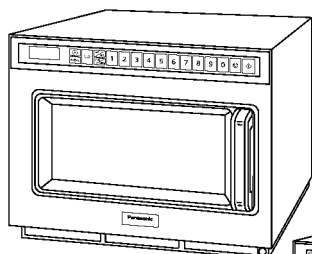
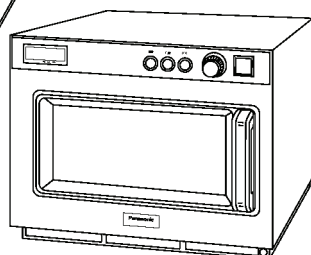


Service Manual

Microwave Oven



NE-1853/NE-1653



NE-1843/NE-1643

Model No. **NE-1853BDQ**

Model No. **NE-1843BDQ**

Model No. **NE-1843EYG**

Model No. **NE-1653EYG**

Model No. **NE-1643EYG**

Destination: United Kingdom

Destination: Continental Europe Countries

WARNING

This service manual is strictly meant to be used by experienced professional repair technicians only and is not designed for use by the general public. Products powered by electricity should be serviced and repaired only by experienced professional repair technicians ("Professionals"). Any attempt to service or repair the product by anyone else could result in serious injury and even death. Panasonic shall not be responsible, to the extent permitted by applicable law, for any damages, losses, costs, expenses, death, injury, claims, decree, proceedings, and/or judgment, arising out of, in connection with, or relating to, any use and/or misuse of this service manual by users other than Professionals.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

•The specifications and the parts of this product are subject to change without notice for performance improvement or other purposes.

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1 Safety Precautions

⚠ WARNING

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This service manual covers products for following markets.

When troubleshooting or replacing parts, please refer to the country/AREA identifications shown below for your applicable product specification.

BDQ.....For United Kingdom EYG.....Continental Europe Countries

WARNING

This products should be serviced only by trained, qualified personnel.

2 Specifications

Models:		NE-1643	NE-1843	NE-1653	NE-1853
Power Source:		50 Hz, single phase 230V(EYG), 230-240V(BDQ)		50 Hz, single phase 230V(EYG), 230-240V(BDQ)	
Power Requirement:		11.7A 2590W	12.7A 2830W	11.7A 2590W	12.3A 2830W
*Output:	HIGH	1600 W	1800 W	P10: 1600 W	P10: 1800 W
	MEDIUM	-----		P9: 90%	
	HIGH	-----		P8: 80%	
	MEDIUM	800 W	900 W	P7: 70%	
	LOW	-----		P6: 60%	
	DEFROST	340 W		P5: 50%	
	OFF	-----		P4: 40%	
	HEAT FROM TOP DOWN	-----		P3: 30%	
	HEAT FROM BOTTOM	-----		P2: 25%	
Frequency:		2,450 MHZ		2,450 MHZ	
Outside Dimensions (W×D×H)		422 mm × 508 mm × 337 mm		422 mm × 508 mm × 337 mm	
Cavity Dimensions (W×D×H)		330 mm × 310 mm × 175 mm		330 mm × 310 mm × 175 mm	
Net Weight		30 kg		30 kg	
Timer:		Maximum programmable time for heating = 25 minutes , =30 minutes		30 minutes (digital)/10 touch pads Maximum programmable time for single stage heating P1 and P0=30 minutes P10-P2, PU1-PL2=15 minutes	

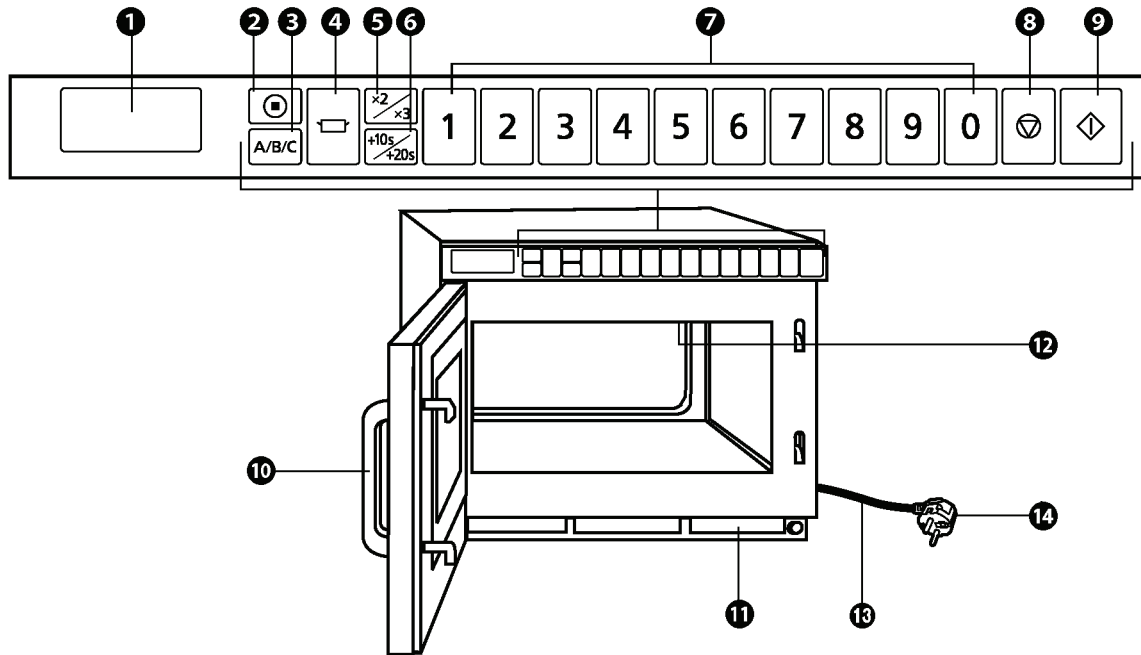
*IEC Test Procedure

Specifications subject to change without notice.

3 Location of Controls and Components

3.1. Outline diagram

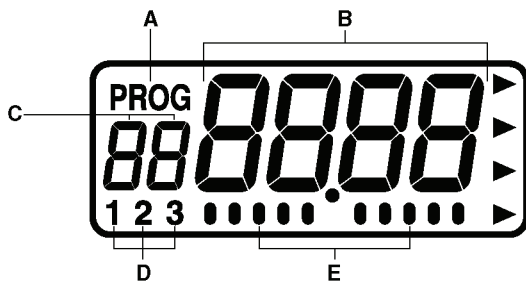
Outline Diagram of NE-1853/NE-1653



- ① Digital Display Window (see below)
- ② Prog (Program) Pad
- ③ Shift (A/B/C) Pad
- ④ Power Level Selector Pad
- ⑤ Double/Triple Quantity Pad
- ⑥ +10s/+20s Pad
- ⑦ •Number/Memory Pads
•Time Input
- ⑧ Stop/Reset Pad

- ⑨ Start Pad
- ⑩ Door Handle
- ⑪ Air Filter
- ⑫ Splatter Shield (top of inner cavity)
- ⑬ Power Cord
- ⑭ Power Plug

Caution label is attached on the outside surface.



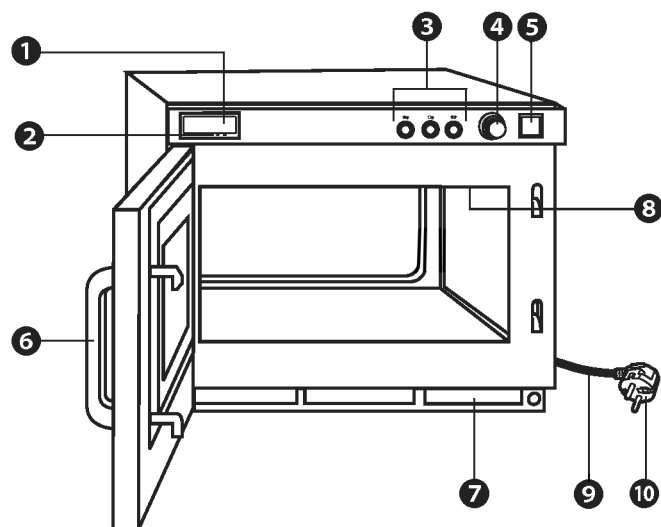
- A—Program Display
- B—Heating Time Display
("min. sec." or "hour min.")
- C—•Memory Pad Number Display
•Heating Stage Indicator
- D—Pattern of Buzzer Sound Setting
- E—•Calling Programmed Heating:
Stage Number Indicator
•Programmed Heating in Progress:
Operation Indicator
•Beep Tone Setting: Scale Indicator

This oven is preset at the factory for the following:

1. Manual operation
2. Number Pads preset to HIGH power at the indicated heating times for single stage heating.
A1=10 sec. A2=20 sec. A3=30 sec. A4=40 sec. A5=50 sec.
A6=1 min. A7=1 min. 15 sec. A8=1 min. 30 sec. A9=1 min. 45 sec. A0=2 min.
3. Program unlock
4. Double Quantity=1.6 times Triple Quantity=2.2 times
5. Cycle counter set to "0" on all pads.
6. Oven Lamp When the door is open = ON Blinking at the end of heating cycle = OFF
Decrease brightness during cooking = OFF
7. The default filter cleaning time is set to "500".

If you wish to change these times, please consult the operating instructions to find how to program them.

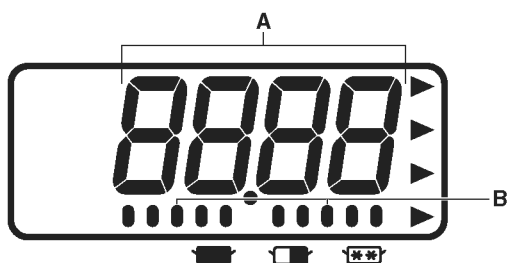
Outline Diagram of NE-1843/NE-1643



- ① Digital Display Window (see below)
- ② Power Level Indicator Display
- ③ Power Level Selector Buttons
- ④ Timer Dial
- ⑤ Start Button
- ⑥ Door Handle

- ⑦ Air Filter
- ⑧ Splatter Shield (top of inner cavity)
- ⑨ Power Cord
- ⑩ Power Plug

Caution label is attached on the outside surface.



A — Heating Time Display (min. sec.)

B — Power Level Indicator

- : HIGH
- ▤ : MEDIUM
- ☆☆ : DEFROST

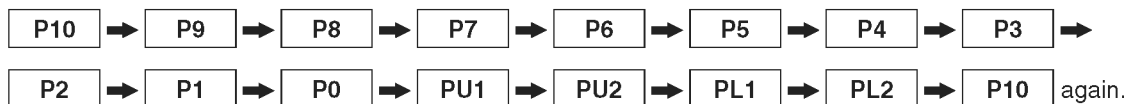
4 Operating Instructions

4.1. Operation procedure

How to Operate NE-1853/NE-1653

POWER LEVEL SELECTOR PAD

Each time the pad is pressed, the Power Level switches as the illustration below.



HIGH	P10: 1800 W* (NE-1853) P10: 1600 W* (NE-1653)	LOW	P3: 30% P2: 25%
MEDIUM HIGH	P9: 90% P8: 80% P7: 70% P6: 60%	DEFROST	P1: 340 W
		OFF	P0: 0%
		HEAT FROM TOP DOWN	PU1: 50% PU2: 25%
MEDIUM	P5: 50% P4: 40%	HEAT FROM BOTTOM UP	PL1: 50% PL2: 25%

*IEC Test Procedure

A. Manual Single Stage Heating



1. Make sure the oven is plugged into a properly earthed electrical outlet.



2. Open the door.
The oven lamp will turn on. "0" will appear in the Digital Display Window.
3. Put the food into a suitable container, place it in the centre of the oven and then close the door securely.
The oven lamp will turn off.
Note: While "0" appears, operation is available. 1 minute after the door is closed, "0" will disappear.



4. Select the desired Power Level by touching Power Level Selector Pad.
The selected Power Level will be displayed in the Digital Display Window and the single stage heating indicator "1" will start to blink.
[Example]: Touch Power Level Selector Pad once for HIGH power.
Note: Each time Power Level Selector Pad is touched, the Power Level switches as the above Power Level Selector illustrates.



5. Set the desired heating time by touching the appropriate Number Pads.
Note: The maximum set time for "DEFROST" and "P0" is 30 minutes, and 15 minutes for all others.
[Example]: Touch Number Pads "2", "0" and "0" for 2 minutes.



6. Touch Start Pad.
A. The oven lamp will turn on.
B. Heating will start.
C. During operation, the indicator appears from the left.
D. The heating time on digital display will count down.



7. When all time expires, the end of cycle beep tone will sound and all heating will stop.
The oven lamp will turn off. The display will blink "0000" until the door is opened.
1 minute later cooling fan will stop.

(Continued on next page.)

How to Operate NE-1853/NE-1653



8. Open the door and take the food out.
The oven lamp will turn on. The digital display will show the originally selected time and heating stage number.



9. Close the door.
The oven lamp will turn off and 1 minute later the Digital Display Window will go blank.

SPECIAL NOTE: For both single and 4 stage heating.

1. While heating, one touch on Stop/Reset Pad stops the oven. You can restart it by touching Start Pad or a second touch on Stop/Reset Pad will cancel the selected program.
2. While not in a heating cycle, one touch on Stop/Reset Pad cancels the selected program.

REPEAT FEATURE

1. You can repeat exactly the same manually selected heating time by touching only Start Pad, if you use the oven again within 1 minute.
2. After 1 minute of non-use with the door closed, the repeat feature will be cancelled.

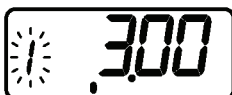
B. Manual 2 to 5 Stage Heating



1. Follow Steps 1–5 on page 5.
2. Select the desired Power Level for the second stage heating by touching Power Level Selector Pad the appropriate number of times.
The Power Level will be displayed in the Digital Display Window and the second stage indicator "2" will start to blink.
[Example]: Touch Power Level Selector Pad 8 times for LOW power.



3. Set the desired heating time for the second stage by touching the appropriate Number Pads.
Note: The maximum set time for "DEFROST" and "P0" is 30 minutes, and 15 minutes for all others.
However, the TOTAL TIME can be set up to 25 minutes for continuous heating (1 to 5 stage heating) that excludes "DEFROST" and "P0".
[Example]: Touch Number Pads "1", "0" and "0" for 1 minute.



4. Touch Start Pad.
 - A. The total time for both stages will be displayed.
 - B. The oven lamp will turn on.
 - C. During operation, the indicator appears in order from the left.
 - D. The heating time for the first stage will count down.



5. After the first stage heating time expires, a single beep tone will sound, the second stage heating indicator "2" will start to blink, and the heating time will continue to count down.



6. When all time expires, the end of cycle beep tone will sound. All heating will stop. The oven lamp will turn off. The time display will blink "0000" until the door is opened. 1 minute later cooling fan will stop.

(Continued on next page.)

How to Operate NE-1853/NE-1653



7. Open the door and take the food out.
The oven lamp will turn on. The digital display will show the originally selected time and heating stage number.



8. Close the door.
The oven lamp will turn off and 1 minute later the Digital Display Window will go blank.

Note: For the heating cycle of the third and later stages, select Power Level once again after Step 3 on page 6 and set a heating time.

See Special Note of "Manual Single Stage Heating" on page 6.

C. Programming Memory Pads for Single Stage Heating

The oven can not be programmed until the program lock feature is deactivated.

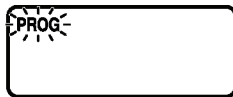
(See page 11, J. To Activate Program Lock.)



1. Make sure the oven is plugged into a properly earthed electrical outlet.



2. Open the door and leave it open.



3. Touch Prog Pad.
"PROG" sign will start to blink in the Digital Display Window.



4. Touch Memory Pad you desire to program.
The pad number and the previously programmed information will appear in the Digital Display Window.
[Example]: Touch Memory Pad "5".



