MODEL NAME
PSB1000N
PSB1001N

SCHEMATIC DIAGRAM

WARNING

POWER MUST BE DISCONNECTED
BEFORE SERVICING THIS APPLIANCE

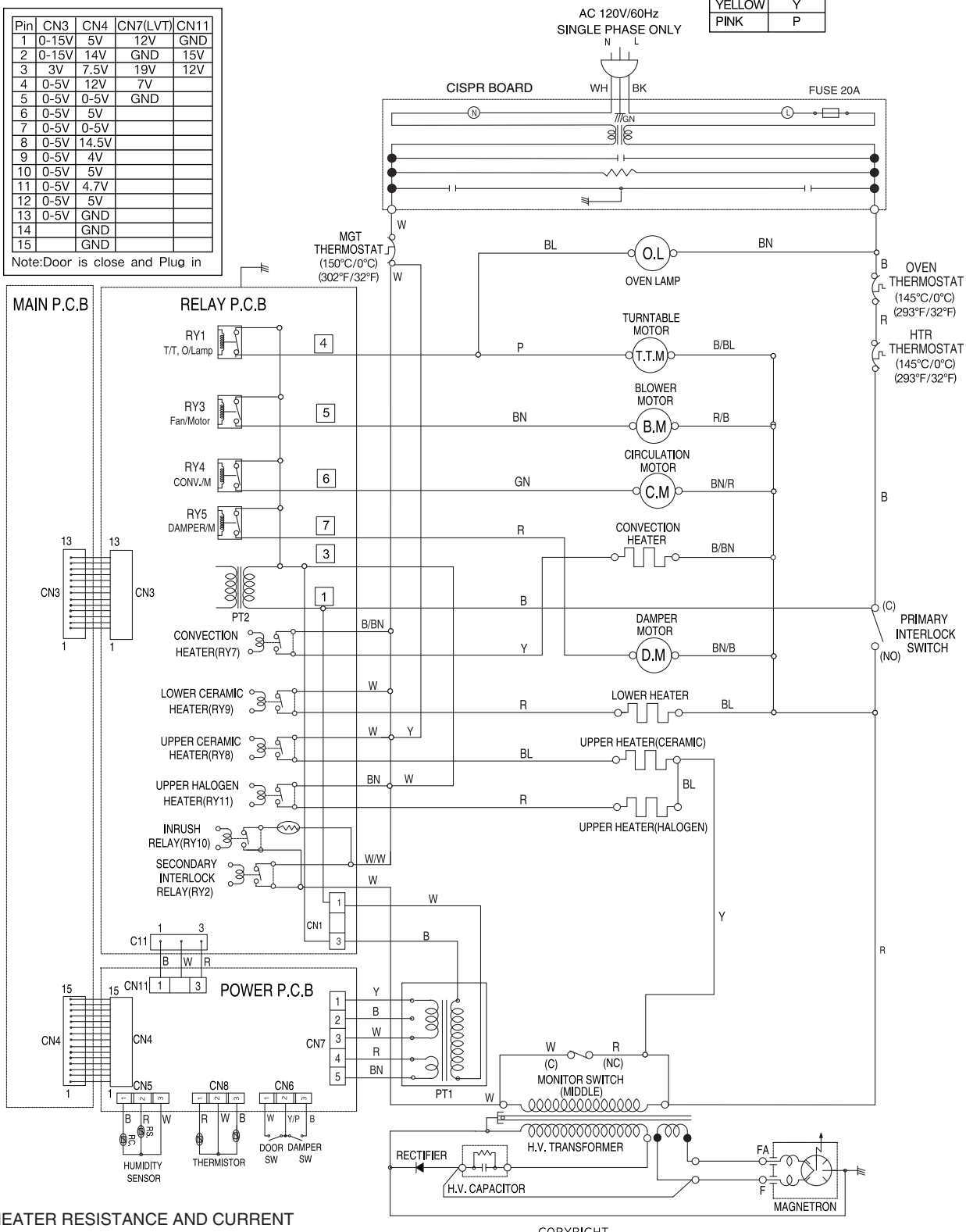
COLOR	SYMBOL
RED	R
WHITE	W
BLACK	B
BROWN	BN
BLUE	BL
GREEN	GN
YELLOW	Y
PINK	P

GROUND

NOTE: DOOR IS OPEN

Pin	CN3	CN4	CN7(LVT)	CN11
1	0-15V	5V	12V	GND
2	0-15V	14V	GND	15V
3	3V	7.5V	19V	12V
4	0-5V	12V	7V	
5	0-5V	0-5V	GND	
6	0-5V	5V		
7	0-5V	0-5V		
8	0-5V	14.5V		
9	0-5V	4V		
10	0-5V	5V		
11	0-5V	4.7V		
12	0-5V	5V		
