

Commercial Microwave NE1757R - Troubleshooting of Common error codes

2 mag

Panasonic Model NE1757R Commercial Microwave Oven

Repair information
also applies to
models:

NE1257 120V 1Y

NE1258 120V 3Y

NE2157 208V 3Y

2 Magnetron
Ovens



- ☐ Procedures
- ☐ Checklists
- ☐ Hints
- ☐ Shortcuts

Version 5

Panasonic Home
Health Company

Panasonic ideas for life

Warning - Death on Contact – Never attempt to measure the High Voltage at the magnetron or transformer terminals.

This technician friendly document contains sufficient information for him / her to use one or more of his own troubleshooting styles:

- Parts Testing
- Written Repair Plan
- Self Diagnostics using the layout pictures and Schematic

At the end is Time Save information that all techs can use.

Prepared by
Panasonic Home Health Company
www.Panasonic.com/cmo
National Training

Copyright © 2010 by Panasonic Service and Technology Company
All rights reserved. Unauthorized copying and distribution is a violation of law.

 Warning

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

NE1757R Troubleshooting Common error codes

<u>Table of Contents</u>	Page
☐ Code F81 / F82 / Dead set	4
☐ Code F33 – Cavity too hot (Clogged air filter, fan slow, DPC board ground screws loose, poor connections on thermistor, thermistor damaged.)	10
☐ Code F44 – Membrane SW (shorted, damaged)	11
☐ Code F86 / F87 – Relay board (no power)	12
☐ Code F03 / F04 – Incorrect AC Voltage (Check Voltage, change plug. Blk = 230Vac, White = 208Vac)	13
☐ Insufficient Heating	15
☐ Schematic Diagram	18
 <u>Testing Parts</u>	
• Diode Testing HV limiter, HV Diode	20
• Capacitor Testing	21
• Switch Testing Thermal, Door, Membrane	22
• Magnetron Tests	23
 <u>Time savers</u>	
o Date Code / Warranty Info	25
o Popular Part Numbers	26
o Splatter Shield / Air Filter – removal hints	27

F81 / F82 Displayed error code or Dead Unit (1/5)

F81 / F82 is an error code for an abnormal (high) current draw to the upper (F81) or lower (F82) magnetron path.

Checklist :

Tools: Cleaning materials, DVM, Phillips screwdriver, gloves.

Spare Parts: 15A Fuses, Door switch assembly, Capacitor, HV protect diode, HV diode, thermal switches, maybe relay board (see parts list, Page 25).

Troubleshooting Plan

1. Check both fuses:

- First unplug the microwave from the AC circuit. Top cover = 13 screws.
- Unplug each fuse and check for continuity –

- Both Fuses Good? - Open circuit in the primary path.

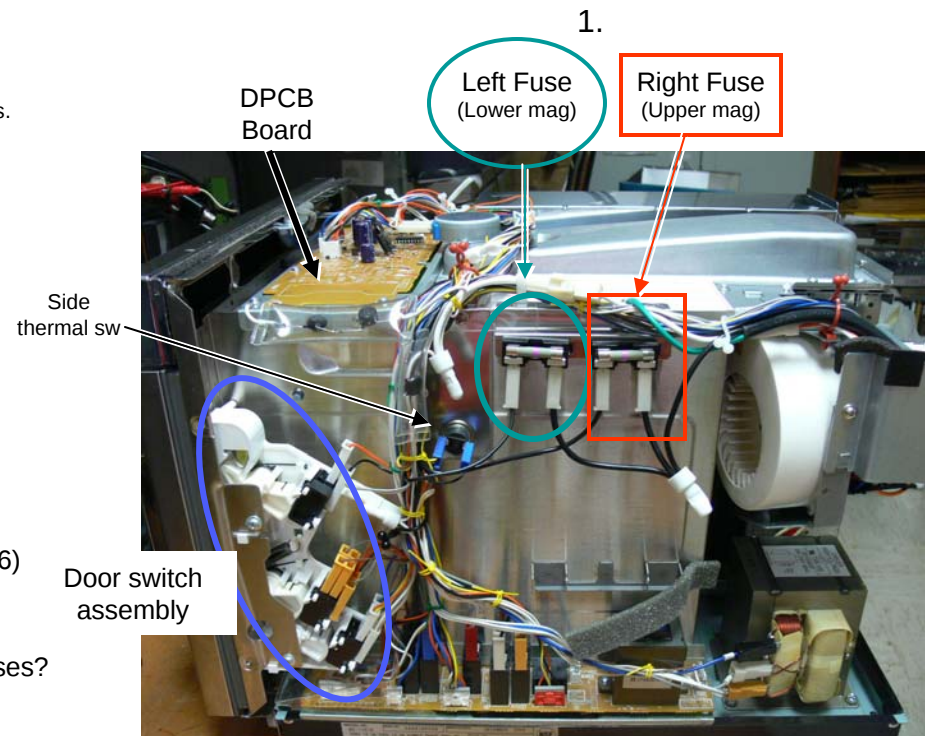
Check these parts in this order:

- Line cord – unstable AC (strain relief, plug, outlet)
- Top and bottom door switches (likely) [page 26]
- Open side thermal switch [page 22]
- Rear Voltage plug (disconnected / corroded) - inspect
- Open Relay RY5 (sub the relay board)
- DPCB board bad (unlikely)
- Clogged air filter (code appears aft a few mins. page 26)

- One Fuse is Open? – There is a short circuit in the oven.

Go to step 2 (next page) for quick determination steps. Causes?

- Middle double door switch is bad or not aligned
- Capacitor shorted
- HV Diode or HV Limiter / protect Diode shorted
- Magnetron shorted
- Transformer shorted (unlikely)

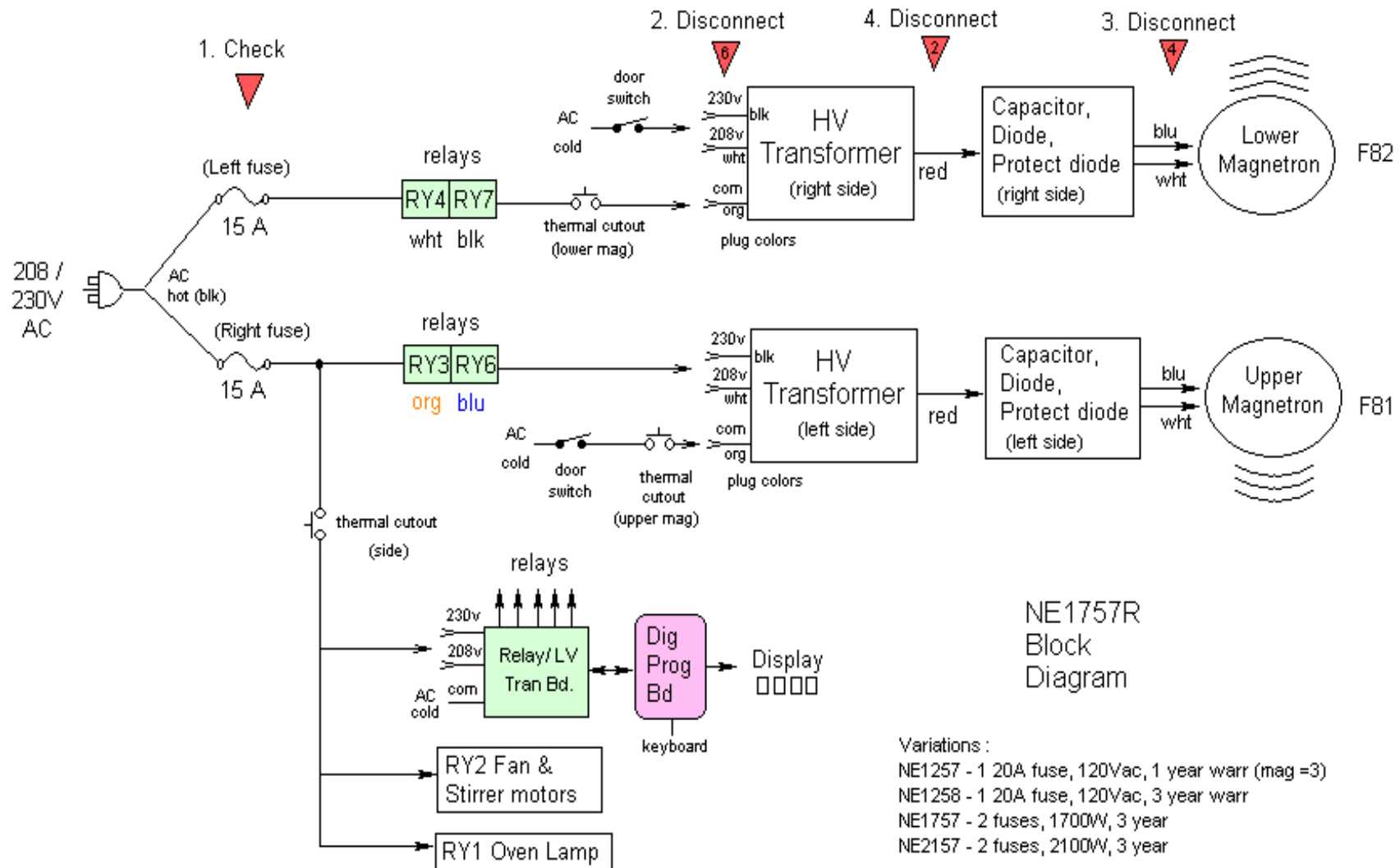


NN1757R side view

F81 / F82 Displayed error code or Dead Unit (2/5)

F81 / F82 is an error code for abnormal (high or low) current draw to the upper (F81) or lower (F82) magnetron.

