or longer cook time:

If popcorn is undercooked you can make an adjustment by adding time.

- Touch the POPCORN pad and then touch number pad 9. The word "POP" will appear on the display with a plus sign beside it. The plus sign indicates 20 seconds (sensor model only) more cooking time is being provided.

If popcorn is overcooked you can make an adjustment by subtracting time.

- Touch the POPCORN pad and then touch number pad 1. The word "POP" will appear on the display with a minus sign beside it. The minus sign indicates 20 seconds (sensor model only) less cooking time is being provided.

OPERATION

DESCRIPTION OF OPERATING SEQUENCE

The following is a description of component functions during oven operation.

OFF CONDITION

Closing the door activates the door sensing and secondary interlock switches. (In this condition, the monitor switch contacts are opened.)

When oven is plugged in, 120 volts A.C. is supplied to the smart board.

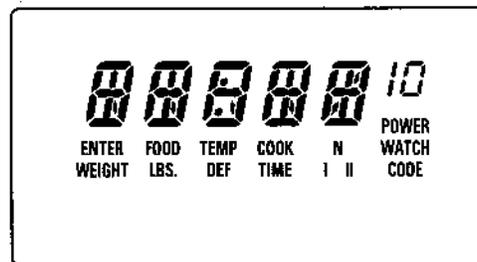
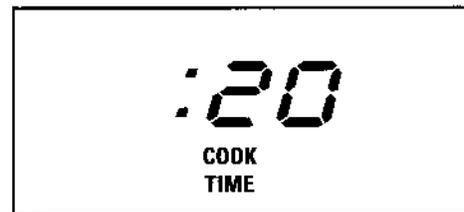
1. The display panel lights up for 15 seconds then "RESET" appears. Touch the CLOCK pad to set the clock and the oven is ready for use.

If power is disrupted at any time, the above sequence recurs, and you must reset the clock after touching the CLEAR/OFF pad.

COOKING CONDITION

When the START pad is touched the following occurs:

1. Relay contacts are closed and the following components are turned on:
 - RY-1** oven lamp/fan motor/turntable motor
 - RY-2** power transformer
2. 120 volts A.C. is supplied to the primary winding of the power transformer and is converted to about 3.1 volts A.C. output on the filament winding, and approximately 2280 volts A.C. on the high voltage winding.
3. The filament winding voltage heats the magnetron filament and the H.V. is sent to a voltage doubler circuit.



4. The microwave energy produced by the magnetron is channeled through the wave guide into the cavity feedbox, and then into the cavity where the food is to be cooked.
5. Upon completion of the cooking time, the power transformer, oven lamp, etc. are turned off and the generation of microwave energy is stopped. The oven will revert to the OFF condition.
6. When the door is opened during a cook cycle, the monitor switch, door sensing switch, secondary interlock switch and primary interlock relay are activated with the following results: The circuits to the cooling fan motor and the high voltage components are de-energized, the oven lamp remains on and the digital readout displays the time remaining in the cook cycle when the door was opened.
7. The monitor switch electrically monitors the operation of the secondary interlock switch and the primary interlock relay and is mechanically associated with the door so that it will function in the following sequence:
 - (1) When the door opens, the secondary interlock switch, primary interlock relay and secondary interlock switch open their contacts, then the monitor switch contacts close.

CLOCK

**CLEAR
OFF**

DESCRIPTION AND FUNCTION OF COMPONENTS

OUTER CASE REMOVAL

To remove outer case, proceed as follows:

1. Disconnect oven from power supply.
2. Remove screws from rear and along the side edge of case.
3. Slide the entire case back about 1 inch (3 cm) to free it from retaining clips on the cavity faceplate.
4. Lift entire case from the unit.

CAUTION: DISCHARGE HIGH VOLTAGE CAPACITOR BEFORE TOUCHING ANY OVEN COMPONENTS OR WIRING.

TOUCH CONTROL PANEL ASSEMBLY TEST

The touch control panel assembly is divided into two units, Key Panel and Smart Board, and troubleshooting by unit replacement is described according to the symptoms indicated.

1. Key Panel.

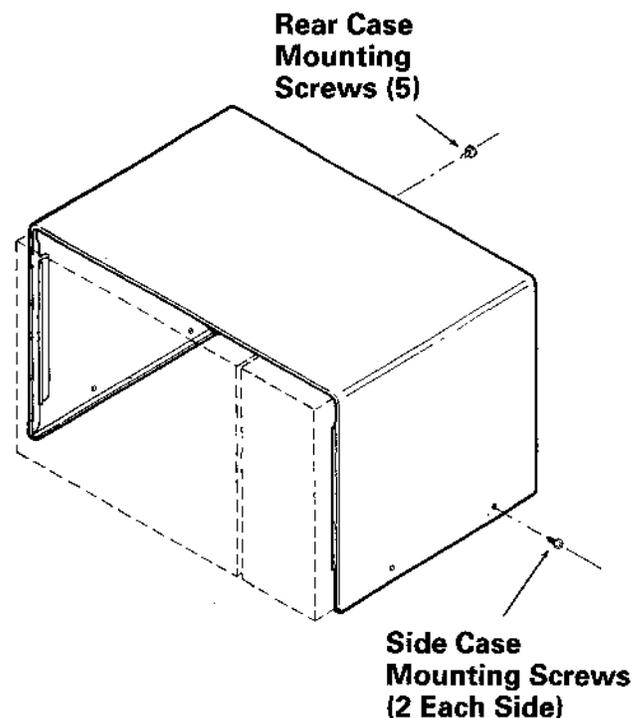
The following symptoms indicate a defective key panel:

- a) When touching the pads, a certain pad produces no signal at all.
- b) When touching a number pad, two figures or more are displayed.
- c) When touching the pads, sometimes a pad produces no signal.

NOTE: If necessary key panel can be checked with ohmmeter.

2. Smart Board

The following symptoms indicate a defective smart board:



CONTROL TRANSFORMER – SENSOR MODEL

The control transformer is separate from the smart board on the sensor model. To service, remove case and unplug leads from smart board and disconnect primary plug. Remove 2 transformer mounting screws.

KEY PANEL

The key panel has 1 ribbon connector on smart board.

If necessary, the key panel pads can be checked by a continuity test. For ease of handling, the key panel or control should be removed and placed on a flat surface.

The ribbon connections are on one side (1-13). Pad operation can be checked between connections at end of ribbon (use high Ohms scale).

SENSOR

PAD	CONN	PAD	CONN
TIME COOK I & II	1-10	1	2-11
TIME DEFROST	2-13	2	3-11
AUTO DEFROST	1-13	3	4-11
BEVERAGE (SENSOR)	3-12	4	5-11
POPCORN (SENSOR)	1-12	5	6-11
AUTO REHEAT (SENSOR)	4-12	6	2-8
AUTO COOK (SENSOR)	4-9	7	3-8
ADD 30 SECONDS	1-11	8	4-8
CLOCK	3-9	9	5-8
KITCHEN TIMER	2-10	0	6-8
POWER LEVEL	6-13		
SOUND-ON/OFF	2-9		
AUTO START	5-13		
START	2-12		
CLEAR/OFF	3-13		

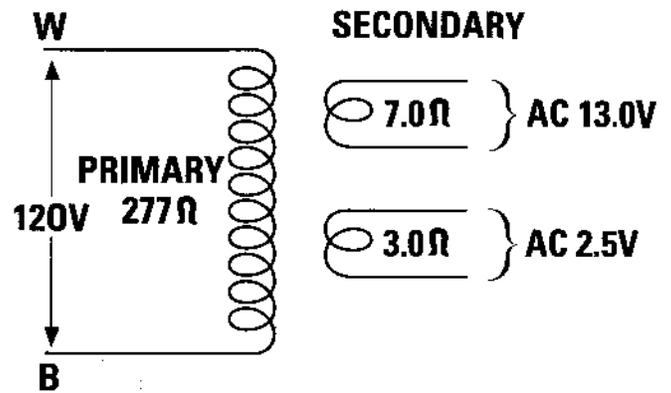
NON-SENSOR

PAD	CONN	PAD	CONN
POWER LEVEL	6-13	0	6-8
TIME DEFROST	2-13	1	2-11
ADD 30 SECONDS	1-11	2	3-11
TIME COOK I & 2	1-10	3	4-11
KITCHEN TIMER	2-10	4	5-11
AUTO START	5-13	5	6-11
CLOCK	3-9	6	2-8
CLEAR/OFF	3-13	7	3-8
AUTO DEFROST	1-13	8	4-8
REHEAT	4-13	9	5-8
START	2-12		
POPCORN	5-12		
BEVERAGE	6-12		
SNACKS	5-9		
QUICK COOK	6-9		
SOUND	2-9		

TO REPLACE KEY PANEL

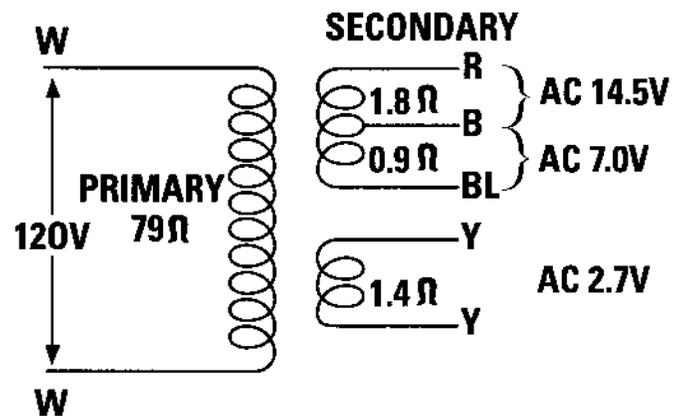
Key Panel and Control Trim will be replaced as a complete assembly.