13	0-5V	GND		
14		GND		
15		GND		

Note:Door is close and Plug in



HEATER RESISTANCE AND CURRENT

(ohm meter scale:R*1)

	Normal (Approximately)	Abnormal	Input current
Upper Ceramic	15-25 ohms	Infinite or several	5.8 A
Upper Halogen	1.8-3.7 ohms	Infinite	4.1 A
Lower Ceramic	32-42 ohms	Infinite or several	3.1 A
Conv. Sheath	6-12 ohms	Infinite	12.5 A

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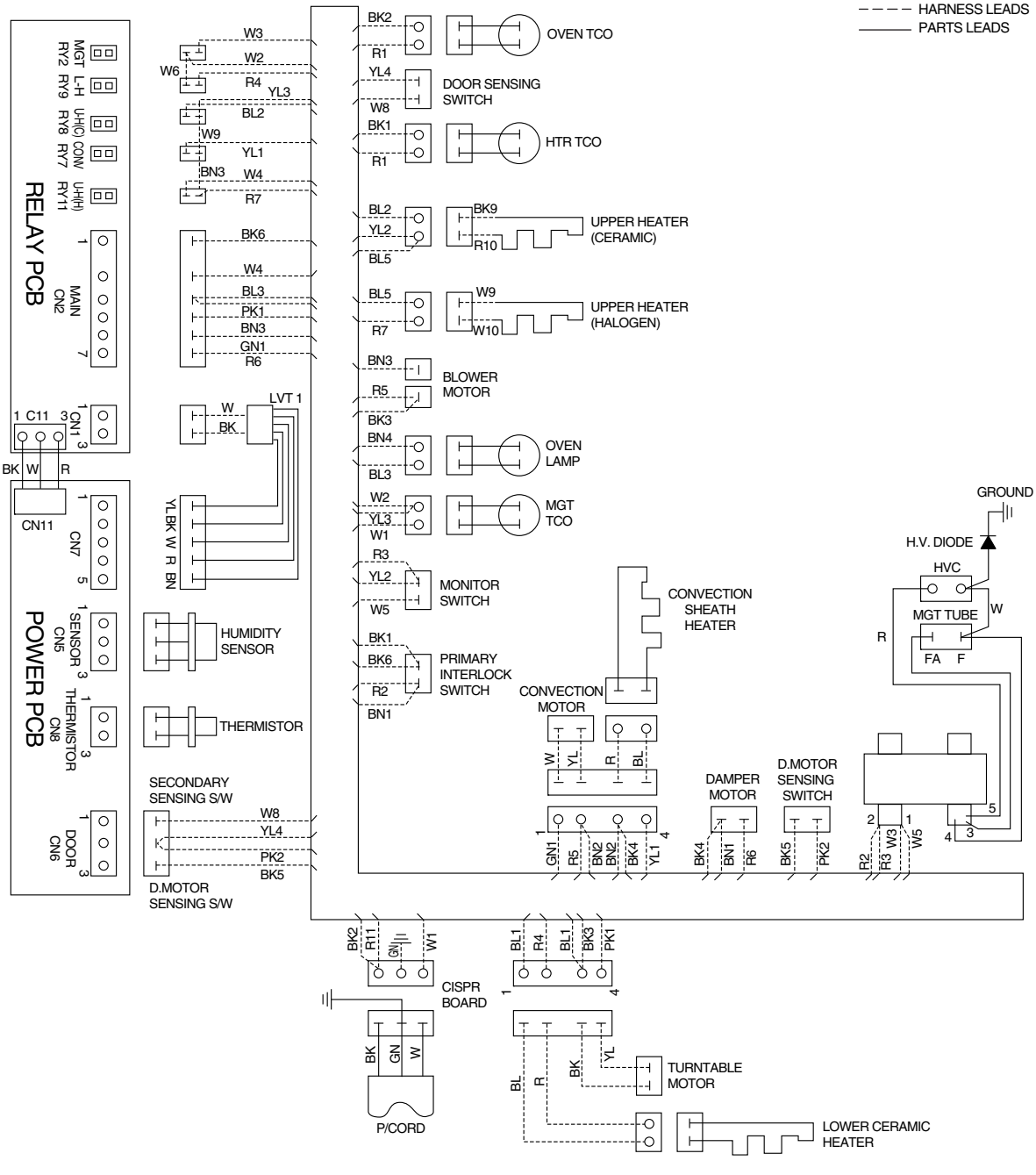
WIRING DIAGRAM