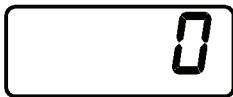
5. Select the desired Power Level by touching Power Level Selector Pad.
The selected power level will be displayed in the window and the single stage heating indicator "1" will start to blink.
[Example]: Touch Power Level Selector Pad 10 times for DEFROST power.



6. Set the desired heating time by touching the appropriate Number Pad.
Note: The maximum set time for "DEFROST" and "P0" is 30 minutes, and 15 minutes for all others.
[Example]: Touch Number Pads "1", "0" and "0" for 1 minute.



7. Touch Prog Pad again.
The "PROG" sign and the single stage heating indicator "1" will stop blinking. This means that you have completed programming the selected Memory Pad for the single stage heating.



8. 3 seconds after programming is completed, "0" will appear.
9. Program the remaining Memory Pads as desired by repeating Steps 3–7 above.

Note: ●When the "PROG" Display is blinking, the program can be cancelled and/or one touch on Stop/Reset Pad erased the programmed Number/Memory Pad number.

●When you want to program B or C side, touch Shift (A/B/C) Pad before touching Program Number Pad.

How to Operate NE-1853/NE-1653

D. Programming Memory Pads for 2 to 5 Stage Heating



1. Complete Steps 1–6 above.



2. Select Power Level for the second stage by touching Power Level Selector Pad. The selected Power Level will be displayed in the window and the second stage heating indicator "2" will start to blink.

[Example]: Touch Power Level Selector Pad once for HIGH power.



3. Set the desired heating time by touching appropriate Number Pads.

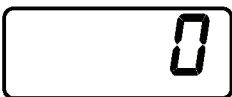
Note: The maximum set time for "DEFROST" and "P0" is 30 minutes, and 15 minutes for all others.

However, the TOTAL TIME can be set up to 25 minutes, and 15 minutes for continuous heating (1 to 5 stage heating) that excludes "DEFROST" and "P0".

[Example]: Touch Number Pads "2", "0" and "0" for 2 minutes.



4. Touch Prog Pad again and the "PROG" sign and the second stage heating indicator "2" will stop blinking. The total time for both stages will be displayed. This means that you have completed programming the desired Memory Pad for the second stage heating.



5. 3 seconds after programming is completed, "0" will appear.

6. Program the remaining pads as desired by repeating the Steps above.

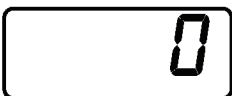
Note: •When you want to program B or C side, touch Shift (A/B/C) Pad before touching Program Number Pad.

•Repeat the above procedure to set Heating for the third stage and later stages.

E. Memory Pad Heating



1. Make sure the oven is plugged into a properly earthed electrical outlet.



2. Open the door.

The oven lamp will turn on. "0" will appear in the Digital Display Window.

Note: While "0" will appear, operation is available. 1 minute after the door is closed, "0" will disappear.

3. Put the food into a suitable container, place it in the centre of the oven and then close the door securely.

The oven lamp will turn off.



4. Touch the desired Memory Pad.

A. The currently programmed information will be indicated.

[Example]: Memory Pad "5" (Program No. A-5)

The heating program (at DEFROST power for 1 minute, at HIGH power for 2 minutes) as programmed on pages 7–8 is set.



5. Touch Start Pad.

A. The oven lamp will turn on.

B. During operation, the indicator appears in order from the left.

C. The heating time will count down.

(Continued on next page.)

How to Operate NE-1853/NE-1653



6. When all the time expires, the end of the cycle beep tone will sound. All heating will stop. The oven lamp will turn off. The time display will blink "0000" until the door is opened. 1 minute later, cooling fan will stop.

7. Open the door and take the food out.

The oven lamp will turn on.

8. Close the door.

The oven lamp will turn off and 1 minute later the Digital Display Window will go blank.

Note: To use B or C side Program, touch Shift (A/B/C) Pad before touching Program Number Pad.

F. Programming Double/Triple Quantity Pad

(The oven can not be programmed until the program lock feature is deactivated.)



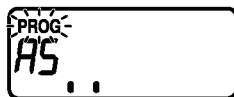
1. Open the door and leave it open.

The oven lamp will turn on, and "0" will appear.



2. Touch Prog Pad.

"PROG" will blink in the Digital Display Window.



3. Touch Memory Pad for the desired program.

The pad number and the previously programmed information will appear in the display. "PROG" will start to blink.



4. Touch Double/Triple Quantity Pad once.

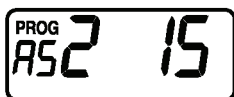
The previously selected magnification number will appear in the display.

[Example]: 1.6 times is 16. (Double quantity) 2.2 times is 22. (Triple quantity)



5. Set the desired magnification by touching the appropriate Number Pad.

[Example]: 1.5 times; Touch Number Pads "1" and "5".



6. Touch Prog Pad again.

The "PROG" will stop blinking. This means that you have completed programming the selected Memory Pad for appropriate double quantity.



7. After 3 seconds later, "0" will appear.

Note: If you want to change appropriate time for triple quantity, you touch Double/Triple Quantity Pad twice as in Step 4 above. The magnification is preset. Each magnification must be programmed separately for alterations.

N.B. Please test for correct times when setting the program to achieve correct temperatures.

How to Operate NE-1853/NE-1653

G. Memory Pad Heating for Double/Triple Quantity Heating

[Make sure the unit is properly programmed.]

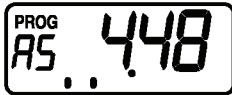


1. Follow Steps 1–3 in “E. Memory Pad Heating”.



2. Touch Double/Triple Quantity Pad once.

Note: When you want triple quantity heating, touch Double/Triple Quantity Pad twice.



3. Touch the desired Memory Pad.

[Example]: Memory Pad 5 (Program No. A-5)



4. Touch Start Pad.

A. The oven lamp will turn on.

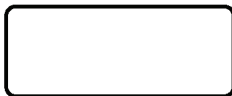
B. During operation, the indicator appears in order from the left.

C. The heating time will count down.

Note: If program lock is activated, the heating program starts immediately, i.e. there is no need to touch Start Pad.



5. When all time has expired, the end of the cycle beep tone will sound. All heating will stop. The oven lamp will turn off. The time display will blink “0000” until the door is opened.



6. Open the door and remove the food. Close the door.

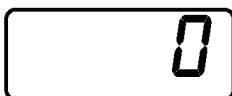
1 minute later the Digital Display Window will go blank.

Note: To use B or C side Program, touch Shift (A/B/C) Pad before touching Program Number Pad.

H. +10s/+20s Pad Heating



1. Make sure the oven is plugged into a properly earthed electrical outlet.



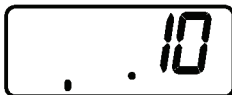
2. Open the door.

The oven lamp will turn on. “0” will appear in the Digital Display Window.

Note: While “0” will appear, operation is available. 1 minute after the door is closed, “0” will disappear.

3. Put the food into a suitable container, place it in the centre of the oven and then close the door securely.

The oven lamp will turn off.



4. Touch +10s/+20s Pad once.

A. The oven lamp will turn on.

B. During operation, the indicator appears in order from the left.

C. Heating will start on HIGH power for 10 seconds.

[Example]: Touch +10s/+20s Pad once for 10 seconds.

Touch +10s/+20s Pad twice for 20 seconds.



5. When all the time expires, the end of cycle beep tone will sound. All heating will stop. The oven lamp will turn off. The time display will blink “0000” until the door is opened. 1 minute later, cooling fan will stop.

(Continued on next page.)

How to Operate NE-1853/NE-1653



6. Open the door and take the food out.
The oven lamp will turn on.
7. Close the door.
The oven lamp will turn off and 1 minute later the Digital Display Window will go blank.

Note: While heating, one touch on Stop/Reset Pad or opening the door will cancel the heating program.

I. To Read the Cycle Counter

•To display all cooking times ever used

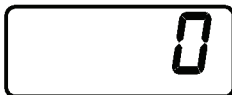


1. Open the door and leave it open.
The oven lamp will turn on. "0" will appear in the display.



2. While touching Start Pad, touch Number Pad "3".
All the cooking times that were ever used will appear.

•To display the cumulative number of times the oven was used



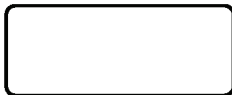
1. Open the door and leave it open.
The oven lamp will turn on. "0" will appear in the display.



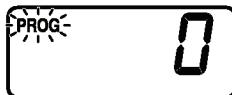
2. While touching Start Pad, touch Power Level Selector Pad.
The Number of cycles that the oven has been used will appear.

Note: The last two digits are dropped from the cumulative number of times the oven was used, which is displayed in units of 100 when used over 100 times.

J. To Activate Program Lock



1. Make sure the oven is plugged into a properly earthed electrical outlet.



2. Open the door and leave it open.
The oven lamp will turn on. "0" will appear in the display. While touching Start Pad, touch Prog Pad until the display show "PROG", "P" and "L" (for more than 2 seconds).

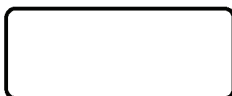


3. Program Lock feature is now activated.

Note: In "Program Lock"

- a. The oven is started by touching the desired Memory Pad. There is no need to touch Start Pad.
- b. The Interrupt feature is deactivated—opening the door cancels the remaining time on the program.
- c. The oven can not be programmed or run manually until the Program Lock feature is deactivated.

K. To Deactivate Program Lock



1. Make sure the oven is plugged into a properly earthed electrical outlet.

(Continued on next page.)

How to Operate NE-1853/NE-1653



2. Open the door and leave it open.
The oven lamp will turn on. "0" will appear in the display. While touching Start Pad, touch Prog Pad until the Digital Display Window show "PROG" and "P" (for more than 2 seconds).



3. Program Lock feature is now deactivated.

Note: In "Program Unlock"

- a. Oven reverts to a two-touch operating mode (Number/Memory Pad + Start Pad).
- b. Repeat and interrupt features are operational.
- c. Memory Pads can be programmed.
- d. Manual heating is operational.
- e. Tone loudness control, length control and pitch control (beep tone at the end of heating cycle/filter cleaning alarm) are operational.

L. To Read Program List

1. Open the door and leave it open.



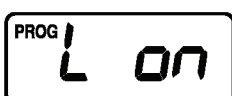
2. While touching Start Pad, touch Number Pad "1".
All currently programmed information (the program set into each Number/Memory Pad (A0 to C9), Beep Tone, Program Lock, Oven Lamp settings when the door is open, Oven Lamp blink settings at the end of heating cycle and Oven Lamp reduction settings during cooking information) will continuously appear.

Note: When the filter cleaning alarm counter is set, this appears after Program Lock.

How to erase memory content

1. Open the door (keep it open) and touch Prog Pad.
2. Select the memory number you want to erase, and touch Power Level Selector Pad.
3. Touch Stop/Reset Pad, and "0" is displayed to indicate that memory is erased.

*Memory content is automatically erased if overwritten.



How to Operate NE-1853/NE-1653

M. To Select Beep Tone Options

(The oven can not be programmed until the program lock feature is deactivated.)

The beep tone can be set for loudness—(4 Levels), length of tone—(3 Options), pitch of tone—(3 Options) and pitch of filter cleaning alarm—(3 Options). You can select the combination of loudness, length and pitch that best suits your needs.

The beep tone is set at the factory to the loudest level (#3), to 3 beeps and to normal pitch.

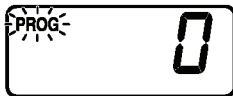
To Select Loudness Level

1. Make sure the oven is plugged into a properly earthed electrical outlet.



2. Open the door and leave it open.

The oven lamp will turn on. "0" will appear in the display.



3. Touch Prog Pad first and then touch Start Pad.

"3 bEEP" and pattern of buzzer sound settings indicator "1" will appear in the Digital Display Window and "PROG" will blink.



4. Select the desired sound loudness level by touching Start Pad.

Repeated touching of Start Pad will lower the loudness of the tone all the way to silent. The tone will sound at its loudness level and the Digital Display Window will display loudness level in digits (3 to 0—loud to silent) followed by the word "bEEP".

[Example]: 3 bEEP—Loudest (Factory Setting) 1 bEEP—Low
2 bEEP—Mid 0 bEEP—Silent



5. Touch Prog Pad again, and "PROG" will stop blinking, and the set loudness of beep tone will appear for 3 seconds. Then "0" will appear.

To proceed to set length of beep tone, touch Start Pad before "0" is displayed after Step 5.



To Select Length of Tone

There are 3 options for the length of beep tone at the end of heating cycle.

- 1st. 3 beeps (Factory Setting)
- 2nd. Short beeps for 60 seconds
- 3rd. "Beep" sounds for 5 seconds, and then 3 beeps sound 30 seconds later and again 60 seconds later. (Buzzer reminder functions to prevent food from being forgotten in the oven.)



6. Within 3 seconds after touching Prog Pad at Step 5, touch Start Pad.

- A. "PROG" will blink.
- B. Current length of beep tone will be displayed.
- C. The display changes to 1st, 2nd, and 3rd each time Start Pad is touched and the settings change.



7. When the desired length of tone has been selected, touch Prog Pad again. "PROG" will stop blinking, and the set length of tone at the end of heating cycle will appear for 3 seconds, then "0" will appear.

To proceed to set pitch of beep tone, touch Start Pad before "0" is displayed after Step 7.



(Continued on next page.)

How to Operate NE-1853/NE-1653

To Select Pitch of Tone

There are 3 options for the pitch of tone at the end of the heating cycle.

●: Low, ●●: Normal (Factory Setting), ●●●: High



8. Within 3 seconds after touching Prog Pad at Step 7, touch Start Pad.
 - A. "PROG" will start to blink.
 - B. Current pitch of tone will be displayed.
 - C. The display changes to "●", "●●", and "●●●" each time Start Pad is touched and the settings change (Under the "bE" in "bEEP").



9. When the desired pitch of tone has been selected, touch Prog Pad again. "PROG" will stop blinking, and the set pitch of tone at the end of heating cycle will appear for 3 seconds. Then "0" will appear.

To proceed to set pitch of filter cleaning alarm, touch Start Pad before "0" is displayed after Step 9.



To Select Pitch of Filter Cleaning Alarm

There are 3 options for the pitch of the filter cleaning alarm.

●: Low, ●●: Normal (Factory Setting), ●●●: High



10. Within 3 seconds after touching Prog Pad at Step 9, touch Start Pad.
 - A. "PROG" will start to blink.
 - B. Current pitch of filter cleaning alarm will be displayed.
 - C. The display changes to "●", "●●", and "●●●" each time Start Pad is touched and the settings change (Under the "EP" in "bEEP").



11. When the desired pitch of filter cleaning alarm has been selected, touch Prog Pad again. "PROG" will stop blinking, and the set pitch of filter cleaning alarm will appear for 3 seconds. Then "0" will appear.

Note: When the programmed hour of cleaning Air Filter is "0", the pitch of filter cleaning alarm can not be selected.



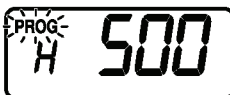
N. Procedure to Program the Air Filter



1. Open the door and leave it open.
The oven lamp will turn on. "0" will appear in the Digital Display Window.



2. While touching Start Pad, touch Number Pad "7".



3. The display will show the length of time (in hours) between cleaning the Air Filter you have programmed in or the original time preset by the manufacturer.



4. Set the desired time between cleaning by touching the appropriate Number Pads. (Up to 9999 hours)
[Example]: Touch Number Pads "6", "0" and "0" for 600 hours.

(Continued on next page.)

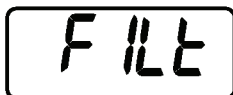
How to Operate NE-1853/NE-1653



5. Touch Prog Pad.
This completes the procedure to program time between cleaning of the Air Filter.



6. After 3 seconds, "0" will appear in the Digital Display Window. The oven is now ready for use.



- Note:** When "FILt" sign appears in Digital Display Window, remove the Air Filter and clean it.
Touch Stop/Reset Pad for 2 seconds to clear the display.