CONTROL TRANSFORMER

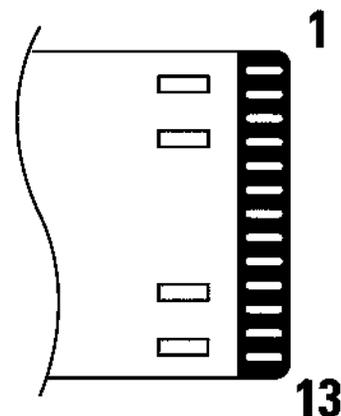


Non-Sensor Models (on P.C. board)

CONTROL TRANSFORMER



Control Transformer JE1550GN Only



DOOR OPENER

The door is opened by pushing the button on the control panel which raises the switch lever and the latch head from the latch hook, releasing the door.

OVEN LAMP

The oven light is located at the rear of the oven next to the power cord. To replace the lamp, disconnect power, remove screw holding cover and unscrew light bulb.

POWER TRANSFORMER TEST

DISCHARGE THE HIGH VOLTAGE CAPACITOR BEFORE TOUCHING ANY OVEN COMPONENTS OR WIRING.

Disconnect the primary input terminals and measure the resistance of the transformer with an ohmmeter. Check for continuity of the windings with an ohmmeter. On the Rx 1 scale, the resistance of the primary coil should be less than 1 ohm and the resistance of the high voltage windings should be approximately 65-100 ohms (measure from #5 on high voltage transformer to chassis ground); the resistance of the filament windings should be less than 1 ohm. (HIGH VOLTAGES ARE PRESENT AT THE HIGH VOLTAGE TERMINAL, SO DO NOT ATTEMPT TO MEASURE THE FILAMENT AND HIGH VOLTAGE.)

POWER TRANSFORMER REMOVAL

1. Disconnect oven from power supply and remove outer case.
2. Discharge high voltage capacitor.
3. Remove oven contents.
4. Remove four (4) screws from bottom of oven that go through the transformer.
5. Disconnect and mark leads.
6. Reinstall reversing this procedure.

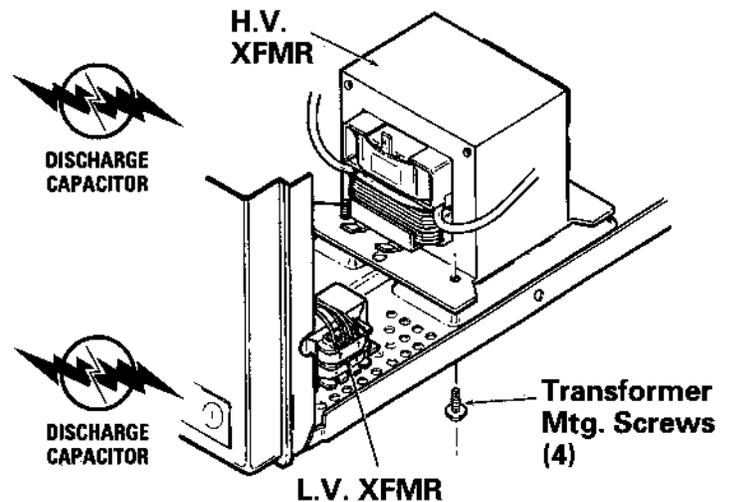
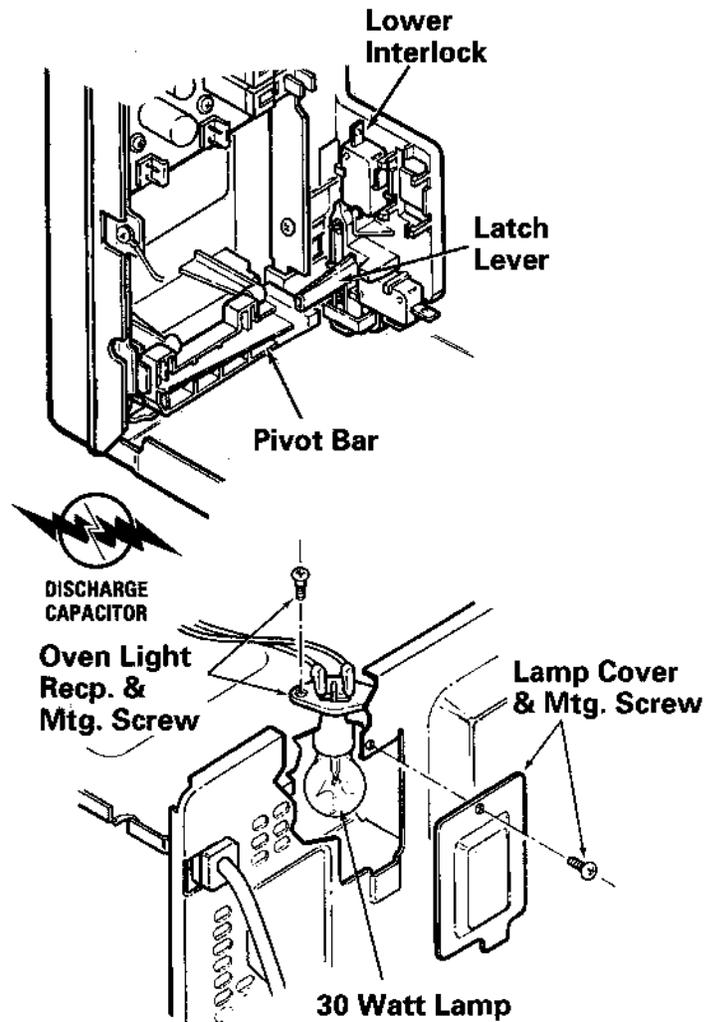
HIGH VOLTAGE CAPACITOR TEST

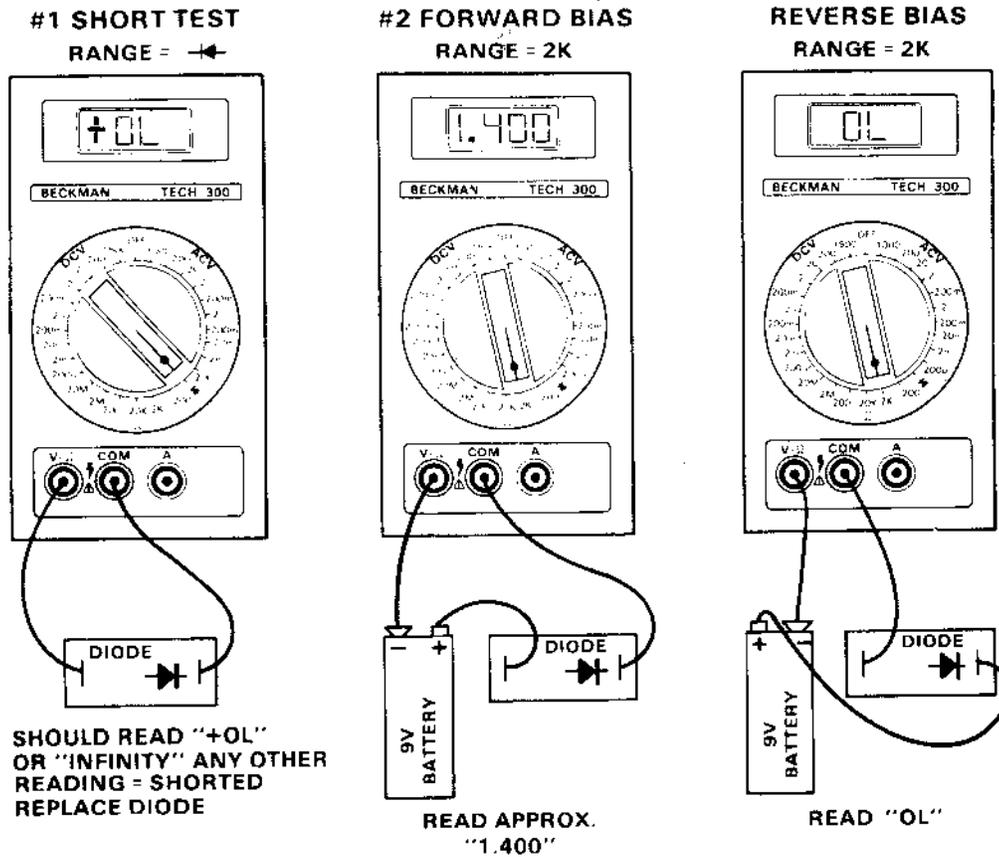
DISCHARGE THE HIGH VOLTAGE CAPACITOR BEFORE TOUCHING ANY OVEN COMPONENTS OR WIRING.

If the capacitor is open, no high voltage will be available to the magnetron. Disconnect input leads and check for short or open between the terminal using an ohmmeter.

Checking with a high ohm scale, if the high voltage capacitor is normal, the meter will indicate continuity for a short time and should indicate an open circuit once the capacitor is charged. If the above is not the case, check the capacitor with an ohmmeter to see if it is shorted between either of the terminals and case.

If it is shorted, replace the capacitor.





NOTE: READING MAY VARY WITH OTHER BRAND METERS.

HIGH VOLTAGE RECTIFIER/DIODE TEST

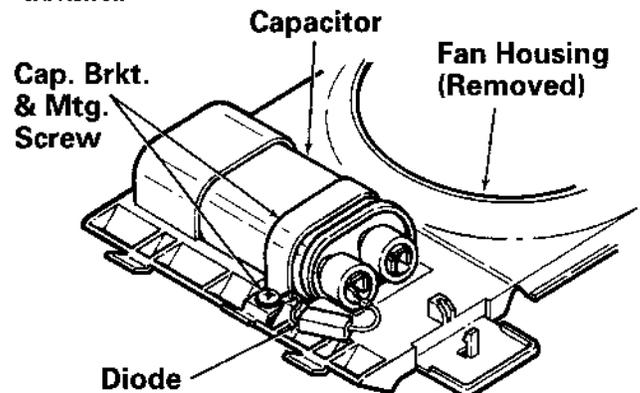
DISCHARGE THE HIGH VOLTAGE CAPACITOR BEFORE TOUCHING ANY OVEN COMPONENTS OR WIRING.

Isolate the rectifier from the circuit. Using the highest ohm scale of the meter, read the resistance across the terminals and observe, reverse the leads to the rectifier terminals and observe meter reading. If a short is indicated in both directions, or if an infinite resistance is read in both directions, the rectifier is probably defective and should be replaced.



