



Repairing a Kenwood Chef A901D That Emits a Burning Smell

Repairing a Kenwood Chef A901D that is emitting smoke and a strong burning smell.

Written By: VauWeh



INTRODUCTION

If your Kenwood Chef A901D starts emitting smoke and a strong burning smell, most likely a capacitor in the motor controller is broken. Follow this guide to change the broken parts in a Kenwood Chef A901D. To do this, you need some skills in soldering. If you are new to soldering, our [guide](#) may be useful.



TOOLS:

- [Phillips #2 Screwdriver](#) (1)
 - [New Item](#) (1)
 - [New Item](#) (1)
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Step 1 — Motor Control board

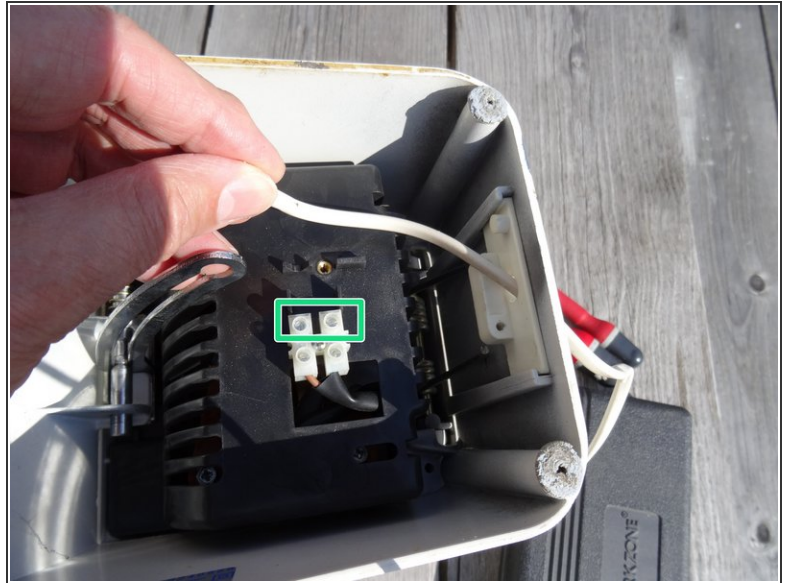


i An old A901D started emitting smoke and a strong smell while running. Failing components in the motor control circuit were causing the smoke. Components replaced were a BTA08-600CW triac, a 150nF block capacitor, a 470nF block capacitor and a 150 kOhm resistor. All components can be purchased for a few pennies.

- Remove all accessories like the bowl and mixer.

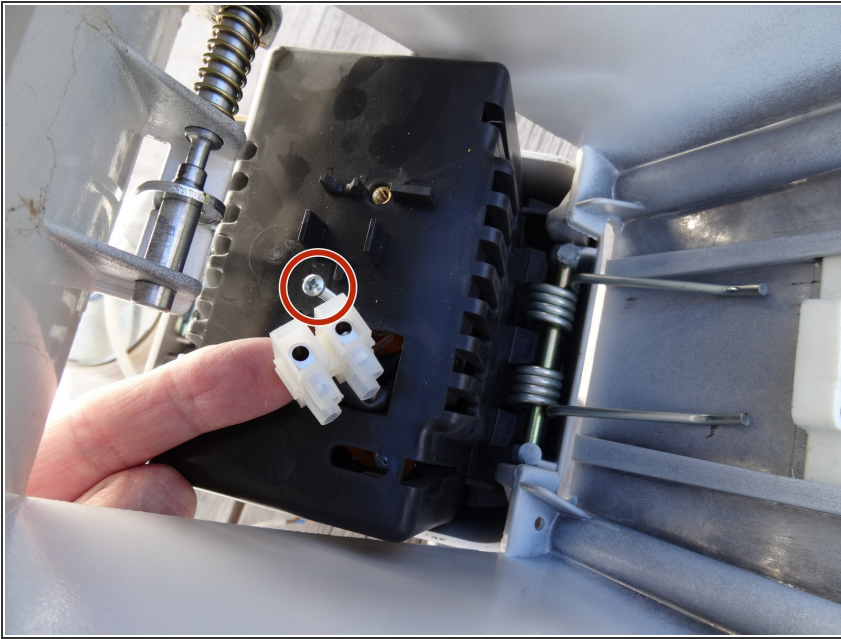
⚠ Remove the power cord from the outlet.