MODEL NAME
PSB1000N
PSB1001N

WARNING
POWER MUST BE DISCONNECTED
BEFORE SERVICING THIS APPLIANCE

COLOR	SYMBOL
RED	R
WHITE	W
BLACK	BK
BROWN	BN
BLUE	BL
GREEN	GN
YELLOW	YL
PINK	P

GROUND
HARNESS LEADS
PARTS LEADS



SPEEDCOOK OVEN

IMPORTANT SAFETY NOTICE

THIS INFORMATION IS INTENDED FOR USE BY INDIVIDUALS POSSESSING ADEQUATE BACKGROUND 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. DO NOT OPERATE OR ALLOW THE OVEN TO BE OPERATED WITH THE DOOR OPEN.

B. IF THE OVEN OPERATES WITH THE DOOR OPEN, INSTRUCT THE USER NOT TO OPERATE THE OVEN AND CONTACT THE MANUFACTURER IMMEDIATELY.

C. 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

D. 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 CONNECTIONS.

E. 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.

F. A MICROWAVE LEAKAGE CHECK TO VERIFY COMPLIANCE WITH THE FEDERAL PERFORMANCE STANDARD SHOULD BE PERFORMED ON EACH OVEN PRIOR TO RELEASE TO THE OWNER.

GROUNDING SPECIFICATIONS

Leakage Current 0.5 mA. (Max.)
Ground Path Resistance 0.1Ω (Max.)

INSTALLATION REQUIREMENTS

ELECTRICAL

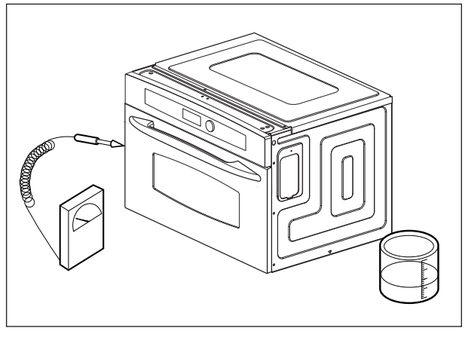
Power source	120VAC. 60Hz
Line Current	14Amps 1650W
Over Current Protection	15 ~ 20Amps*

* Requires 120 volt, 15 ~ 20 amp parallel, grounded separate circuit.

Working voltage	108 ~ 132 VAC

MICROWAVE LEAKAGE TEST

1. Place 275 ml. water in 600 ml. beaker (WB64 x 5010).
2. Place beaker in center of glass tray.
3. Set meter to 2450 MHz scale.
4. Turn “ON” for 5 minute test.
5. Hold probe perpendicular to surface being tested and scan surfaces at rate of one inch/sec.
   - Entire perimeter of door and control panel
   - Viewing surface of door window
   - Exhaust vents
6. Maximum leakage 4 MW/CM² .
7. Record data on surface invoice and microwave leakage report.