RECTIFIER/DIODE ASSEMBLY AND HIGH VOLTAGE CAPACITOR REMOVAL

1. Disconnect oven from power supply and remove outer case.
 2. Discharge high voltage capacitor.
 3. Fan housing must be removed. Remove 2 screws holding fan housing (back-bottom and top by fuse) also ground screw.
 4. Release wires routed through housing and remove housing.
 5. Remove screw holding one end of rectifier to capacitor strap.
 6. Capacitor and rectifier can now be removed.
- CAUTION: WHEN REPLACING H.V. RECTIFIER AND HIGH VOLTAGE CAPACITOR, GROUND SIDE TERMINAL OF H.V. RECTIFIER MUST BE SECURED FIRMLY WITH A GROUNDING SCREW AND WASHER.**



MAGNETRON THERMAL CUTOUT

The magnetron thermal cutout is located on the side of the magnetron and is designed to prevent damage to the magnetron if an overheated condition develops in the tube due to cooling fan failure, obstructed air ducts, dirty or blocked air intake.

Under normal operation, the magnetron thermal cutout remains closed. However, when abnormally high temperatures are reached within the magnetron, the magnetron thermal cutout will open at 320°F (160°C) causing the oven to shut down.

NOTE: Magnetron thermal cutout is resetable (140°F).

OVEN THERMAL CUTOUT/FLAME SENSOR

The thermal cutout, located on the opposite side of the component compartment, is designed to prevent damage to the unit if the foods in the oven catch fire due to overheating caused by improper setting of cook time or failure of control unit.

Under normal operation, the oven thermal cutout remains closed. However, when abnormally high temperatures are reached within the oven cavity, the oven thermal cutout will open at 248°F (120°C), causing the oven to shut down.

NOTE: Oven thermal cutout is non-resetable.

MAGNETRON FAN MOTOR

The magnetron fan motor drives a blade which draws in cool external air. This cool air is directed through the air vanes surrounding the magnetron and cools the magnetron assembly. This air is channeled through the oven cavity to remove steam and vapors given off from the heating foods. It is then exhausted through the exhausting air vents at the oven cavity.

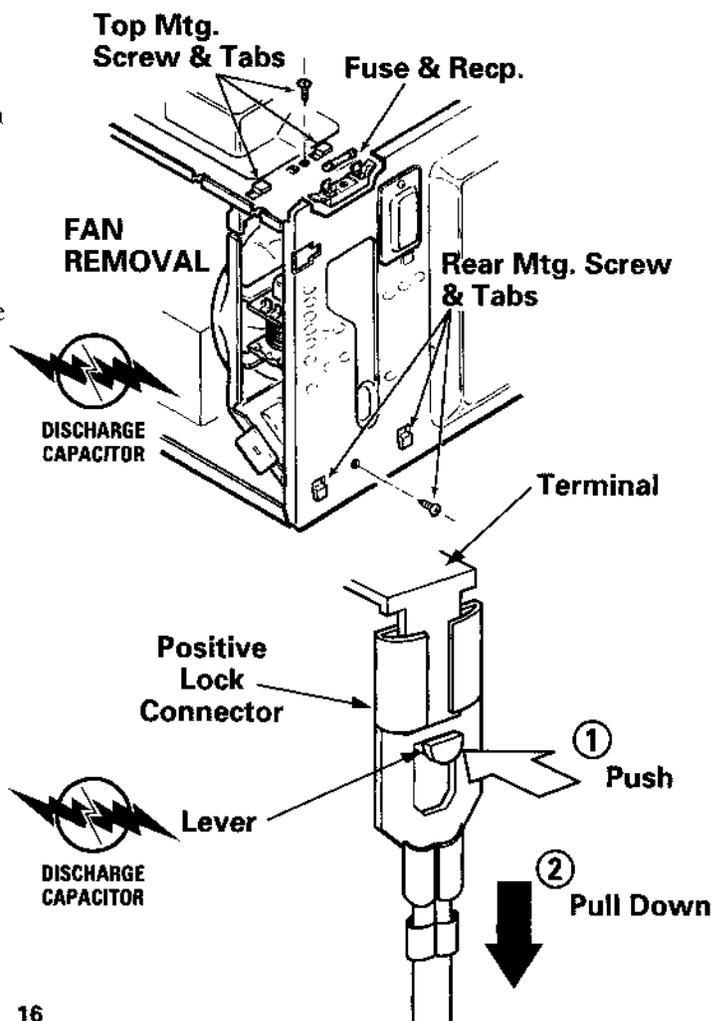
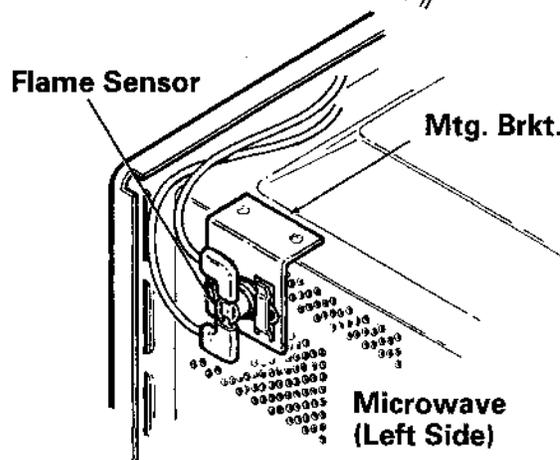
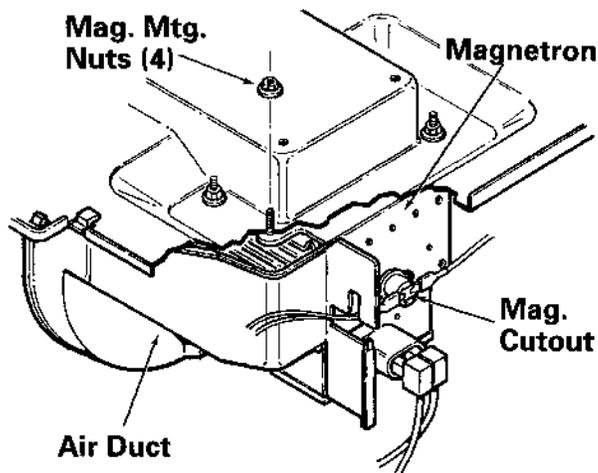
MAGNETRON FAN MOTOR ASSEMBLY REMOVAL

1. Disconnect oven from power supply and remove outer case.
2. Discharge high voltage capacitor.
3. Disconnect the wire leads from the fan motor, ground and wires routed through housing. (**Positive lock connectors – see illustration.**)
At times the positive lock connectors will be housed in plastic. If so, just squeeze plastic and connector will release.
4. Housing will be replaced as an assembly with the fan motor. Transfer the capacitor and rectifier to the new housing.
5. Reverse procedure to reinstall.

MAGNETRON ASSEMBLY TEST

High voltages are present during the cook cycle, so extreme caution should be observed. Disconnect oven from power supply and discharge the high voltage capacitor before touching any oven components or wiring.

To test for an open filament, isolate the magnetron from the high voltage circuit. A continuity check across the magnetron filament leads should indicate less than 1 ohm.



To test for a shorted magnetron, connect the ohmmeter leads between the magnetron filament leads and chassis ground. This test should indicate an infinite resistance. If there is little resistance the magnetron is grounded and must be replaced. Power output of the magnetron can be measured by performing a water temperature rise test. This test should only be used if above tests do not indicate a faulty magnetron and there is no defect in the following components or wiring: Silicon rectifier, high voltage capacitor and power transformer.

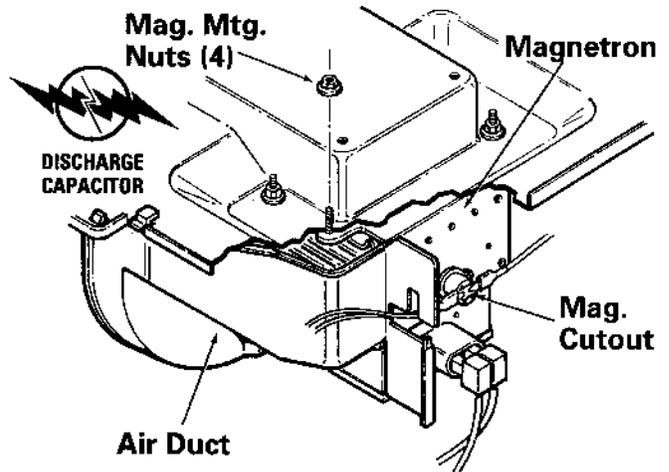
MAGNETRON REMOVAL

1. Disconnect oven from power supply and remove outer case.
2. Discharge high voltage capacitor and remove wiring.
3. Carefully loosen four (4) nuts holding magnetron to wave guide. When removing the nuts hold the magnetron to prevent it from falling.
4. Remove the magnetron from the unit with care so it does not hit any metal object.

Re-install

1. Re-install magnetron to the wave guide with four (4) mounting nuts.
2. Re-connect wire leads to magnetron.

CAUTION: WHEN REPLACING THE MAGNETRON, BE SURE THE R.F. GASKET IS IN PLACE AND MOUNTING SCREWS ARE TIGHTENED SECURELY.



DOOR SENSING AND PRIMARY INTERLOCK SWITCHES

The primary, door sense, and monitor switches are mounted to a plastic body on the right side of the cavity.

