MICROWAVE-OVEN-TOUCH CONTROL

IMPORTANT SAFETY NOTICE

THIS INFORMATION IS INTENDED FOR USE BY INDIVIDUALS POSSESSING ADEQUATE BACKGROUNDS OF ELECTRICAL 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.

⚠ IMPORTANT : DISCONNECT POWER BEFORE SERVICING AND RECONNECT ALL GROUNDING DEVICES

ALL GROUNDING WIRES, SCREWS, STRAPS, CLIPS, NUTS OR WASHERS 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. MICROWAVE EMISSION CHECK SHOULD BE PERFORMED PRIOR TO SERVICING IF OVEN OPERATIVE.

B. DO NOT OPERATE OR ALLOW THE OVEN TO BE OPERATED WITH DOOR OPEN.

C. IF THE OVEN WOULD OPERATE WITH THE DOOR OPEN:

1) INSTRUCT THE USER NOT TO OPERATE THE OVEN AND

2) CONTACT THE MANUFACTURER AND THE CENTER FOR DEVICES AND RADIO LOGICAL HEALTH IMMEDIATELY.

D. MAKE THE FOLLOWING SAFETY CHECKS ON ALL OVENS TO BE SERVICED BEFORE TURNING ON MICROWAVE OVEN :

1. INTERLOCK OPERATION
2. PROPER DOOR CLOSING
3. SEAL AND SEALING SURFACES(CHECK FOR 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 COMPARTMENT'S, CHECK THE MAGNETRON, WAVE GUIDE AND CAVITY FOR PROPER ALIGNMENT, INTEGRITY, AND CONNECTIONS. REPAIR IF NECESSARY.

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 PROCEDURES 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.

GROUNDING SPECIFICATIONS

Leakage Current 0.5 mA.(Max)

Ground Path Resistance 0.1Ω (Max.)

INSTALLATION REQUIREMENTS

ELECTRICAL

Power source	120VAC, 60Hz
Line Current	14.0 Amps (1550W)
Over Current Protection	20Amps
Requires 120 volt, 20 amp parallel, grounded separate circuit.	
Working Voltage	108-132 VAC

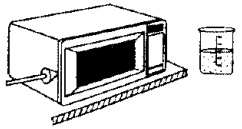
MICROWAVE LEAKAGE TEST

1. Put 275ml. water in 800 ml. beaker(WB64 X 5010).
2. Place beaker in center of oven shelf.
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.

Test following areas:

- Entire perimeter of door and control panel.
- Viewing surface of door window.
- Exhaust vents.

6. Maximum leakage 4mw/cm².
7. Record data on the 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 4mw/cm². Make repairs to bring the unit into compliance at no cost to owner and try to deter mine cause. Instruct owner not to use oven until it has been brought into compliance.

•TECHNICAL DATA SHEET•

PERFORMANCE TEST

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 WB64 X 0073 beaker containing one liter(1000ml)water on glass turntable and record the starting water temperature(58° F~75° F) with an accurate glass thermometer(Robinair no.12084).
3. Set at HIGH power for two minutes and three seconds.
4. Turn on the oven.
5. At end of time period, record the water temperature. The difference between the starting and ending temperatures is the temperature rising.
8. Depending on line voltage, the minimum temperature rise should be:

Line Volts	Minimum Temperature Rise
120V	40° F

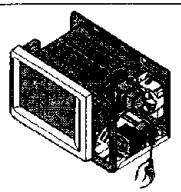
⚠ TO PREVENT ELECTRICAL SHOCK, USE EXTREME CAUTION WHEN DIAGNOSING OVEN WITH OUTER CASE REMOVED AND POWER "ON" . THE HIGH VOLTAGE SECTION OF THE POWER SUPPLY INCLUDING FILAMENT LEADS IS 4000 VOLTS POTENTIAL WITH RESPECT TO GROUND.

HIGH VOLTAGE CAPACITOR

The high voltage capacitor has an internal shunt 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. Discharge by placing an insulated handle screw driver between the diode connection of the capacitor and oven chassis ground.



CAPACITOR AND DIODE REMOVAL

1. Disconnect power and discharge capacitor.
2. Disconnect capacitor leads.
3. Remove bracket-capacitor.

INTERLOCKS AND MONITOR

The Primary, Door Sense & Monitor switches are mounted to a plastic body on the right side of the cavity.

