

IGNIS

Service Manual

Microwave oven

AKL 530

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Introduction safety

INTRODUCTION

Before leaving the factory each oven is carefully checked.
It must, however, be installed and used correctly.

Despite all the steps taken to make the oven safe, the safety is dependent on the correct installation and the fact the user understands how to use and maintain the oven.

The information in this section should be used as a reminder that the oven is safe and that anyone who uses it must first read the instructions for use in order to be able to use the oven correctly and obtain best results.

SAFETY

To avoid injury to yourself and damage to the appliance always work to the following rules when servicing an oven.

Always disconnect the plug from the mains before starting work.

If there is no plug switch off the electric supply at the control box.

When you have finished servicing an oven before you reconnect it to the mains, make sure that:

- all the internal connections are correct
- the wires are insulated and not touching the door or the cabinet or anything sharp
- all the earth connections are electrically and mechanically sound
- do not modify or anyway interfere with the safety devices built-in to the oven

- make sure that each replacement part you use conforms to the manufacturer's specifications

Do not start a repair if you have any doubt as to your ability to complete it.

CAUTION - MICROWAVE RADIATION

PERSONNEL SHOULD NOT BE EXPOSED TO THE MICROWAVE ENERGY WHICH MAY RADIATE FROM THE MAGNETRON, WAVEGUIDE OR ANTENNA IF THEY ARE IMPROPERLY USED OR CONNECTED. ALL INPUT AND OUTPUT MICROWAVE CONNECTIONS, WAVEGUIDES, FLANGES AND GASKETS MUST BE SECURE. NEVER OPERATE THE DEVICE WITHOUT A MICROWAVE ENERGY ABSORBING LOAD ATTACHED. NEVER LOOK INTO AN OPEN WAVEGUIDE OR ANTENNA WHILE THE DEVICE IS ENERGIZED. NEVER OPERATE AN OVEN WITH CABINET OFF WITHOUT MEASURING THE MICROWAVE LEAKAGE AROUND MAGNETRON AND VISIBLE MICROWAVE CONNECTIONS (WELDING JOINTS).

Do not operate the oven if the following conditions exist:

- the door does not close firmly against the door support because of the door being warped or the hinges damaged.
- The door trims or seals are damaged.
- If there is any visible damage to the oven.
- if the door does not close properly.

Avoid operating the oven if known components in the interlock system, oven door or microwave generating assembly are known defective. They must be replaced.

WARNING - HIGH VOLTAGE

IT IS POSSIBLE TO COME IN CONTACT WITH LETHAL HIGH VOLTAGE WHEN WORKING WITH HV TRANSFORMER, HV CAPACITOR AND MAGNETRON. THEREFORE NEVER TRY TO MEASURE THE HIGH VOLTAGE. ALWAYS TAKE UTMOST CARE WHEN PERFORMING ELECTRIC MEASUREMENTS INSIDE THE OVEN.

Technical data**Dimensions of cabinet**

Height	298	mm
Width	492	mm
Depth	359	mm

Dimensions of cavity

Height	190	mm
Width	300	mm
Depth	300	mm
Cavity volume	22	l

Weight

Net	16,3	Kg
Packed	18,6	Kg

Electrical

Voltage	230	V
Frequency	50	Hz
Power consumption	1330	W
Current consumption	6,1	A
Fuse	8	A

Power

Output power	850	W
Microwave frequency	2450	MHz

Accessories

Glass tray, turntable ring

MAJOR COMPONENT TESTS

HV TRANSFORMER

1. Remove lead wire.
2. Measure the resistance of the winding using an ohm meter
3. Primary winding 3 ohm (approx.)
4. Secondary winding 100 ohm (approx.)
5. Filament winding 0 ohm (approx.)

HV CAPACITOR

1. Remove lead wire
2. Measure the resistance using an ohm meter set to R*1000
3. Terminal to terminal should momentary indicates several ohms but gradually increases to infinite.
4. Terminal to case should show infinite.

HV DIODE

1. Remove lead wire.
2. Measure forward resistance, normal diode show continuity.
3. Measure reverse resistance, normal diode show infinite resistance.