F81 / F82 Diagnostic Plan Concept



F81 / F82 Displayed error code or Dead Unit (3/5)

2a. Upper mag transformer

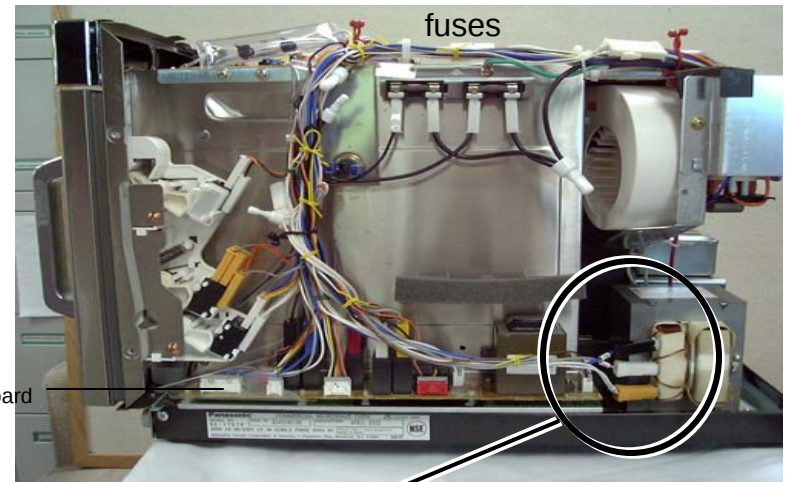
Troubleshooting Plan

Door Sw, Relays & Digital PC board Check:

2. Disconnect both HV Transformer primary wires (6 wires total, 3 per transformer. Both transformers).
3. Replace the open fuse. Remember which one it was.
4. Plug the unit into AC, program a time and press START. [If no response, clear oven program on page 15.]
 - Display vanishes? or / and Fuse blown again? Replace the door switch assembly.
 - F81 or F82 code appears? Replace the LV transformer (relay) board and retest.
 - Unit starts and counts down? Relays and Digital board are OK. - Problem is in the HV section. Unplug AC. Go to step 5.

2c. Lower mag transformer

NE1757R
left side
view



2b. Unplug 3
primary wires

black
white
org

NE1757R
right side
view



2d. Unplug 3
primary wires

transformer

F81 / F82 Displayed error code or Dead Unit (4/5)

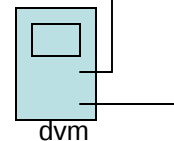
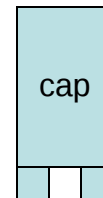
Troubleshooting Plan

Capacitor Check:

5. **Remove AC.** With a screwdriver, **short** across the HV diode wires for 2 seconds to discharge the capacitor.
6. Place a continuity meter across the capacitor terminals (with the connectors / parts still attached). Test each capacitor, one at a time. Wait 5 sec for the reading to stabilize.

Results

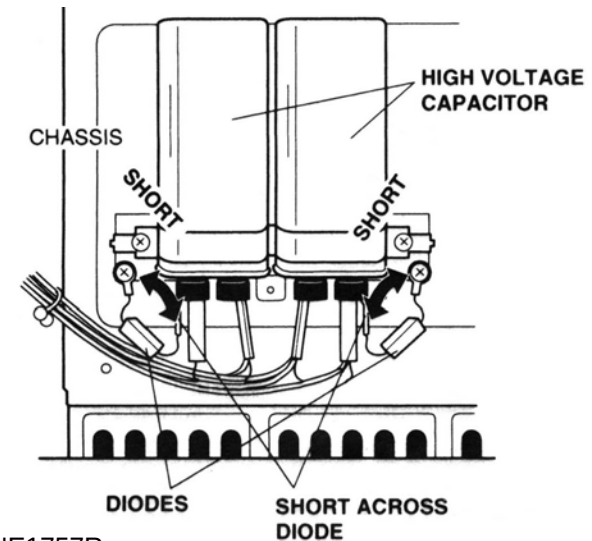
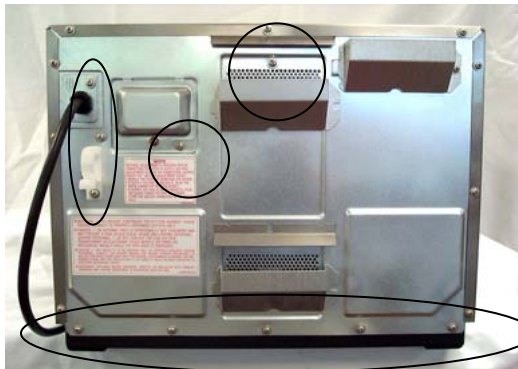
- Less than 7Meg ohms? - Replace that cap, its HV diode, and its HV limiter diode across the capacitor terminals.
- More than 7 Meg ohms? – HV diode, Magnetron, & transformer are suspect. Continue to step 7.



High or
Low
reading?

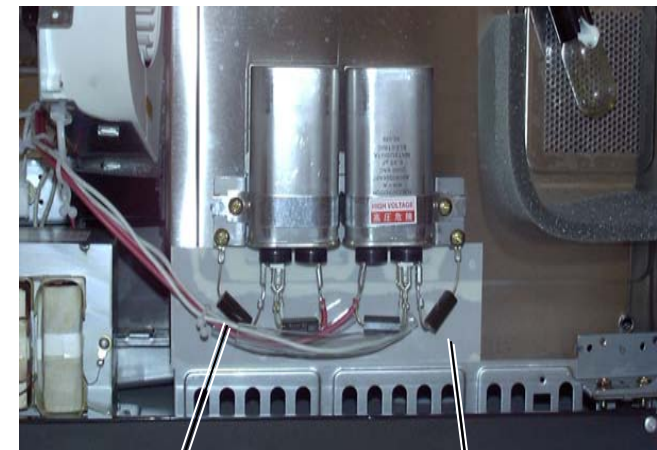
7. Remove the back panel.

7. Rear
panel
removal



NE1757R
side view

5. Capacitors



HV Diode

HV Diode

F81 / F82 Displayed error code or Dead Unit (5/5)

Troubleshooting Plan

Magnetron Test:

8. Reconnect all 6 Transformer wires.
Visually Inspect the transformers for discoloration or melted varnish around the windings. However if the transformers look identical they are most likely OK.
9. Disconnect both connectors to both magnetrons (4 total).
10. Plug the unit into AC, program a time, and press START.
 - Unit starts and counts down? Circuits are OK. 1 mag is bad.
Replace the magnetron that corresponds to the open fuse (step 1).
 - Left Fuse Open? Replace the Lower magnetron.
 - Right Fuse Open? Replace the Upper magnetron.
 - Forgot which fuse? Test the mag. (p26) Check for a short between a filament terminal and the magnetron case (ground).
 - F81 or F82 momentarily appears before the fuse blows? – Magnetrons are good. Problem is the HV diode, Capacitor, HV Limiter /diode, or the transformer. Continue.

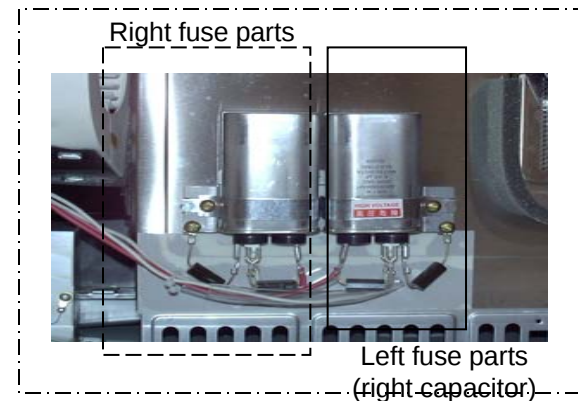
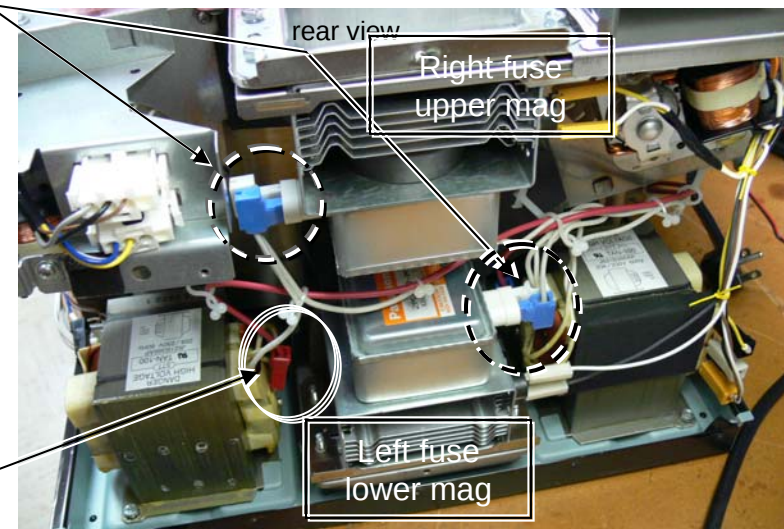
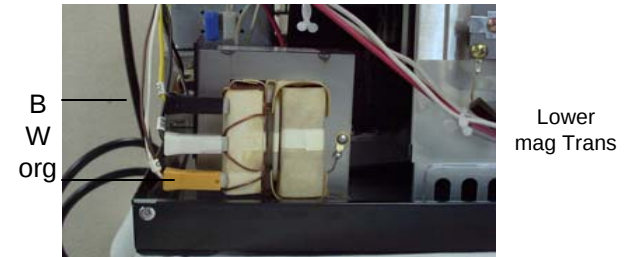
Transformer / Diode test:

11. Remove AC. Replace the fuse. Unplug **two red** wires, one from **each** transformer (2 total, only 1 shown).

Apply AC, program time and press START.

