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HD3033

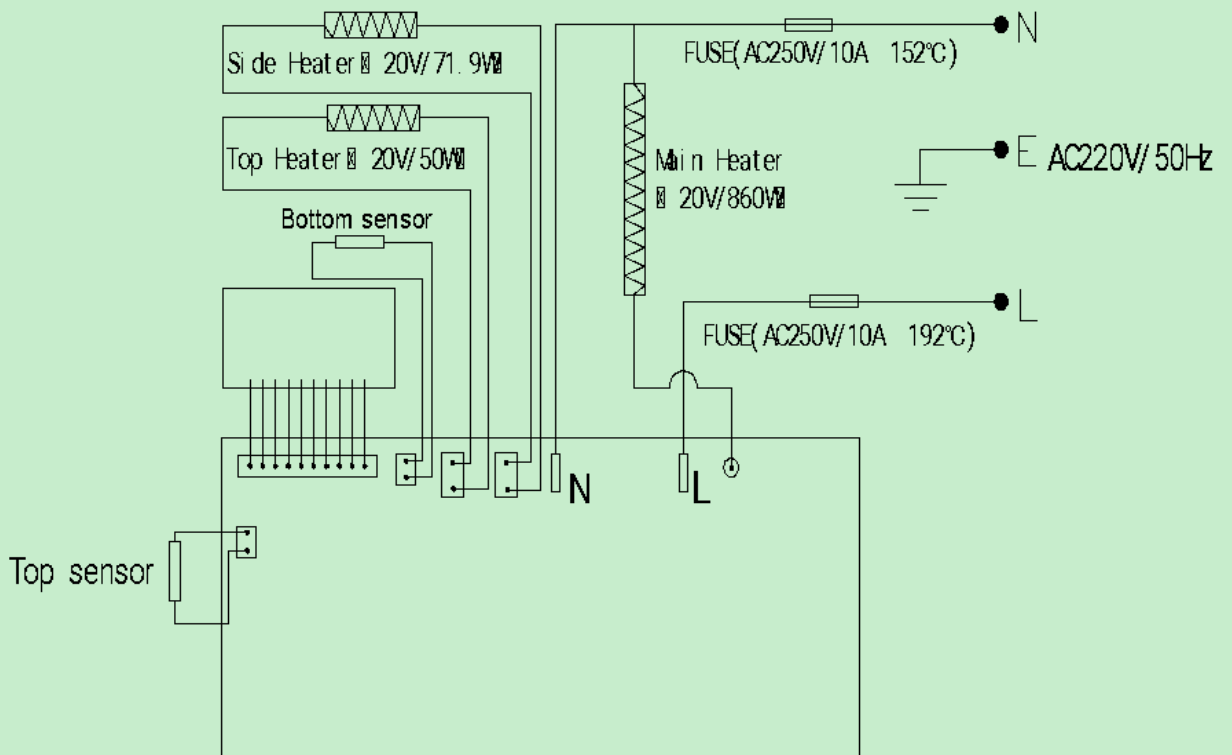
Philips Consumer Lifestyle

# Service Manual

Product Features			df Technical Info.			
1	Model	HD3033				
2	Product Picture					
3	Control Mode	Electronic Control				
4	Rated Voltage	220V~50Hz				
5	Rated Power	980W				
6	Capacity	4.0L				
7	Thickness of inner pot	2.0mm				
8	Color of plastic parts	Porcelain white				

