

C18-13 circuit diagram of the principle is following,

- 1) L, N, GND: power supply input for the circuit diagram of the principle
- 2) FUSE: It is a security protection. When a short circuit or current is too large , the fuse will break quickly.
- 3) EMI processing circuit: In the main circuit, effectively eliminate the interference from the induction cooker to the power fluctuations, and also effectively inhibited the interference of power when the induction cooker is working;
- 4) The main circuit rectifier circuit: the input rectifier circuit will be changed to the DC electricity as the main circuit power supply;
- 5) Filter circuit: It will prevent the infection when the induction of high frequency oscillation is effective;
- 6) Collection circuit of power: one set collection circuit of power, it makes the main circuit of the current signal converted to voltage signals to MCU;
- 7) The main circuit LC oscillator circuit: It is made by resonant capacitor and the coil, and they were controlled by the IGBT, and then, it will come into being the corresponding high frequency oscillation and resulting in power output;
- 8) IGBT: control of the high-speed electronic switch of main circuit resonant frequency;
- 9) Temperature Fuse: It is the hardware protection. When the circuit control is failure, and the surface temperature is too high, the temperature fuse will be disconnected, thus closing the power control circuit;
- 10) Switching power supply circuit: It provides DC power for the control, low-voltage detection circuit;
- 11) MCU: It is for writing software programs, determining the various states of the circuit, and controlling and protection;
- 12) Voltage detection: The detection of power and voltage, and transfer the signals to the MCU;
- 13) Temperature detection: Transferring the temperature information of surface , IGBT , etc to MCU through the temperature sensor;
- 14) Testing pot: Accessing to the main circuit through the detection circuit, and transferring the signals to the MCU. MCU can determine there is no pot or the material of the pots;

15) Drive circuit: IGBT will administer the requirement under the MCU control signals.