- Fuse blows? – Replace the transformer that corresponds to the blown fuse (e.g. left fuse, right transformer).
- Unit starts and counts down? - Replace the capacitor, HV limiter / protect diode, & HV diode that corresponds to the blown fuse. Pictured at right.

8. Reconnect all 6 transformer wires.



11. Fuse corresponding parts

NE1757R Troubleshooting Common error codes

<u>Table of Contents</u>	Page
 ☐ Code F81 / F82 / Dead set	4
☐ Code F33 – Cavity too hot (Clogged air filter, fan slow, DPC board ground screws loose, poor connections on thermistor, thermistor damaged.)	10
☐ Code F44 – Membrane Sw (shorted, damaged)	11
☐ Code F86 / F87 – Relay board (no power)	12
☐ Code F03 / F04 – Incorrect AC Voltage (Check Voltage, change plug. Blk = 230Vac, White = 208Vac)	13
☐ Insufficient Heating	15
☐ Schematic Diagram	18
 <u>Testing Parts</u>	
• Diode Testing HV limiter, HV Diode	20
• Capacitor Testing	21
• Switch Testing Thermal, Door, Membrane	22
• Magnetron Tests	23
 <u>Time savers</u>	
o Date Code / Warranty Info	25
o Popular Part Numbers	26
o Splatter Shield / Air Filter – removal hints	27

F33 / F34 Error Code

F33 is the code for a thermistor that is not changing resistance during a heating cycle.
The common cause is an open connection at a ground return point. If the [F34 = shorted sensor].

Checklist :

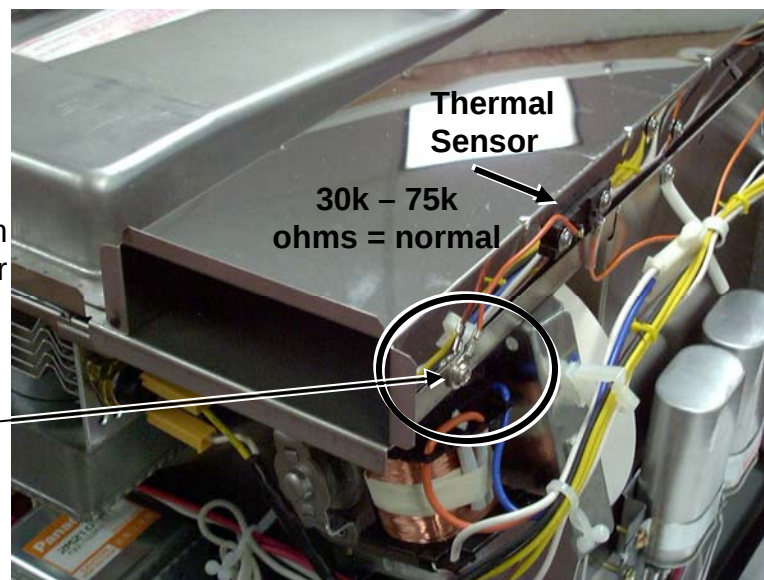
Tools: Cleaning materials, DVM, Phillips screwdriver, sandpaper.

Spare Parts: Thermal sensor, Air filter, DPCBoard (unlikely)

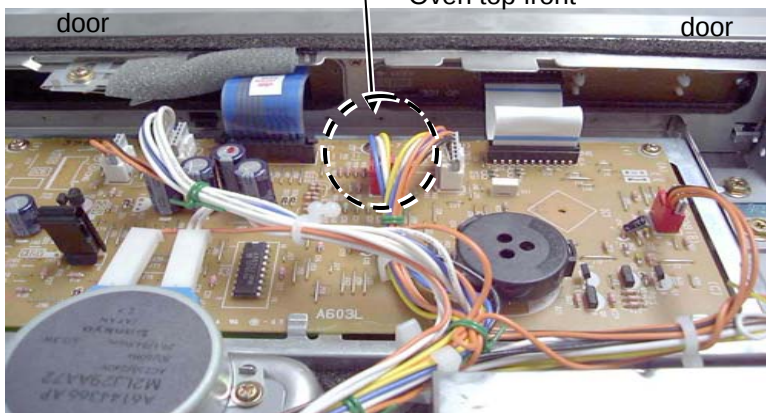
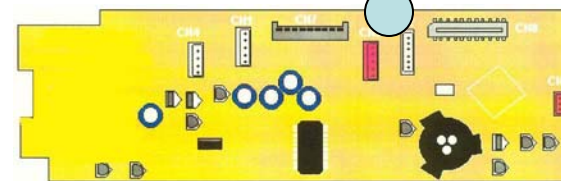
Troubleshooting Plan

1. Remove AC and the top cabinet cover. Measure the resistance of the thermal sensor. Replace if out of range:
 - In circuit measurement = 23k ohms typical
 - Out of circuit (ground removed) = 30k-75k (58k ohms typical)
2. Remove and Inspect / clean the thermal sensor (2 screws) and air filter (below the door). Clean off grease.
3. Sandpaper clean the ground contact next to the thermal sensor and reattach.
4. Make sure this ground screw at this side of the top DPCB board is there and not loose.
5. Clean / replace the front air filter grill (below the door) if F33 appears after the oven has been running.

Oven
Rear



Loose
Ground
screw



Other causes for F33 if the thermal sensor checks within range:

- Rear fans not working or broken blade
- Air filter clogged with grease
- Oven is enclosed (no place for air to vent)

F44 Error Code

F44 means the micro sees a constant press of a front panel button or there is a crack in the DPCB microprocessor board (very unlikely).

Checklist :

Tools: Cleaning materials, DVM, Phillips screwdriver,

Spare Parts: Membrane keypad, DPCBoard (unlikely)

Troubleshooting Plan

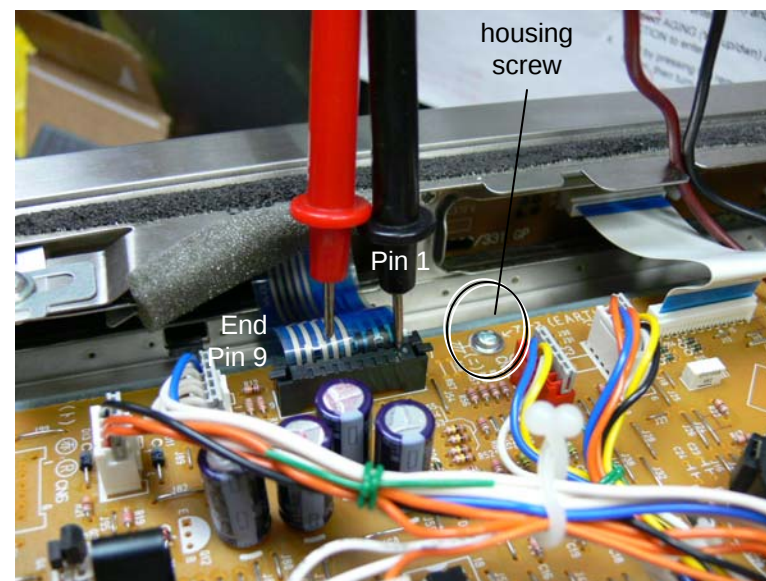
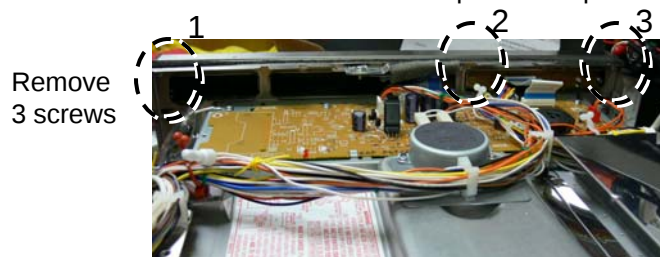
F44 almost always means the button membrane is damaged.

1. Remove the oven's top cover.
2. If the F44 code is constant, Unplug the membrane ribbon connector at CN7. Apply power.
 - F44 code still present? – Membrane is good. Inspect the DPCB board for contamination before replacing this DPCB board.
 - F44 code gone? – Replace the membrane pad above the door behind the metal housing.
3. An alternate test with an ohmmeter is shown at right.



Membrane Replacement

- A. Three screws hold the top metal housing (escutcheon) from the back. Remove them and slide off the housing to expose the membrane switch.
- B. Peel off the self adhesive membrane pad and replace.