Step 2



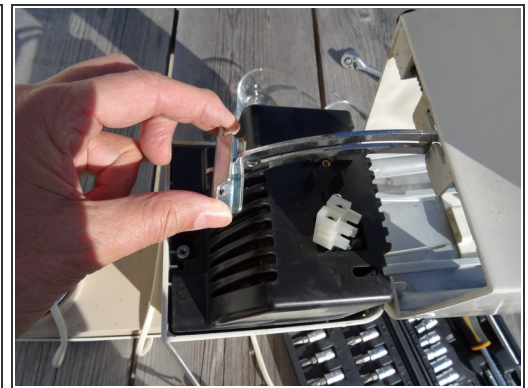
- Flip the machine upside down, so that the bottom is facing up.
- Remove the two screws from the white cable strain relief strip, then remove the strip.
- Remove the screw from the box covering the power wire connector.
- Remove the two screws from the power wire connector block. Remove the power cable and place it aside.

Step 3



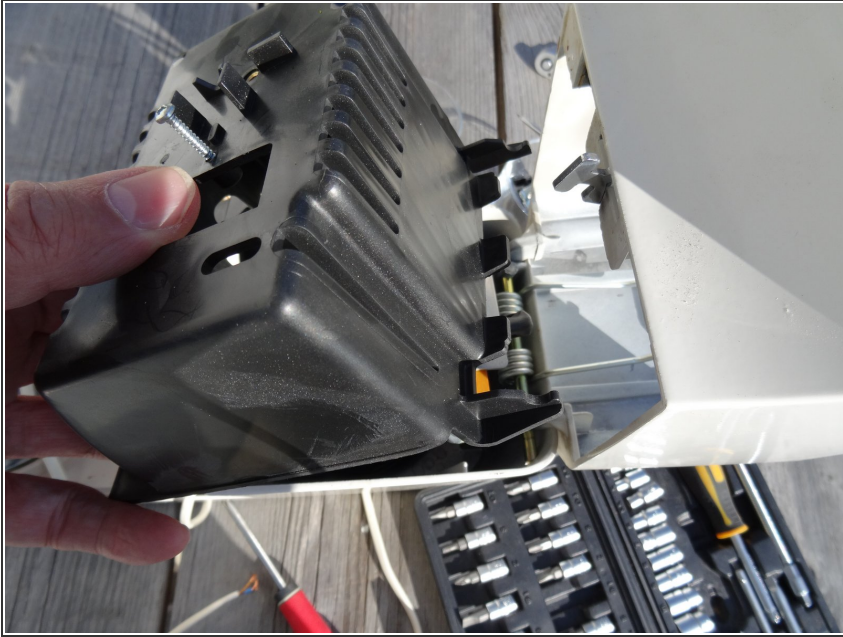
- Remove the screw that holds the cable connector to the motor cover.
- Let the connector fall through the square hole in the motor cover.

