



# Breville Induction Cooker (LIC400BLKANZ)

## Teardown

Teardown of the Breville Induction Cooker (LIC400BLKANZ) by UNSW students, showing sub units and separate parts

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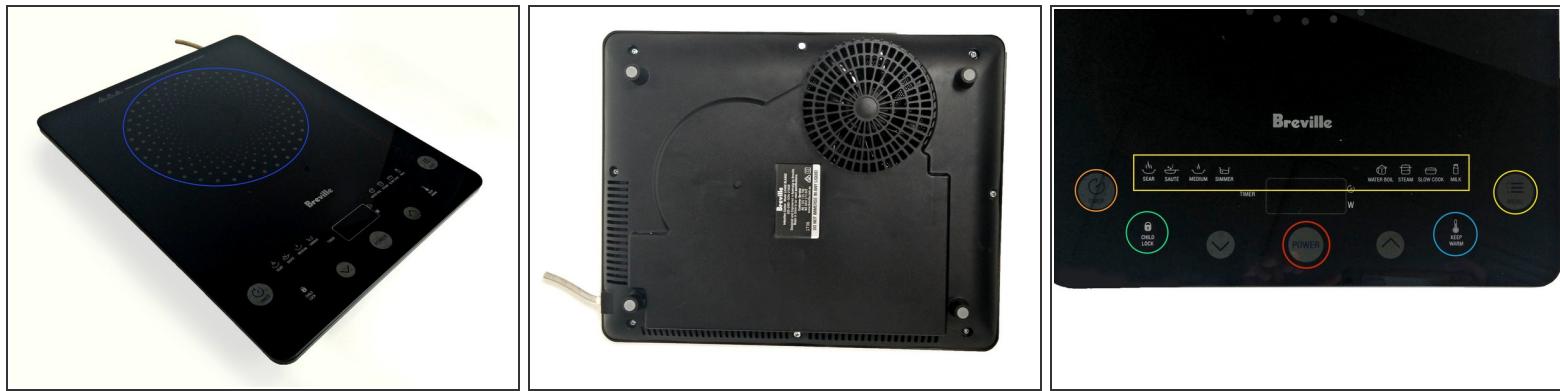
## INTRODUCTION

The Breville Induction Cooker (LIC400BLK ANZ) is an efficient cooktop that uses induction cooking to quickly heat your cookware.

### **TOOLS:**

- **Phillips #0 Screwdriver** (1)
- **Triangular headed Screwdriver** (1)

## Step 1 — Body



- Once you have your Breville Induction Cooker. You will notice the body is made up of a injection moulded ABS base and ceramic glass panel top. Let's take a closer look at the features on the top;
- A power Button
- Time Control
- 8 Cooking modes, sear, saute, medium, simmer, water boil, steam, slow cook, Milk.
- A child Lock
- Keep warm
- A saucepan detecting area

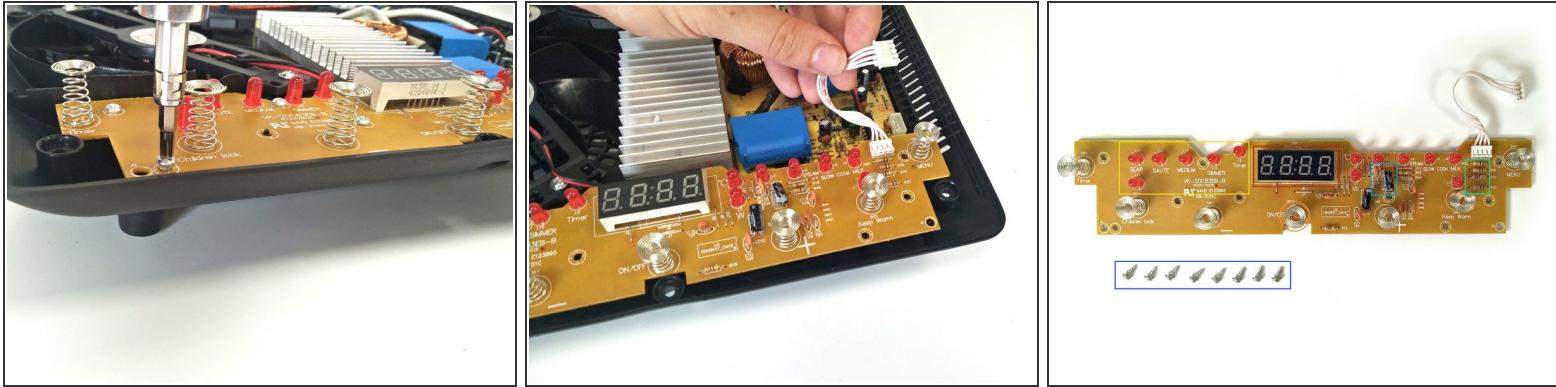
**⚠ WARNING: UNPLUG the cooker before taking it apart. DO NOT TOUCH THE WHITE PUTTY, it is TOXIC thermal paste. If you do wash your hands thoroughly and limit contact with your face. You can clean the thermal paste off with rubbing alcohol.**