Testing the membrane pad at CN7 / pins 1 & 2-9

Test between pins 1 & 2, 1 & 3, 1 & 4, etc. for a normal open circuit

F86 / F87 Error Code

F86 / F87 is a code for no current draw in the upper (F86) or lower (F87) magnetron transformer primary winding after the start button is pressed.

Checklist :

Tools: Cleaning materials, Phillips screwdriver,
Spare Parts: Relay board, DPCBoard (unlikely)

Troubleshooting Plan

❑ **Code is intermittent –**

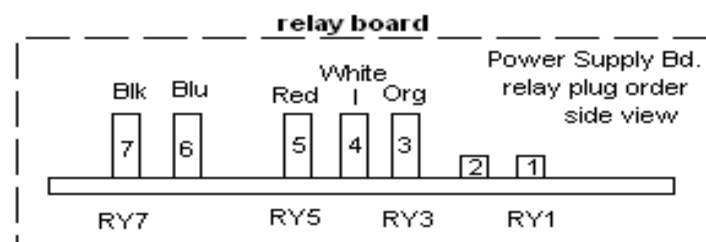
Relay board - Inspect for loose / burnt connectors.
Remove & inspect for cracks, signs of damage, or debris and clean.

DPCB top board – Inspect for cracks, poor connections. Then clean the board & tighten the screws.

Test the unit.

❑ **Code is constant** - present every time the start button is pressed?

- Magnetron test for structural short (page 23)
- If the magnetron tests OK, Replace the relay board.



NE1757R board p/n =
B692m3660ap

Side view

F03 / F04 Error Code

F03 / F04 is a code for the wrong AC Voltage input.

Checklist :

Tools: Cleaning materials, DVM, Phillips screwdriver, cup of water.

Spare Parts: DPCBoard (unlikely)

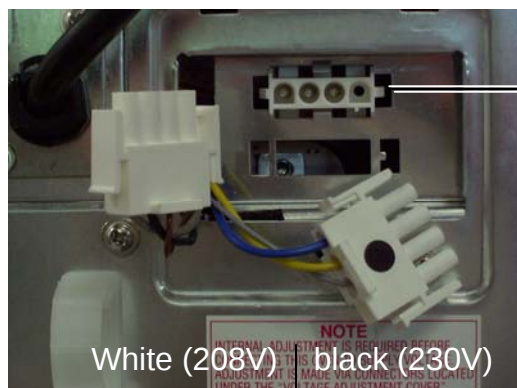
Troubleshooting Plan

Concept - The AC Voltage should be measured with the oven running if possible to detect a Voltage drop under load. At the oven, the AC Voltage must be 208 or $230\text{Vac} \pm 5\%$ even when running.

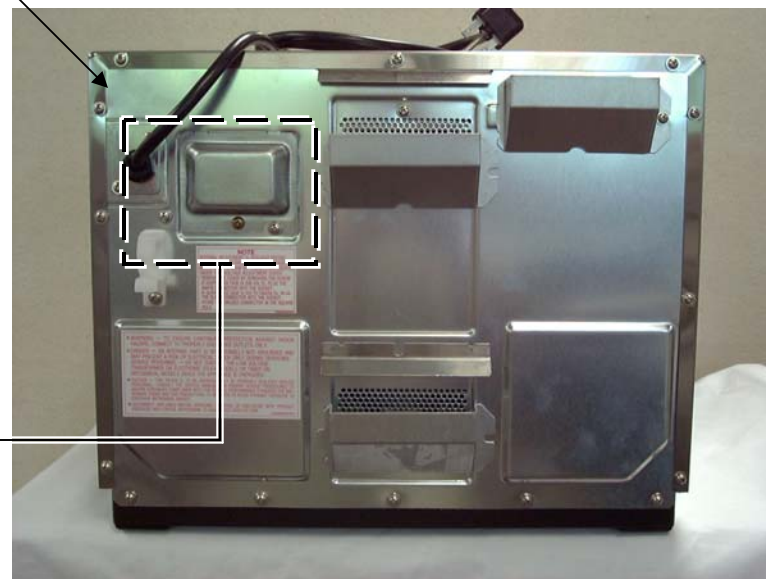
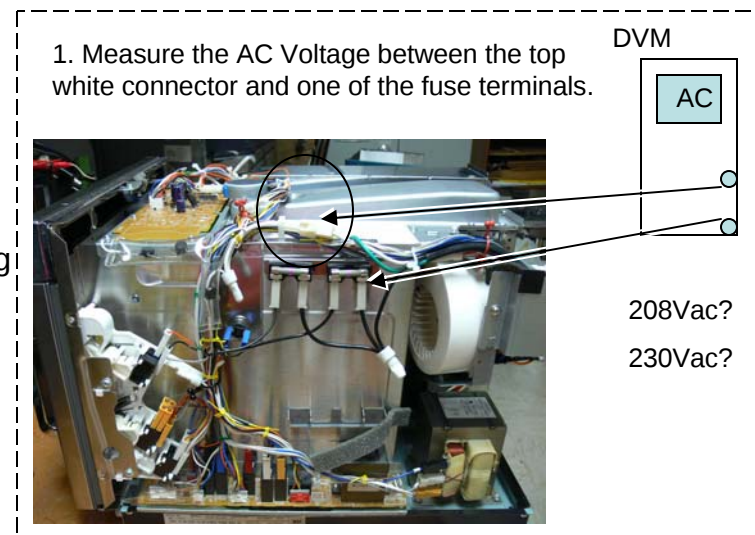
1. Remove the top. Measure the AC Voltage between any fuse terminal and the top white connector (probe into the connector end). Place a cup of water in the oven, set a time and press start. What is the AC Voltage? Use the power on AC Voltage in step 3.
2. On the Panasonic oven, remove the rear Voltage selector cover.

3. Plug in the connector for the Voltage you measured.

- 208Vac = White plug
- 230Vac = Black dot plug.
- If the outlet AC Voltage is in-between, contact the power company.
- If it varies, contact an electrician.



AC Volt selection plugs



NE1757R Troubleshooting Common error codes

<u>Table of Contents</u>	Page
☐ Code F81 / F82 / Dead set	4
☐ Code F33 – Cavity too hot (Clogged air filter, fan slow, DPC board ground screws loose, poor connections on thermistor, thermistor damaged.)	10
☐ Code F44 – Membrane SW (shorted, damaged)	11
☐ Code F86 / F87 – Relay board (no power)	12
☐ Code F03 / F04 – Incorrect AC Voltage (Check Voltage, change plug. Blk = 230Vac, White = 208Vac)	13
 ☐ Insufficient Heating	15
☐ Schematic Diagram	18
 <u>Testing Parts</u>	
• Diode Testing HV limiter, HV Diode	20
• Capacitor Testing	21
• Switch Testing Thermal, Door, Membrane	22
• Magnetron Tests	23
 <u>Time savers</u>	
o Date Code / Warranty Info	25
o Popular Part Numbers	26
o Splatter Shield / Air Filter – removal hints	27

Insufficient Heating 1/3

Death on Contact – Never measure the High Voltage at the magnetron or transformer.

Road Checklist :

Tools: Cleaning materials, DVM, Phillips screwdriver, 8oz cup of water, meat thermometer.

Spare Parts: Thermal cutout switch, Limiter Diode, Capacitor, Magnetron.

Low power can be caused by:

1. Incorrect power level chosen from the keypad (e.g. defrost cycle).
2. Insufficient AC input Voltage during operation (see F03 / F04 error code)
3. One of the two (upper or lower magnetron) heating units not working

Heat Test – Do this first.

1. Program the microwave for full power (level 10 – see pictures at right).
2. Fill an 8 oz. cup with room temperature tap water (see the bottom of plastic cups for capacity number in ounces.).
3. Program the time for 1 minute + 35 seconds and press START.



Water Boiling? = Normal

There is nothing wrong with the microwave oven.

[If the oven raises exactly 8 oz of water 140 degrees F in 95 seconds. Both magnetrons are operating at full efficiency.] Start @ 70 degrees + 140 degrees = 210 degrees F.

Water NOT boiling?

Each magnetron heats water 70 degrees so the temp should go up 140 degrees if both magnetrons are working. You will operate 1 mag at a time to find out if one is not raising the temp a full 70 degrees.

Proceed? You will need a thermometer & screwdriver. Remove the top panel (13 screws).

The diagram shows a microwave control panel at the top and an oven door below it. The control panel has a digital display (1), a 'STAGE' button (2), 'HI MED DEF' buttons (3), a 'POWER LEVEL' button (4), a row of power level buttons (1-10) (5), a 'STOP/RESET' button (6), and a 'START' button (7). The oven door has a handle (8), a latch (9), and a window (10).

Program:

Unlock the unit

1. Open Door
2. Hold **STOP first** then press and hold the PROG button until "P" appears in the display. (now unlocked for programming time entry)

Program Time & Start

1. Press the POWER LEVEL button once (or repeatedly) until HIGH is displayed.
2. Insert the desired heat time (e.g. 1, 3, 5 for 1 min, 35 sec.).
3. Place H2O in the oven and close the door.
4. Press START to run.

Return to Previous program

1. Close the door wait for the display to be blank (blank means no zero number).
2. Hold PROG button until "P L" are displayed. Finished.