MAGNETRON

1. Remove lead wire.
2. Install the magnetron gasket in the correct position. Check that the gasket is in good condition.
3. Measure the resistance of the filament terminals. Normal magnetron should be less than 1 ohm.
4. Measure the resistance between the filament terminal to chassis. Normal magnetron should be infinite.

INTERLOCK SWITCH SYSTEM

IMPORTANT: The installation of the interlock and monitor switches is required by regulations.

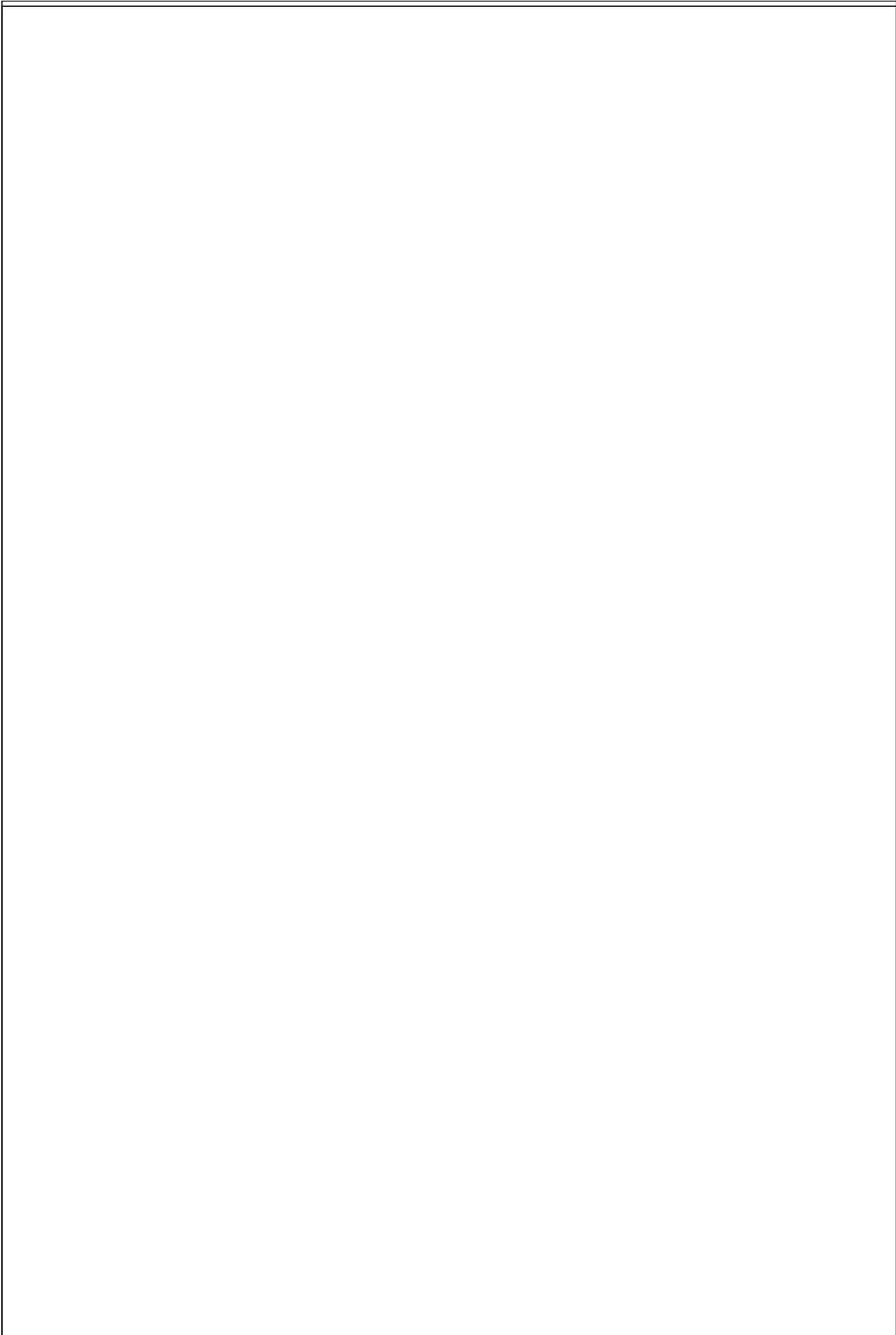
Oven door status	Primary switch	Secondary switch	Monitor switch
Open	Open	Open	Close
Close	Close	Close	Open