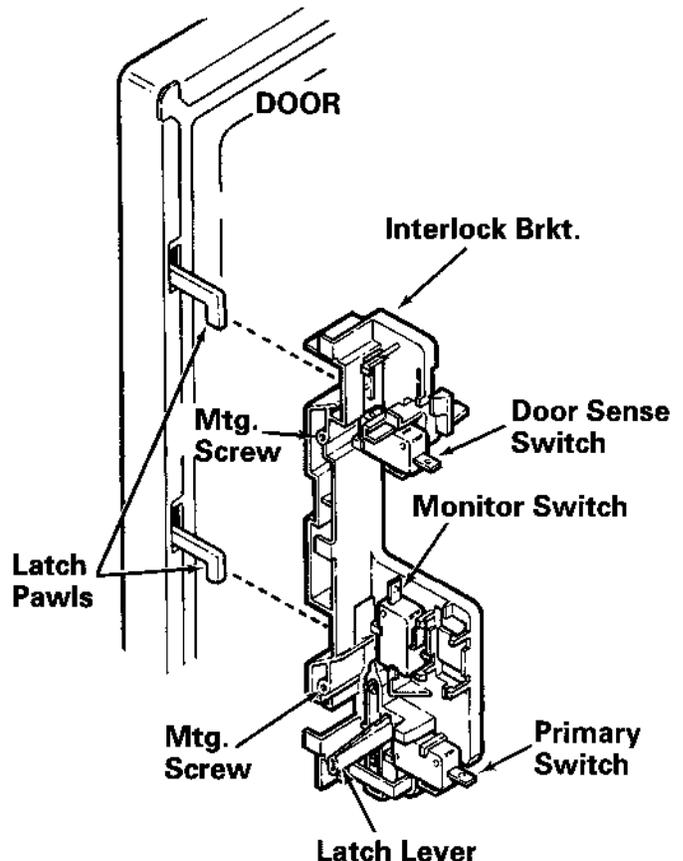
The secondary interlock relay (RY-2/Power Relay) is mounted on the smart board. They are activated by the latch heads on the door. When the door is opened, the switches interrupt the circuit to all components, except the oven lamp. A cook cycle cannot take place until the door is firmly closed thereby activating both interlock switches. The primary interlock system consists of the door sensing switch and primary interlock switch.

MONITOR SWITCH

The monitor switch is activated (the contacts opened) by the latch head on the door while the door is closed. The switch is intended to render the oven inoperative by means of blowing the monitor fuse when the contacts of the primary interlock switch and secondary interlock relay fail to open when the door is opened.

Functions:

1. When the door is opened, the monitor switch contact closes (to the ON condition). At this time the primary interlock switch and secondary interlock relay are in the OFF condition (contacts open).



2. As the door goes to a closed position, the monitor switch contacts are first opened and then the door sensing switch and the primary interlock switch contacts close. (On opening the door, each of these switches operate inversely.)
3. If the door is opened, and the secondary interlock relay and primary interlock switch contacts fail to open, the monitor fuse blows simultaneously with closing of the monitor switch contacts.

CAUTION: Before replacing a blown monitor fuse, test the primary interlock switch, door sensing switch, monitor switch and secondary interlock relay for proper operation.

BLOWN MONITOR FUSE

If the monitor fuse is blown when the door is opened, check the primary interlock switch, secondary interlock relay and monitor switch before replacing the blown monitor fuse.

CAUTION: Before replacing a blown monitor fuse, test the door sensing switch, primary interlock switch, secondary interlock relay and monitor switch for proper operation.

If the monitor fuse is blown by improper switch operation, monitor fuse (20A) and switch must be replaced even if the monitor switch operates normally.

PRIMARY INTERLOCK SYSTEM TEST

Door Sensing Switch

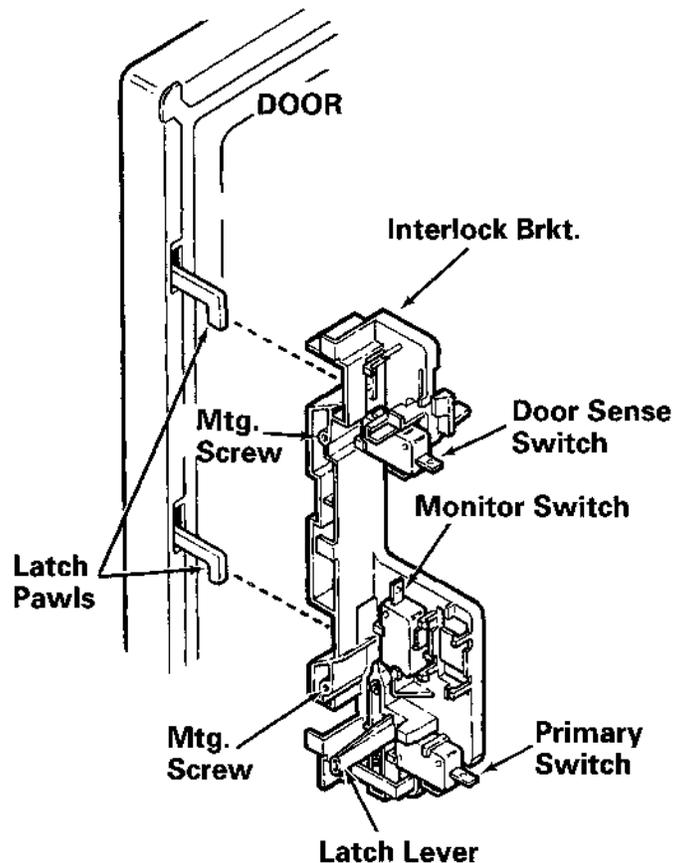
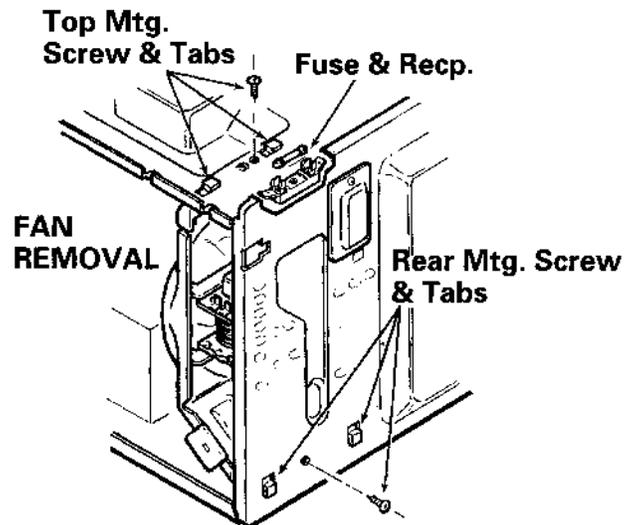
Isolate the switch and connect the ohmmeter to the common (COM.) and normally open (NO) terminal of the switch, the meter should indicate an open circuit with the door open and a closed circuit with the door closed. If improper operation is indicated, replace the door sensing switch.

Secondary Interlock Relay (RY2/Power Relay)

Disconnect two (2) wire leads from the male tab terminals on the printed wiring circuit board provided in the control panel assembly. The tab terminals are located in the left area of the circuit board on the component side, and are connected to the contacts of the primary interlock relay. Check the state of the relay contacts using an ohmmeter. The relay contacts should be open. If the relay contacts are closed, replace the circuit board entirely.

Primary Interlock Switch Test

Isolate the switch and connect the ohmmeter to the common (COM.) and normally open (NO) terminal of the switch. The meter should indicate an open circuit with the door open and a closed circuit with the door closed. If improper operation is indicated, replace the primary interlock switch.



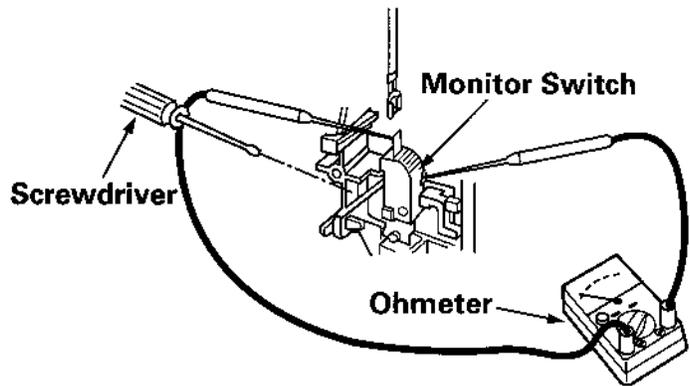
MONITOR SWITCH TEST

Disconnect the oven from power supply.

Before performing this test, make sure that the primary interlock switch and the secondary interlock relay are operating properly. Disconnect the wire lead from the monitor switch (NC) terminal. Check the monitor switch operation by using the ohmmeter as follows:

When the door is open, the meter should indicate a closed circuit. When the monitor switch actuator is pushed by a screwdriver through the lower latch hole on the front plate of the oven cavity with the door opened (in this condition the plunger of the monitor switch is pushed in), the meter should indicate an open circuit. If improper operation is indicated, the switch may be defective.

After testing the monitor switch, re-connect the wire lead to the monitor switch (NC) terminal.



DOOR SENSING, PRIMARY INTERLOCK AND MONITOR SWITCH REMOVAL

1. Disconnect oven from power supply and remove outer case.
 2. Discharge high voltage capacitor.
 3. Disconnect wire leads from the switches.
 4. Remove two (2) screws holding latch switch bracket to component compartment front flange.
 5. Remove latch switch bracket assembly.
- NOTE:** In next step be careful not to break plastic tabs.
6. Push tab down at the opposite end of switch post that captures it.
 7. Rotate switch on plastic post that goes through corner of switch to clear retaining tab
 8. Switch is now free.