NOTE: Maximum allowable leakage is 5 MW/CM² . 4 MW/CM² is used to allow for measurement and meter accuracy.
Inform the manufacturer of any oven found to have emission in excess of 5 MW/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.

•TECHNICAL DATA SHEET•

STANDARD TEST LOAD

The standard test load is one liter (1000ml.) water with starting temperature of 59°F ~ 75°F in a 1000ml beaker.
(DO NOT USE ANY OTHER LOAD OR DISH AS RESULTS WILL VARY FROM STANDARD.)

PERFORMANCE TEST FOR MICROWAVE

1. Use glass tray and the beaker WB64 x 0073.
2. Record initial water temperature.
3. Run at high power for 2:03.
4. Record end water temperature.
   The minimum difference between the initial and ending temperature should be: 32°F@120V

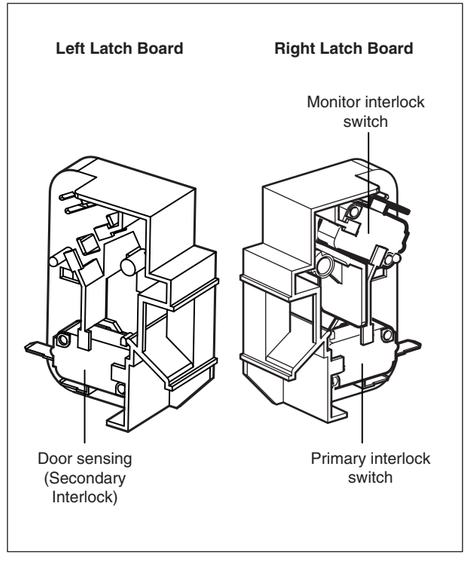
CAUTION

THE BLACK METAL TRAY WILL GET HOT WHEN SPEEDCOOKING.

TO PREVENT ELECTRICAL SHOCK. USE EXTREME CAUTION WHEN DIAGNOSING OVEN WITH OUTER CASE REMOVED AND POWER “ON”. THE HIGH VOLTAGE SECTION OF THE POWER SUPPLY INCLUDING FILAMENT LEADS IS 4000 VOLTS POTENTIAL WITH RESPECT TO GROUND.

INTERLOCKS AND MONITOR

The door sensing (Left), primary & Monitor switches (Right) are mounted to a plastic Latch Board: on the right and left side of the cavity. The secondary interlock Relay (RY-2) is mounted on the smart board.
• Monitor
• Door Sensing
• Primary Interlock



HOW TO TEST PRIMARY INTERLOCK

1. Disconnect power, remove enclosure, and discharge capacitor.
2. Check continuity of switch:
   • Door Closed: 0 Ω
   • Door Open: ∞ Ω

HOW TO TEST DOOR SENSING

Make continuity check between switch terminals.
Normal reading are as follows:
• Door closed : 0 Ω
• Door open : ∞ Ω

MONITOR SWITCH

The right latch pawl pushes horizontally and actuates the lever of the monitor interlock opening the switch.

HOW TO TEST INTERLOCK SYSTEM

1. Disconnect power, remove enclosure, and discharge capacitor.
2. Check 20 Amp. fuse for continuity and proper size. Do not use any other fuse or size except 20 Amp.
3. Remove monitor switch leads to isolate switch. Check continuity of switch with door open and door closed.
   • Door Closed: ∞ Ω
   • Door Open: 0 Ω
4. Reconnect switch wiring.
5. Test Circuit Operation.
   A) Connect temporary jumper leads across relay contacts, primary interlock and door sensing switches to simulate shorted switch contacts. Locate convenient connections in circuit to be certain COM and NO terminals are used.
   B) Connect ohm meter (Rx1) across the line terminals of the appliance cord. Continuity must show
   • Door Closed : Some Ω
   • Door Open : 0 Ω
   C) Remove 20 Amp. Fuse – Circuit must open (∞ Ω). If not, check wiring of monitor and interlock circuits.
6. WARNING! After test, remove temporary jumper leads from interlocks and relay, and reconnect monitor switch leads.