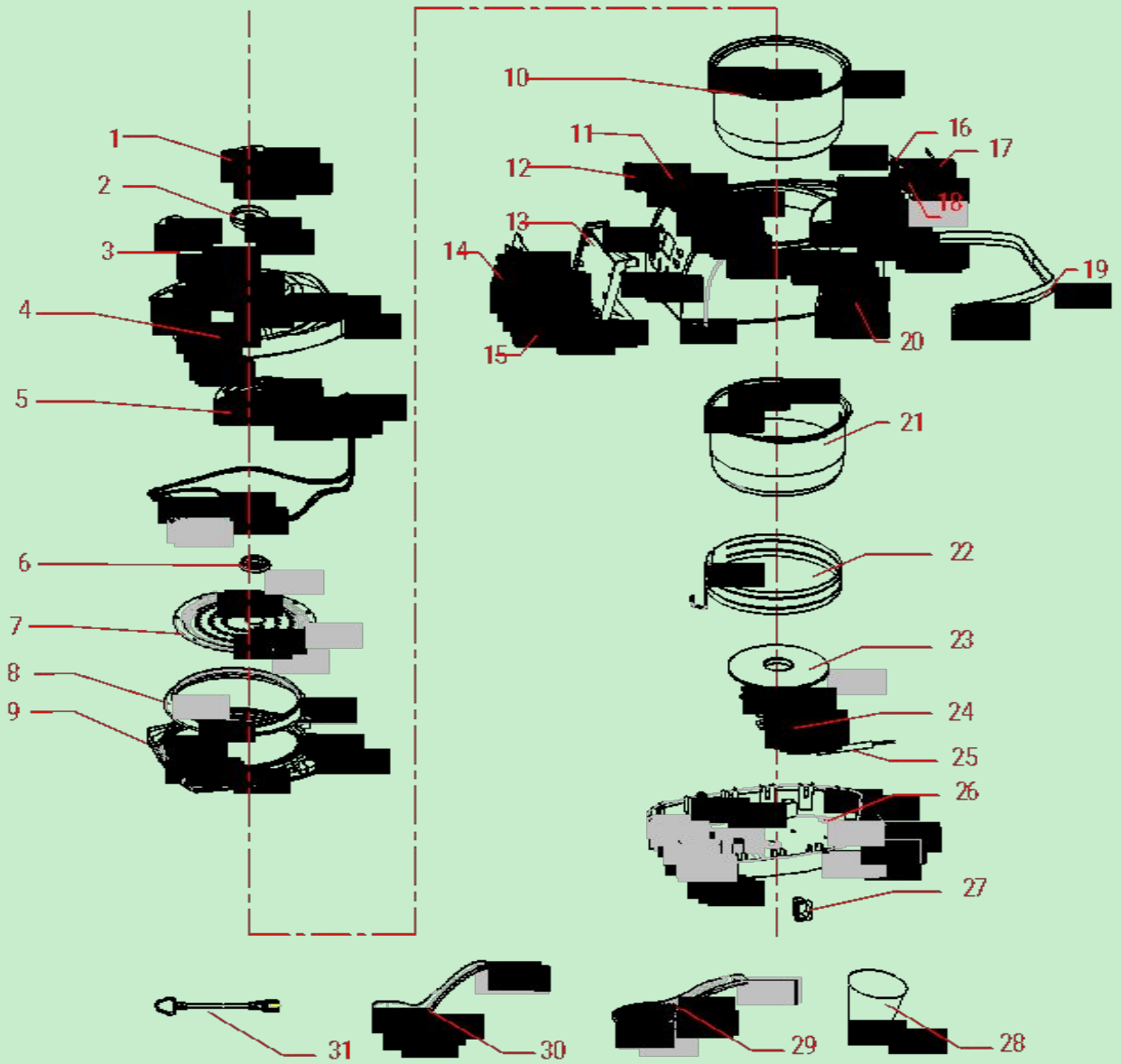
# Circuit Diagram

## HD3033



# Exploding View

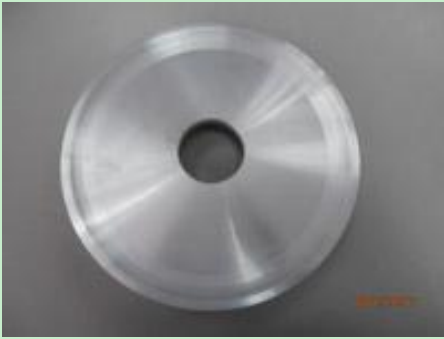


HD3033



## HD3033 Part List:

Ref No.	12NC	Description (Chinese)	Description (English)	PCM
1		蒸汽阀盖	steam valve cover	620202110174
2		蒸汽阀座	steam valve base	620202110173
3		面盖装饰片	Cover ornament	620202100088
4		面盖	top cover	620202050171
5		上盖发热组件	Top heating asy.	610201520001
6		蒸汽阀密封圈	steam valve seal ring	610206010039
7		保温座板	keep warm board	620203020016
8		内锅密封圈	inner pot seal ring	610206010011
9		内盖	inner cover	620202050170
10		内锅	inner pot	620203030352
11		开盖按钮	key press spring	610204020019
12		开盖按钮弹簧	key press	610203010029
13		电路板支架	PCB holder	620202100034
14		控制电路板	PCB	610201510047
15		电源电路板	power board	610201510046
16		铰链弹簧(右)	spring (right)	610204020026
17		铰链轴	axle	610204020016
18		铰链弹簧(左)	spring (left)	610204020027
19		提手	handle	620202140065
20		外壳罩	outer shell	620202120097
21		外锅	outer pot	620203030036
22		侧面发热组件	side heating asy.	610201540001
23		发热盘	heating element	620201530021
24		主温控器组件	main thermostat asy.	610201060036
25		限温器组件	thermostat control asy	620201520010
26		底座	base	620202110189
27		插座	socket	610201570004
28		量杯	measing cup	620202070021
29		饭勺	ladle	620202070020
30		汤勺	spoon	620202080007
31		电源线	cable	660200000077
32		说明书	DFU	610205510240
33		彩盒	Fancy Box	610202510251
34		快速指导手册	QSG	610205510256
35		硅胶手套	silicon glove	610207900029