To display the filter cleaning alarm counter

1. Open the door and leave it open.
2. While touching Start Pad, touch Number Pad "5".
3. The cumulative total cooking time starts over and is displayed after it is cleared.



After 3 seconds, "0" will appear in the Digital Display Window.

N.B. If the oven cuts out after short operation, check the Air Filter is clean before calling an engineer.

O. Oven Lamp

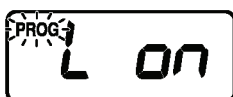
(The oven can not be programmed until the program lock feature is deactivated.)

•Oven Lamp settings when the door is open

To turn Oven Lamp settings OFF



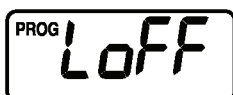
1. Open the door and leave it open.
The oven lamp will turn on, and "0" will appear.



2. While touching Start Pad, touch Number Pad "9".
"PROG" will start to blink. The previously set Oven Lamp settings are displayed.



3. Touch Start Pad.
Note: "on" → "off" → "on" is repeated each time the Pad is touched.



4. Touch Prog Pad.
"PROG" will stop blinking, and the Oven Lamp settings will appear for 3 seconds. Then "0" will appear.



To proceed to Step 5, touch Start Pad before "0" is displayed after Step 4.

(Continued on next page.)

How to Operate NE-1853/NE-1653

•Oven Lamp blinks at the end of heating cycle

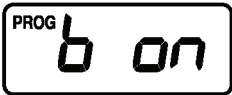
To turn the blinking Oven Lamp ON at the end of heating cycle



5. Within 3 seconds after touching Prog Pad at Step 4, touch Start Pad.
"PROG" will start to blink. The previously set Oven Lamp blink settings are displayed.



6. Touch Start Pad.
Note: "oFF" → "on" → "oFF" is repeated each time the Pad is touched.



7. Touch Prog Pad.
"PROG" will stop blinking, and the Oven Lamp blink settings will appear for 3 seconds. Then "0" will appear.

To proceed to Step 8, touch Start Pad before "0" is displayed after Step 7.



•Adjusting Oven Lamp brightness during cooking

To decrease brightness of the inner cavity during cooking



8. Within 3 seconds after touching Prog Pad at Step 7, touch Start Pad.
"PROG" will start to blink. The previously set Oven Lamp reduction settings are displayed.



9. Touch Start Pad.
Note: "oFF" → "on" → "oFF" is repeated each time the Pad is touched.

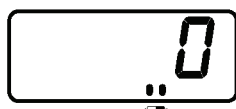
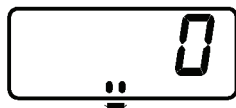


10. Touch Prog Pad.
"PROG" will stop blinking, and the Oven Lamp reduction settings will appear for 3 seconds. Then "0" will appear.



How to Operate NE-1843/NE-1643

Example: To cook food at MEDIUM power for 4 minutes



1. Make sure the oven is plugged into a properly earthed electrical outlet.
 2. Open the door.
The oven lamp will turn on. "0" will appear in the Digital Display Window and Power Level Indicator will appear.
 3. Put the food into a suitable container, place it in the centre of the oven and then close the door securely.
The oven lamp will turn off.
Note: While "0" appears, operation is available. 1 minute after the door is closed, "0" will disappear.
 4. Press the desired Power Level Selector Button, if other than (HIGH).
The selected Power Level Indicator will be displayed under the Digital Display Window.
[Example]: Press Power Level Selector Button once for (MEDIUM).
 5. Set the desired heating time.
Please check the heating time will appear.
Note: The maximum set time for is 25 minutes, and 30 minutes for or .
[Example]: Set heating time for 4 minutes.
 6. Press Start Button.
A. The oven lamp will turn on.
B. Heating will start.
C. Power Level Indicator will start to blink.
D. The heating time on digital display will count down.
 7. When all time expires, beep tone will sound and all heating will stop.
The oven lamp will turn off. "0000" will blink until the door is opened. 1 minute later, cooling fan will stop.
 8. Open the door and take the food out.
The oven lamp will turn on. Digital Display Window will show "0" and Power Level Indicator will appear.
 9. Close the door.
The oven lamp will turn off and 1 minute later, the Digital Display Window will go blank.
- When you press the Start Button with door open, "0" will appear in the display in all cases.
 - Even after setting the heating time you can still change the power level.
 - If you wish to change the heating time during heating, simply adjust the timer to desired minutes and seconds.

5 Test Mode

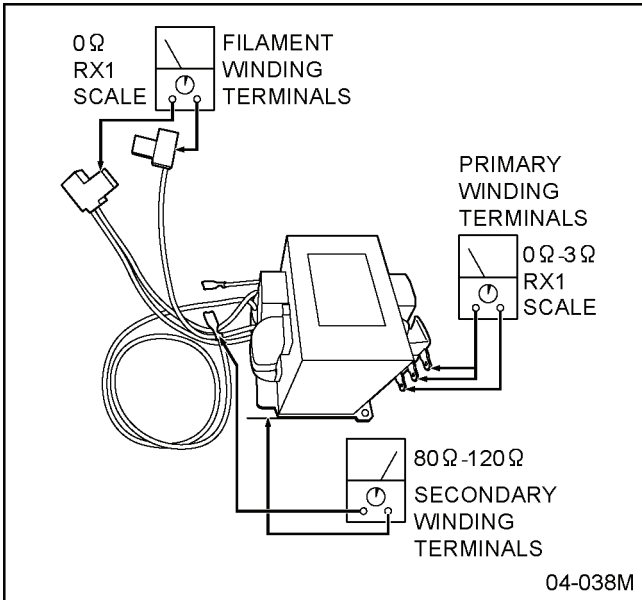
5.1. Component test procedure

CAUTION

1. High voltage is present at the high voltage terminal of the high voltage transformer during any cook cycle.
2. It is neither necessary nor advisable to attempt measurement of the high voltage.
3. Before touching any oven components, or wiring, always unplug the oven from its power source and discharge the high voltage capacitor.

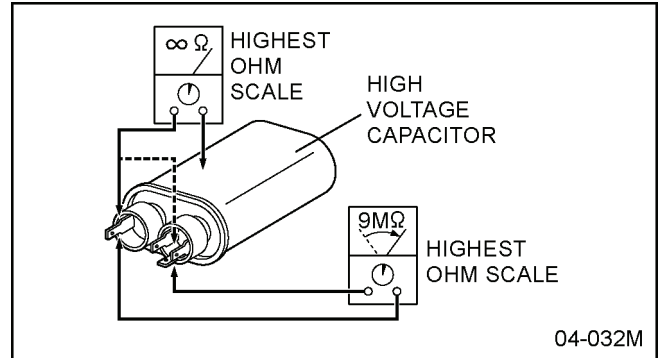
5.1.1. High voltage transformer

1. Remove connections from the transformer terminals and check continuity.
2. Normal (cold) resistance readings should be as follows:
Secondary winding Approx. 80Ω - 120Ω
Filament winding Approx. 0Ω
Primary winding Approx. 0Ω - 3Ω



5.1.2. High voltage capacitor

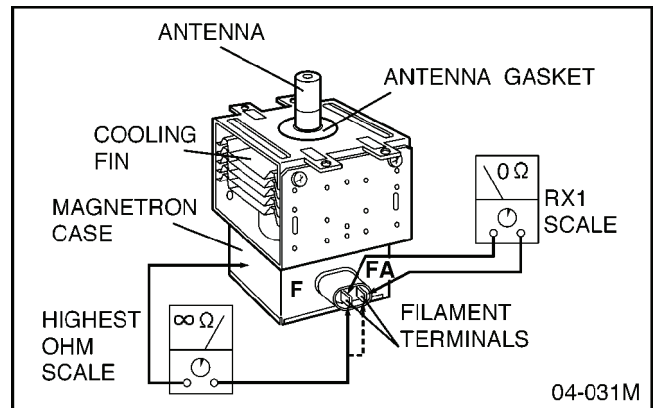
1. Check continuity of capacitor with meter on highest OHM scale.
2. A normal capacitor will show continuity for a short time, and then indicate $9M\Omega$ once the capacitor is charged.
3. A shorted capacitor will show continuous continuity.
4. An open capacitor will show constant $9M\Omega$.
5. Resistance between each terminal and chassis should be infinite.



5.1.3. Magnetron

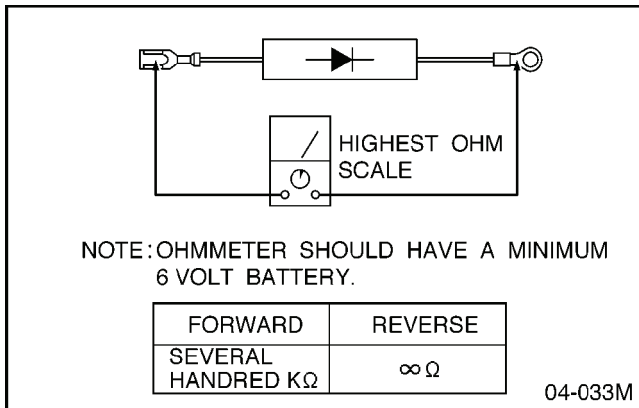
Continuity checks can only indicate an open filament or a shorted magnetron. To diagnose for an open filament or shorted magnetron.

1. Isolate magnetron from the circuit by disconnecting the leads.
2. A continuity check across magnetron filament terminals should indicate one ohm or less.
3. A continuity check between each filament terminal and magnetron case should read open.



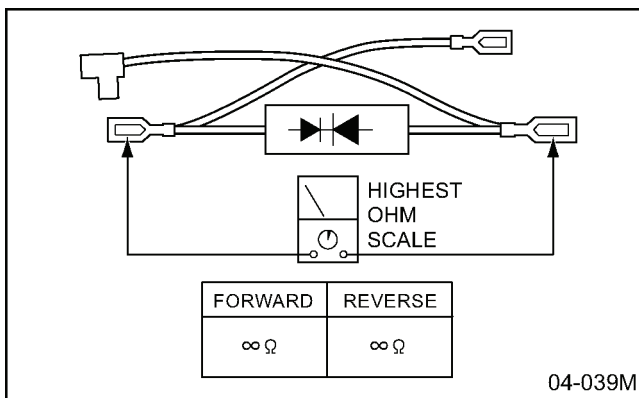
5.1.4. Diode

1. Isolate the diode from the circuit by disconnecting the leads.
2. With the ohmmeter set on the highest resistance scale, measure the resistance across the diode terminals. Reverse the meter leads and again observe the resistance reading. Meter with 6V, 9V or higher voltage batteries should be used to check the front-to-back resistance of the diode, otherwise an infinite resistance may be read in both directions.
A normal diode's resistance will be infinite in one direction and several hundred k Ω in the other direction.



5.1.5. Protector diode

1. Isolate the protector diode assembly from the circuit by disconnecting its leads.
2. With the ohmmeter set on the highest resistance scale, measure the resistance across the protector diode terminals. Reverse the meter leads and again observe the resistance reading. A normal protector diode's resistance will be infinite in both directions. It is faulty if it shows continuity in one or both directions.



5.1.6. Key board (Membrane switch)

Check continuity between switch terminals, by tapping an appropriate pad on the key board. The contacts assignment of the respective pads on the key board is as shown in digital programmer circuit.

5.1.7. Temp sensor (Thermal protector)

A temp sensor is mounted on exhaust guide. Its purpose is to automatically shut off the oven in case the cavity overheats for any reason.

The thermal protector will operate at 257°F (125°C).

The device is connected to the digital programmer circuit on touch control models.

When the thermal protector exceeds its temperature it will turn off the power to oven cavity and display will go to reset mode.

The cooking program can be reset after cool-down.

THERMISTOR RESISTANCE VALUE

30K-120K at 10°C-30°C (50°F-86°F)

6 Troubleshooting Guide

6.1. Cautions to be observed when troubleshooting

Unlike many other appliances, the microwave oven is high-voltage, high-current equipment. Though it is free from danger in ordinary use, extreme care should be taken during repair.

CAUTION

Servicemen should remove their watches whenever working close to or replacing the magnetron.

6.1.1. Check the grounding

Do not operate on a 2-wire extension cord. The microwave oven is designed to be used in a completely grounded condition. It is imperative, therefore, to make sure it is properly grounded before beginning repair work.

6.1.2. If the door lock, the door switch, the door seal or the door develops a malfunction, be sure not to operate the oven until complete repairs are made.

If the oven is operated with any of these parts in imperfect condition, hazardous microwave leakage might occur.

WARNING

Never operate the oven until the following are confirmed:

- (A) The door is tightly closed.
- (B) There is no broken hinge or door arm.
- (C) The door seal is not damaged.
- (D) The door is not bent or warped.
- (E) There is no other visible damage.

6.1.3. Warning about the electric charge in the high voltage capacitor

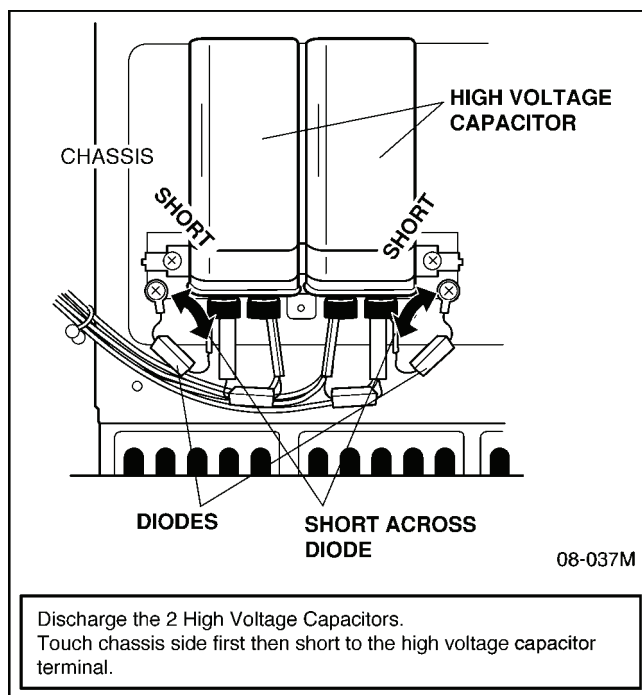
For about 30 seconds after the oven is turned off, an electric charge remains in the high voltage capacitor. When replacing or checking parts, remove the power plug from the outlet, wait 30 seconds and short the terminal of the high voltage capacitor (terminal of lead wire from diode) to chassis ground with an insulated jumper lead wire or an insulated handle screwdriver discharge.

WARNING

There is high-voltage present, with high-current capabilities in the circuits of the high voltage winding and filament winding of the high voltage transformer. It is extremely dangerous to work on or near these circuits with oven energized. DO NOT measure the voltage in the high voltage circuit including filament voltage of magnetron.

WARNING

Never touch any circuitry either your hand insulated tools while oven is energized.



6.1.4. When parts must be replaced, remove the power plug from the outlet.

6.1.5. When the 2.5 Amp. and/or 10 Amp. fuse is blown due to the operation of the interlock monitor switch.

WARNING

When the 2.5 Amp. fuse is blown due to the operation of Interlock monitor switch, you must replace Primary interlock switch, Interlock monitor switch and the 2.5 Amp. fuse. Also replace Secondary interlock switch when the continuity check for this switch reads shorted contacts. When the 10 Amp. fuse is blown, you must replace Primary interlock switch and Interlock monitor switch and the 10 Amp. fuse. Also replace Power relay (RY1-7) when the continuity check reads shorted contacts.

1. This is mandatory. Refer to "Measurements and Adjustments" for these switches.
2. When replacing the fuse, confirm that it has the appropriate rating for these models.
3. When replacing faulty switches, be sure mounting tabs are not bent, broken or otherwise deficient in their ability to hold the switches.

6.1.6. Avoid inserting nails, wire, etc. through holes in unit during operation.

Never insert a wire, nail or any other metal object through the lamp holes on the cavity or any other holes or gaps, because such objects may work as an antenna and cause microwave leakage.