The Secondary interlock Relay (RY-2) is mounted on the smart board. From top to bottom the switches are as follows;

★Primary interlock switch

★Monitor switch

★Door Sensing switch

HOW TO TEST PRIMARY SWITCH(TOP)

1. Unplug oven, remove outer case, and discharge capacitor.
2. Check continuity of switch;

★Door Closed : 0Ω

★Door Open : ∞ Ω

MONITOR SWITCH ACTUATION

The bottom latch pawl actuates the lever of the interlock monitor switch.

HOW TO TEST MONITOR SWITCH

1. Unplug oven, remove outer case, and discharge capacitor.
2. Check 20 Amp. fuse for continuity and proper size. Do not use any other fuse except the 20 Amp. Cat NO. W827 X 0616
3. Remove one monitor switch lead to isolate switch. Check continuity of switch with door open and door closed.

★Door closed : ∞ Ω

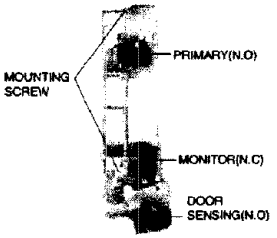
★Door open : 0 Ω

4. Reconnect switch wiring
5. Test Circuit Operation.

NOTE : Monitor switch is not adjustable.

FUSE

WARNING! When 20 Amp. fuse is blown due to operation of monitor switch, the monitor switch must be replaced. Also replace relays and/or interlock switches when continuity check shows contacts shorted.



HOW TO TEST DOOR SENSE

Make continuity check between switch terminals.

Normal readings are as follows:

★Door Closed : 0 Ω

★Door Open : ∞ Ω

HOW TO TEST INTERLOCK RELAY

1. Unplug oven, remove outer case, and discharge capacitor.
2. Disconnect two leads from smart board relay
3. Check continuity across the terminals. The contacts should read open.
4. Reconnect leads to smart board.

NOTE : The Secondary interlock relay is mounted on the control smart board and when it becomes faulty, must be replaced as an assembly.

HOW TO TEST POWER RELAY

A) Connect temporary jumper across power relay contacts,primary interlock and door sense switches to simulate shorted switch contacts.

Locate convenient connections in circuit to be certain COM and N.O.terminals are used.

B) Connect ohm meter across the line terminals of the appliance cord. Continuity must show:

★Door closed : ∞ Ω

★Door open : 0 Ω

C) Remove 20 amp. fuse-circuit must open (∞ Ω)if not check wiring of monitor and interlocks.

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

WARNING! After test remove temporary jumper leads from interlocks and relay. Replace fuse. Replacement of any parts or monitor circuit requires repeating this entire test procedure.

HOW TO ADJUST INTERLOCKS

The Latch-Body is adjustable for door fit and switch operation.

1. Disconnect power, remove outer case, and discharge capacitor.
2. Loosen switch housing mounting screws.
3. Adjust switch housing for proper switch operation, and door fit, Retighten screws.

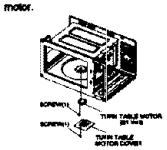
NOTE : Perform microwave leakage test after replacing or adjusting interlock switches or brackets.

WARNING! When 20 Amp. fuse is blown due to operation of monitor switch, the monitor switch must be replaced. Also replace relays and/or interlock switches when continuity check shows contacts shorted.

TURNTABLE MOTOR REMOVAL

1. Remove glass turntable and roller supporter from oven, Disconnect power.
2. Remove turntable motor cover from case bottomn. CAUTION : Remove sharp edges after cover removal.
3. Disconnect leads from motor.
4. Remove two screws securing motor to bottom of oven cavity and lift out the motor.

NOTE : Do not remove drive hub before removing the motor.



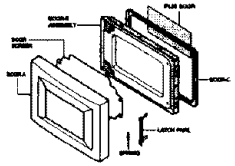
NOTE : Turntable motor connected to 21Volt tap on Fan Motor

DOOR

The door is service by individual parts or as complete assembly.

