## The working principle description of EM308AYY

When the microwave oven is plug into a wall outlet, the oven display "0:00", Press "clock", the LED display 00:00, you can set the clock (You can press stop if you don't want to set the clock). Then you can select cooking mode. There are several cooking modes. There is program in the Microcontroller of the control board, the cooking time and power are pre-set in the program.

When you put the food in the oven cavity, close the oven door, you can choose the menu and setting the cooking time, which is what you want, then you can press "Start/+30sec" button to start the microwave oven.

Then magnetron power supply system will work, and High Voltage inverter will supply power to magnetron, and about 3 second the magnetron will work. The magnetron is a radio transmitter. If it was on a radio mast it would be able to send radio signals a long way. But it is inside a metal box which keeps the signal in. The frequency of the transmitter is 2450MHz (megahertz), which is a wavelength of 12cm, rather than short waves, medium waves or long waves. In microwave cooking, the radio waves penetrate the food and excite water and fat molecules pretty much evenly throughout the food. Anything with water in it has all these molecules being moved this way and that by the electrical field, and heated up. Microwaves in this frequency range have another interesting property: they are not absorbed by most plastics, glass or ceramics. The dishes, walls of the oven, etc, don't pick up radio, so don't get heated up.

The cooling system will start working, the lamp will be lighted at the same time when the power supply system work. After we press "start", the fan will running, it can get rid of its excess heat, and cooling the magnetron and High voltage inverter. You mustn't block the ventsor the oven will overheat.

A light that lights when the door is opened and when the oven is working. So we can see the food in cavity clearly!

A ring alarm that makes a sound when cooking is done.