6.1.7. Confirm after repair

1. After repair or replacement of parts, make sure that the screws of the oven, etc. are neither loose nor missing. Microwave might leak if screws are not properly tightened.
2. Make sure that all electrical connections are tight before inserting the plug into the wall outlet.

**CAUTION
MICROWAVE RADIATION**

DO NOT BECOME EXPOSED TO RADIATION FROM THE MICROWAVE GENERATOR OR OTHER PARTS CONDUCTING MICROWAVE ENERGY.

IMPORTANT NOTICE

1. The following components have potentials above 250V while the appliance is operated.
 - ※ Magnetron
 - ※ High voltage transformer
 - ※ High voltage diode
 - ※ High voltage capacitor
 - ※ Protector diodePay special attention on these portions.
2. When the appliance is operated with the door hinge or magnetron fixed incorrectly, the microwave leakage can reach more than 5mW/cm². After repair or exchange, it is very important to check if magnetron and the door hinge is correctly fixed.

6.2. Troubleshooting guide

CAUTION

1. Check grounding before checking for trouble.
2. Be careful of the high voltage circuit.
3. Discharge high voltage capacitor.
4. When checking the continuity of the switches or the high voltage transformer, disconnect one lead wire from these parts and then check continuity with the AC plug removed. To do otherwise may result in a false reading or damage to your meter.
When disconnecting a plastic connector from a terminal, you must hold the plastic connector instead of the lead wire and then disconnect it, otherwise lead wire may be open or the connector cannot be removed.
5. Be sure to ground any static electric charge built up in your body, before handling the digital programmer circuit board.
6. A 220-240V AC is present at the shaded area  of the power supply circuit board (Terminals of power relays and primary circuit of low voltage transformer). When troubleshooting, be cautious of possible electrical shock hazard.

First of all, operate the microwave oven following the correct operating procedures described on pages 5 -17 of this service manual in order to find the exact cause of any trouble.

NOTE: If the unit shows faulty symptom as shown below, check the parts listed in possible cause column depending on failure indication e.g. F81, F82 in the display.

[TROUBLE 1] Oven does not operate at all or oven does not start cooking.

DISPLAY	CONDITIONS	POSSIBLE CAUSE	TIMING OF FAILURE INDICATION
F33	Open temperature sensor (exhaust)	1.Temperature sensor failure 2.Digital programmer circuit failure 3.Loose connector CN4	It is appeared when failure occurred.
F34	Short temperature sensor (exhaust)	1.Temperature sensor failure 2.Digital programmer circuit failure	It is appeared when failure occurred.
F44		1.Shorted membrane switch 2.Digital programmer circuit failure	It is appeared 2 minuted after failure occurred.
F01 (With continuous beep sounds)	Exhaust temperature exceeds 120°C	1.Burning food in the oven due to over cooking	It is appeared when exhaust temperature exceeds above 120°C
F05	Memory failure	1.Digital programmer circuit failure	
No display	2.5A fuse blown	1.Switch failure SW4, SW5, SW6, SW7 2.Low voltage transformer failure	
No display	2.5A fuse is OK	1.Switch failure SW1, SW2, SW3 2.Low voltage transformer failure 3.Digital programmer circuit failure	
F81	No voltage supply to high voltage transformer (upper)	1.Relay failure RY-3 2.Switch failure SW4, SW5 3.10A fuse open 4.Digital programmer circuit failure	It is appeared when cooking is completed.
F82	No voltage supply to high voltage transformer (lower)	1.Relay failure RY-4 2.Switch failure SW6, SW7 3.10A fuse open 4.Digital programmer circuit failure	It is appeared when cooking is completed.
F86	Shorted contacts of RY-3 and RY-5	1.Relay failure RY-3 and RY-5 2.Digital programmer circuit failure	It is appeared when failure occurred.
F87	Shorted contacts of RY-4 and RY-5	1.Relay failure RY-4 and RY-5 2.Digital programmer circuit failure	It is appeared when failure occurred.

7 Disassembly and Assembly Instructions

CAUTION

Servicemen should remove their watches whenever working close to or replacing the magnetron.

7.1. Magnetron (Upper and Lower)

Upper magnetron

1. Discharge electric charge remaining on the high voltage capacitors.
2. Remove the entire rear panel by removing screws as shown.
3. Disconnect all lead wires from magnetron and thermal cutout.
4. Remove the 4 screws holding magnetron.
5. Remove 2 screws holding thermal cutout.
6. Remove the mounting bracket from magnetron and install it on the new magnetron.

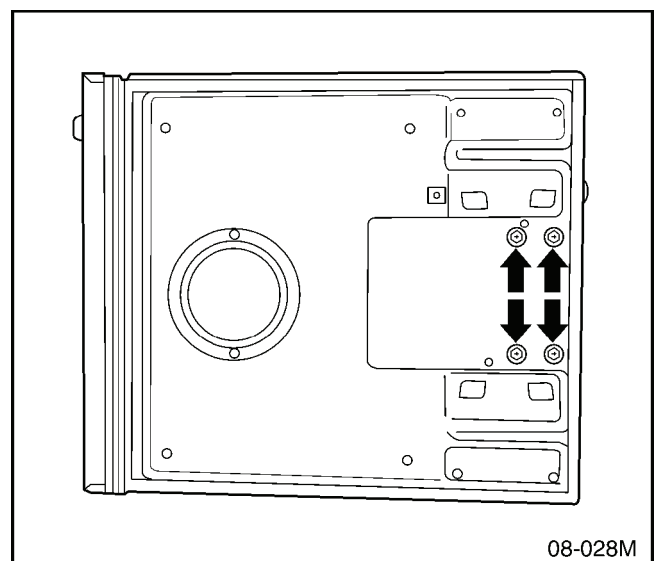
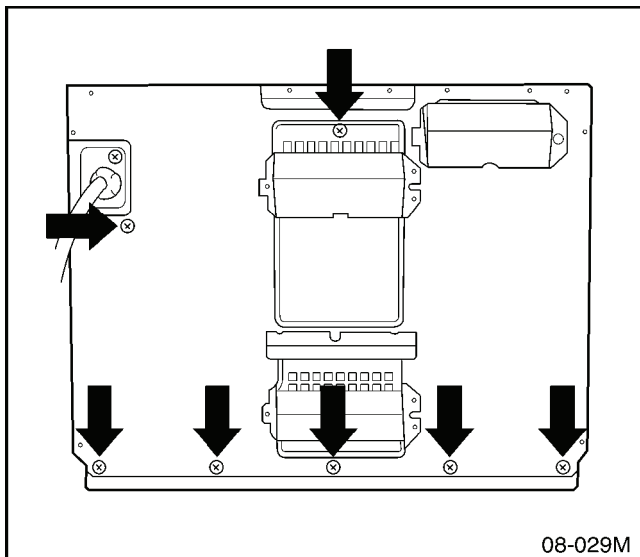
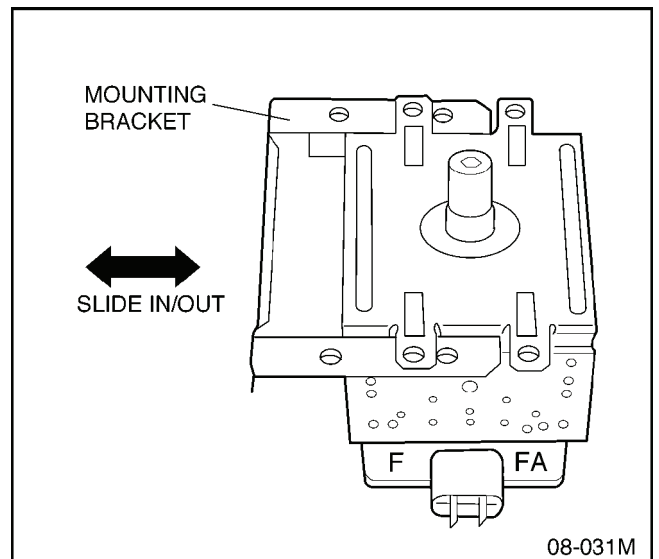
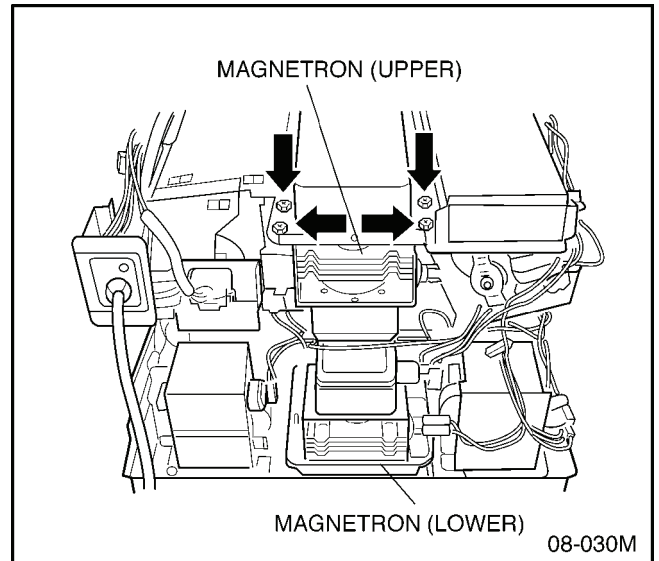
Lower magnetron

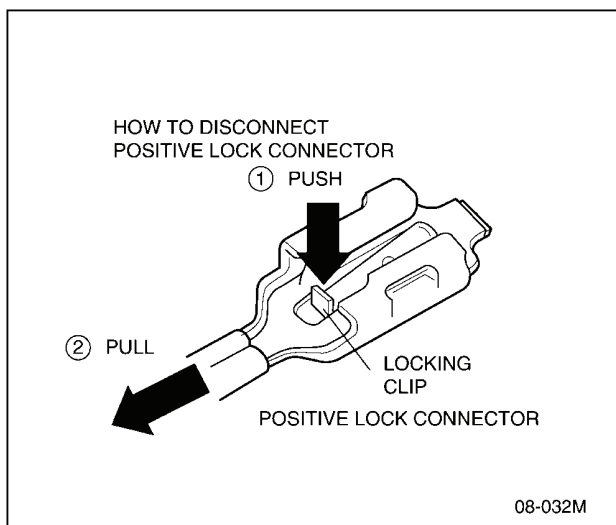
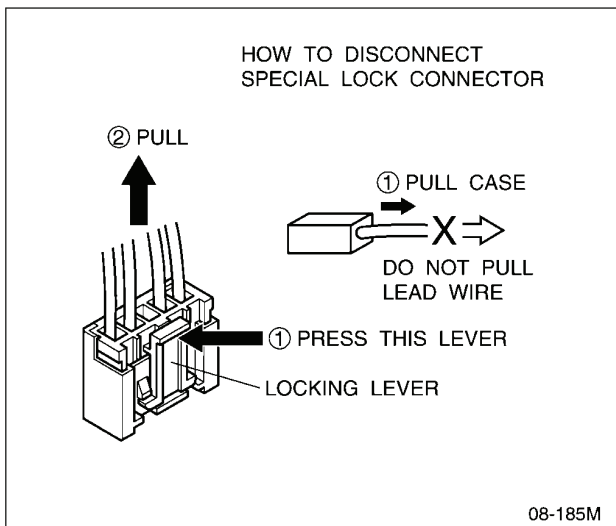
1. Discharge electric charge remaining on the high voltage capacitors.
2. Remove the entire rear panel by removing screws as shown.
3. Carefully place the unit on its left side (H. V. Capacitor side).
4. Remove the cover by removing 2 screws.
5. Remove the 4 screws holding magnetron by inserting screwdriver through the 4 openings on bottom plate.
6. Remove 2 screws holding thermal cutout.
7. Remove the mounting bracket from magnetron and install it on the new magnetron.

NOTE: To prevent microwave leakage, tighten mounting screws diagonally and properly making sure there is no gap between the waveguide and the magnetron.

CAUTION

When connecting 2 filament lead wires to the magnetron terminals, be sure to connect the lead wires in the correct position. The lead wire with blue connector should be connected to "FA terminal" and white or pink one should be connected to "F terminal".





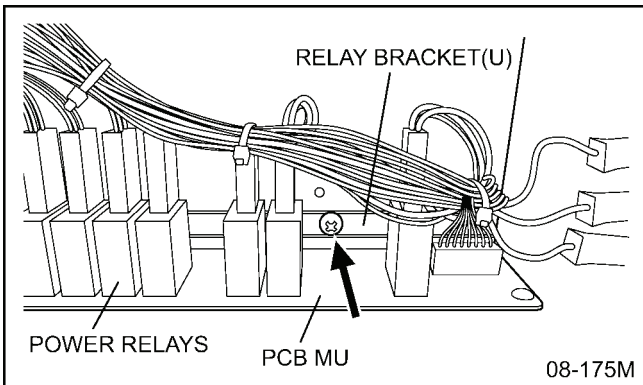
Removal of Positive Lock connector

The positive lock connector is a specially designed loose free connector and you will find this connector in many lead wire connections. To remove this connector, pull the lead wire by pressing an extruded lever in the center of receptacle terminal as shown.

7.2. Power relay circuit board (Relay bracket(U))

NOTE: Be sure to ground any static electric charge built up on your body, before handling the relay bracket(U).

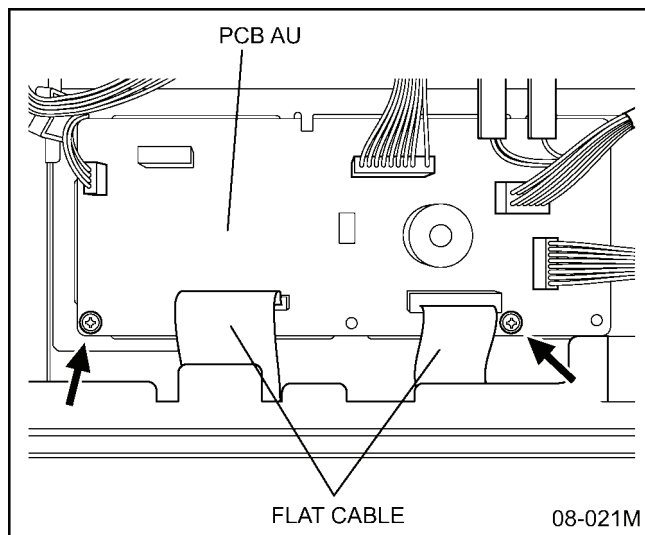
1. Disconnect all lead wires from relay bracket(U).
2. Remove the relay bracket(U) by removing the bracket holding screw.



7.3. Digital programmer circuit board (PCB AU)

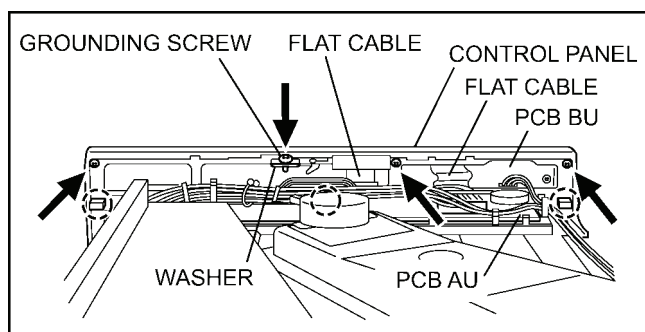
NOTE: Please use care in handling the PCB AU to avoid damage.

1. Disconnect 2 flat cables from PCB AU.
2. Disconnect all of the connector from PCB AU.
3. Remove 2 screws holding PCB AU to detach it from its mounting bracket.



7.4. LCD board (PCB BU) and Membrane switch

1. Remove the grounding screw for membrane switch.
2. Disconnect 2 flat cables of membrane switch and PCB BU from PCB AU.
3. Remove 3 screws holding control panel and detach it from the unit.
4. Remove 2 screws to detach PCB BU from the control panel.
5. Detach escutcheon A from escutcheon base by releasing hooks, and also remove membrane switch from it.