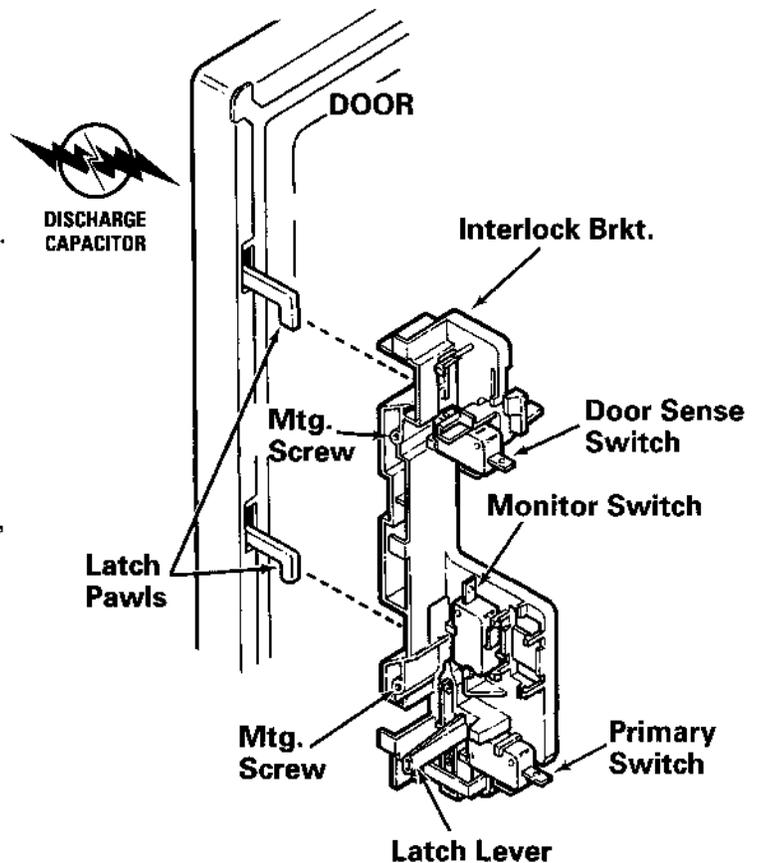
Re-install

1. Replace defective switch. Door sense is at the top, monitor - middle, and primary at the bottom.
2. Re-connect wire leads to each switch. Refer to pictorial diagram.
3. Secure latch switch bracket (with two (2) mounting screws) to component compartment front flange.
4. Make sure that the monitor switch is operating properly.

DOOR SENSING, PRIMARY INTERLOCK AND MONITOR SWITCH ADJUSTMENT

If the door sensing switch, primary interlock switch and monitor switch do not operate properly due to a misadjustment, the following adjustment should be made:

1. Loosen the two (2) screws holding latch switch bracket to the component compartment front flange.
2. With door closed, adjust latch switch bracket by moving it back and forth, and up and down. In and out play of the door allowed by the upper and lower position of the latch switch bracket should be less than 0.5mm (.02"). The vertical position of the latch switch bracket should be



placed where the door sensing switch and primary interlock switch have activated with the door closed.

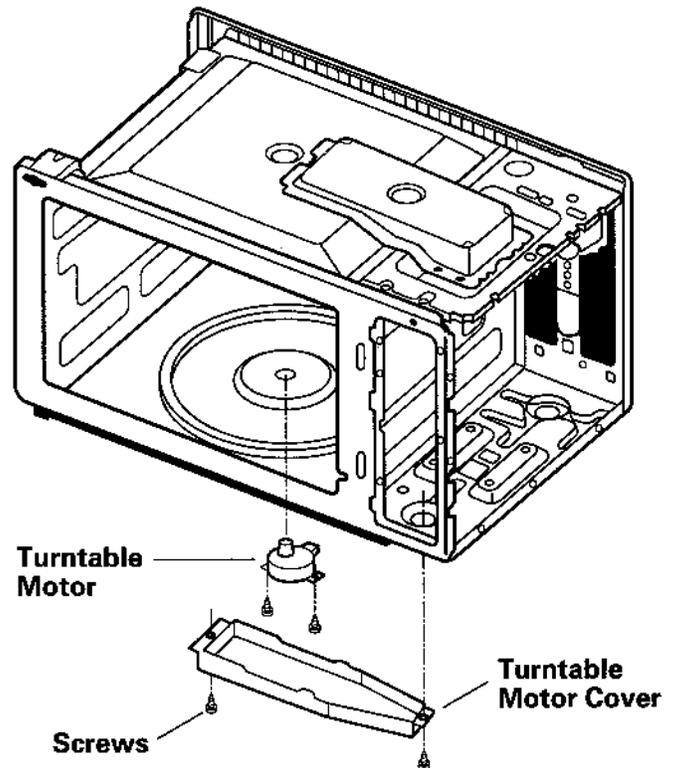
3. Firmly secure the screws with washers.
4. Check the door sensing switch operation. If the door sensing switch has not activated with the door closed, loosen screw and adjust the latch switch bracket position.

After adjustment, check the following:

1. In and out play of door remains less than 0.5mm (.02") when in latched position. First check upper position of latch switch bracket, pushing and pulling upper portion of door toward the oven face. Then check lower portion of the latch switch bracket, pushing and pulling lower portion of the door toward the oven face. Both results (movement of the door) should be less than 0.5mm (.02").
2. The door sensing switch and primary interlock switch interrupt the circuit before the door can be opened.
3. Monitor switch contacts close when door is opened.
4. Re-install outer case and check for microwave leakage around door with an approved microwave survey meter.

TURNTABLE MOTOR AND COUPLING REMOVAL

1. Disconnect the oven from the power supply.
2. Remove glass shelf and supporter from oven.
3. Remove turntable motor cover from case bottom secured by one screw.
4. Disconnect leads from motor.
5. Remove two screws securing motor to bottom of cavity and lift out.



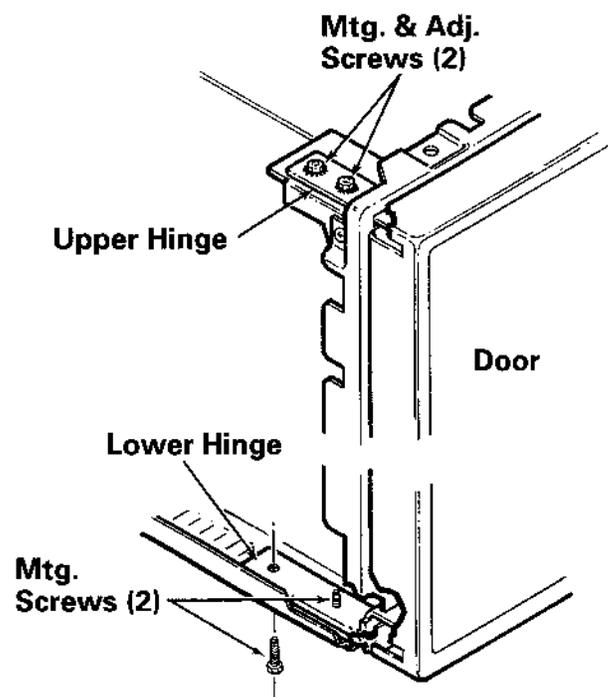
DOOR ADJUSTMENT

The door can be adjusted by keeping screws of each hinge loose. Lower oven hinge can be loosened with Torx screwdriver (T-15).

After adjustment, make sure of the following:

1. Door latch heads catch smoothly, latch hook through latch holes, and also latch head goes through center of latch hole.
2. Deviation of door alignment from horizontal line of cavity faceplate is to be less than 1.0mm (.04").
3. Door is positioned with its face depressed toward cavity faceplate.
4. Re-install outer case and check for microwave leakage around door with an approved microwave survey meter.

NOTE: Door on a microwave oven is designed to act as an electronic seal preventing the leakage of microwave energy from oven cavity during cook cycle. This function does not require that door be airtight, moisture- (condensation) tight or light-tight. Therefore, occasional appearance of moisture, light or sensing of gentle warm air movement around oven door is not abnormal and do not of themselves, indicate a leakage of



microwave energy from oven cavity. If such were the case, your oven could not be equipped with a vent, the very purpose of which is to exhaust vapor-laden air from oven cavity.

DOOR DISASSEMBLY

The door will be replaced as an assembly.

GAS SENSOR (JE1550GN)

Microwave sensor cooking uses a special gas sensor which detects both humidity (steam) and hydrocarbons (food odors) during the cooking process.

Checking the initial sensor cooking condition:

1. The oven should be plugged in at least five minutes before sensor cooking.
2. Room temperature should not exceed 95°F (35°C).
3. The unit should not be installed in any area where heat and steam are generated, for example, next to a conventional surface unit.
4. Exhaust vents are provided on the back of the unit for proper cooling and air flow in the cavity. To permit adequate ventilation, be sure to install so as not to block these vents. There should be some space for air circulation.
5. Be sure the exterior of the cooking container and the interior of the oven are dry. Wipe off any moisture with a dry cloth or paper towel.
6. The Sensor works with food at normal storage temperature. For example, chicken pieces would be at refrigerator temperature and canned soup at room temperature.
7. Avoid using aerosol sprays or cleaning solvents near the oven while using Sensor settings. The sensor will detect the vapor given off by the spray and turn off before food is properly cooked.
8. After about 2 to 9 minutes if the sensor has not detected the vapor of the food, **ERROR** will appear and the oven will shut off.
9. The sensor is a plug-in device located in the air exhaust on the left side.

TO SERVICE

1. Remove outer case.
2. Separate retainer from receptacle and unplug sensor.

AUTO COOK DIAGNOSTIC TEST (QUICK TEST)

1. With 3 fingers touch and hold the following pads at the same time:

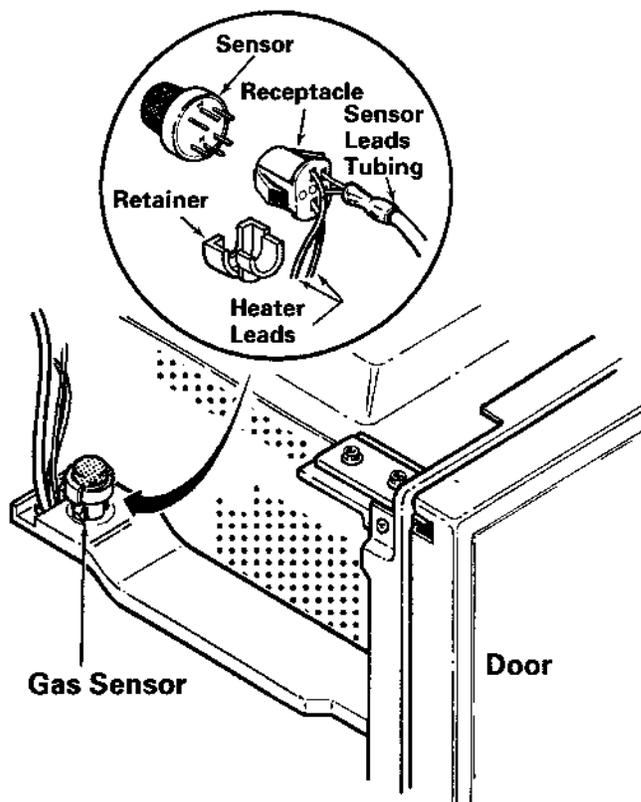
6

7

8

2. Observe diagnostic number in display (numbers approximate)

- 10-210 (Normal – verify with “sensor detection test”)
- 213 or higher (Sensor failed open, sensor unplugged, wiring, or smart board)
- Less than 8 (shorted sensor, or smart board)



NOTE: Only heater terminals (H) can be checked with ohmmeter (30 Ohms).