## Step 2 — Body Teardown



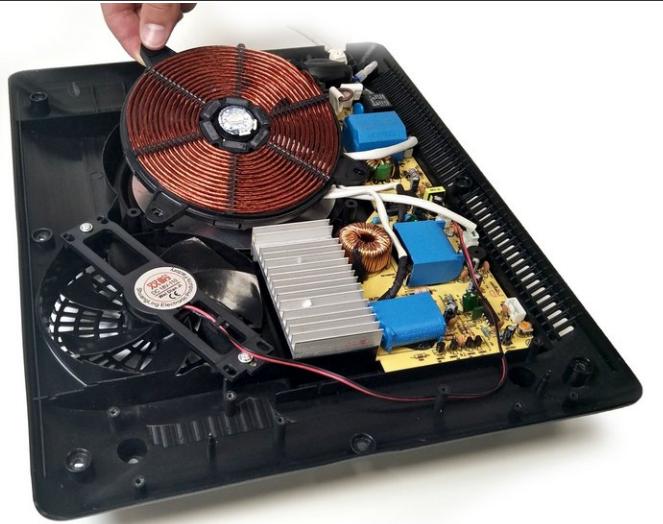
- Now let's tear it down. Use a Phillips head screwdriver to undo the 6 screws found on the fringe of the back face. There are also 2 triangular screws located in the middle to be unscrewed, making 8 screws in total. Carefully flip the cooker so that the ceramic panel faces the top, then lift the panel to remove it from the case.
- Philips dome head screw x6 - M4x8mm
- Triangle dome head screw x2 - M4x10mm

## Step 3 — User Interface PCB



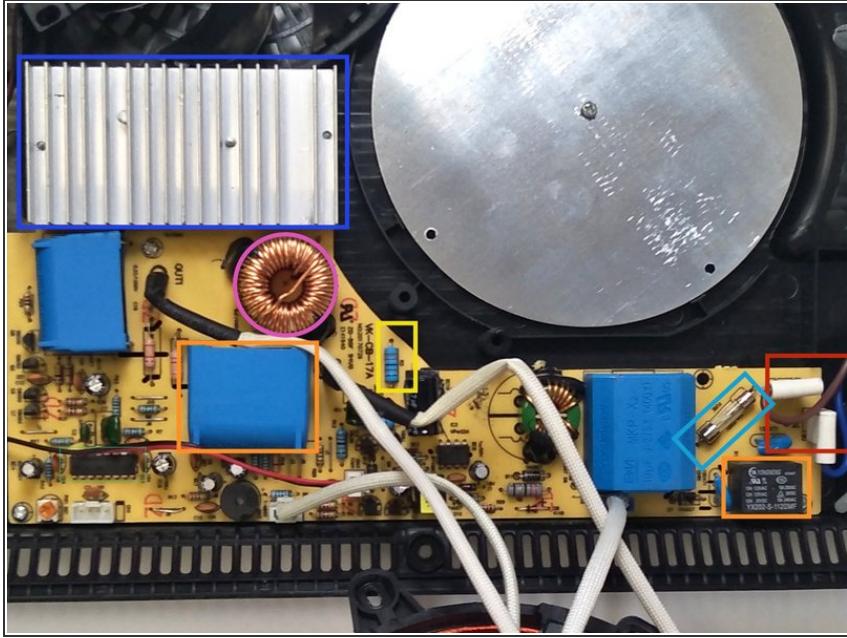
- Once open you can locate the User Interface PCB (Printed Circuit Board). On this we can see;
- The Timer
- Sensor buttons
- LED display
- Resistors
- Capacitors
- To remove the user PCB, use the Philips head screwdriver and undo the 8 screws securing it to the base. Unclip the white wires that attach to the Main PCB before lifting the board out.
- Phillips round head screw x8 - M3x6mm