1. The interlock and monitor switches positions are not service adjustable. If the screws on the hinges of the oven door are loosen, the door may not be in a correct position. In this case, the interlock switches cannot be operated by the latch pins of the door when the door is shut. To repair the door, remount the door and fasten the screws on the door hinges.
2. The monitor switch is provided to monitor the operation of the primary interlock switch. If the primary switch fails to operate when the door is open, the monitor switch will form a short circuit across the supply and the fuse in the oven will blow. Electric arc may form across the switch contacts of the primary interlock switch, the secondary switch and the monitor switch. The switches may then be damaged. If the fuse is blown due to the failure of the primary interlock, repair the failed mechanical parts and replace all the interlock switches.

IMPORTANT

After replacement of any part of the interlock and monitor circuit:

1. Check if the microswitches are turned ON and OFF by the latches as specified in the table above.
2. Apply sealant to the screws and nuts of the door hinges.
3. Check microwave leakage.
4. Check if the oven will turn off instantly when the door button is pushed to the position where the door latches leave the interlock switches.



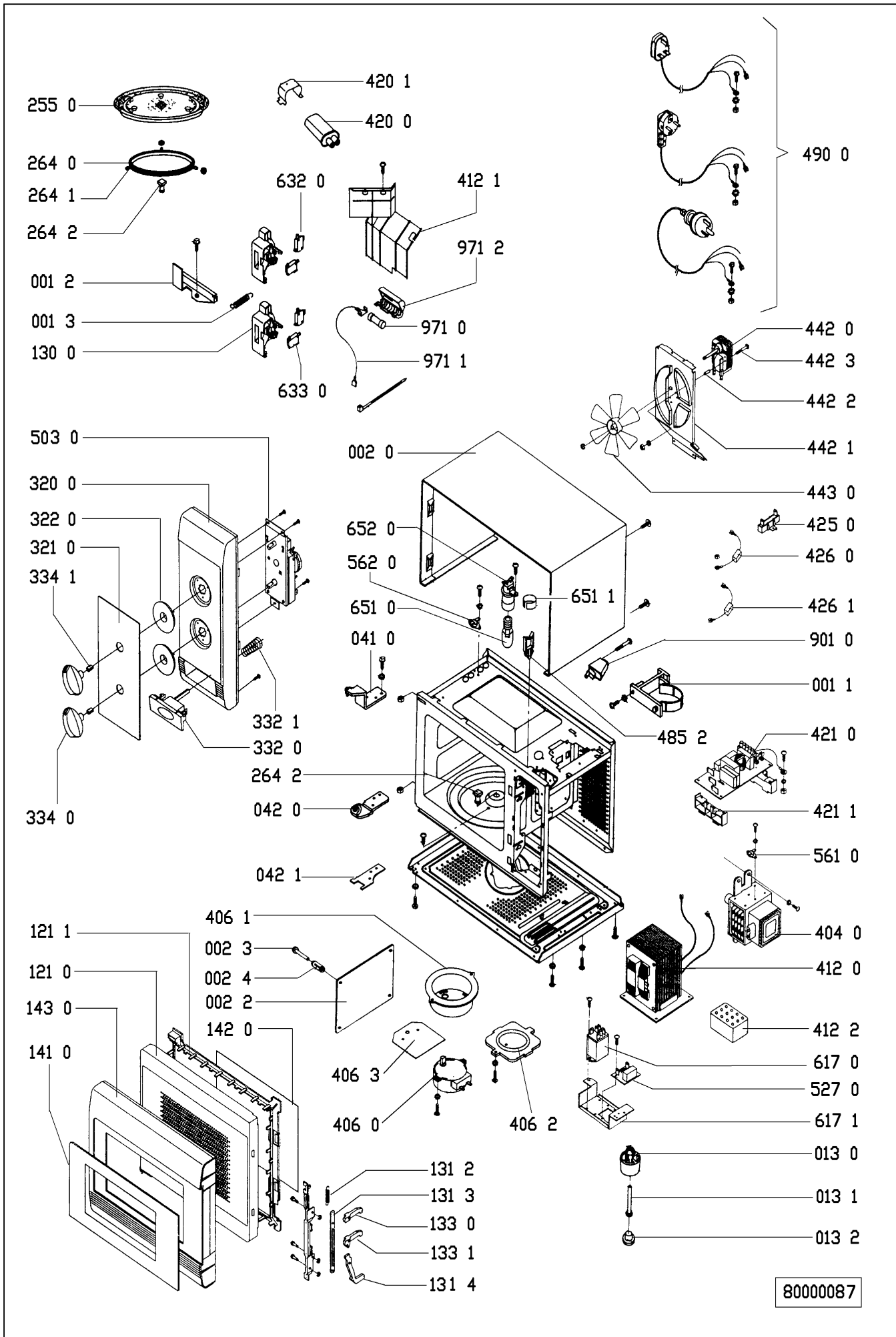
Spare part list

Model AKL 530
Service No. 854153001221
Version 854153001221

Pos. No.	12NC Code	Description
001 1	4819 902 00031	Spacer
001 2	4819 902 00176	Lever
001 3	4819 902 00025	Spring,tension