**CAUTION:
DO NOT ATTEMPT TO CHECK SENSOR TERMINALS
(CAN DAMAGE SENSOR).**

SENSOR DETECTION TEST

1. Place small amount of water (about 1/4 cup) in right front corner of oven.

2. Program **AUTO COOK** **2** **START**

3. Simultaneously touch **6** **7** **8**
and observe diagnostic numbers in the display.
Record initial number (Ex. 70)

4. Record the number at humidity detection
(control beeps – unit shuts off).

5. The number of “detection” should be approximately 75% of the HIGHEST NUMBER.
Ex.: If high no. = 70, then low number should be approximately 52 ($70 \times .75 = 52$).

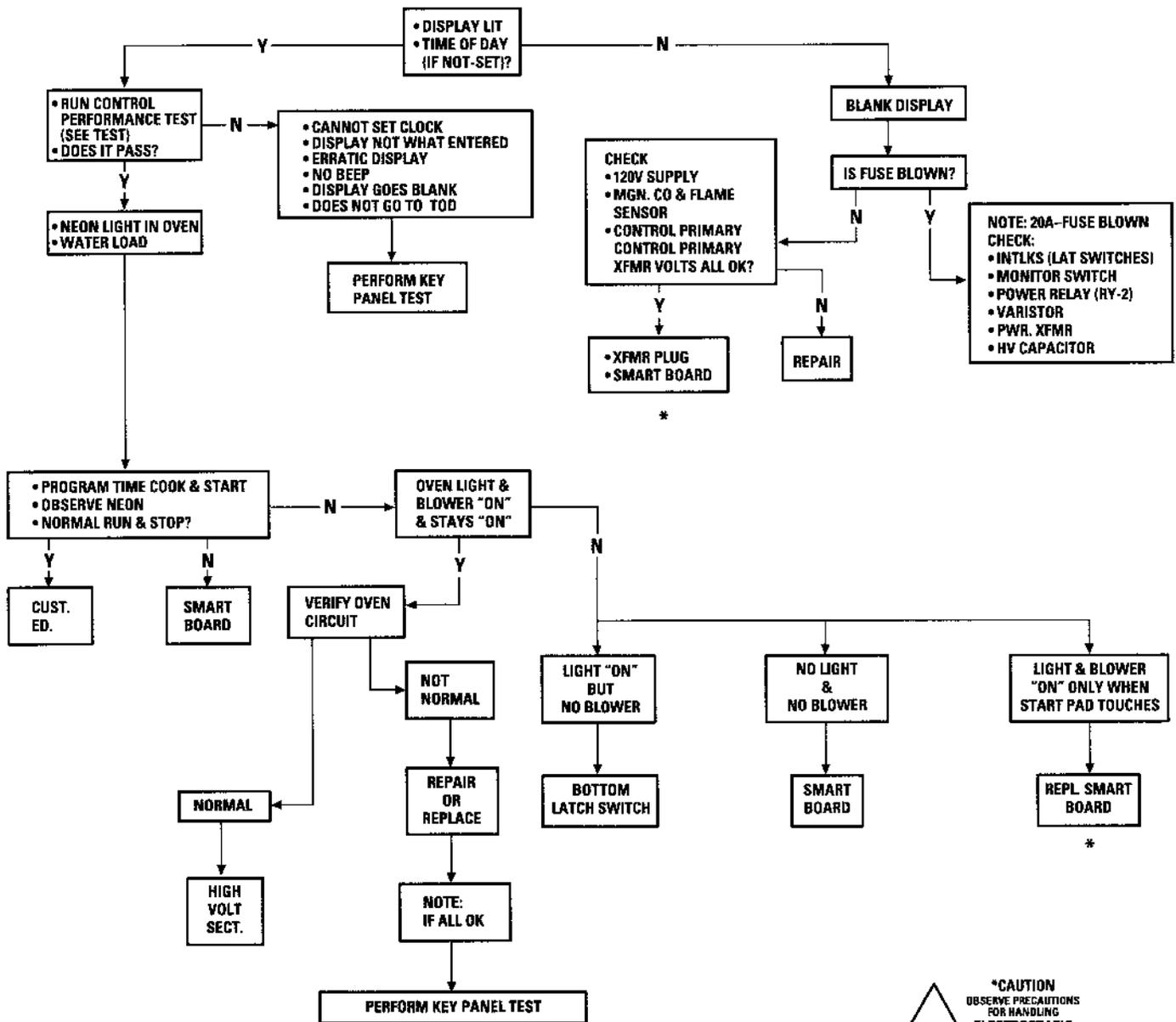
NOTE: As long as detection DOES OCCUR and is approximately 75% of high number, (plus or minus a few numbers) the sensor system is working normally.

PERFORMANCE TEST (ALL MODELS)

1. Measure line voltage (loaded). This test is based on normal voltage variations of 105V to 130V. Low voltage will affect power and temperature rise.
2. Place (1) WB64X0073 beaker containing exactly one liter of water between 59°F and 75°F in the center of the shelf. Record the starting water temperature with an accurate glass thermometer (Robinair No. 12084).
3. Set at HIGH (Power).
4. Turn oven "ON" and time for exactly two minutes and three seconds.
5. At the end of time, record the water temperature. The difference between starting and ending temperatures is the temperature rise. Depending upon the line voltage, the minimum temperature rise should be: 35°F @ 120V for 900 watt, 40°F @ 120V for 1000 watt.