Insufficient Heating (con't) 2/3

Find the Cause of insufficient heating: First quick checks

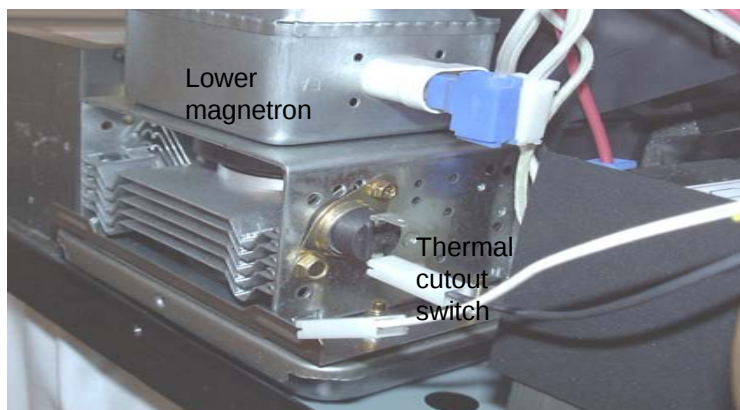
Mechanical Checks:

1. See if both stirrers are rotating when the oven is cooking:
 - Top Stirrer – remove the plastic (see page 27) to view.
 - Bottom Stirrer - lift the bottom plate by placing a screwdriver in the special right side access hole and gently levering the bottom plate upward to expose the bottom stirrer.
2. Clean the air filter below the door (details page 27).

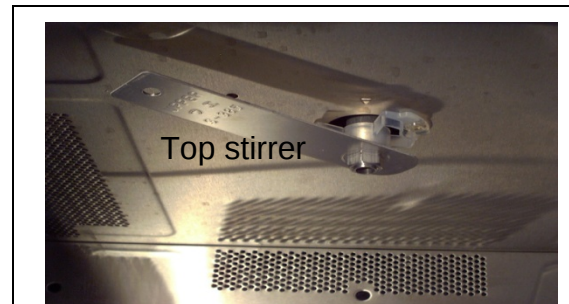
Electrical Checks:

3. Cutout Switch Test – At the rear of the oven locate both thermal cutout switches. They are mounted to the magnetron.

Both thermal switches must test at 0 ohms across its terminals, or that switch is bad. Test the switch with the connectors (wires) on or off. Only one switch is shown.

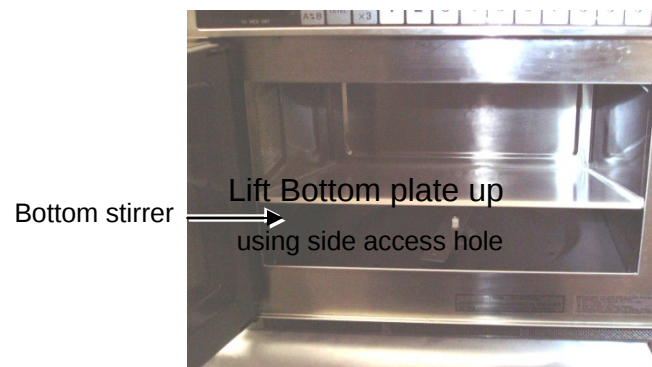


One Thermal Switch Location



Remove top plastic to view the Top stirrer

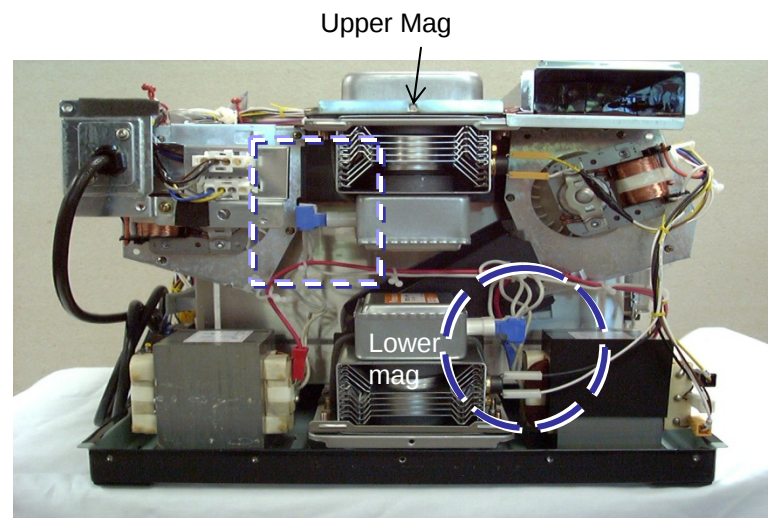
Checking
Stirrers



Insufficient Heating (con't) 3/3

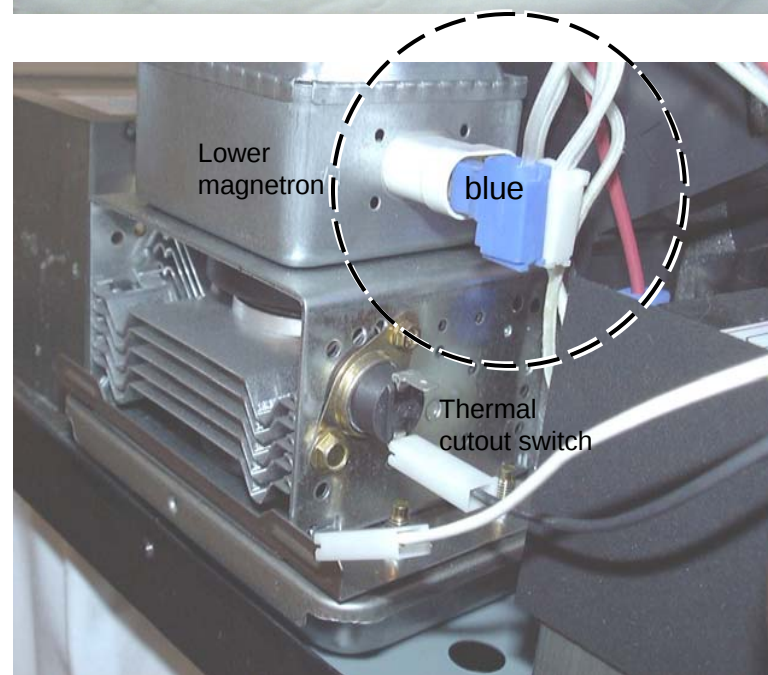
Upper Mag Test (by disabling the lower mag)

4. Oven rear, lower Magnetron - unplug the pair of blue and white magnetron filament connectors to disable.
5. Oven cavity - Place an 8 oz cup of room temperature water inside. Plug the Oven into AC. Program 95 seconds and press START.
6. What temperature is the water?
 - No change (still at room temp)? – The problem is either the relay board or an open Upper magnetron that should have been working. Test mag on Page 23.
 - Increased in temperature by 70 degrees F? – The Upper magnetron circuit is working great. Proceed to step 7.
 - Increased in temperature but much less than 70 degrees? – Replace the Upper magnetron & left protect diode.



Lower Mag Test (by disabling the upper mag)

7. Oven rear - reconnect the blue and white lower mag wires.
8. At the upper magnetron, disconnect its blue and white wires (shown in the square box). Repeat the water test as in step 5.
9. What temperature is the water?
 - Still at room temperature (no change)? - The problem is either the relay board or the lower magnetron (pg 23).
 - Increased in temperature by 70 degrees F? – The Lower magnetron circuit is working great. Clean out the stirrer area.
 - Increased in temperature but much less than 70 degrees? – Replace the Lower magnetron & right Protect Diode.