002 0	4819 902 00172	Lid
002 2	4819 902 00082	Cover
002 3	4819 902 00049	Stamper
002 4	4819 902 00051	Bushing
013 0	4819 902 00115	Foot
013 1	4819 902 00055	Pin foot
013 2	4819 902 00056	Cap foot
041 0	4819 902 00274	Support
042 0	4819 902 00273	Support
042 1	4819 902 00183	Plate
121 0	4819 902 00282	Door inner
121 1	4819 902 00284	Frame inner
130 0	4819 902 00228	Switchmechanism
131 2	4819 902 00014	Spring
131 3	4819 902 00283	Hook
131 4	4819 902 00037	Pivot
133 0	4819 902 00035	Lockingmechn.
133 1	4819 902 00036	Lockingmechn.
141 0	4819 902 00033	Oven glass AKL 530
142 0	4819 902 00034	Foil door inner
143 0	4819 902 00251	Cover
255 0	4819 902 00218	Turntable
264 0	4819 902 00192	Ring
264 1	4819 902 00195	Wheel
264 2	4819 902 00193	Shaft
320 0	4819 902 00227	Panel,control
321 0	4819 902 00061	Panel AKL 530
322 0	4819 902 00059	Cover
332 0	4819 902 00057	Button,push
332 1	4819 902 00281	Spring,compres.
334 0	4819 902 00062	Knob
334 1	4819 902 00095	Bushing
404 0	4819 902 00063	Magnetron
406 0	4819 902 00271	Motor
406 1	4819 902 00179	Cover
406 2	4819 902 00174	Cover
406 3	4819 902 00272	Gasket
412 0	4819 902 00203	Transformer,HT 230V
412 1	4819 902 00029	Guide
412 2	4819 902 00285	Rubber shock-proof spacer
420 0	4819 902 00065	Capacitor,HT
420 1	4819 902 00177	Support
421 0	4819 902 00126	Control unit
421 1	4819 902 00058	Support
425 0	4819 902 00215	Resistor
426 0	4819 902 00209	Diode
426 1	4819 902 00122	Diode
442 0	4819 902 00207	Motor,fan
442 1	4819 902 00178	Support
442 2	4819 902 00052	Bushing
442 3	4819 902 00019	Screw
443 0	4819 902 00276	Fan wheel