1. Open the door and insert a thin flat blade screw driver into the top hinge gap of door-E and pry door-C away from door-E. While holding the pryed out hinge corner, continue prying around door-E until door-C is removed. Careful not to over stress door-C during removal because it can be easily broken. Lift the door up and out of the hinge pins.
2. Remove door-A from door-E if necessary by prying door-A with small scerew driver to disengage the hooks for removal of door-A.
3. Remove door spring and latch pawls if necessary.
4. Reassembly door parts except door-C.
5. To mount the door to the oven, align the hinge pin with the holes in the door-E and push the door down. Make sure that door-C is aligned with door-E and insert the door-C into door-E and snap it in. Make sure that door-C is completely snapped in all the way around door-E.
6. Check latch pawl operation and adjust if necessary.

(See interlock switch adjustment)



MAGNETRON REPLACEMENT

1. Discharge capacitor.
2. Disconnect magnetron leads.
3. Remove thermal cutout by removing mounting screws.
4. Remove magnetron by removing 4 magnetron mounting screws.

When replacing the Magnetron, be certain the R.F.Gasket is in place and mounting screws are tightened securely to wave guide. Failure to do so can result in hazardous levels of microwave leakage. Perform microwave leakage test.

KEY PANEL TEST

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

Check continuity between connections at end of ribbon(Use high Ω scale)

PAD	CONN	PAD	CONN
POPCORN	4-13	1	1-9
BEVERAGE	4-12	2	2-9
TIMER	3-12	3	3-9
START/PAUSE	6-13	4	4-9
ADD 30 SEC	5-13	5	5-9
TIME COOK	5-11	6	1-10
TIME DEFROST	1-13	7	2-10
POWER LEVEL	4-11	8	3-10
AUTO DEFROST	3-13	9	4-10
CLEAR/OFF	2-13	0	5-10
DELAY (AUTO START)	2-12		
CLOCK	1-12		
REHEAT	1-11		
COOK	6-11		

VERSION OF SOFTWARE

★ Micom Version

Press 7+8+Start at the same time. Display will show which version of software is being used.

After 2 seconds, model name will show in display.

FAULT CODES

- F3- . Key panel shorted for 60 seconds.
- RESET- . Power failure.

CONTROL REMOVAL

1. Discharge capacitor.
2. Remove one (2) screw mounting control and open door.
3. Disconnect leads from smart board.
4. Lift up control assembly to disengage hooks from front frame.

PUB.NO. 31-40010

•TECHNICAL DATA SHEET•

TO REPLACE SMART BOARD (ELECTROSTATIC SENSITIVE DEVICE)

1. Remove Control panel Assembly
2. Disconnect Ribbon Cable
3. Remove 2 screws securing smart board to plastic trim.

TO REPLACE KEY PANEL

Key Panel and Control Trim will be replaced as one assembly.

CONTROL PERFORMANCE TEST

- Set Clock-touch clock pad, enter time of day, touch start pad.
- Alternately touch each function pad and enter time or temperature selection for the function. Also change power levels.
- Touch Clear Off after each function test to clear that function.
- Repeat procedure for each function and exercise each pad.
- Control and Display should respond to each entry.
- Display should revert to Time-Of-Day after each Clear Off.

DIAGNOSIS FLOW CHART

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

OVEN TEMP SENSOR (FLAME SENSOR)

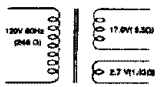
An oven temp sensor is mounted on the oven cavity at the left side. Its purpose is to automatically shut off the oven in case the cavity overheats for any reason.

The thermostat will open at 212°F(100°C) and is nonresetable.

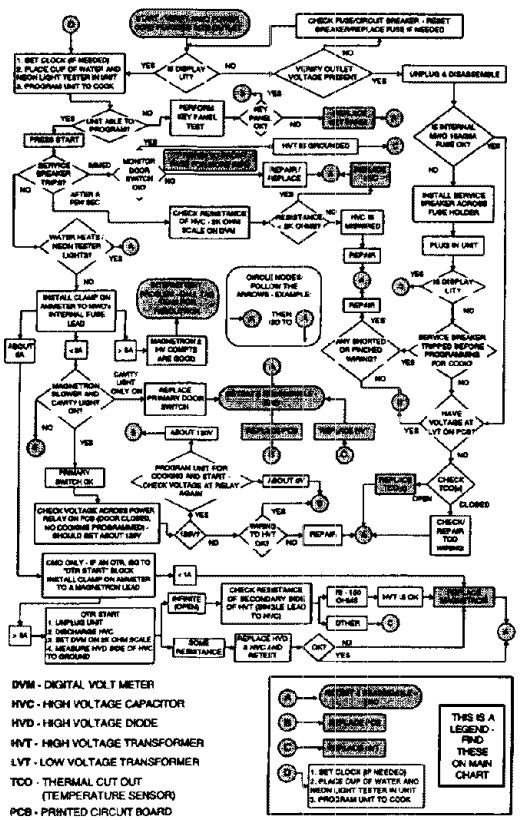
The device is connected to the line side.