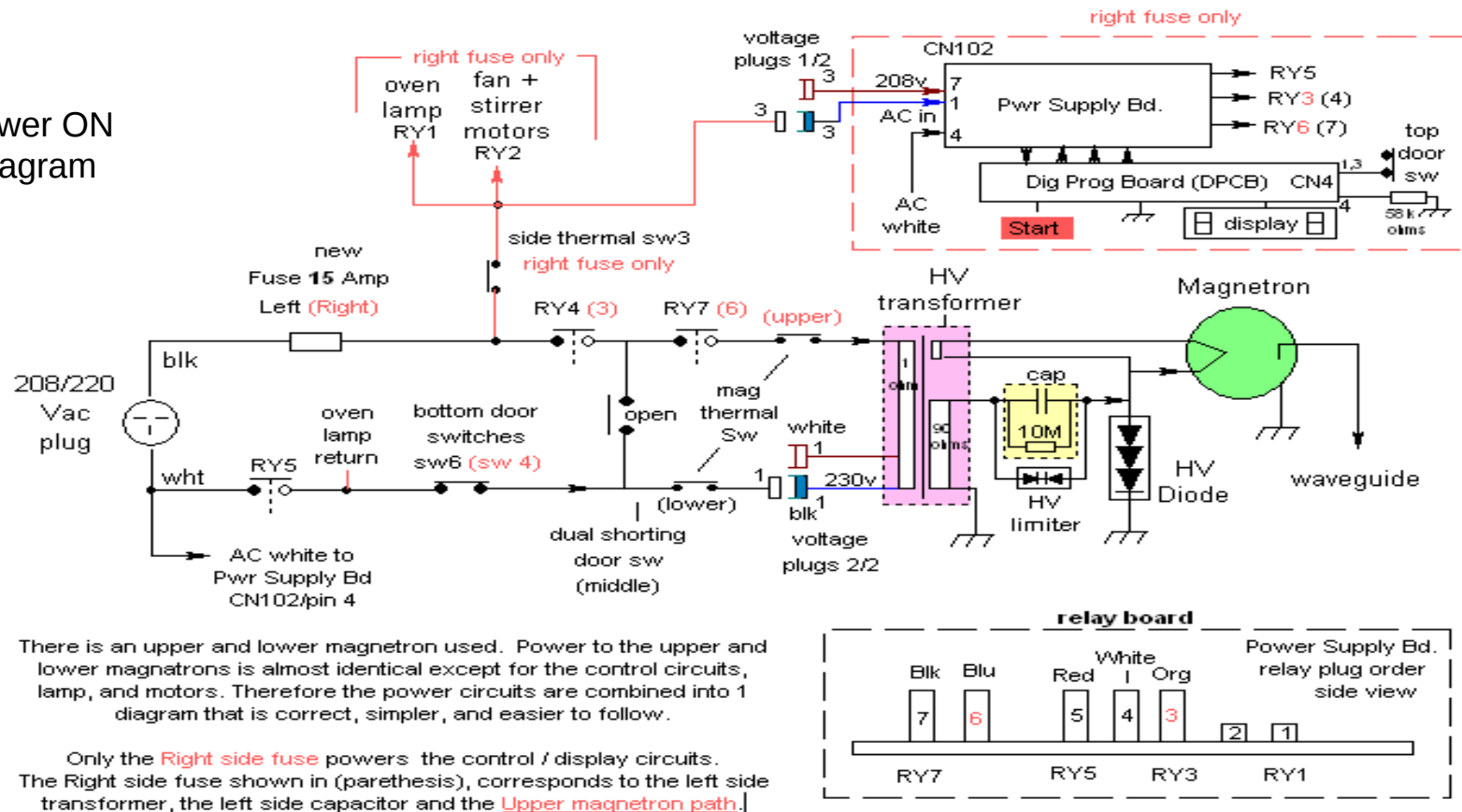


Panasonic NE1757R Schematic Diagram

Death on Contact – Never measure the High Voltage at the magnetron or transformer.

Panasonic NE-1757R Commercial Dual Mag Microwave Oven Schematic

Power ON diagram



Diagnostic Hints - You can disconnect these suspected parts to see if the microwave still powers up:

- Unplug one or both transformer primaries and power on to test parts after the transformer.
- Disconnect one or both magnetron filament wires to test the magnetron.
- Disconnect the HV Limiter diode to test this protection diode.

NE1757R Troubleshooting Common error codes

<u>Table of Contents</u>	Page
☐ Code F81 / F82 / Dead set	4
☐ Code F33 – Cavity too hot (Clogged air filter, fan slow, DPC board ground screws loose, poor connections on thermistor, thermistor damaged.)	10
☐ Code F44 – Membrane SW (shorted, damaged)	11
☐ Code F86 / F87 – Relay board (no power)	12
☐ Code F03 / F04 – Incorrect AC Voltage (Check Voltage, change plug. Blk = 230Vac, White = 208Vac)	13
☐ Insufficient Heating	15
☐ Schematic Diagram	18
 <u>Testing Parts</u>	
• Diode Testing HV limiter, HV Diode	20
• Capacitor Testing	21
• Switch Testing Thermal, Door, Membrane	22
• Magnetron Tests	23
<u>Time savers</u>	
o Date Code / Warranty Info	25
o Popular Part Numbers	26
o Splatter Shield / Air Filter – removal hints	27

Diode Testing (unplug from AC)

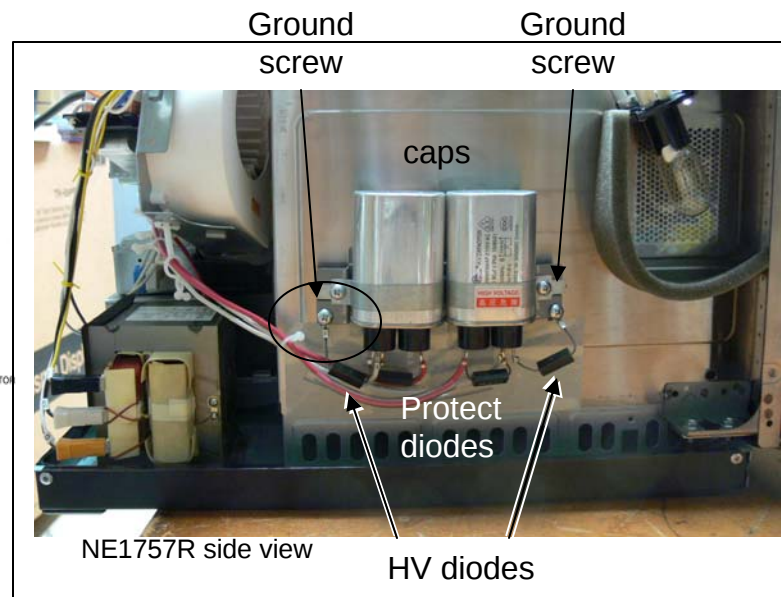
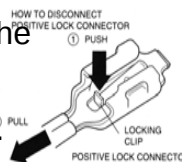
The Limiter diodes are mounted across the capacitor terminals.

The HV diodes are connected between a capacitor terminal and the frame ground. Both are called diodes but they are different.

Limiter / Protect Diode Check:

Look for no continuity between the diode terminals (open / infinity) with a DVM.

1. Remove AC. Short across the HV diode to discharge the capacitor.
2. Unplug one end of the protect diode from the capacitor.
3. Measure the resistance across the protect diode terminals.
 - Less than 100 ohms? – replace the HV limiter diode. If it fails again, replace the corresponding magnetron (left diode = upper mag. Right diode = lower).
 - Infinite / open? – possibly good limiter diode.
4. Another way to check the diode is to disconnect this diode. If the oven no longer blows fuses when disconnected and the oven turned on, the diode is defective.

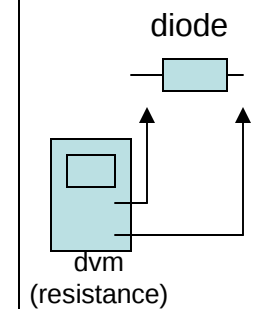
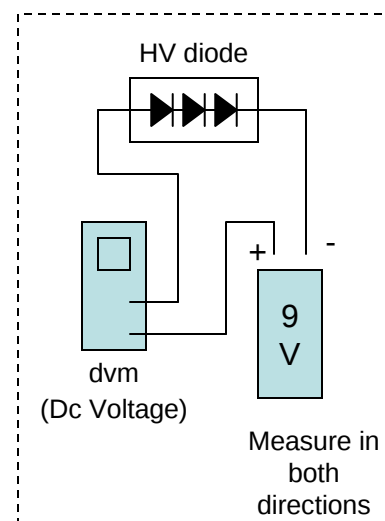


HV Diode Check

Look for no continuity between the diode terminals (open / infinity) with a DVM.

However a better test is to use a 9V battery to test the HV diode:

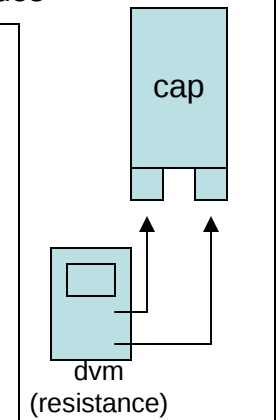
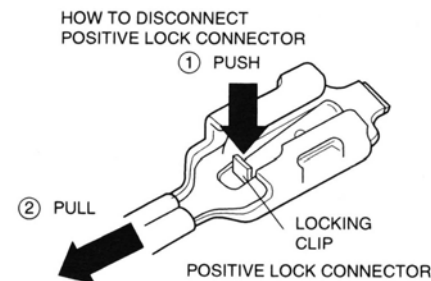
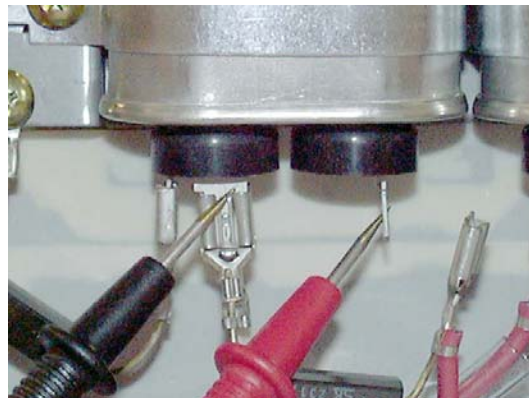
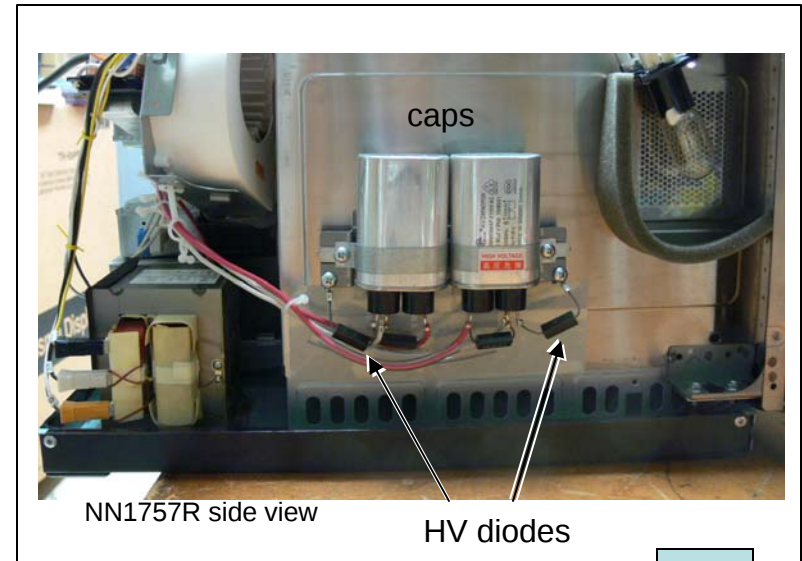
1. Remove AC. Unscrew the HV diode ground screw.
2. Connect a 9V battery in series with the diode and DVM as shown. Note the Voltage.
3. Disconnect & reverse the battery polarity. Note the Voltage again.
 - Same reading with the battery in either direction? Bad diode.
 - Voltage present in 1 battery direction – diode is OK..