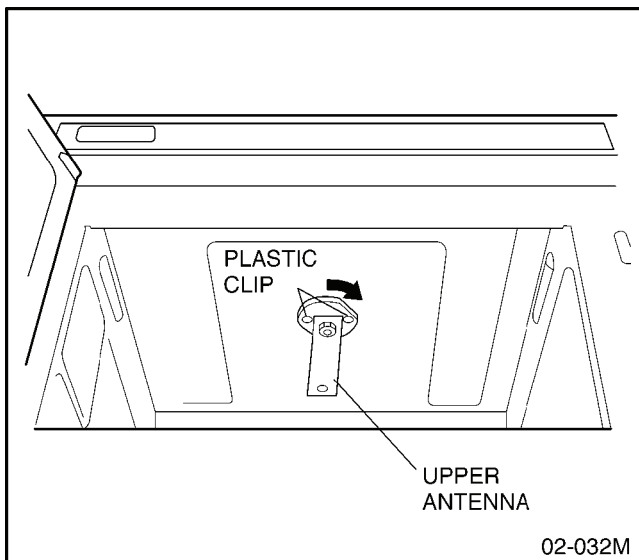
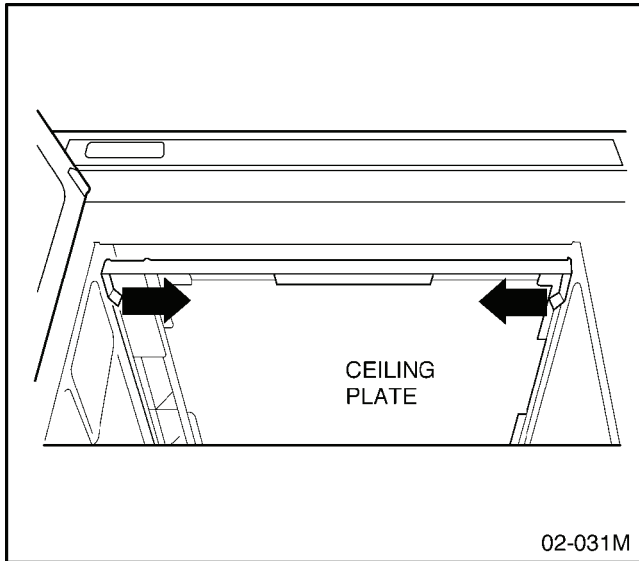


7.5. Upper antenna

CAUTION

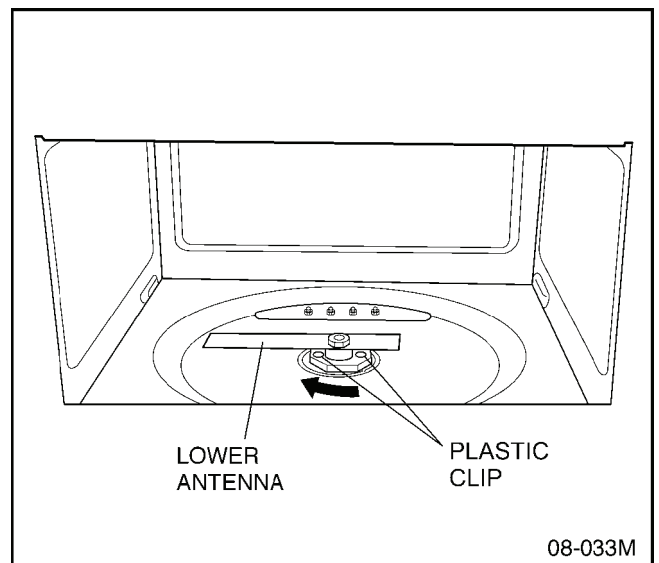
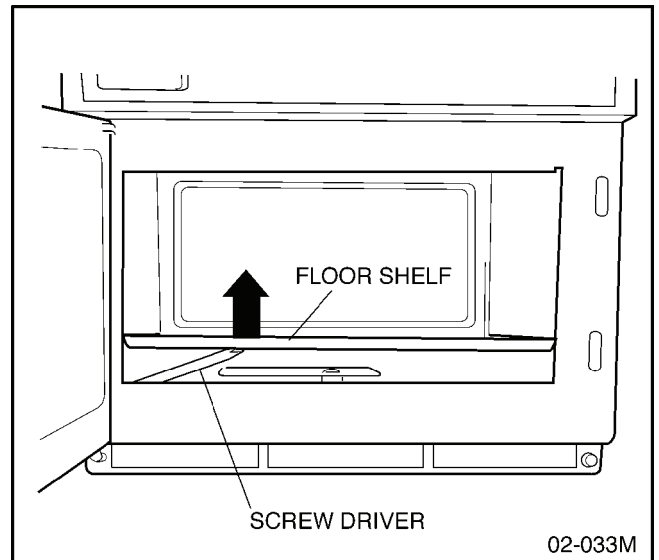
The upper and lower antennas are different type and are not interchangeable each other. Care should be taken not to reverse the upper and lower antennas.

1. Remove ceiling plate by gently moving the left and right tabs inward while pulling the plate down and outward.
2. Using a small flat screwdriver or the like, remove two plastic clips located on the antenna ring. Next turn the antenna ring approx. 1/8 turn clockwise to unhook the tabs and pull off.



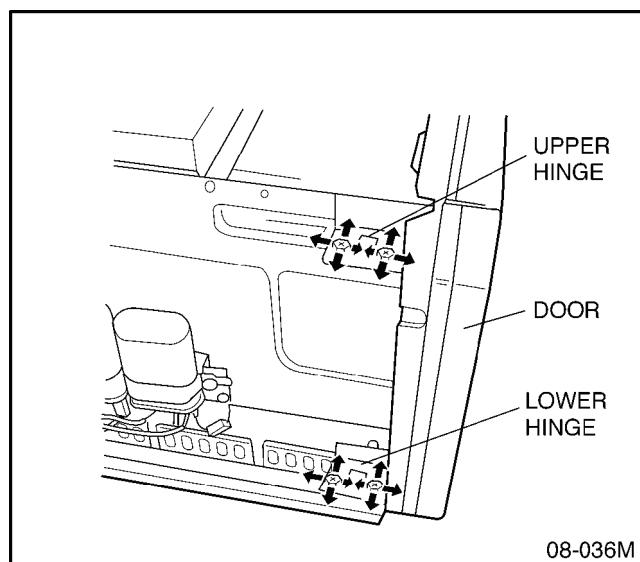
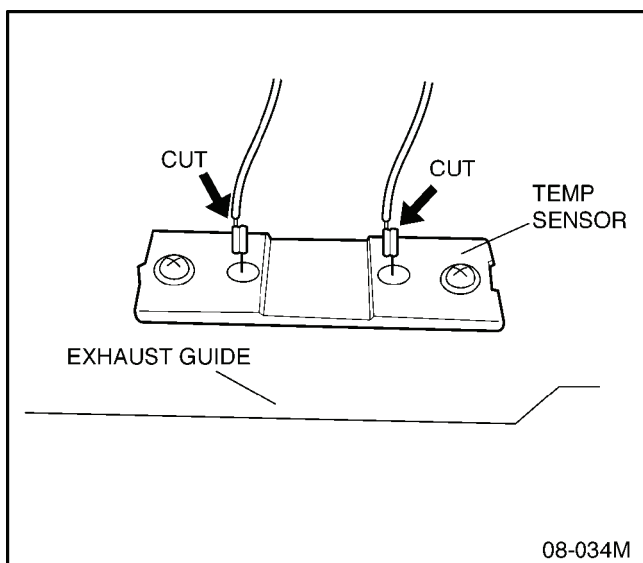
7.6. Floor shelf and Lower antenna

1. To remove the floor shelf, insert a screwdriver through the small opening on the left side of the oven cavity and carefully lift the floor shelf.
2. For removal of lower antenna, use the same procedure as upper antenna.



7.7. Temp sensor (Thermal protector)

1. Cut 2 lead wires at the top of sensor terminals.
2. Remove 2 screws holding temp sensor and replace with a new temp sensor.
3. Solder the lead wires securely to the sensor terminals.



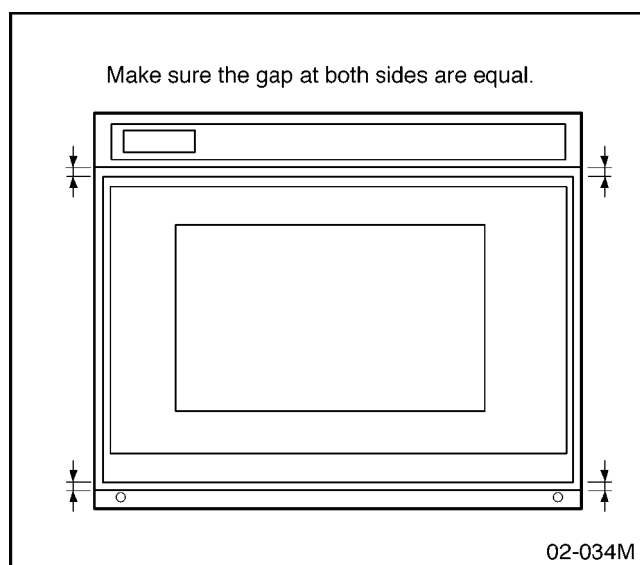
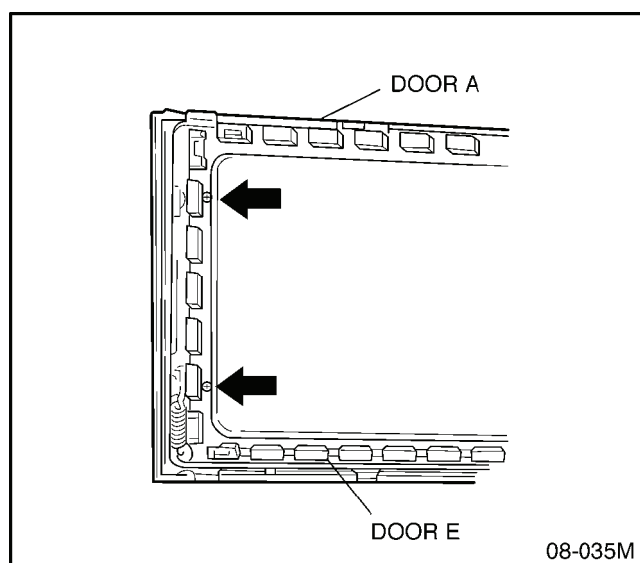
7.8. Door assembly

1. Remove each 2 bolts holding upper and lower hinges.
2. Open the door and while pulling the door outward, work upper and lower hinges out through the holes of the front surface of oven.
3. Remove door C (check cover) from door E by carefully pulling outward starting from the upper right hand corner.
4. Remove 2 screws holding door handle and separate door A from door E by carefully freeing catch hooks.
5. Remove door key, door key lever, door key spring and handle pins from door E.
6. Assemble the door by taking the above steps in a reverse order.

Replacement

1. When mounting the door to the oven be sure to adjust the door parallel to the bottom line of the oven face plate by moving the upper hinge and lower hinge in the direction necessary for proper alignment.
2. Adjust so that the door has no play between the inner door surface and oven front surface. If the door assembly is not mounted properly, microwave may leak from the clearance between the door and the oven.

NOTE: Please refer to [8.1. Measurements and adjustments].



8 Measurements and Adjustments

8.1. Measurements and adjustments

8.1.1. Adjustment of Primary interlock switch, Secondary interlock switch and Interlock monitor switch

1. When mounting Primary interlock switch, Secondary interlock switch and Interlock monitor switch to Door hook (U), mount the Primary interlock switch, the Secondary interlock switch and the Interlock monitor switch to the Door hook (U) as shown in the figure.

NOTE: No specific adjustment during installation of Primary interlock switch, Secondary interlock switch and Interlock monitor switch to Door hook (U) is necessary.

2. When mounting the Door hook (U) to an oven, adjust the Door hook (U) by moving it in the direction of arrow in the figure so that the Door will not have any play in it. Check for play in the Door by pulling the Door. Make sure that the door keys move smoothly after adjustment is completed. Completely tighten screws holding the Door hook (U) to the oven.
3. Reconnect the Primary interlock switch, the Secondary interlock switch and the Interlock monitor switch and check the continuity of the monitor circuit and all the interlock switches again.

8.1.2. Measurement of microwave output

The power output of the magnetron can be determined by performing IEC standard test procedures. However, due to the complexity of IEC test procedures, it is recommended to test the magnetron using the simple method outlined below.

Necessary Equipment:

*1 liter beaker

*Thermometer (Celsius scale)

*Wrist watch or stopwatch

NOTE: Check the line voltage under load. Low voltage will lower the magnetron output. Take the temperature readings and heating time as accurately as possible.

1. Fill the beaker with exactly one liter of tap water. Stir the water using the thermometer and record the beaker's temperature (recorded as T1).
2. Place the beaker on the center of ceramic shelf.
3. Set the oven to High power and heat it for exactly one minute.
4. Stir the water again and read the temperature of the beaker (recorded as T2). The normal temperature rise (T2-T1) at High power output for each model is as shown in the table.

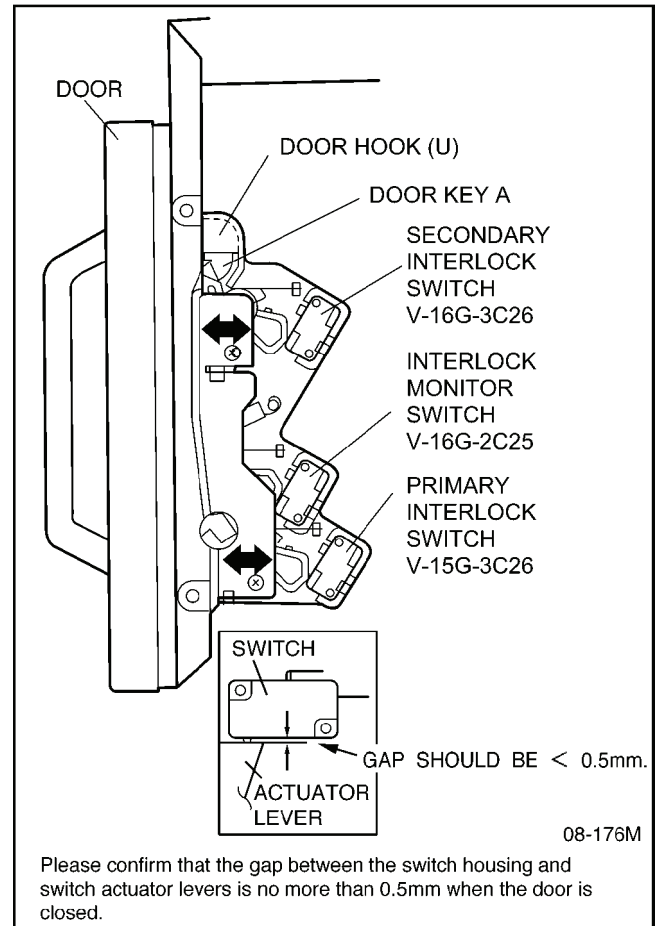
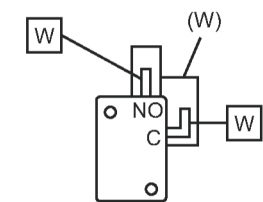
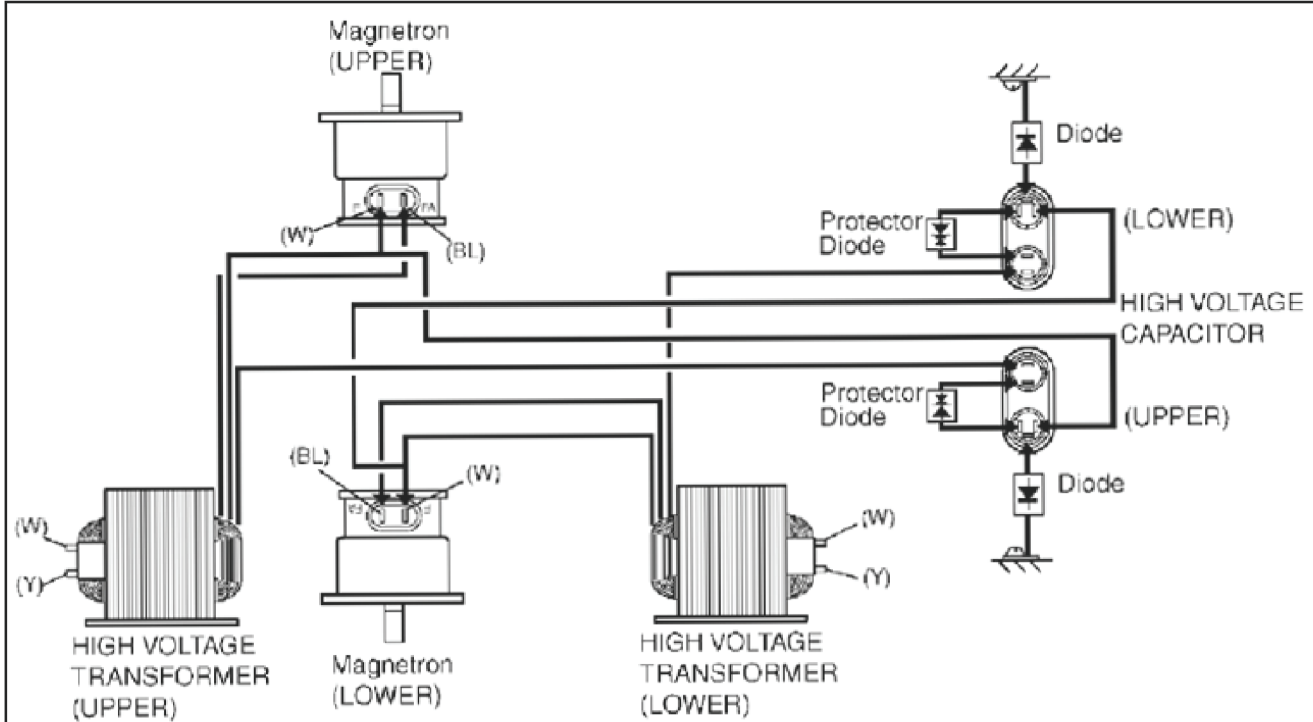