## Step 4 — Induction Coil



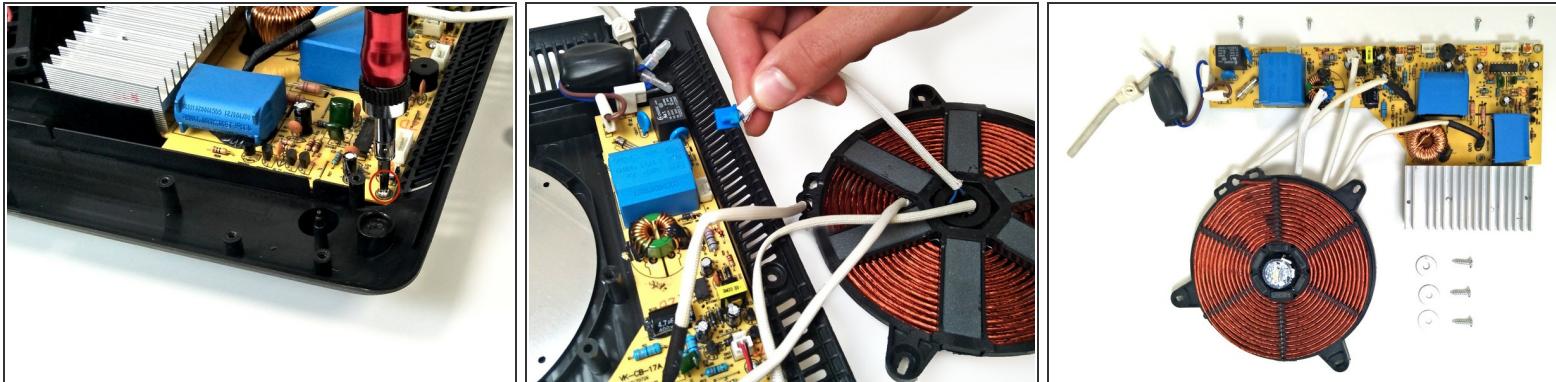
- Next locate the copper induction coil, which uses alternating current to create a magnetic field. Thus creating heat by inducing a current.
- Use the Phillips head screwdriver, to undo the 3 screws holding the induction coil to the base. Remove each screw and their respective washers. Then lift it out.
- Dual Phillips/slotted round head screw x3 - M4x12mm Washers x3 - inner Ø 4mm, outer Ø 16mm

## Step 5 — Main PCB



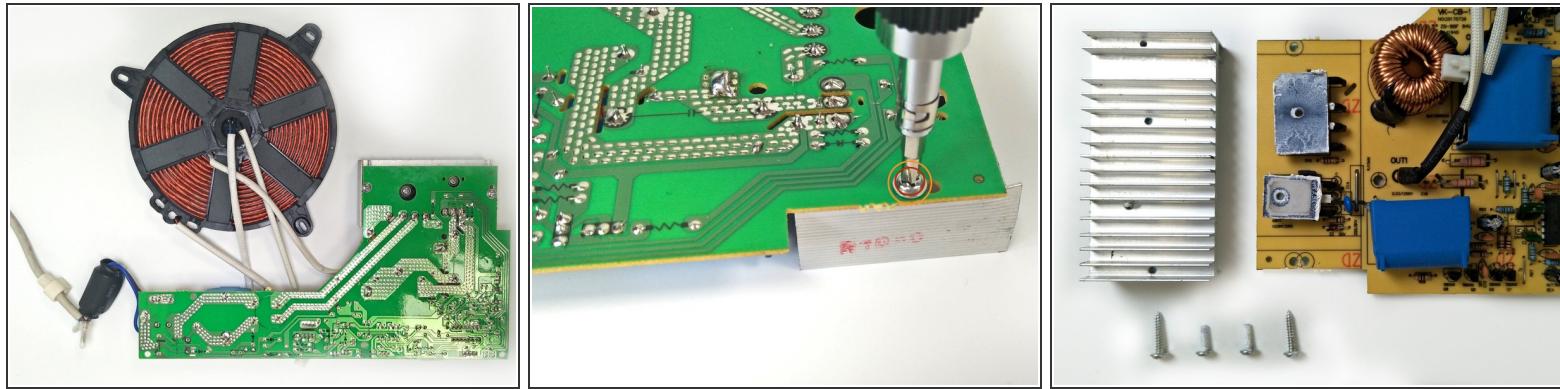
- To the right of the circuit is the Main PCB which powers the internal components. On this we can see;
- The AC power plugs
- Capacitors
- Resistors
- Micro Processors
- A Fuse
- A Heat Sink
- Inductors

## Step 6 — Main PCB



- To remove, use the Phillips head screwdriver to unscrew the 4 screws securing it to the base. Then gently pop all the chords out of the fasteners on the PCB. Once both the Induction coil and the Main PCB have been unscrewed, remove both.
- Phillips round head screw x4 - M3x6mm