Capacitor Testing (unplug from AC)

Capacitor Check:

1. Momentarily short across the HV diode wires (one at a time) to discharge the capacitors (prevents DVM damage).
2. Disconnect one of the capacitor connectors.
3. Measure the resistance across the capacitor. Read after 10 sec.
 - Resistance is 7Meg ohms or greater? Normal. Cap is not shorted.
 - Resistance is less than 7Meg? - Replace the capacitor.

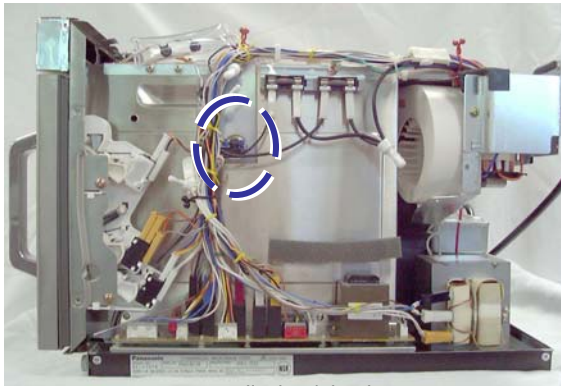


∞

Thermal Cutout Switch Check

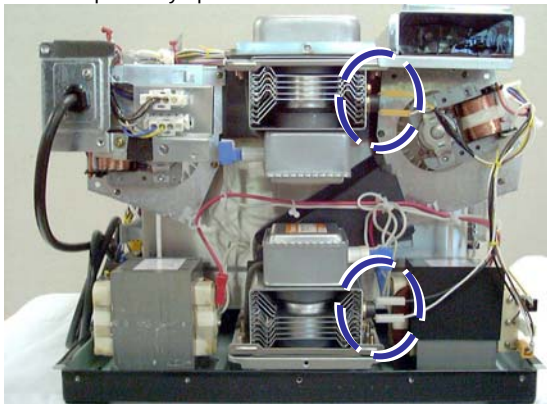
Normally shorted, these 3 switches open only when the rated temperature is reached and short again below this temp. These 3 are the same #.

1. Locate the 3 thermal cutout switches.
2. Measure the resistance across the 2 terminals of the thermal switch.
 - Less than 10 ohms? - Normal. Sw is OK
 - More than 10 ohms? - Replace switch.



1 open - Symptom = no display / dead

2 or #3 open – Symptom = F81 or F82 error code.



Rear view

Switch Testing (unplug from AC)

Door Switch Check

3 groups of switches. When defective they cause these symptoms:



**F82 or
oven light
always ON**

**F82 /
dead (blows
fuse)**

**F81/F82
codes**

Testing - Measure across the switch terminals with No AC, door closed / open. Unplug the connectors for access.

ohms		normal	
		door Closed	Open
top		short	high ohms
middle		high ohms	short
bottom		short	high ohms

Replace the switches if the resistance does not agree with the chart. Short is less than 10 ohms.

Membrane Switch Check

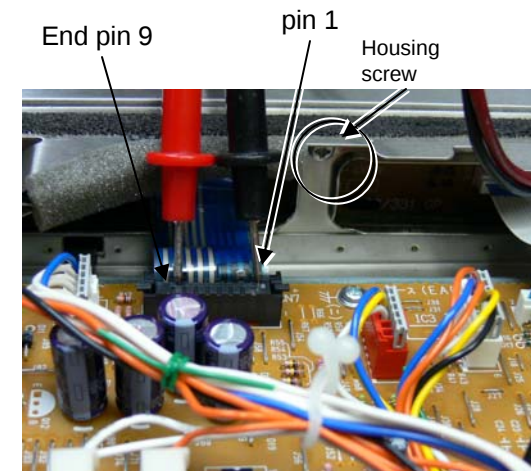
Almost always, an F44 error code will be caused by a damaged switch. Replace it.



Testing – At the oven's top connector pictured below, Check the resistance between pins 1 and each of the other pins, one at a time (pix below).

- Less than 5k ohms? – Bad Membrane.
- More than 5k ohms? – good membrane.

Replacement- Remove the 3 screws at the rear of the switch's metal frame and pull off the frame. Unplug & Peel off the membrane switch.

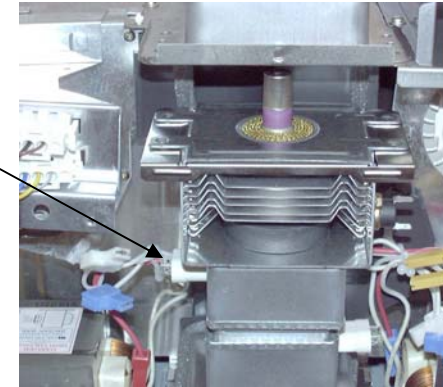


Magnetron Resistance Tests

(unplug from AC)

Start - Both tests can be made after removing the blue & white filament terminal connectors (not shown well) and testing with an ohmmeter.

Start - Remove
blue & white
connectors

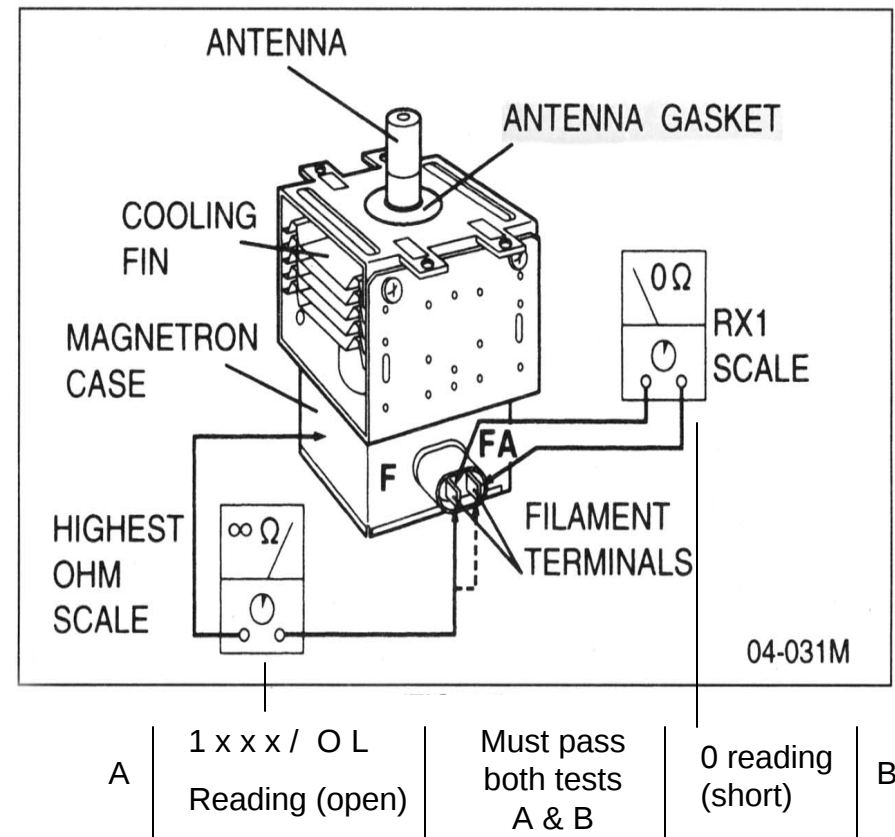


B Filament Test

1. Remove one or both filament leads (from F or FA terminals)
2. Place an ohmmeter across the two magnetron terminals shown as F and FA in the diagram.
 - No Reading is displayed? – Filament is open. Replace the magnetron.
 - Reading is 0 ohms? – Normal. Continue.

A Structure test

3. Place the ohmmeter leads across one of the filament leads and the case.
 - Reading is 10 ohms or less? – Defective. Replace this magnetron that is blowing out the fuse.
 - No Reading is displayed? – Normal. Magnetron is not shorted / not blowing out fuses.