TABLE (1ℓ -1 min. test)

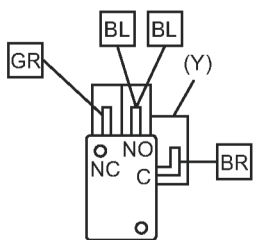
RATED OUTPUT	TEMPERATURE RISE
1300 W (IEC705)	Min. 11.5°C
1400 W (IEC705)	Min. 12.5°C
1600 W (IEC705)	Min. 14.5°C
1700 W (IEC705)	Min. 15.0°C
1800 W (IEC705)	Min. 16.0°C
2100 W (IEC705)	Min. 18.1°C

9 Wiring Connection Diagram

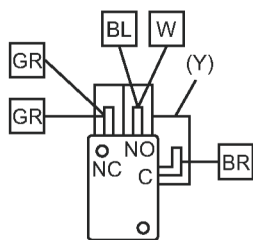
NOTE: When replacing, check the lead wire colour as shown.



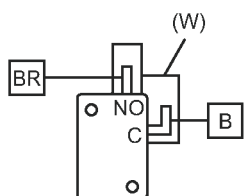
SECONDARY INTERLOCK SWITCH



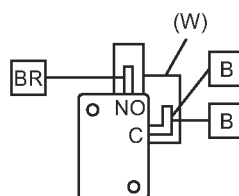
INTERLOCK MONITOR SWITCH (LOWER)



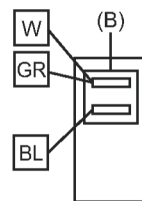
INTERLOCK MONITOR SWITCH (UPPER)



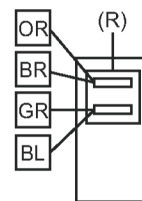
PRIMARY INTERLOCK SWITCH (LOWER)



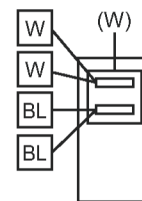
PRIMARY INTERLOCK SWITCH (UPPER)



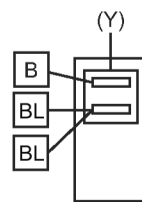
RY7



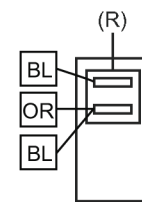
RY6



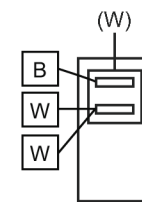
RY4



RY3



RY1

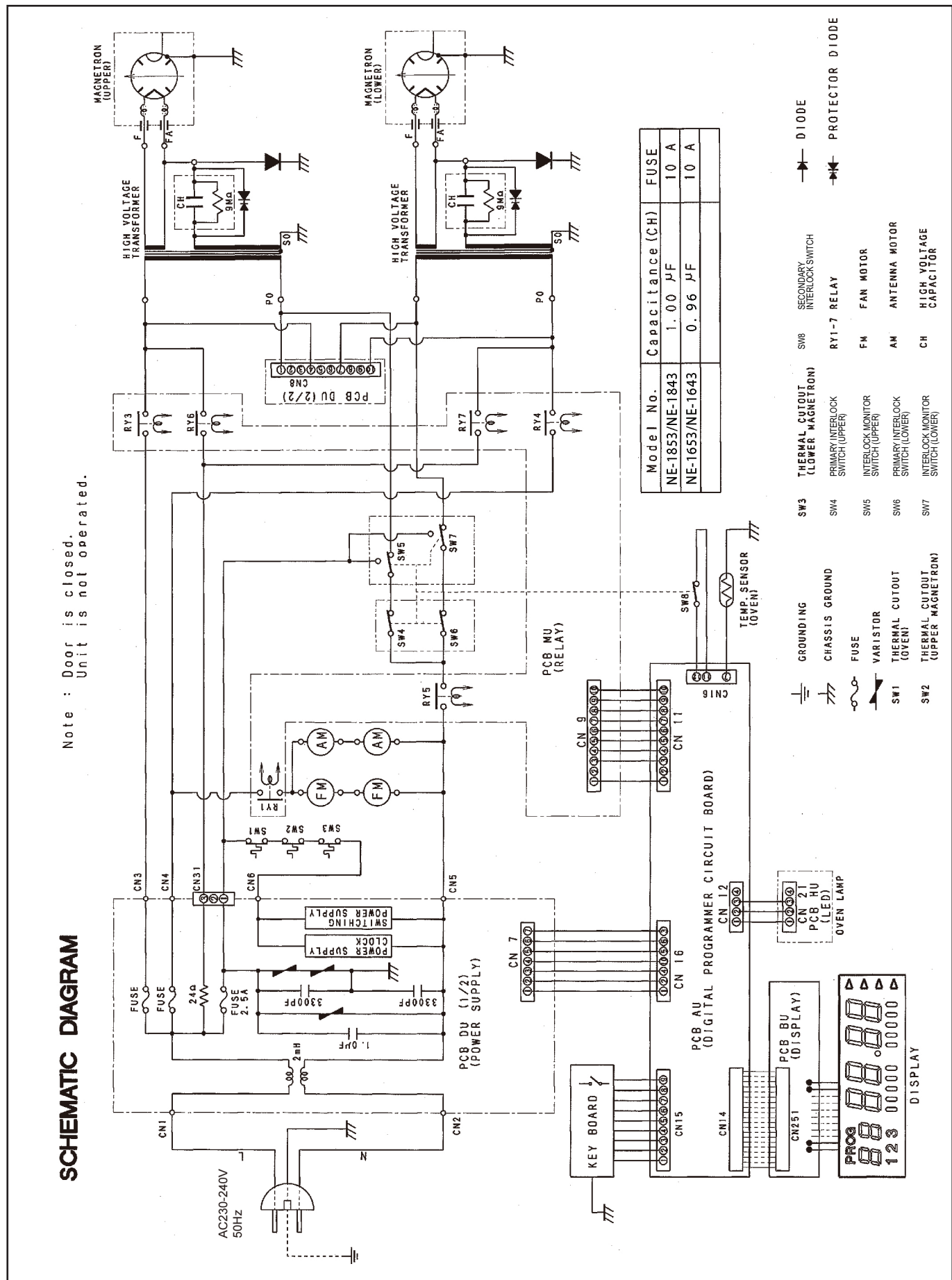


RY5

SYMBOL	COLOUR
B	BLACK
R	RED
OR	ORANGE
GR	GRAY
BR	BROWN
Y	YELLOW
BL	BLUE
W	WHITE

M021

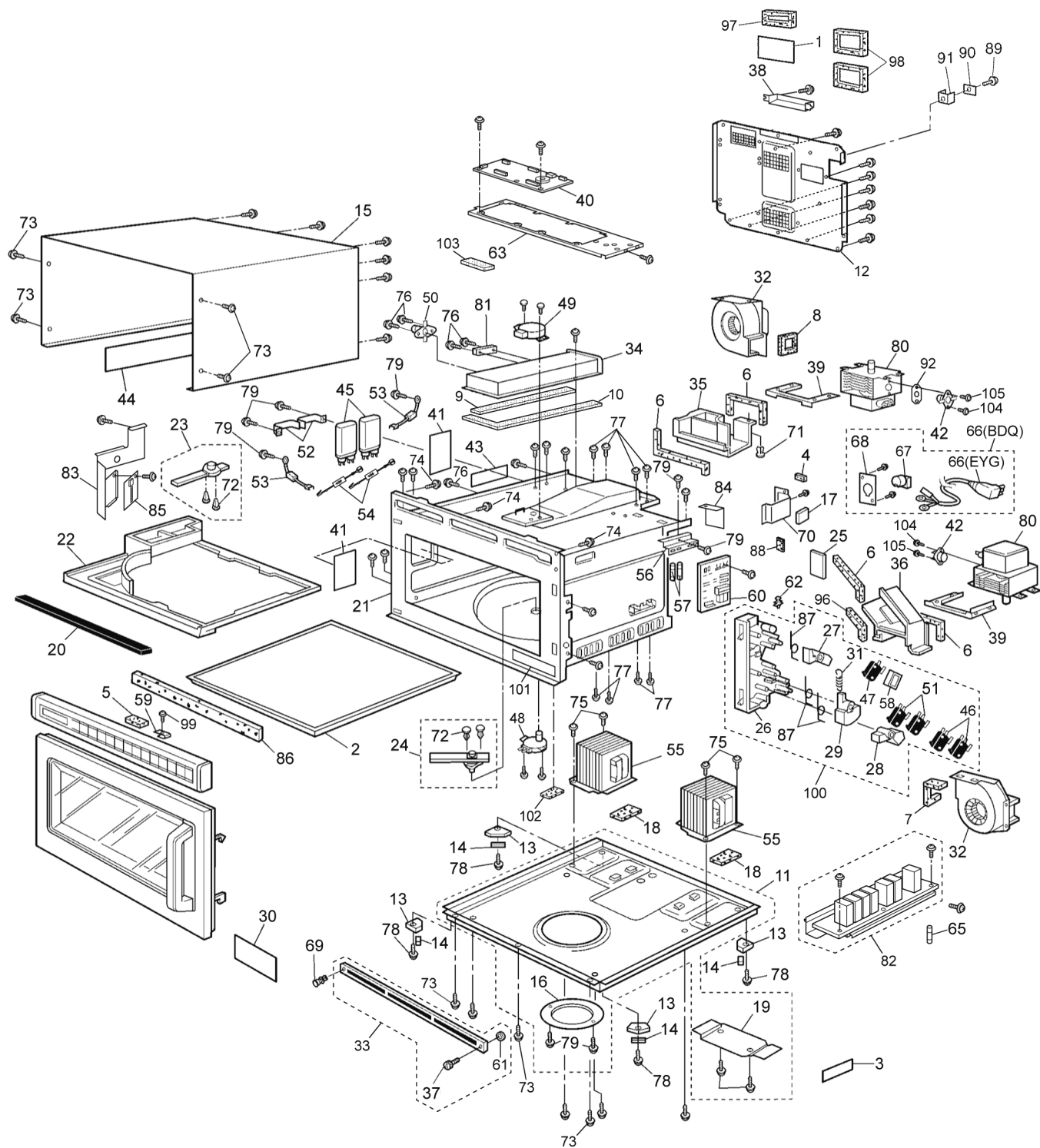
10 Schematic Diagram



11 Exploded View and Replacement Parts List

11.1. Exploded view and parts list

NE-1853BDQ,NE-1843EYG,NE-1843BDQ,NE-1653EYG,NE-1643EYG



PARTS LIST

NOTE 1: When ordering replacement part(s), please use part number(s) shown in this parts list.
Do not use description of the part.

2: Important safety notice:

Components identified by  mark have special characteristics important for safety.

When replacing any of these components, use only manufacturer's specified parts.

3: Alphabet marks in Remarks columns (i.e. HNE etc) indicate parts applicable to only specified country models as follows.

BDQ : United Kingdom

EYG : Continental Europe Countries

Parts without these marks can be used for all models.

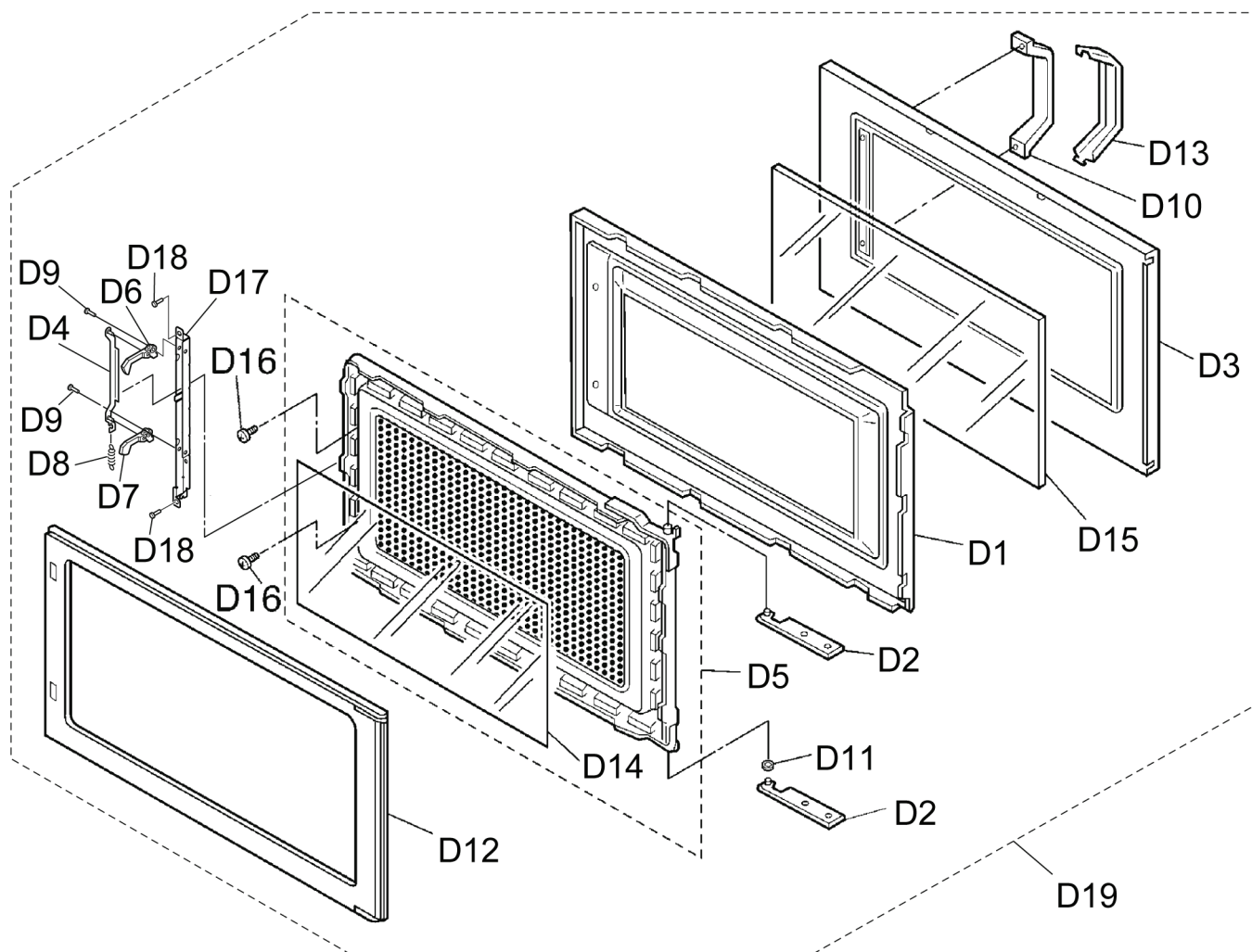
NE-1853BDQ,NE-1843EYG,NE-1843BDQ,NE-1653EYG,NE-1643EYG

Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
	1	H00064080BP	CAUTION LABEL	1	NE-1853BDQ, NE-1843BDQ
	1	F00068K30EU	CAUTION LABEL	1	NE-1843EYG, NE-1653EYG, NE-1643EYG
	2	ANE010T8U0AP	SHELF	1	
	3	H05243F90BP	NAME LABEL	1	NE-1853BDQ
	3	H05243G00BP	NAME LABEL	1	NE-1843BDQ
	3	H05243G00EU	NAME LABEL	1	NE-1843EYG
	3	H05243F60EU	NAME LABEL	1	NE-1653EYG
	3	H05243F70EU	NAME LABEL	1	NE-1643EYG
	4	H0920000CD	CUSHION RUBBER C	1	
	5	H0922000CC	CUSHION RUBBER C	1	NE-1853BDQ, NE-1653EYG
	6	H0922000AN	CUSHION RUBBER C	4	
	7	H0922000AJ	CUSHION RUBBER C	1	
	8	H0923000AN	CUSHION RUBBER C	1	
	9	H0962000AV	CUSHION RUBBER D	1	
	10	H0962000AP	CUSHION RUBBER D	1	
	11	H100A-3290	BASE	1	
	12	H100Q3F90EU	BACK PANEL	1	
	13	A1007-3280	FOOT	4	
	14	A1008-3280	RUBBER FOOT	4	
	15	H10093E80AP	CABINET BODY	1	
	16	ANE10288U0AP	ANTENNA MOTOR COVER	1	
	17	H10498U0AP	CUSHION RUBBER	1	
	18	H10623E80AP	CUSHION RUBBER B	2	FOR H.V. TRANSFORMER
	19	H11668U0AP	BASE METAL	1	
	20	H11748U0AP	SPACER	1	
	21	H200A3F90EU	OVEN (U)	1	
	22	H2011-3280S	CEILING PLATE	1	
	23	H202K-3850S	ANTENNA UPPER (U)	1	
	24	H202V3310GPS	ANTENNA LOWER (U)	1	
	25	H21208U0AP	SPACER	1	
	26	A3020-3853	DOOR HOOK A	1	
	27	A3136-3470	HOOK SPACER A	1	
	28	A31373F90BP	HOOK SPACER B	1	
	29	A3138-3470	HOOK SPACER C	1	
	30	H31863F90BP	DOOR PANEL	1	NE-1853BDQ
	30	H31863G00EU	DOOR PANEL	1	NE-1843BDQ, NE-1843EYG
	30	H31863F60EU	DOOR PANEL	1	NE-1653EYG
	30	H31863F70EU	DOOR PANEL	1	NE-1643EYG
	31	ANE32398U0AP	SPRING	1	
	32	A400A3F90EU	FAN MOTOR	2	
	33	H400B-3280S	AIR FILTER KIT	1	
	34	H4024-3180	EXHAUST GUIDE A	1	
	35	H40258U0AP	AIR GUIDE A	1	UPPER
	36	H40268U0AP	AIR GUIDE B	1	LOWER
	37	A4091-3290	SCREW	1	FOR AIR FILTER FLAME
	38	A41073980AP	EXHAUST GUIDE B	1	
	39	ANE50328U0AP	MAGNETRON BRACKET	2	
	40	A603L3F9ABP	D.P.CIRCUIT (U)	1	NE-1853BDQ, PCB AU
	40	A603L3G0ABP	D.P.CIRCUIT (U)	1	NE-1843BDQ, NE-1843EYG, PCB AU
	40	A603L3F6AEU	D.P.CIRCUIT (U)	1	NE-1653EYG, PCB AU
	40	A603L3F7AEU	D.P.CIRCUIT (U)	1	NE-1643EYG, PCB AU
	41	F60408U0AP	OVEN LAMP SHEET	2	

Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
△	42	A61454210AP	THERMAL CUTOUT	2	FOR MAGNETRON
	43	ANE60708U0BP	INSULATION SHEET A	1	
	44	A60713310BP	INSULATION SHEET B	1	
△	45	A63903330GPS	H.V.CAPACITOR	2	NE-1853BDQ, NE-1843BDQ, NE-1843EYG
△	45	A63903430GPS	H.V.CAPACITOR	2	NE-1653EYG, NE-1643EYG
△	46	ANE6142-F60	MICRO SWITCH	2	(V-15G-3C26) PRIMARY INTERLOCK SWITCH
△	47	ANE61424L0AG	MICRO SWITCH	1	(V-16G-3C26) SECONDARY INTERLOCK SWITCH
	48	A6144-3E20	ANTENNA MOTOR	1	(3W) LOWER
	49	A6144-3E10	ANTENNA MOTOR	1	(3W) UPPER
△	50	A61454050AP	THERMAL CUTOUT	1	FOR OVEN (U)
△	51	ANE6161-3X0	MICRO SWITCH	2	(V-16G-1C25) INTERLOCK MONITOR SWITCH
	52	H61888U0AP	CAPACITOR BRACKET	2	
△	53	A6202-3280	DIODE, SI	2	
△	54	A606V3F00APS	PROTECTOR DIODE, SI	2	
△	55	A621B3F92EU	H.V.TRANSFORMER	2	
	56	ANE62298U0AP	MOUNTING BRACKET	1	
△	57	A62304210BP	FUSE	2	(10A)
	58	A62383230GP	SPACER	1	
	59	ANE64086Q0AP	WASHER	1	NE-1853BDQ, NE-1653EYG
△	60	A603Y3F9ABP	PC BOARD D (U)	1	PCB DU
	61	A6408-3280	WASHER	1	FOR AIR FILTER FRAME
	62	ANE65448U0AP	SPACER A	1	
	63	H6585-3B10	P.C.B.HOLDER	1	
	65	A65953700BP	FUSE B	1	(2.5A)
△	66	A900C3310BPS	AC CORD W/PLUG (U)	1	NE-1853BDQ, NE-1843BDQ INCLUDES CORD BUSHING, CORD BRACKET NOT INCLUDE SCREW
△	66	A900C3340EU	AC CORD W/PLUG	1	NE-1843EYG, NE-1653EYG, NE-1643EYG
	67	ANE9027510RN	CORD BUSHING	1	
	68	H90353060GP	CORD BRACKET	1	
	69	ANE90828U0AP	CLIP (BLACK)	1	FOR AIR FILTER FRAME
	70	H91448U0AP	BRACKET	1	
	71	ANE91628U0AP	CLIP B	1	FOR AIR GUIDE A
	72	ANE91658V0AP	CLIP	4	FOR ANTENNA UPPER (U), ANTENNA LOWER (U)
	73	XTG4+10BC	SCREW	7	(4X10) FOR CABINET BODYx4, BASEx3
	74	XTN4+12GGJ	SCREW	3	(4X12) FOR ESCUTCHEON BASE (U)
	75	XTEA5+10BJ	SCREW	4	(5x10) FOR H.V. TRANSFORMER
	76	XTWANE3+8EX	SCREW	5	(3X8) FOR TEMP SENSORx2, THERMAL CUTOUTx2, EXHAUST GUIDE A
	77	XYEA5+C16TJ	SCREW	8	(5X16) FOR MAGNETRON
	78	XTW3+8EFJ	SCREW	4	(3X8) FOR FOOT
	79	XYD4+EE12FJ	SCREW	10	(4X12) FOR DIODE SIx2, CAPACITOR BRACKETx2, AC CORD W/PLUG, MOUNTING BRACKET, ANTENNA MOTOR COVERx2, BASE METALx2
△	80	2M210-M1J3F-VP	MAGNETRON	2	
△	81	A601L5150AP	TEMP SENSOR	1	
△	82	H692R3G10EU	RELAY BRACKET (U)	1	
△	83	A6603-3E10	LAMP BRACKET	1	
△	84	A61713A80BP	INSULATION SHEET D	1	
△	85	A605S-3J0A	PC BOARD H (U)	1	PCB HU
	86	H8251-3180	SPACER	1	
	87	ANE32628U1AP	SPRING	3	
	88	H1062-8U0	CUSHION RUBBER	1	FOR AIR GUIDE B
	89	XYE6+F20FJ	SCREW	1	FOR BACK PANEL COVER
	90	XWNANE65GV	WASHER	1	FOR EARTH
	91	H66623170GP	BRACKET	1	FOR EARTH
	92	A62383F90WT	SPACER	1	NE-1853BDQ, NE-1843BDQ, NE-1843EYG FOR MAGNETRON
	96	H0922000AI	CUSHION RUBBER C	1	
	97	H0922000AP	CUSHION RUBBER C	1	
	98	H0922000AY	CUSHION RUBBER C	2	
	99	XTWA4+8BJ	SCREW	1	NE-1853BDQ, NE-1653EYG (4X8) FOR MEMBRANE SWITCH
△	100	A393C3318GP	DOOR HOOK (U)	1	
	101	H01703F90EU	DOOR LABEL	1	
	102	H0922000CE	CUSHION RUBBER C	1	FOR OVEN (U) (BOTTOM PLATE)
	103	H0961000CJ	CUSHION RUBBER D	1	FOR OVEN (U) (UPPER PLATE)
	104	XTEA3+6BJ	SCREW	2	(3X6) FOR THERMAL CUTOUT(Ref No.42)
	105	XYF4+AF6J	SCREW	2	(4X6) FOR THERMAL CUTOUT(Ref No.42)
		XTWANE4+8BN	SCREW	5	(4X8) FOR EXHAUST GUIDE Ax3, TEMP SENSOR, PC BOARD H (U)
		XSQ5+10FJ	SCREW	4	(5X10) FOR HINGE

Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
		XTT4+8RDNV1	SCREW	6	(4X8) FOR RELAY BRACKET (U), BASEx4, BRACKET
		XTTANE4+12BN	SCREW	12	(4X12) FOR BACK PANELx7, EXHAUST GUIDE B, LAMP BRACKET, P.C.B.HOLDER, CORD BRACKETx2
		XTW3+6EFJ	SCREW	4	(3X6) FOR ANTENNA MOTOR
		XTW4+12TJV1	SCREW	2	(4X12) FOR DOOR HOOK (U)
		XTW4+8LHJ	SCREW	5	(4X8) FOR FAN MOTOR
		XTWANE4+12DN	SCREW	9	(4X12) FOR CABINET BODY
		XYC3+FF8FJ	SCREW	2	(3X8) FOR D.P.CIRCUIT (U)
		XYN4DF10BN	SCREW	1	(4X10) FOR PC BOARD D (U)

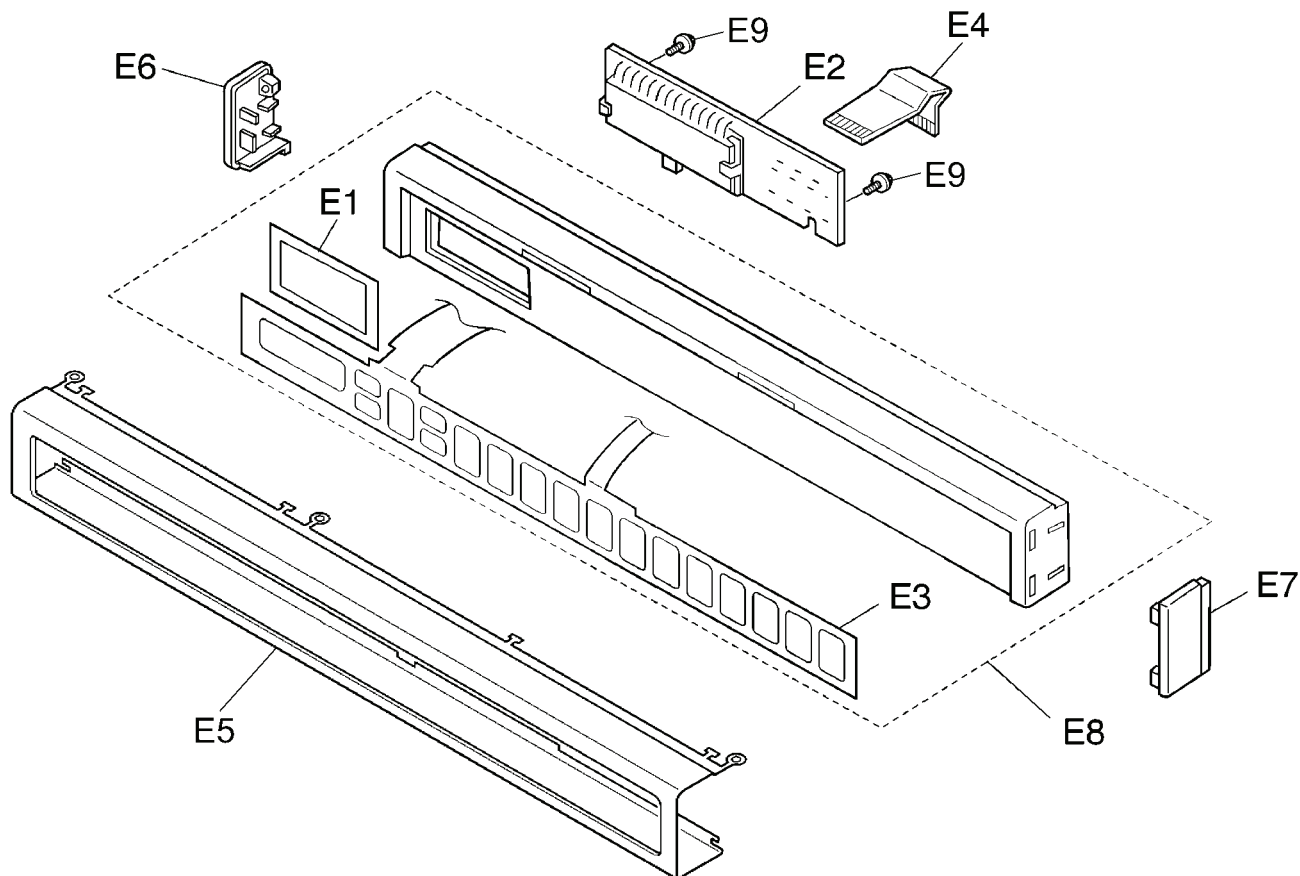
11.2. DOOR ASSEMBLY



Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
	D1	F3003CL00XPS	DOOR FRAME (U)	1	
⚠	D2	H3007-3J00	HINGE	2	
⚠	D3	F301ACL00XP	DOOR A	1	
	D4	H301H-3850	DOOR KEY LEVER B	1	
⚠	D5	F301Q-3500	DOOR EU	1	NOT INCLUDE DOOR SCREEN A
	D6	H3018-3850	DOOR KEY	1	
	D7	H3019-3850	DOOR KEY B	1	
	D8	F3021CL00XP	DOOR KEY SPRING	1	
	D9	ANE30562Q0AP	HANDLE PIN	2	
	D10	F30703170GP	HANDLE PEICE A	1	
	D11	ANE3081P60AP	DOOR HINGE SPACER	1	
	D12	F3085CL00XP	DOOR C	1	
	D13	ANE31348U1AP	HANDLE PEICE B	1	
⚠	D14	F3145-3B10	DOOR SCREEN A	1	
	D15	ANE31468U0AP	DOOR SCREEN B	1	
	D16	XYEA4+C16TSJ	SCREW	2	(4X16) FOR HANDLE PEICE A
	D17	F3023CL00XP	DOOR KEY MOUNTING PLATE	1	
	D18	XTT4+8RDNV1	SCREW	2	(4X8) FOR DOOR KEY MOUNTING PLATE
⚠	D19	H390L-3500	DOOR (U)	1	