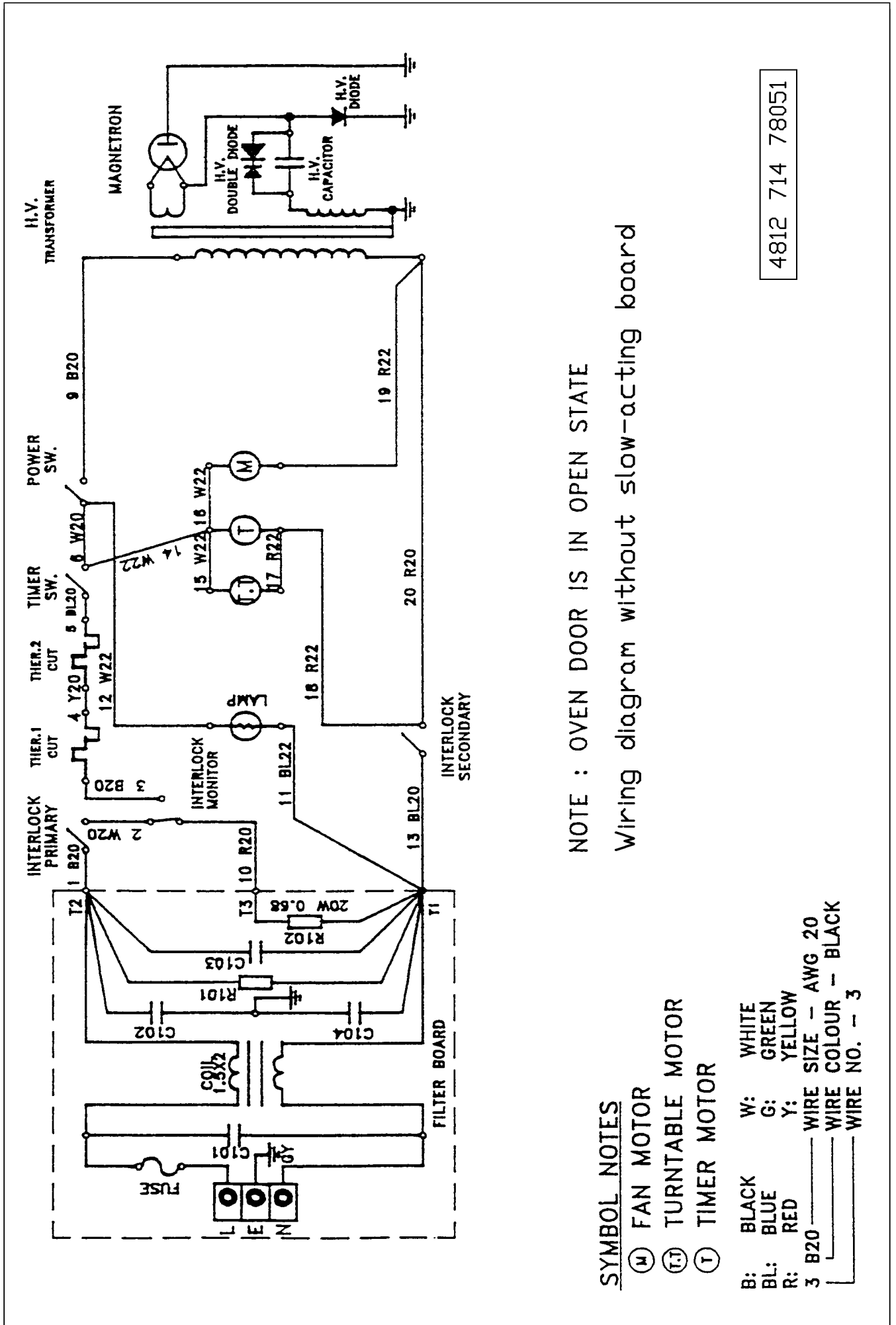
Pos. No.	12NC Code	Description
485 2	4819 902 00047	Clip
490 0	4819 902 00239	Cable,mains VDE plug
503 0	4819 902 00073	Timer
527 0	4819 902 00216	Control unit
561 0	4819 902 00071	Thermostat magnetron
562 0	4819 902 00237	Thermostat
617 0	4819 902 00214	Relay
617 1	4819 902 00094	Support
632 0	4819 902 00077	Switch
633 0	4819 902 00078	Switch
651 0	4819 902 00275	Lamp
651 1	4819 902 00219	Cover,lamp
652 0	4819 902 00079	Holder,lamp
901 0	4819 902 00197	Cable clamp (T)
971 0	4819 902 00217	Fuse
971 1	4819 902 00269	Clip
971 2	4819 902 00235	Holder,carb.br.

Exploded view



80000087

Wiring diagram



NOTE : OVEN DOOR IS IN OPEN STATE

Wiring diagram without slow-acting board

SYMBOL NOTES

- (M) FAN MOTOR
- (T) TURNTABLE MOTOR
- (T) TIMER MOTOR

- B: BLACK
- BL: BLUE
- R: RED
- W: WHITE
- G: GREEN
- Y: YELLOW
- 3 B20 — WIRE SIZE — AWG 20
- WIRE COLOUR — BLACK
- WIRE NO. — 3

4812 714 78051