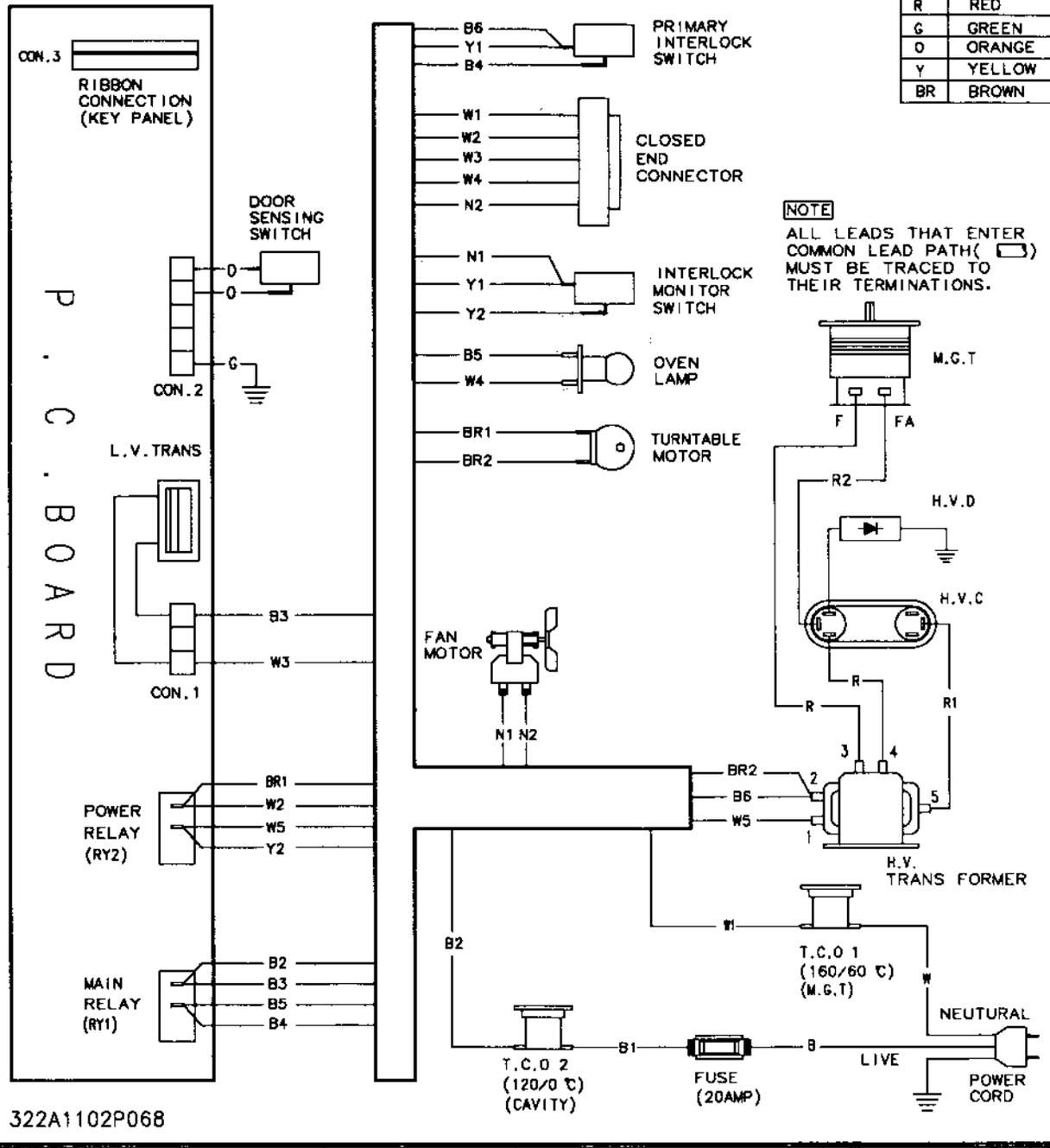
DIAGNOSIS FLOW CHART

Refer result to Diagnosis Flow Chart



WIRING DIAGRAM

SYM	COLOR
B	BLACK
W	WHITE
N	BLUE
R	RED
G	GREEN
O	ORANGE
Y	YELLOW
BR	BROWN



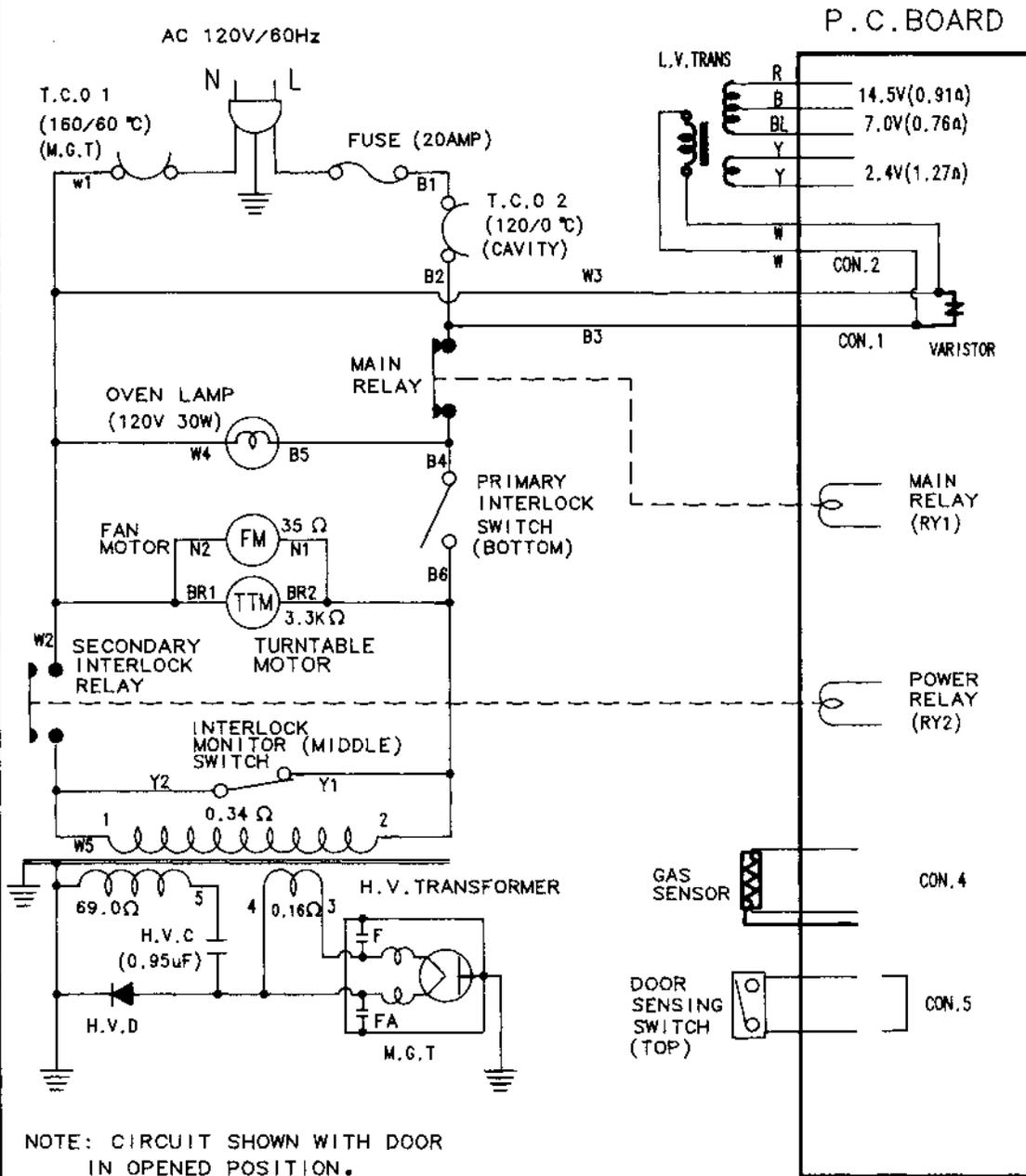
MODEL NAME

JE1550GN

SCHEMATIC DIAGRAM

WARNING

POWER MUST BE DISCONNECTED
BEFORE SERVICING THIS APPLIANCE



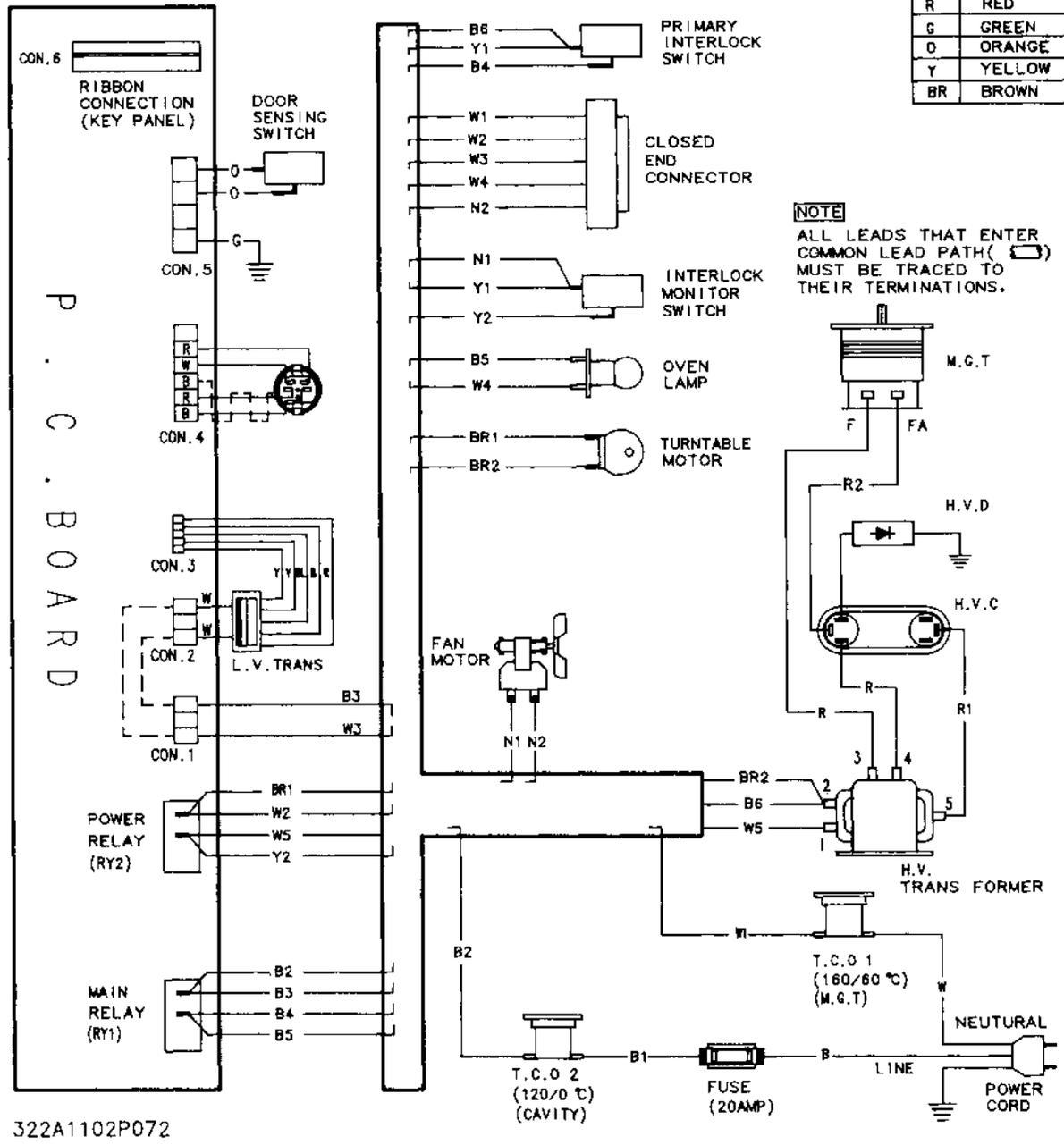
NOTE: CIRCUIT SHOWN WITH DOOR
IN OPENED POSITION.

NOTE: FOR SERVICE REPLACEMENT USE 16GA 105 °C
THERMOPLASTIC COVERED WIRE EXCEPT
FOR HIGH VOLTAGE LEADS OR AS NOTED
ON SPECIAL LEADS.