## Illustration of Main Parts

Heating Elements		
Name	Picture	Main Functions
1、Heating Plate		To heat the inner pot by making it closely contacted with the aluminum plate in which a electric heating tube coil is placed; Power of the heating plate will influence the heating speed of rice cooker; Distortion of the heating element will influence the heating speed and effects of rice cooker.
Temperature Control Element		
2.MAIN THERMOSTAT (NTC)		Applying the anti-temp. Character of temperature sensitive resistance of which the value will decreases when the temperature rises.
Circuit Protection Element		
1.Temperature Limited Assembly		It is an over-temperature protection device which functions to avoid dangers caused by the over high temperature if the cooker is working abnormally. It protects the cooker by automatically fusing when the temperature rises to a certain point and it is not resettable.

## Disassembling Procedures :

1、 Remove the lid-opening button with a screw driver inserting from the side of it.



2、 Remove the 2 screws with a screw-driver



3、 Separate the top cover and inner lid with a spatula inserting between them



4、 Remove the 6 screws on the keep-warm board with a screw-driver, separate the keep-warm board with sealing ring



5、 Take off the rubber block with a screw driver



6、 Take off the top cover ornament by pressing the joining place



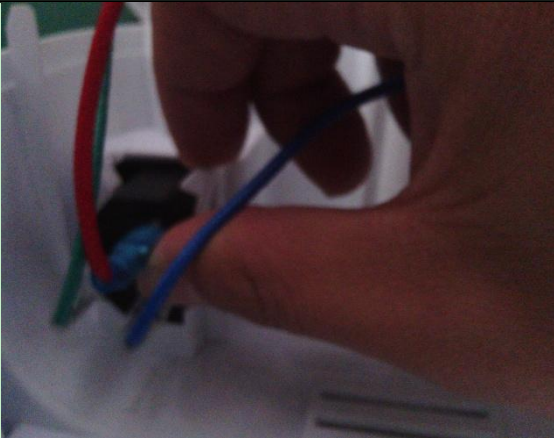
7、 Remove the gemel and springs



8、 Remove the screws on the base with a screw driver.



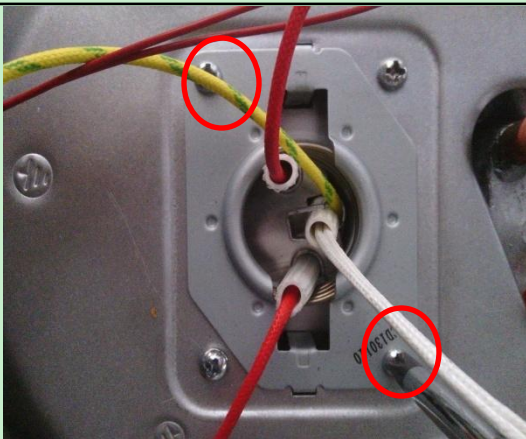
9、 Remove the socket



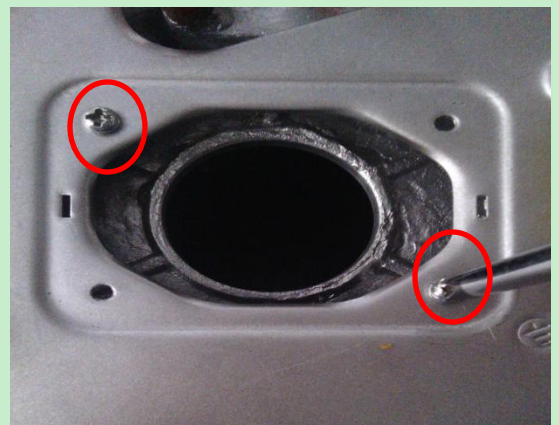
10、 Remove screws with a screw-driver



11、 Remove the two screws on the main thermostat with a screw driver



12、 Remove the screws fixed on the heating plate with a screw-driver.