Step 4



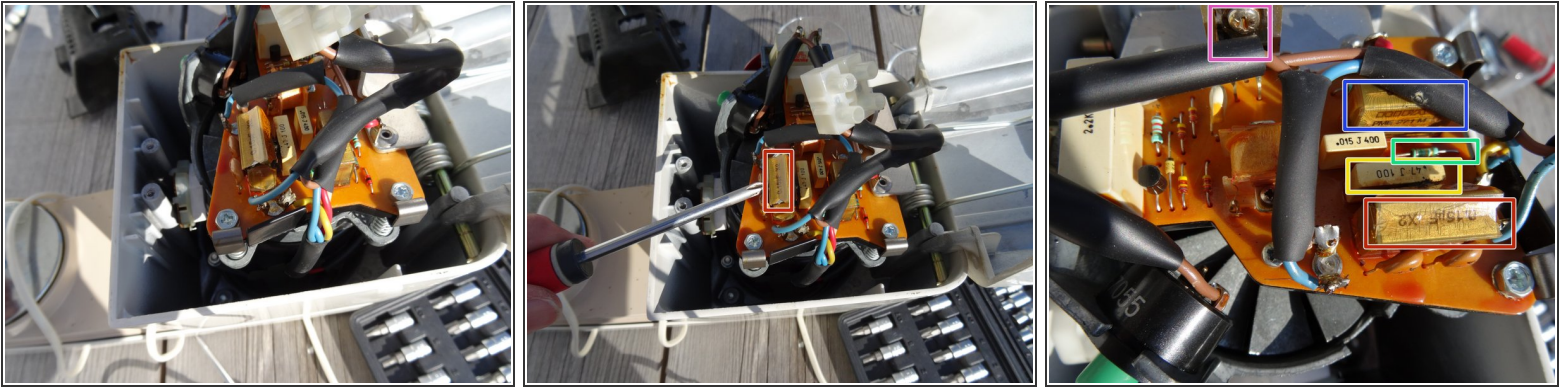
- Open the pedestal.
- Remove the two screws that secure the retention plate holding down the motor cover .
- Remove the retention plate.

Step 5



- Take out the motor cover. It is held under the axle of the pedestal.

Step 6



- i** The motor control electronics are now exposed. For other models, the control board may look different. But you can often recognize the defective capacitor(s). Replace them and any additional defective resistors (if any). The triac is under a lot of stress and brakes easily. Replace it if necessary. The components listed are all very cheap.
- i** In this case the 150 nF block capacitor, the adjacent 470nF capacitor, the 100 nF capacitor, the 150 kOhm resistor and the triac BTA08-600CW were replaced.
- i** If you don't have all the parts, you should definitely replace the two oil paper capacitors 100 nF and 150 nF. It is best to use MKP capacitors, X2 - class, at least 275 V. The space between the connections (pitch) should fit, bend the connections slightly if necessary. (e.g. if the pitch is 22 mm instead of 20 mm)

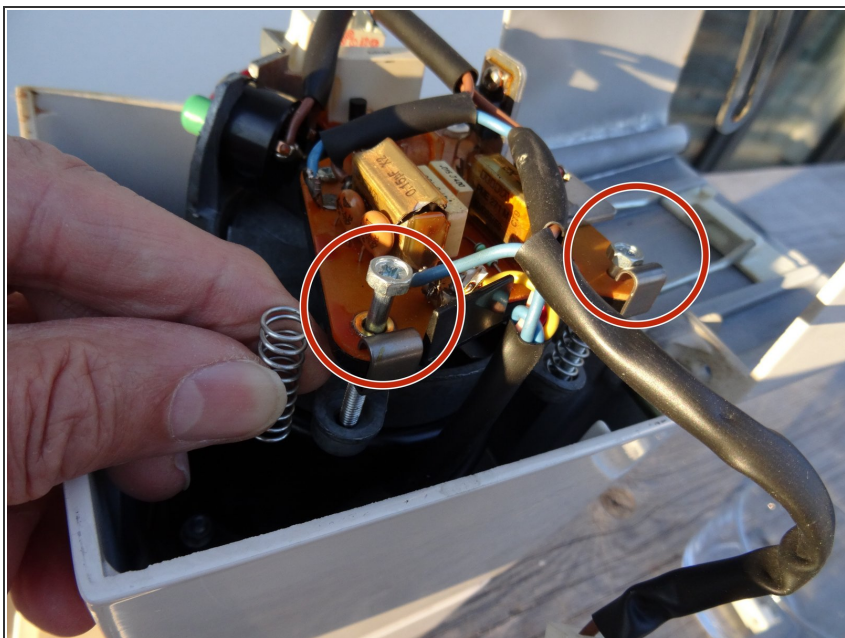
 - 150 nF block capacitor (pitch 20 mm)
 - 470 nF block capacitor (pitch 15 mm)
 - 100 nF block capacitor (pitch 20 mm)
 - 150 kOhm resistor
 - Triac type BTA08-600CW