PRINTED IN KOREA

WIRING DIAGRAM

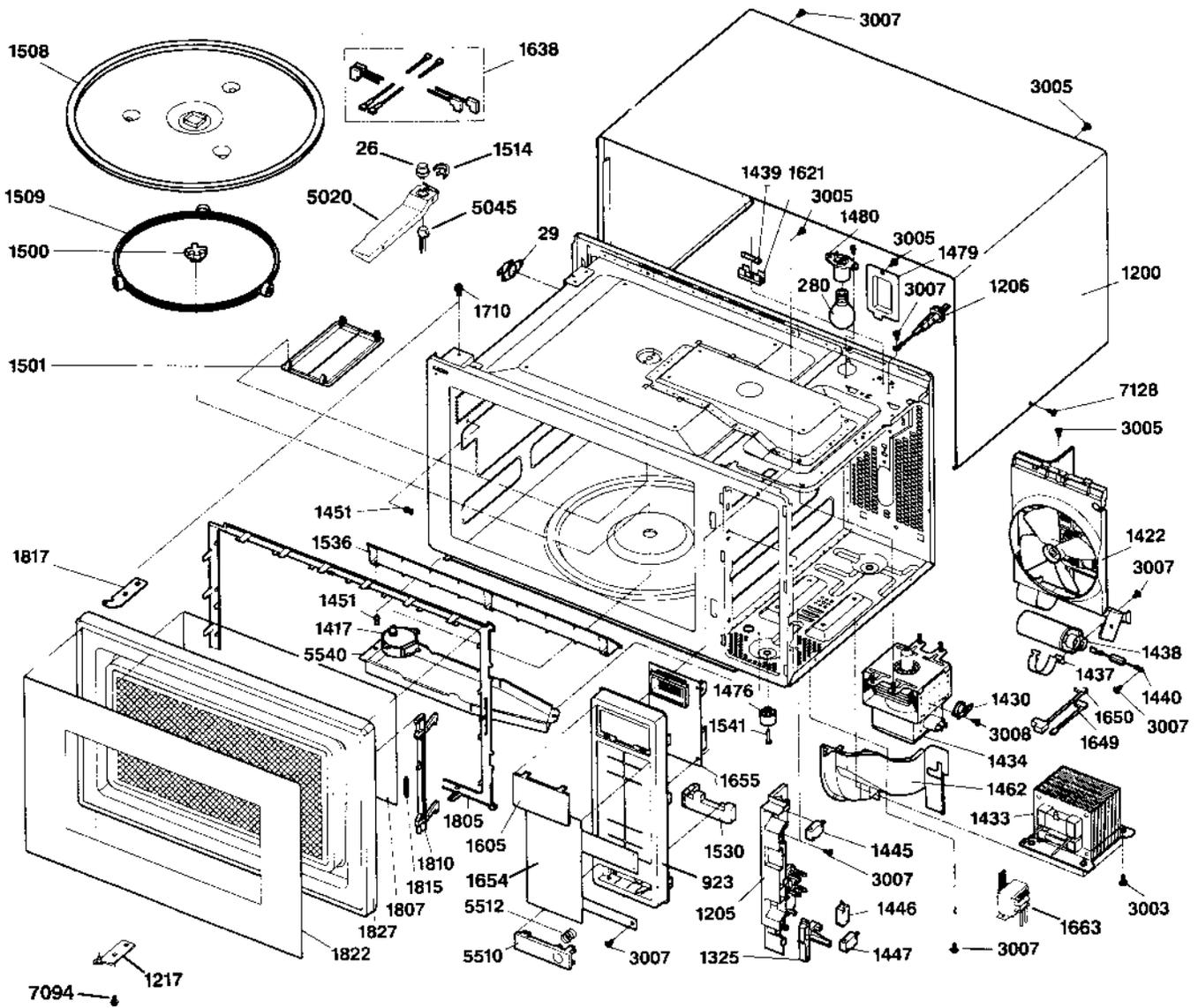
SYM	COLOR
B	BLACK
W	WHITE
N	BLUE
R	RED
G	GREEN
O	ORANGE
Y	YELLOW
BR	BROWN



322A1102P072

PARTS IDENTIFICATION

MODELS JES1533PN, JE1530GN, JE1540AN/GN/WN, JE1550GN



(ART NO. WB11597) C2

Ref. No.	Part No.	Part Description	JES1533PN	JE1530GN	JE1540AN	JE1540GN	JE1540WN	JE1550GN
0026	WB06X0414	Sensor – Gas	—	—	—	—	—	1
0029	WB24X0807	Thermostat Switch	1	1	1	1	1	1
0280	WB36X0822	Lamp Oven	1	1	1	1	1	1
0923	WB07X2029	Control Panel	1	1	—	1	—	1
	WB07X2030	Control Panel	—	—	1	—	—	—
	WB07X2031	Control Panel	—	—	—	—	1	—
1200	WB56X2108	Outer Case	—	—	—	—	1	—
	WB56X2131	Outer Case	1	1	—	1	—	1
	WB56X2159	Outer Case	—	—	1	—	—	—
1205	WB06X0231	Body Latch	1	1	1	1	1	1
1206	WB18X0447	Power Cord	1	1	1	1	1	1
1217	WB14X0168	Hinge Lower	1	1	—	1	—	1
	WB14X0174	Hinge Lower	—	—	—	—	1	—
	WB14X0195	Hinge Lower	—	—	1	—	—	—
1218	WB15X0316	Supporter – Hinge	1	1	1	1	1	—
1325	WB06X0232	Slider	1	1	1	1	1	1
1417	WB26X0148	Turntable Motor	1	1	1	1	1	1
1422	WB26X0150	Motor Fan Assembly	1	1	1	1	1	1
1430	WB24X0808	Thermostat Switch	1	1	1	1	1	1
1433	WB27X0881	HV Transformer	1	1	1	1	1	—
	WB27X0979	HV Transformer	—	—	—	—	—	1
1434	WB27X0764	Magnetron	1	1	1	1	1	—
	WB27X0977	Magnetron	—	—	—	—	—	1
1437	WB06X0235	Bracket Capacitor	1	1	1	1	1	1
1438	WB27X0882	HV Capacitor	1	1	1	1	1	1
1439	WB27X0945	Fuse (20 Amp)	1	1	1	1	1	1
1440	WB27X0944	HV Diode (Rectifier)	1	1	1	1	1	1
1445	WB24X0801	Switch, Door Sens.	1	1	1	1	1	1
1446	WB24X0796	Switch	1	1	1	1	1	1
1447	WB24X0368	Switch – Primary	1	1	1	1	1	1
1451	WB06X0298	Clip	5	5	5	5	5	5
1462	WB06X0233	Guide Air	1	1	1	1	1	1
1476	WB06X0256	Foot	4	4	4	4	—	4
	WB06X0257	Foot	—	—	—	—	1	—
1479	WB06X0236	Cover Oven Lamp	1	1	1	1	1	1
1480	WB08X0278	Socket – Oven Lamp	1	1	1	1	1	1
1500	WB06X0361	Coupler	1	1	1	1	1	1
1501	WB06X0362	Wave Guide Cover	1	1	1	1	1	1
1508	WB49X0671	Turntable Tray	1	1	1	1	1	1
1509	WB06X0167	Turntable Roller	1	1	1	1	1	1
1514	WB06X0385	Holder Sensor	—	—	—	—	—	1
1530	WB06X0230	Lever Switch	—	—	—	—	—	1
1536	WB06X0363	Stopper – Tray	1	1	1	1	1	1
1541	WB06X0139	Pin, Foot	4	4	4	4	—	4
	WB06X0254	Pin, Foot	—	—	—	—	1	—
1605	WB36X0910	Crystal	1	1	1	1	1	1
1621	WB06X0234	Holder Fuse	1	1	1	1	1	1
1630	WB06X0230	Lever Switch	1	1	1	1	1	—
1638	WB18X0528	Wire – Harness A	1	1	1	1	1	1
1649	WB18X0494	Lead Wire “A”	1	1	1	1	1	1

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1650	WB18X0496	Wire – Lead "B"	1	1	1	1	1	1
1654	WB27X0978	Key Panel	—	—	—	—	—	1
	WB27X0981	Key Panel	—	—	1	—	—	—
	WB27X0982	Key Panel	—	1	—	—	—	—
	WB27X0983	Key Panel	1	—	—	—	—	—
	WB27X0984	Key Panel	—	—	—	1	—	—
	WB27X0985	Key Panel	—	—	—	—	1	—
1655	WB27X0976	Smartboard	—	—	—	—	—	1
	WB27X0980	Smartboard	1	1	1	1	1	—
1663	WB27X0973	LV Transformer	—	—	—	—	—	1
	WB27X0986	LV Transformer	1	1	1	1	1	—
1710	WB01X1448	Bolt Flange	2	2	2	2	2	2
1805	WB55X0787	Frame Inner	1	1	—	1	—	1
	WB55X0817	Frame Inner	—	—	—	—	1	—
	WB55X0898	Frame Inner	—	—	1	—	—	—
1807	WB06X0229	Door Film	1	1	1	1	1	1
1810	WB10X0280	Key Door	1	1	1	1	—	1
	WB10X0288	Key Door	—	—	—	—	1	—
1815	WB09X0289	Spring Key Door	1	1	1	1	1	1
1817	WB14X0179	Hinge – Upper White	—	—	—	—	1	—
	WB14X0180	Hinge – Upper Black	1	1	1	1	—	1
1822	WB55X0844	Outer Door Film	1	1	—	1	—	—
	WB55X0894	Outer Door Film	—	—	—	—	—	1
	WB55X0897	Outer Door Film	—	—	1	—	—	—
	WB55X0899	Outer Door Film	—	—	—	—	1	—
1827	WB55X0845	Door Assembly	1	1	—	1	—	1
	WB55X0896	Door & Choke Assembly	—	—	1	—	—	—
	WB55X0900	Door Assembly	—	—	—	—	1	—
3003	WB01X1436	Washer	4	4	4	4	4	4
3005	WB01X1438	Screw-Mounting	7	7	7	7	7	7
3007	WB01X1482	Screw	10	10	10	10	10	10
3008	WB01X1441	Screw	2	2	2	2	2	2
5020	WB06X0238	Guide Sensor	—	—	—	—	—	1
5045	WB08X0312	Sensor Socket	—	—	—	—	—	1
5510	WB03X0851	Push Lever	1	1	—	1	—	1
	WB03X0870	Push Lever	—	—	1	—	—	—
	WB09X0293	Push Lever – White	—	—	—	—	1	—
5512	WB09X0290	Spring Lever	1	1	1	1	1	1
5540	WB56X2132	Motor – Cover	1	1	1	1	1	1
7094	WB01X1457	Flange Bolt (M5X12)	2	2	2	2	2	2
7128	WB01X1460	Screw Truss HD. 4 x 12 MM	4	4	4	4	4	4
9999	31-20010	Mini-Manual	1	1	1	1	1	—
	31-20010-A	Wiring Diagram/Schematic	1	1	1	1	1	—
	31-20038	Mini-Manual	—	—	—	—	—	1
	31-20038-A	Wiring Diagram/Schematic	—	—	—	—	—	4
	49-8474	Use & Care Manual	—	—	4	4	4	—
	49-8475	Use & Care Manual	—	—	—	—	—	7
	49-8491	Use & Care Manual	—	4	—	—	—	—
	49-8512	Use & Care Manual	4	—	—	—	—	—