NOTE: Perform microwave leakage test when replacing or adjusting interlock switches or latch board.

WARNING !

Primary interlock, door sensing switch, monitor switch and Relay (RY-2) must be replaced when 20 Amp. fuse is blown due to operation of monitor switch.

HOW TO ADJUST INTERLOCKS

The Latch-Board is adjustable for door fit and switch operation.
1. Disconnect power, remove enclosure, and discharge capacitor.
2. Loosen Latch-Board mounting screw at enlarged hole in vertical flange.
3. Adjust each Latch-Board for proper switch operation and door fit, retighten screws.

NOTE: Perform microwave leakage test when replacing or adjusting interlock switches or brackets.

HEATER THERMAL CUT-OFF

A heater thermal cut-off is mounted on the heater cover. Its purpose is to automatically shut off the oven in case the heater overheats for any reason.
When replacing be sure to determine cause of failure.
The failure sensor opens at 293°F (145°C) and is nonresetable.

MAGNETRON THERMAL CUT-OFF

A magnetron thermal cut-off is mounted on the bracket above magnetron. Its purpose is to automatically shut off the oven in case the magnetron overheats for any reason.
When replacing be sure to determine cause of failure.
The failure sensor opens at 302°F (150°C) and is nonresetable.

OVEN THERMAL CUT-OFF (FLAME SENSOR)

An oven thermal cut-off is mounted on the sensor bracket above oven cavity. Its purpose is to automatically shut off the oven in case the cavity overheats for any reason.
When replacing be sure to determine cause of failure.
The failure sensor opens at 293°F (145°C) and is nonresetable.

OVEN LAMP

The oven lamp can be serviced after removing controller and lamp Holder.

HIGH VOLTAGE CAPACITOR

The high voltage capacitor has an internal discharge resistor to automatically discharge the capacitor when the oven turns “OFF”. Under normal operation, the capacitor should fully discharge within 30 seconds.

WARNING !

Always be certain the capacitor is discharged before servicing. Mechanically discharge by placing an insulated handle screw driver between the diode connection of the capacitor and oven chassis ground.

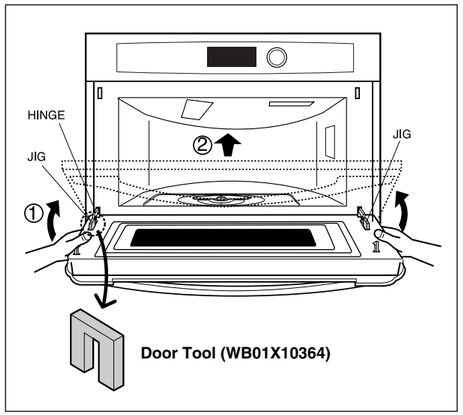
NOTE: use screw head close to capacitor to insure ground metal contact.

PUB. NO. : 31-41019

SPEEDCOOK OVEN

DOOR REMOVAL

1. Disconnect power.
2. Open the door and remove the turntable from oven. Insert Jig for door service into the hole of hinge.
3. Lift the door from front Cavity.

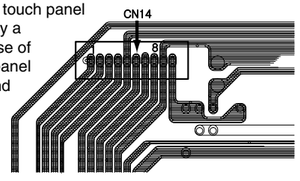


MICROWAVE LEAKAGE TEST

A microwave leakage test must be performed any time a door is removed, replaced, disassembled, or adjusted for any reason.
THE MAXIMUM LEAKAGE IS 4 MW/CM².