Step 7



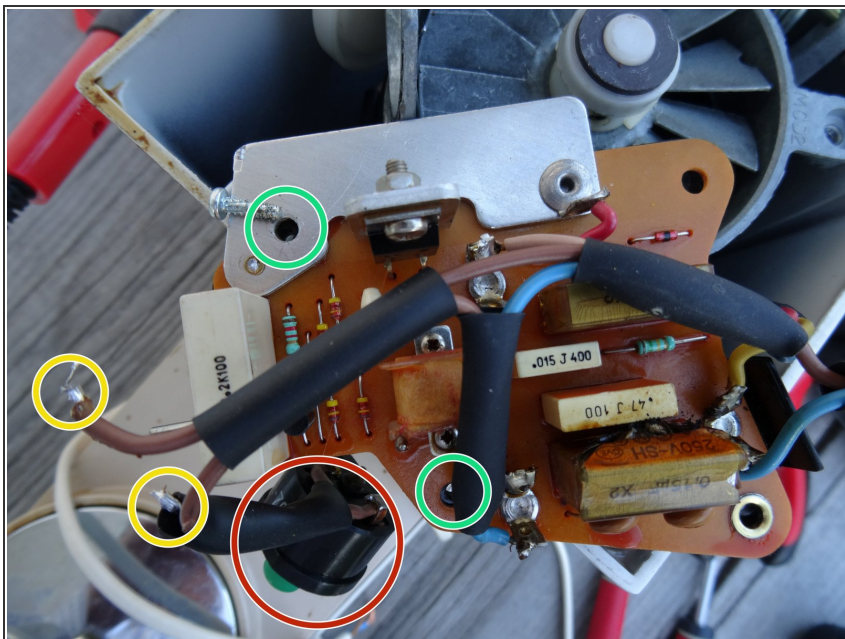
- Here is a picture of the two oil paper capacitors. They break more easily, the case cracks. Replace them with more modern MKP types.

Step 8



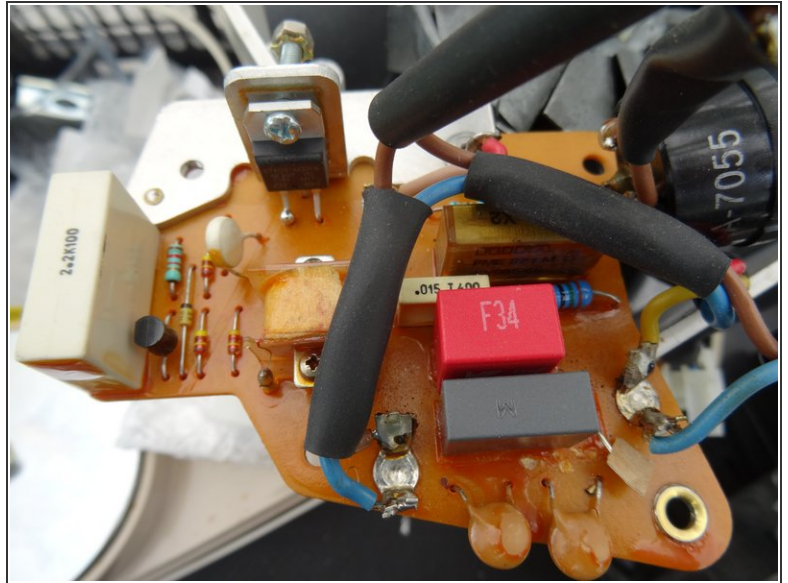
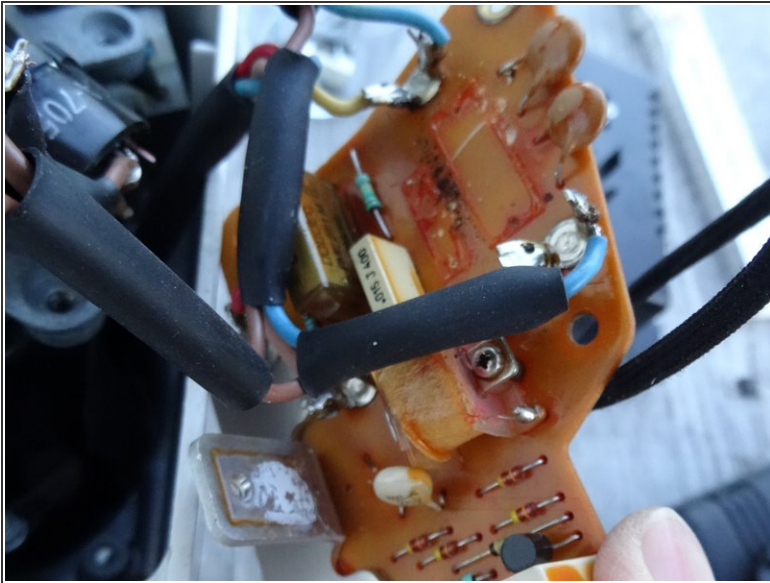
- Unscrew the two speed adjustment screws. Remove the springs and the screw retention clamps.
- This is a simple explanation of how the speed regulator works: At the end of the motor shaft is a magnet. This induces a coil on the PCB to a different degree, depending on distance. The initial distance of the magnet can be adjusted with the adjustment screws and the large control button. This regulation also keeps the speed constant under load.