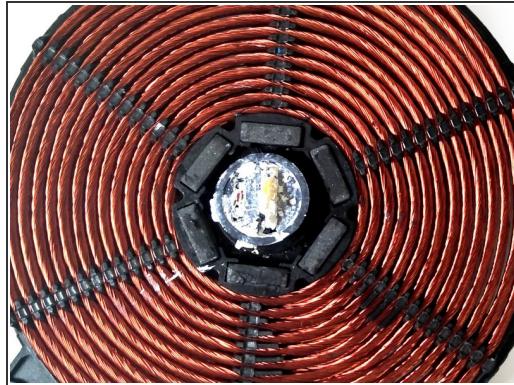
## Step 7 — Heat Sink



- The stainless steel heat sink, as we identified in Step 6 is a passive cooling device meaning it involves no electronics. The ribs provide surface area to allow air flow from the fan to help cool the inner components.
- To remove, flip the Main PCB upside down and use a Phillips head screwdriver to unscrew the 4 screws around the heat sink. Then lift from PCB
- Phillips washer head screw x2 - M3x10mm
- Phillips washer head screw x2 - M3x16mm

**⚠️ WARNING:** The thermal paste on base of the heat sink and on the thread of the smaller screws is **TOXIC. DO NOT TOUCH**, if you do wash your hands thoroughly and limit contact with your face. You can clean the thermal paste off with rubbing alcohol.

## Step 8 — Sensors



- In the centre of the coil there are two sensors, a temperature sensor and an electromagnetic wave sensor. Attached to the ceramic glass plate via the thermal paste.
- Carefully push the sensors rubber casing out of the induction coil.

**⚠️ WARNING:** The thermal paste on sensors is **TOXIC. DO NOT TOUCH**, if you do wash your hands thoroughly and limit contact with your face. You can clean the thermal paste off with rubbing alcohol.

## Step 9 — Fan



- Going back to the case you should be able to easily locate the ABS fan, which cools the electrical components.
- Use the Phillips head screwdriver, to undo the 2 screws. Remove each screw and their respective washers. Remove the fan from the base by lifting it out
- Plastic washers x2 - inner Ø4mm, outer Ø10mm
- Phillips washer head screws x2 - M3x8mm

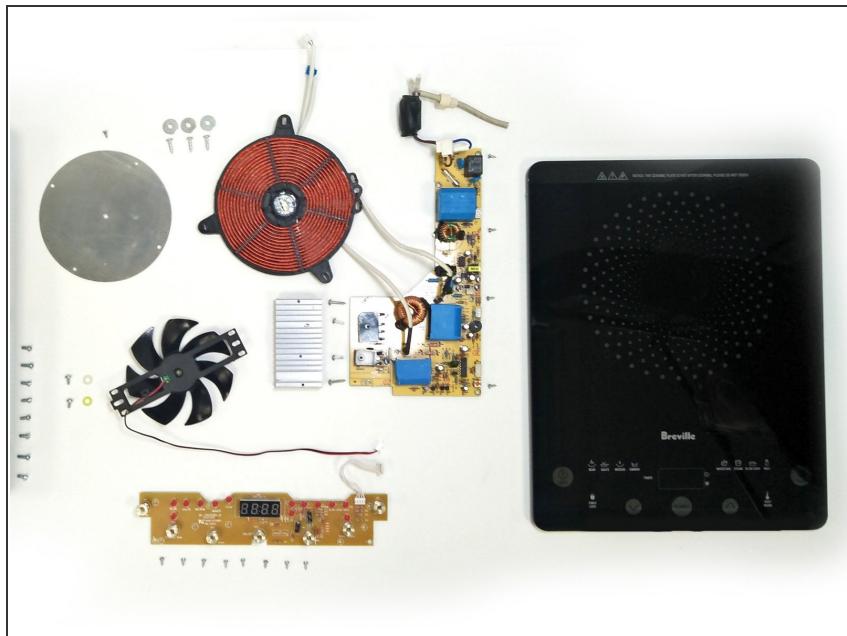
## Step 10 — Electric Shield



- Finally, where the induction coil was, there is a circular stainless steel shield attached to the base. The shield prevents energy from the induction coil escaping downward.
- To remove simply use the Philips head screwdriver to undo the single screw located at the centre of the shield. Lift the shield to remove it from the case.
- Phillips dome head screw x1 - M3x6mm

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## Step 11 — Final Thoughts



- Only a phillips head and triangular head screwdriver are needed for the teardown
- The Induction Cooker only has a few subassemblies that are easy to remove
- Easy to understand when opened as the subassemblies are spaced well
- Triangular screwdrivers are not very common thus opening it may require purchasing extra equipment
- Thermal paste on a lot of the parts makes work a little dirty
- Not a commonly used item / not most recent version, thus replacement parts may be scarce