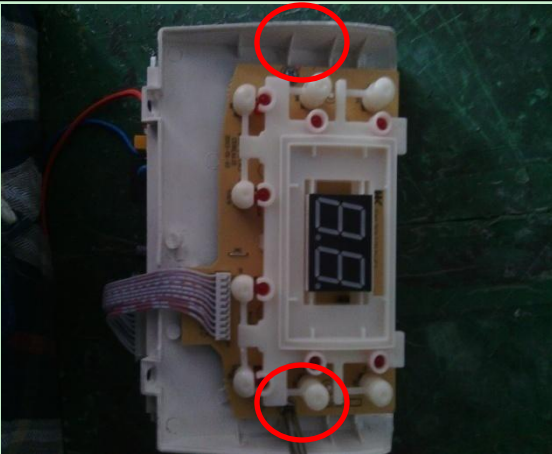
13、Cut off the binder with forceps



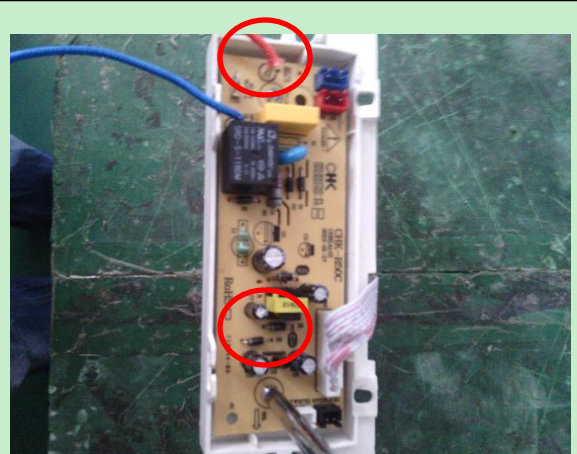
14、Pull out the connector on the PCB and remove the 4 screws on the PCB holder



15、Remove the two screws on the control board with a screw-driver



16、Remove the two screws on the power board with a screw-driver





# Malfunctions

## 2、No heating while on power

1、To test if the heating plate works properly with a multi-function meter



To put wires on both sides of the heating plate with the multi-function meter on the resistance shift. If the multi-function meter shows infinite resistance, the heating plate must have problem, otherwise it is normal

2 If problems found, test if the bottom sensor works properly with a multi-function meter



To connect both sides of the bottom sensor with red and black wire. If the bottom sensor is normal, the meter shows 100 at ordinary temperature; otherwise, the bottom sensor must meet short circuiting or the circuit is cut off

3、If problems found, test if the top sensor works properly with a multi-function meter



To connect both sides of the top sensor with red and black wire. If the bottom sensor is normal, the meter shows 100 at ordinary temperature; otherwise, the top sensor must meet short circuiting or the circuit is cut off

4、PCB errors



Heating plate won't work when PCB is not charged with 200v voltage.

**To test bottom sensor**

To connect both sides of the bottom sensor with red and black wire. 100 should be shown at ordinary temperature(25°C).If the resistance is small, rice cannot be cooked fully

**To test top sensor**

connect both sides of the bottom sensor with red and black wire,100 should be shown at ordinary temperature(25°C).If resistance decreases or not fixed well, rice or porridge may be spilled while cooking

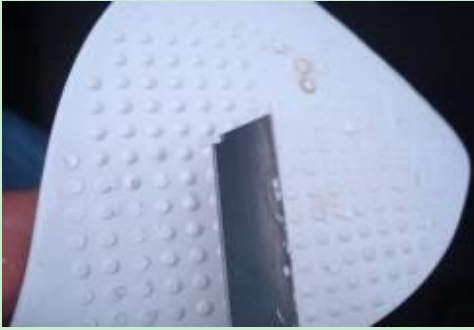


# Malfunctions

## 3、Repair for spilling

- (1) First, to check out the parameters of top sensor
  - (2) Check whether the sensor on keep-warm board slacks off
  - (3) Finally, check whether the display board is normal
- Procedures:

A、 Remove the humps on the spatula with a knife to avoid danger of scratches.