GLASS TOUCH PANEL TEST

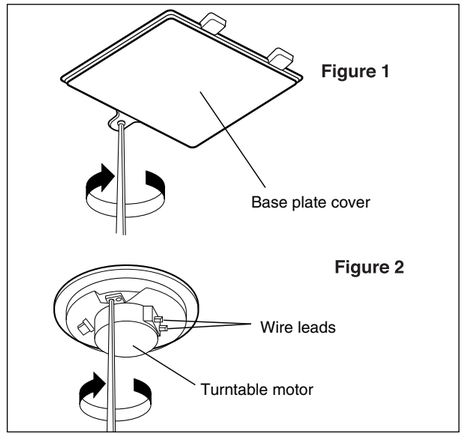
If necessary the glass touch panel pads can be verified by a continuity test. For ease of handling, the control panel should be removed and placed on a flat surface. Check continuity between patterns of the CN 14 on smart board.
(Use high Ω scale)



PAD	CONN. (CN14)	PAD	CONN. (CN14)
HELP	1-5	DEFROST	3-5
BACK	1-6	EXPRESS	3-6
CLEAR / OFF	1-7	BAKE / BROIL	3-7
FAVORITE RECIPES	1-8	SPEED COOK	3-8
OPTIONS	2-5	REHEAT	4-5
TIMER	2-6	CUSTOM SPEED COOK	4-6
POWER / TEMP	2-7	WARM / PROOF	4-7
START / PAUSE	2-8	COOK	4-8

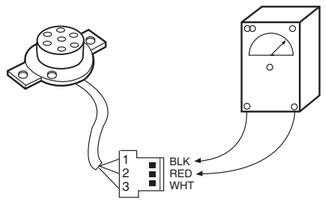
TO SERVICE TURNTABLE MOTOR

1. Disconnect power and remove the Turntable.
2. Remove the Base Plate Cover by removing screw (Figure 1)
3. Disconnect the wire leads from the Turntable Motor terminals.
4. Remove 2 screws securing the Turntable Motor to the oven cavity ass'y. (Figure 2)



SENSOR

1. Disconnect sensor connector from PCB.
2. Measure resistance terminal to terminal.
(ohm meter scale : R X 1000)
Normal : Approximately
BLK-RED : 6.5 Kohm
RED-WHT : 3.25 Kohm
BLK-WHT : 3.25 Kohm

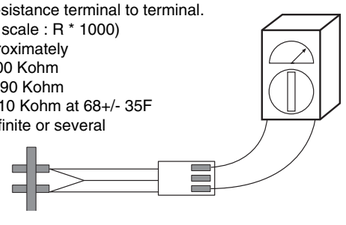


NOTE
* Sensor cooking conditions
1. Oven should be plugged in at least 5 minutes.
2. Room temperature should not exceed 95°F.
3. Be sure the exterior of the cooking container and the interior of the oven are dry.
4. No sensor cooking is available during 5 min. immediately after speedcook.

THERMISTOR

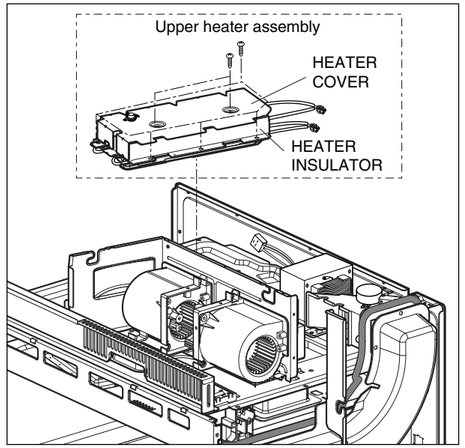
1. Disconnect the thermistor connector from PCB.
2. Measure resistance terminal to terminal.
(ohm meter scale : R * 1000)

Normal : Approximately
RED-BLU : 400 Kohm
RED-WHT : 290 Kohm
BLU-WHT : 110 Kohm at 68+/- 35F
Abnormal : Infinite or several