11.3. ESCUTCHEON BASE ASSEMBLY

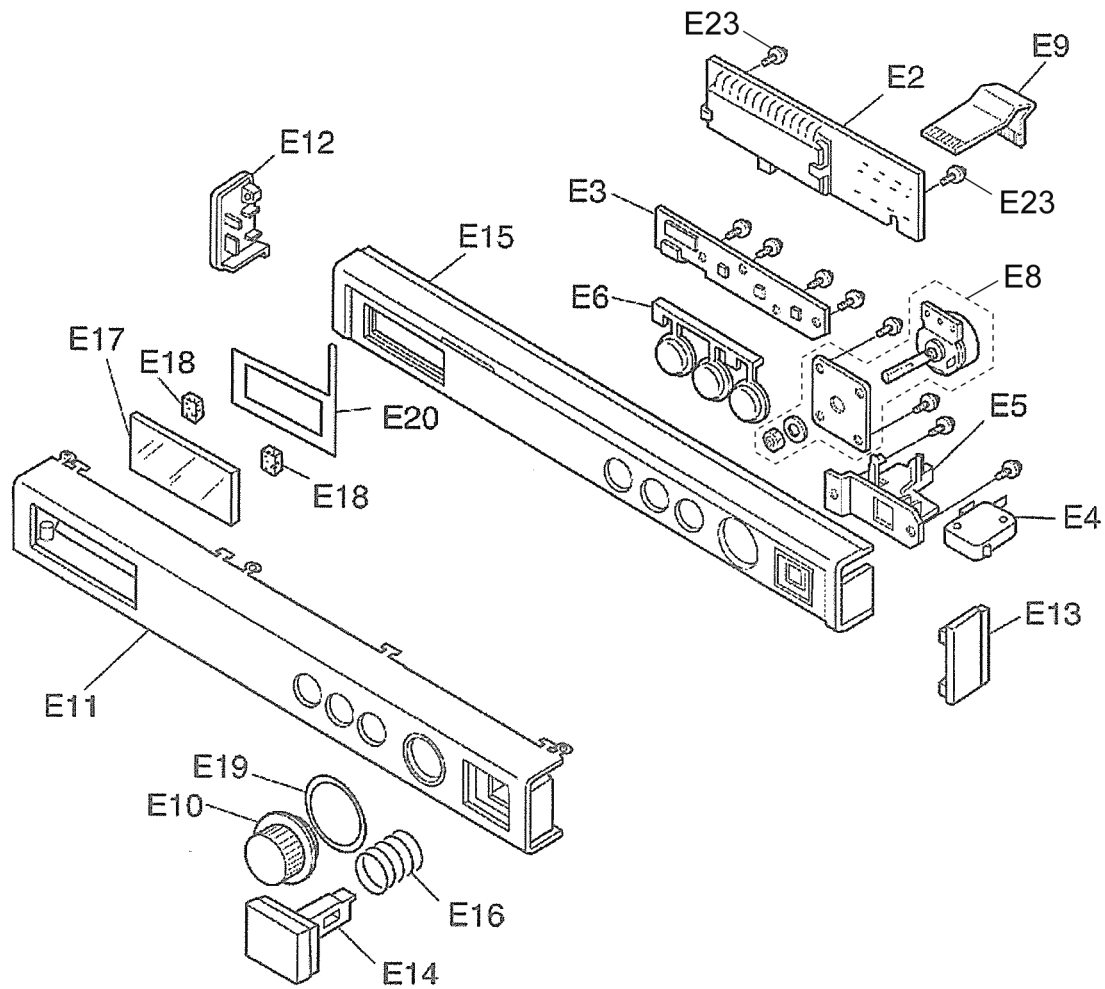
NE-1853BDQ,NE-1653EYG



NE-1853BDQ,NE-1653EYG

Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
	E1	A80163F80AP	SPACER	1	
	E2	A603M-3J0A	PC BOARD B (U)	1	PCB BU
	E3	H630Y3F90EUS	MEMBRANE SWITCH	1	
	E4	A6590-3E20	FLAT CABLE	1	
	E5	H801N8U0APS	ESCUTCHEON A (U)	1	
	E6	H80023E20P6	ESCUTCHEON B	1	
	E7	H80063E20P6	ESCUTCHEON D	1	
	E8	H800L3F90EUS	ESCUTCHEON BASE (U)	1	
	E9	XTN4+12GGJ	SCREW	2	(4X12) FOR PC BOARD B (U)

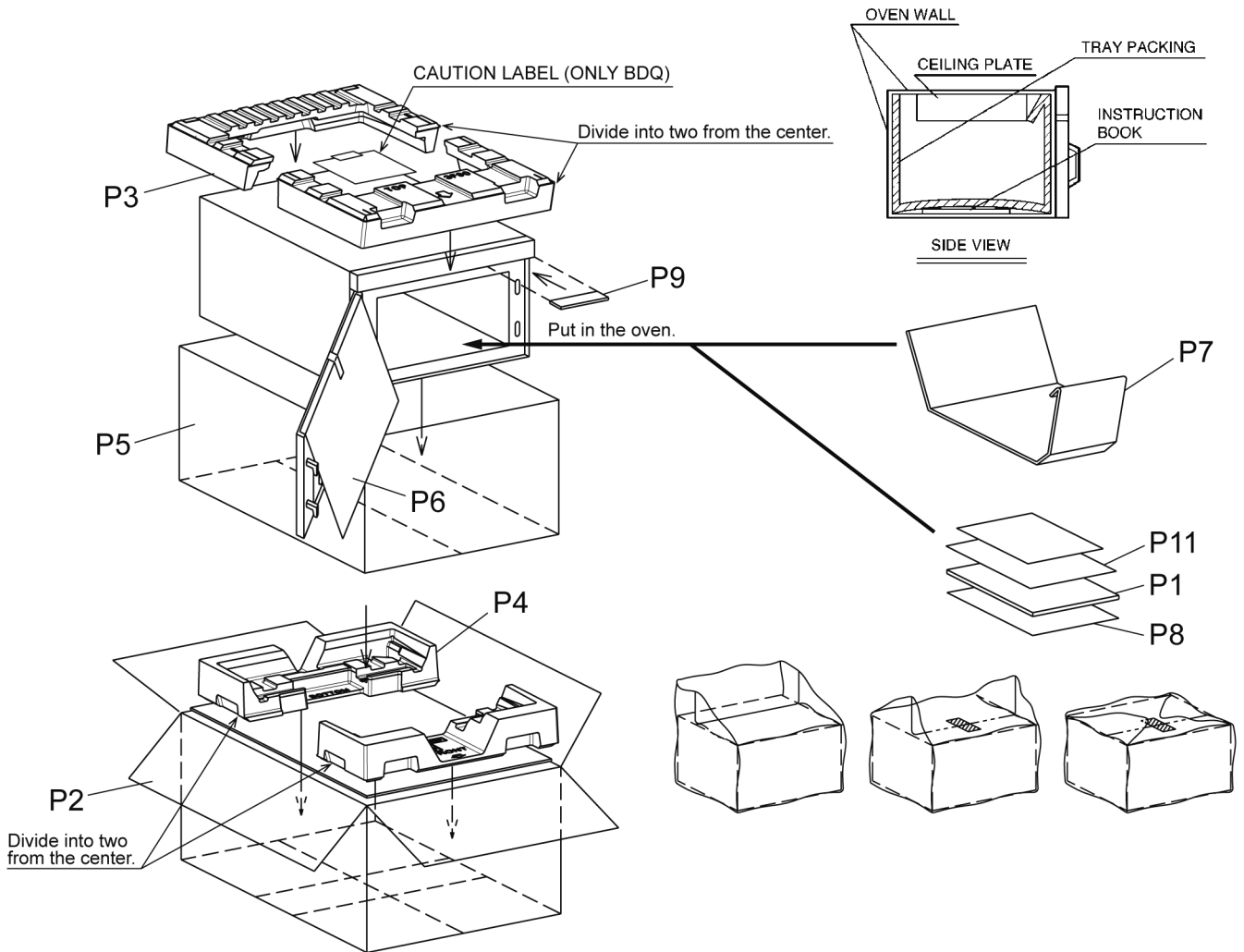
NE-1843EYG,NE-1843BDQ,NE-1643EYG



NE-1843EYG,NE-1843BDQ,NE-1643EYG

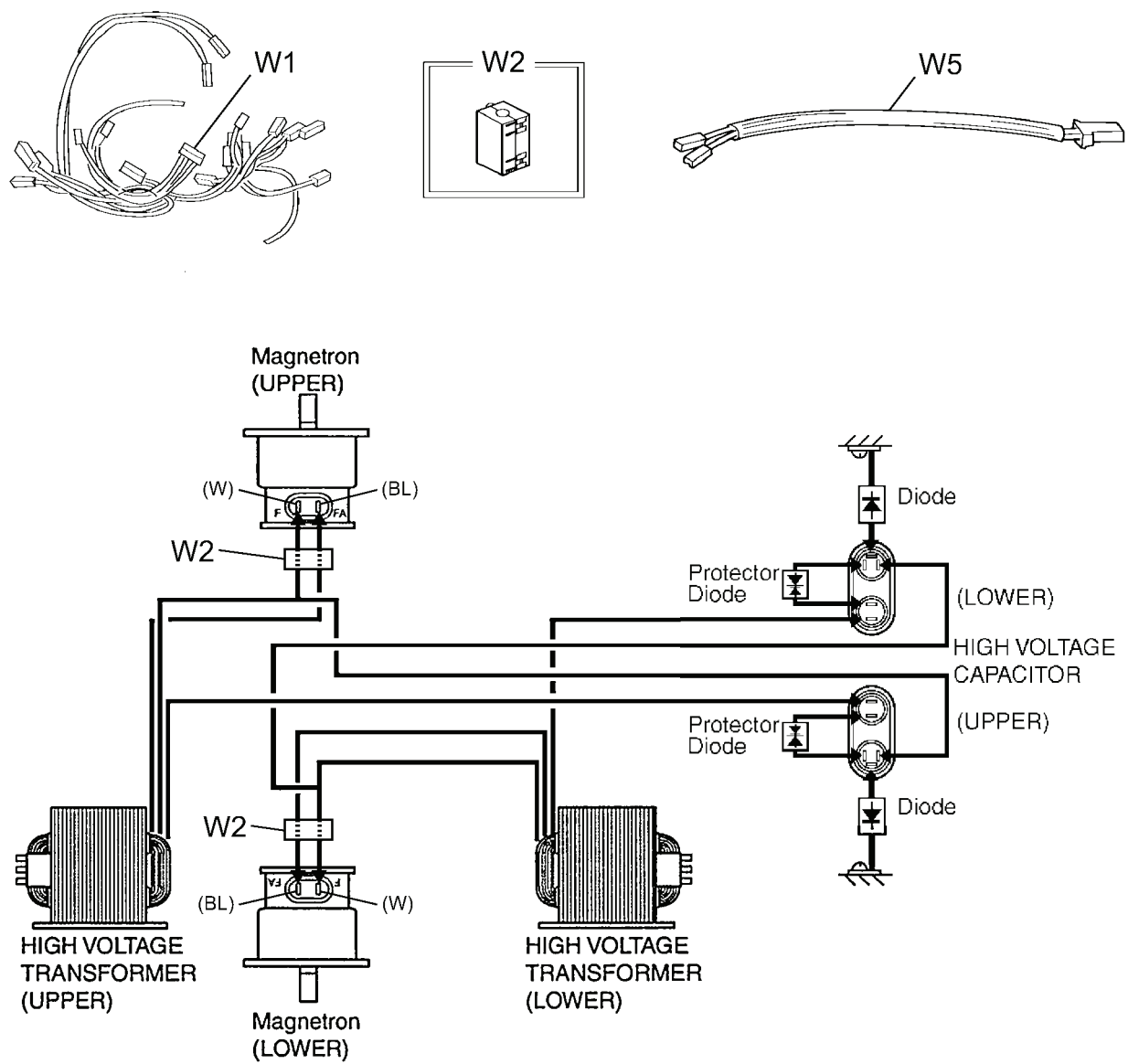
Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
	E2	A603M-3J0A	PC BOARD B (U)	1	PCB BU
	E3	ANE605Q8Y0BP	PC BOARD F (U)	1	PCB FU
	E4	ANE61424L0AG	MICRO SWITCH	1	
	E5	H61628Y0BP	START SWITCH BRACKET	1	
	E6	ANE62648Y0BP	SELECT SWITCH BUTTON	1	
	E8	A608C3G0AEUS	TIMER U	1	
	E9	A6590-3E20	FLAT CABLE	1	
	E10	A800D3G00EU	TIMER KNOB	1	
	E11	H80018Y0BP	ESCUTCHEON A (U)	1	
	E12	H80023E20P6	ESCUTCHEON B	1	
	E13	H80063E20P6	ESCUTCHEON D	1	
	E14	ANE803X8Y0BP	START BUTTON	1	
	E15	H80343G00EU	ESCUTCHEON BASE	1	
	E16	H80378Y0BP	COOK BUTTON SPRING	1	
	E17	H81263G00EU	SMOKE PANEL	1	
	E18	H0920000BA	CUSHION RUBBER C	2	
	E19	H82878Y0BP	SPACER A	1	
	E20	H83373G00EU	ESCUTCHEON SHEET	1	
	E21	H03543320GP	LEAD WIRE	1	
	E22	H03553G00EU	LEAD WIRE	1	
	E23	XTN4+12GGJ	SCREW	2	(4X12) FOR PC BOARD B (U)
		XTN4+10JFJ	SCREW	2	(4X10) FOR TIMER U
		XTW3+10PFJ	SCREW	2	(3X10) FOR START SWITCH BRACKET
		XTW3+8PFJ	SCREW	4	(3X8) FOR PC BOARD F (U)

11.4. PACKING AND ACCESSORIES



Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
⚠	P1	H00033F90EU	INSTRUCTION BOOK	1	NE-1843EYG, NE-1653EYG, NE-1643EYG
⚠	P1	H00033F90BP	INSTRUCTION BOOK	1	NE-1853BDQ, NE-1843BDQ
	P2	H01023F90BPS	PACKING CASE,PAPER	1	NE-1853BDQ
	P2	H01023G00BPS	PACKING CASE,PAPER	1	NE-1843BDQ
	P2	H01023G00EUS	PACKING CASE,PAPER	1	NE-1843EYG
	P2	H01023F60EUS	PACKING CASE,PAPER	1	NE-1653EYG
	P2	H01023F70EUS	PACKING CASE,PAPER	1	NE-1643EYG
	P3	H01043F90EU	UPPER FILLER	1	
	P4	H01053F90EU	LOWER FILLER	1	
	P5	H01065200AP	VINYL COVER	1	
	P6	H01072Q00AP	DOOR SHEET B	1	
⚠	P7	H01083E20P6	TRAY PACKING	1	
	P8	H04203F90BP	OPERATING GUIDE	1	NE-1853BDQ
	P9	H01453E20P6	DOOR SHEET B	1	
	P11	H01723F90EU	WARNING LABEL	1	

11.5. WIRING MATERIAL



Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
⚠	W1	F030A3F90EU	LEAD WIRE HARNESS	1	
⚠	W2	A0KG00000169	FERRITE CORE	2	
	W5	A03523F90BP	LEAD WIRE	1	