B、 loosen the screws on the top cover with a screw-driver



C、 Insert the spatula into the slim gap between top cover and inner lid and slide it to separate top cover and inner lid



D、 In picture below, the tin paper slightly sheds off which causes vague perception of the top sensor on pot temperature, thus leading to spilling



E、 . The thin paper should be pasted tightly to the keep-warm board and air should be expelled as much as possible



F、 To fasten the tin paper with glue in prevention of looseness



## Malfunctions

### 3、Repair for spilling

G、Picture below shows the glue used to fasten the thin paper



H、If the thin paper doesn't shed off, please check the parameters of top sensor by loosening the screws



R、The connector for top sensor is of black color which should not be messed up .

J、To test the top sensor with multi-function meter on 200K shift. Top sensor should be of 100K at ordinary temperature. Spilling happens when parameters of the top sensor go beyond the green zone.



K、If no problems found from the above procedures, there may be something with display board. If the display board sticker( a slice-shaped component )goes wrong, temperature limiter will fuse and spilling may happen.

## Troubleshooting

Fault	Reason	Solution
1. Rice Cooker doesn't work	1.No power supply is outputted from the socket	Check the power supply of the socket by having another appliance connected
	2.Power cord being open circuit	Check the power cord by replacing it with the a same one
	3.The plug isn't fully connected	Insert the plug completely to ensure a fully connecting
	4.The corresponding function button is not pressed	Choose the function ,then press start button
	5. Temperature Limiter assembly fuses	Replace the Temperature Limiter assembly
	6.Heating element damages	Replace heating element and related assembly
	7.Bottom sensor being open circuit	Replace bottom sensor
	8.Bottom sensor being short circuit	Replace bottom sensor
	9.High temperature of bottom sensor	It is suggested to replace the PCB board if it is stilled shown over temp. even the inner pot is closely contacted with the heating element
	10.Top sensor being open circuit	Replace top sensor
	11.Top sensor being short circuit	Replace top sensor
2. Undercooked	1.Rice and water in wrong proportion	Make right rice-water proportion under manual instruction
	2.Constant lid-opening while simmering	In no rush of opening lid while simmering rice
	3、 Inner pot inappropriately placed	Move the inner pot around to ensure a well contact between inner pot and heating element
	4. Raffles between heating element and inner pot	Remove raffles between heating element and inner pot( with sandpaper or alcohol )
	5. Cook rice with fat	Clean out the fat
	6.Heating element deformed or unevenly heating	Repalce the heaing element
	7.Bottom of inner pot is deformed or not fully contacted with the heating element	Repair or replace the inner pot
	8.Top heating element malfunctions	Repalce top heating element
	9.Main thermostat malfunctions	Replace main thermostat
3、 Overcooked Rice	1.PCB board malfunctions	Replace PCB board
	2.Difference in rice quality	Define that whether the burning is caused by a change in rice quality
	3.Mian hermostat malfunctions	Replace main thermostat

## Troubleshooting

Fault	Reason	Solution
4. Spilled rice or porridge	1.Inner pot is overloaded	Cook with right rice & water proportion referring to the instruction manual
	2.Difference in rice quality	Change for another type of rice
	3.Rice isn't well rinsed	Rinse the rice
	4.Top sensor malfunctions	Repalce top sensor
	5.Top sensor is losened	Make the top sensor well fixed
5. Electricity Leakage	1.Power cord is damaged	Replace the power cord
	2.Water comes into the outer pot	Clean out the water in the outer pot and put the cooker in a ventilative place for over 2 hours
	3.The cooker is operating in humid environment	Improve the operating circumstance
	4.Too much greasy dirt is left inside	Clean out the greasy dirt
	5.Plug earth terminal is not used or the socket is unearthed	Let the cooker be well earthed
	6.Insulativity of the alive components declines or interior wires damage	Check the components by meter at level of R*10M; repair or replace the defected ones
	7.Interior grounding wire loosens	Check the grounding wire to make it well-grounded
6.After powering on the rice cooker, all indicators glow	1.Top sensor is broken	Replace top sensor assmebly
	2.Main thermostat is broken	Replace main thermostat
	3.The main circuit board flint carbonization	Repalce main board
7.The socket sparkles when powered on	1.Water or other liquid food flows into the socket	Clean out the water or liquid food in the socket
	2.Plug and socket is oxidized or coming loose	Remove the oxidation with a knife or sandpaper, fasten the loosen parts with glue
	3.Fuse is burnt caused by some other reasons	Find out the reason and replace with another fuse of the same model
8.press button stuck	Function buttons on main board or the main board itself are broken	Replace the function button or main board
9.Water spills when cooked with rice of small portion	too much water	Cook in rice-water proportion under the instruction of user's manual