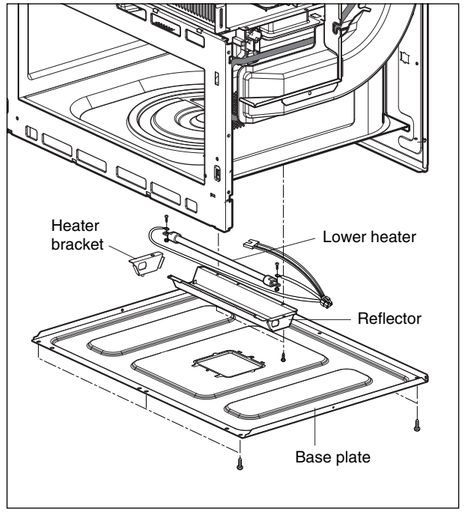
REMOVING UPPER HEATERS

1. Disconnect the wire leads to the Heater TCO and Heater connectors.
2. Remove the screws securing the Heater cover.
3. Remove the screws securing heater assembly.
4. Bend the slits of heater base securing the heater insulator.
5. Remove the screws securing the reflector.
6. Remove the heaters.

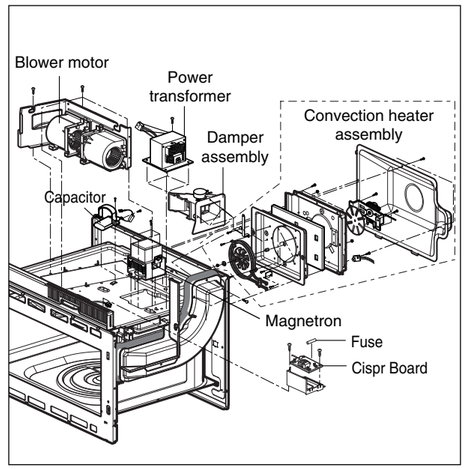


REMOVING LOWER HEATER

1. Remove the Base Plate by unscrewing the screws.
2. Disconnect connector and remove wire leads.
3. Remove the Heater Assembly by unscrewing the screws.
4. Bend the slits of heater bracket securing reflector to release heater.
5. Remove the Heater.

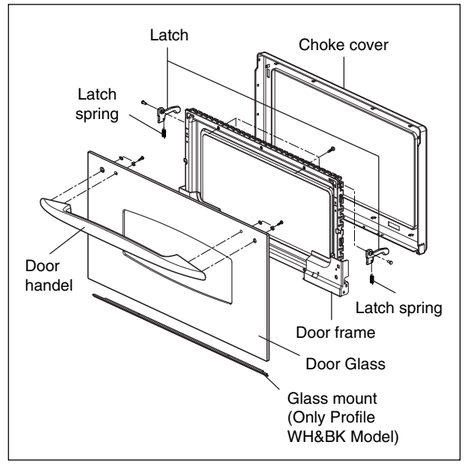


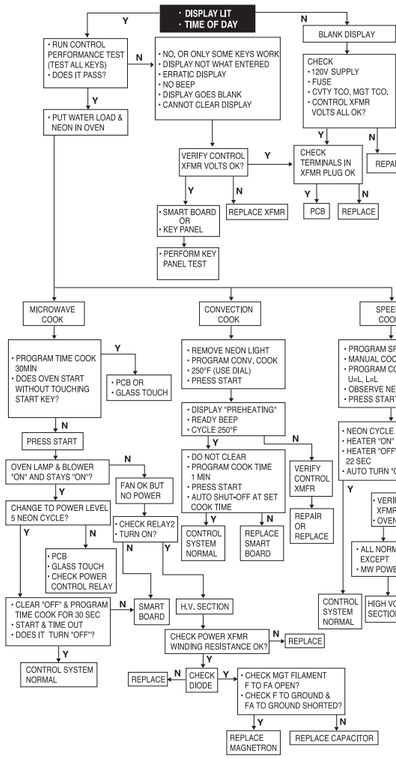
MAGNETRON, BLOWER MOTOR, POWER TRANSFORMER, CAPACITOR, DAMPER ASSEMBLY, CONVECTION HEATER ASSEMBLY AND CISPR BOARD



TO DISASSEMBLE DOOR

1. Remove 4 screws from Glass Mount.
2. Remove the choke cover.
3. Remove 4 screws from the door frame, and remove door frame from glass supporter.
4. Remove 4 screws from glass supporter, and remove the door handle and vent trim from the glass supporter.





USE ONLY HEAT AND MICROWAVE RESISTIVE GLASS BOWL.

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