Step 9



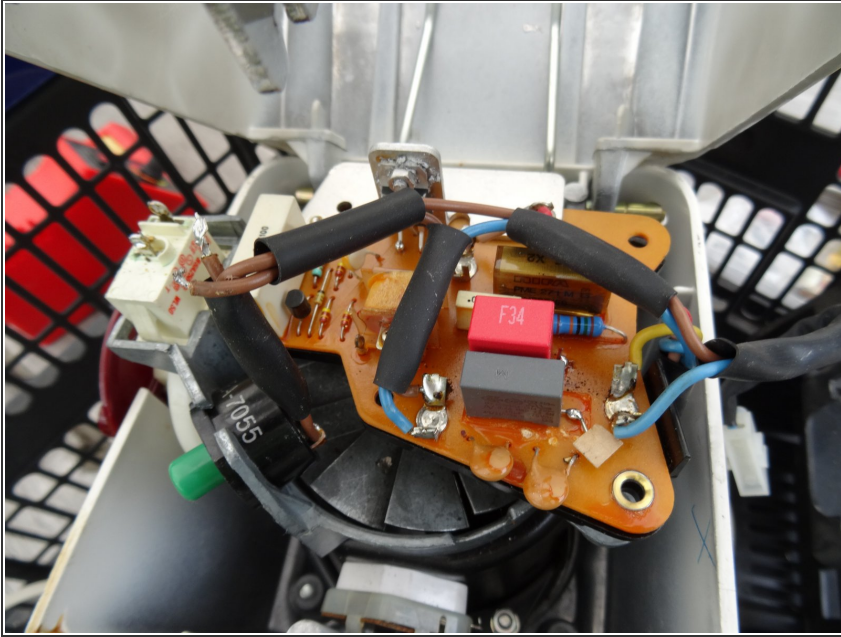
- Remove the thermal fuse from its holder.
- Desolder the cables connected to the on/off switch.
- Pull out the printed circuit board carefully.
- Remove the two screws that secure the board to the plastic case.
- (In the picture, all the steps were already completed.)