CONTROL-TRANSFORMER

The touch control uses a separate low voltage transformer located on p.c.board.



MWO TROUBLESHOOTING FLOW CHART

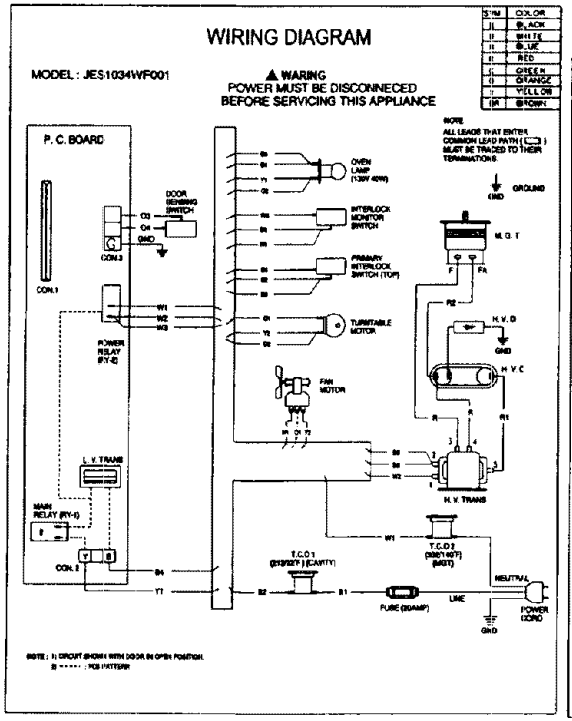


DVM - DIGITAL VOLT METER
HVC - HIGH VOLTAGE CAPACITOR
HVD - HIGH VOLTAGE DIODE
HVT - HIGH VOLTAGE TRANSFORMER
LVT - LOW VOLTAGE TRANSFORMER
TCO - THERMAL CUT OUT (TEMPERATURE SENSOR)
PCB - PRINTED CIRCUIT BOARD

WIRING DIAGRAM

MODEL : JES1034WF001

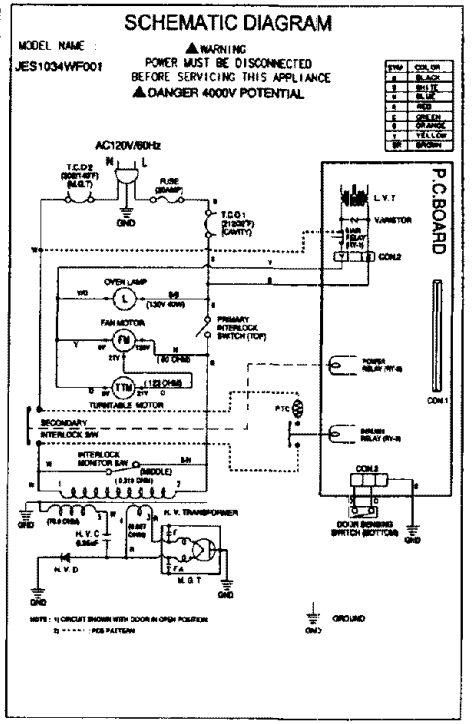
⚠ WARING
POWER MUST BE DISCONNECTED
BEFORE SERVICING THIS APPLIANCE



SCHEMATIC DIAGRAM

MODEL NAME :
JES1034WF001

⚠ WARNING
POWER MUST BE DISCONNECTED
BEFORE SERVICING THIS APPLIANCE
⚠ DANGER 4000V POTENTIAL



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