NE1757R Troubleshooting Common error codes

<u>Table of Contents</u>	Page
☐ Code F81 / F82 / Dead set	4
☐ Code F33 – Cavity too hot (Clogged air filter, fan slow, DPC board ground screws loose, poor connections on thermistor, thermistor damaged.)	10
☐ Code F44 – Membrane SW (shorted, damaged)	11
☐ Code F86 / F87 – Relay board (no power)	12
☐ Code F03 / F04 – Incorrect AC Voltage (Check Voltage, change plug. Blk = 230Vac, White = 208Vac)	13
☐ Insufficient Heating	15
☐ Schematic Diagram	18

<u>Testing Parts</u>	
• Diode Testing HV limiter, HV Diode	20
• Capacitor Testing	21
• Switch Testing Thermal, Door, Membrane	22
• Magnetron Tests	23

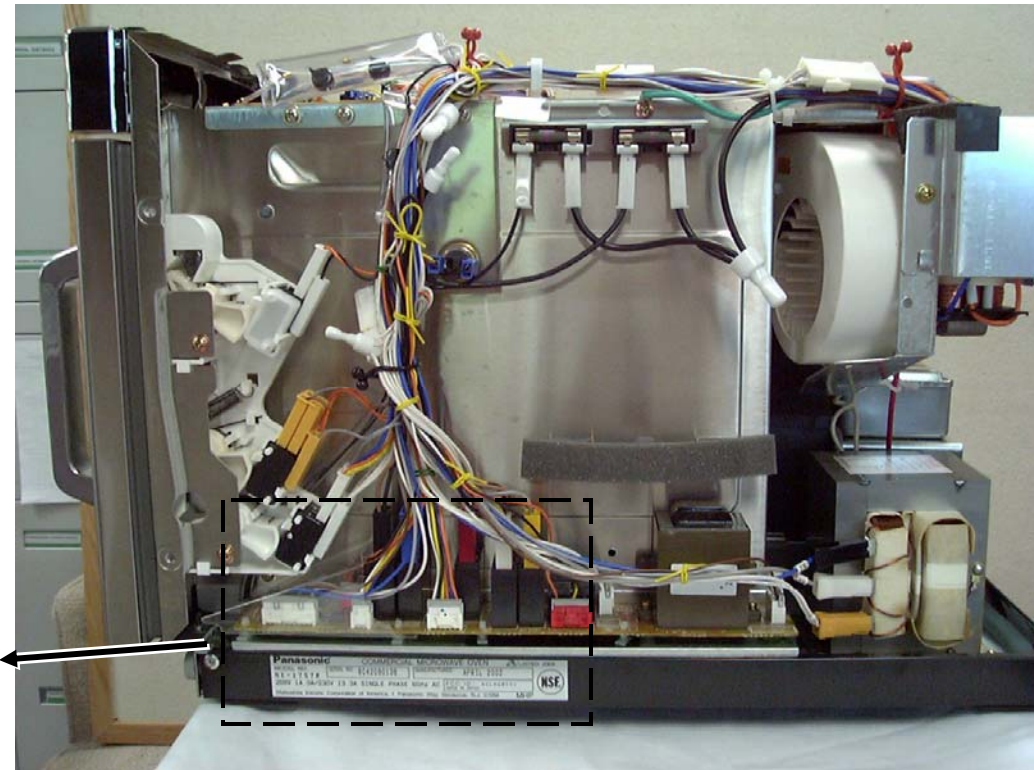
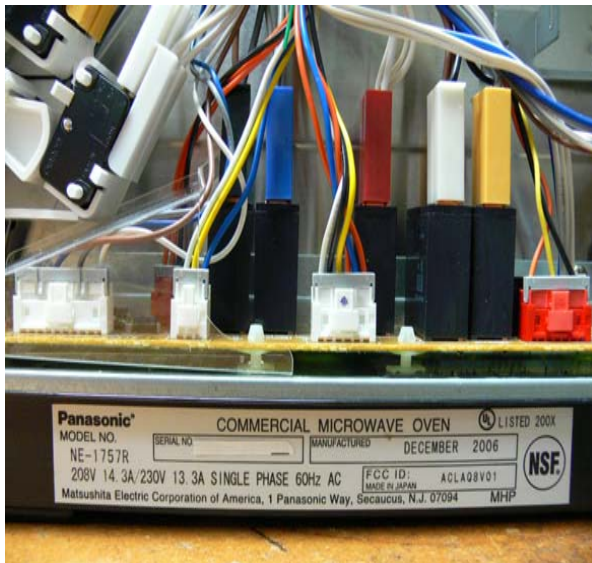


<u>Time savers</u>	
o Date Code / Warranty Info	25
o Popular Part Numbers	26
o Splatter Shield / Air Filter – removal hints	27

Model and Date Code Location

Parts NOT covered under the 3 year parts, labor, and magnetron warranty:

- Air filter (screw located under the door)
- Oven Light bulb (remove top cover)
- Plastic splatter shield / Ceiling plate (warranty is void if the shield is missing - resultant damaged parts not covered)
- Ceramic bottom plate
- Use of metal pans
- Customer Abuse



Serial number date code
at the 3rd & 4th digit:

X A D 6 1 8 9 5 4 8 9 4

Month

Year = 2006

1-9 = month
0 = Oct
N = Nov
D = Dec

December 2006

date

Model NE1757R Popular Part Numbers

Note - These are the part numbers **only** for the above model **NE1757R** microwave.

Description	Part Number	Description	Part Number
Door Switch Assembly (complete)	A393C-3470 *	Fuse = 15 Amp (79) Original may be 18A. Change to 15A	A62303970AP (two fuses come with the cap)
Pushbutton Membrane (E3)	A64793310QP 3 screws to access. Peel off membrane strip	Oven Lamp (55) (240V, 20W standard screw base)	A60304080BP (No warranty)
Capacitor (61) Comes w 2 new fuses	A60903660AP (replacement may have a higher Voltage than original)	208/230V AC Cord (90)	B900C3660AP (No warranty)
HV Diode (76)	A62023960ap	Relay Board (82) (LV transformer Bd.)	B692m3660AP
HV Limiter / Protect (W4) longer red wire 	A606V3960AP (left side)	Stirrer Motor - Upper (68) (220Vac, 14.1k ohms)	A61443660AP
HV Limiter / Protect (W5) shorter red wire	A606W3960AP (right side)	Stirrer motor - Lower (65) (120Vac, 3.3k ohms)	A6144-3280
Mag push connector	A604k0000AP * (one connector)	Magnetron (109)	2M210-M1F1
Panel or Magnetron Thermal Cutout Switch (57, 70)	ANE61458U0AP	Splatter Shield / Ceiling plate (33)	A2011-3470 Resultant Damage not covered if missing.
HV Transformer (77)	A621B3660AP	Shelf / Floor Plate (5)	ANE010T8U0AP (No warranty)
Door Assembly	A390L-3500 *	Metal Air Filter (43) (below door)	A400b-3280 (No warranty)

* New. Not in the service manual.

Splatter Shield & Air Filter Check

Splatter Shield Removal

Procedure:

1. Push both the left and right plastic tab inward toward the sides of the oven cavity. (only left side pictured)
 2. Top plastic splatter shield drops down to expose the top stirrer.
- Warranty is Void if the oven is operated without the food splatter shield.
 - Burn Damage will occur to the metal oven cavity when food enters the stirrer assembly into microwave channels. A burnt metal cavity must be replaced to prevent further arcing.



Top Stirrer

Air Filter Grill Removal

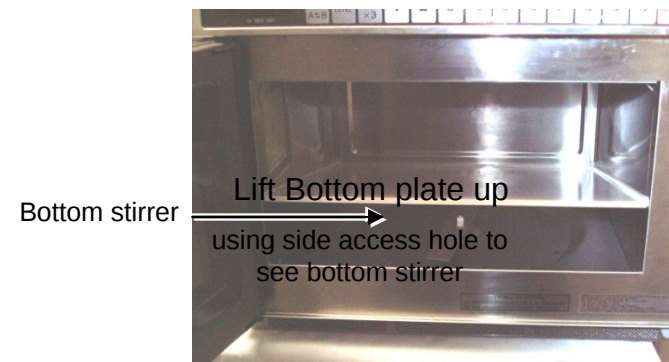
Procedure:

1. Open the door to access the air filter below.
2. Remove the screw and grill for cleaning (with a toothbrush).



Bottom Stirrer

Stick screwdriver into access hole and lever the plate up to see the stirrer.



NE1757R Troubleshooting Common error codes

<u>Table of Contents</u>	Page
☐ Code F81 / F82 / Dead set	4
☐ Code F33 – Cavity too hot (Clogged air filter, fan slow, DPC board ground screws loose, poor connections on thermistor, thermistor damaged.)	10
☐ Code F44 – Membrane SW (shorted, damaged)	11
☐ Code F86 / F87 – Relay board (no power)	12
☐ Code F03 / F04 – Incorrect AC Voltage (Check Voltage, change plug. Blk = 230Vac, White = 208Vac)	13
☐ Insufficient Heating	15
☐ Schematic Diagram	18
 <u>Testing Parts</u>	
• Diode Testing HV limiter, HV Diode	20
• Capacitor Testing	21
• Switch Testing Thermal, Door, Membrane	22
• Magnetron Tests	23
 <u>Time savers</u>	
o Date Code / Warranty Info	25
o Popular Part Numbers	26
o Splatter Shield / Air Filter – removal hints	27