Step 10



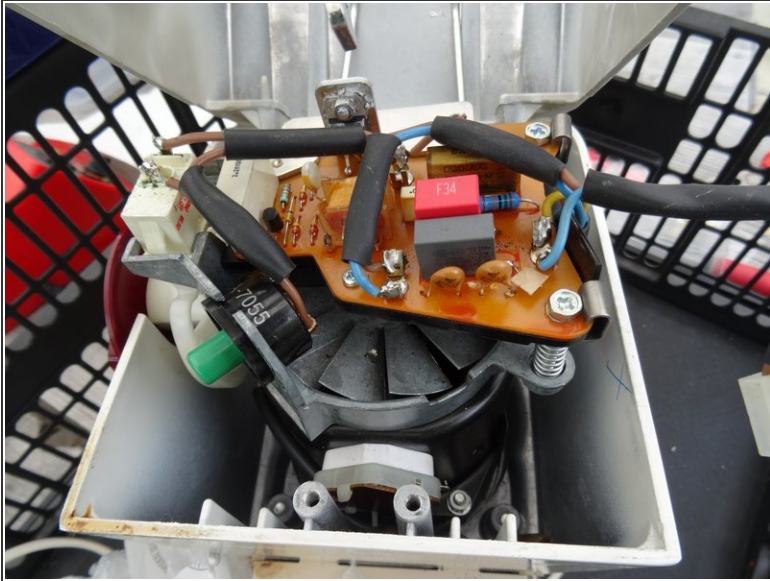
- In the first picture, three of the four components were already desoldered. Unscrew the triac. Note the thermal compound on the heatsink of the triac. Thermal paste will be applied to the new triac later.
- In the second picture, the replacement components were all soldered back. The capacitors have a slightly different size though.

Step 11



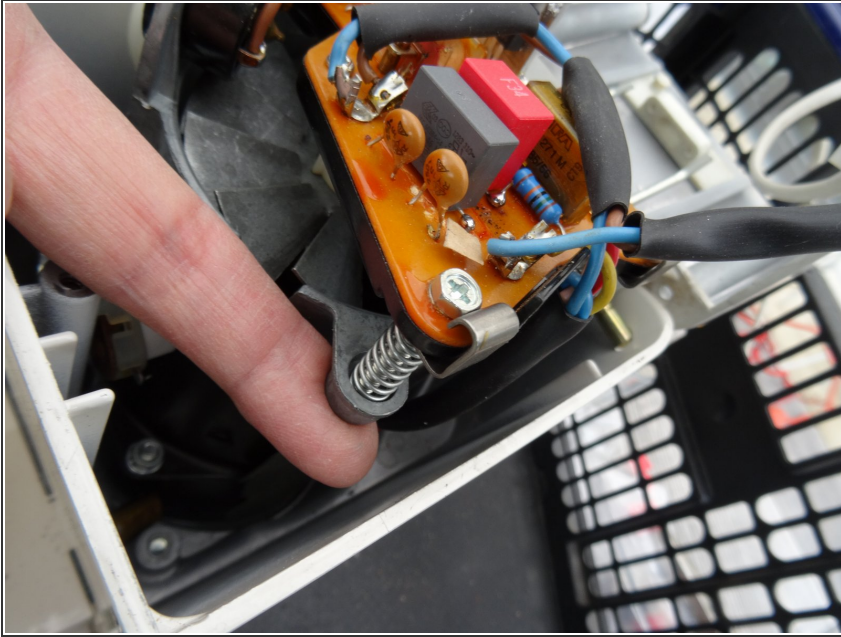
- The thermal fuse is inserted, the power switch is not soldered yet.

Step 12



- Everything is completed and ready to be reassembled. The on / off switch is soldered, the adjusting screws are screwed in and the circuit board is attached to the case with both screws.
- Make sure that the pin on the support of the circuit board is engaged in the guide rail on the knob (marked by the red rectangle in the second picture). If you turn the knob, the circuit board needs to be able to move up and down a bit, otherwise the machine will not work!

Step 13



- Adjusting of the speed control after repair:
 - Turn both adjustment screws only until you can feel them flush with your fingertips on the rear side of the screw holes. Then turn the screws two turns more.
 - Set the speed adjuster to the lowest setting.

⚠ Attention: high voltage, don't reach with your fingers into the motor.

- Plug in.
- The motor should run slowly. The correct speed for the planetary drive is 60 rpm.
- Adjust the speed by turning the adjustment screws evenly.
- Remove the power cord and reassemble your device following the steps in reverse order.

After adjusting the speed control, follow the steps in the reverse order for reassembly.