



How to Descale Boiler - E05

Work in progress - a partial solution. Feedback...

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INTRODUCTION

Work in progress - a partial solution. Feedback welcome. The partial part is that I still may have to stop the “Rinsing” process during startup. But I can make coffee.

My machine is a Saeco Exprelia full automatic espresso machine. It has been working well for several years, until the stream of espresso dried up into drips and then finally ceased. I should of course have descaled it in time!

The message to me was error E05 which means “Water circuit blocked”.

Causes can be:

- Clogged boiler - the subject of this guide
- The water flow impeller can be blocked
- Water pump may be worn out. A sign of worn out pump is rinsing problems on startup.
- Something else...

The YouTube guide “How to clean your Saeco brew unit” is a good idea to check first.

The completely blocked boiler would no longer allow the descale program to complete.

Time to do some disassembly.

TOOLS:

TR10 Torx Security Screwdriver (1)
1 3 mm Flathead Screwdriver (1)
Cutting Plier (1)

PARTS:

Two 9 mm Hose Clamps (1)
Gaffer Tape or Heat Shrink Tube (1)
Descaler (1)

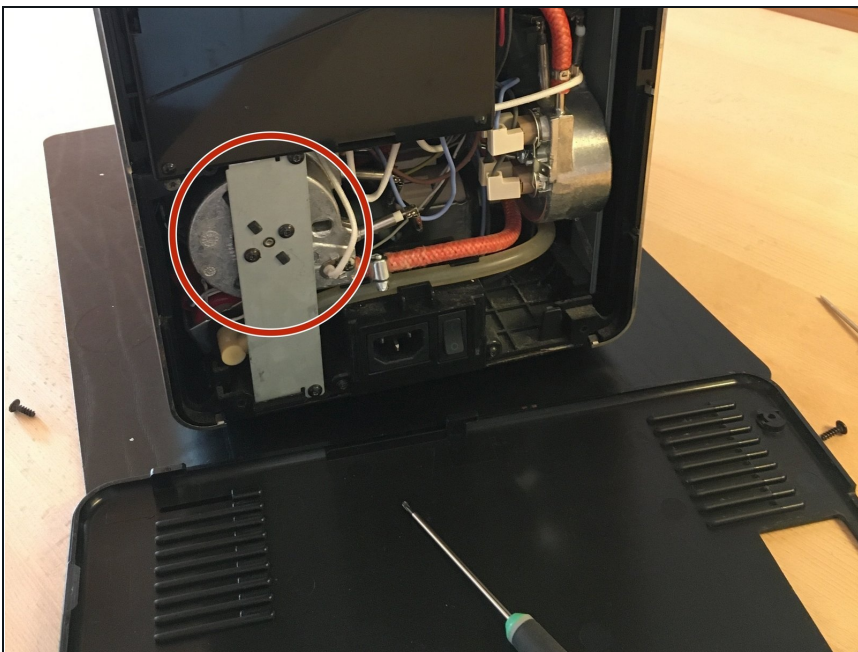
Step 1 — Access to the Internals



⚠ WARNING: Before you begin, be sure to disconnect the machine from power. Failure to do so can result in serious electrocution.

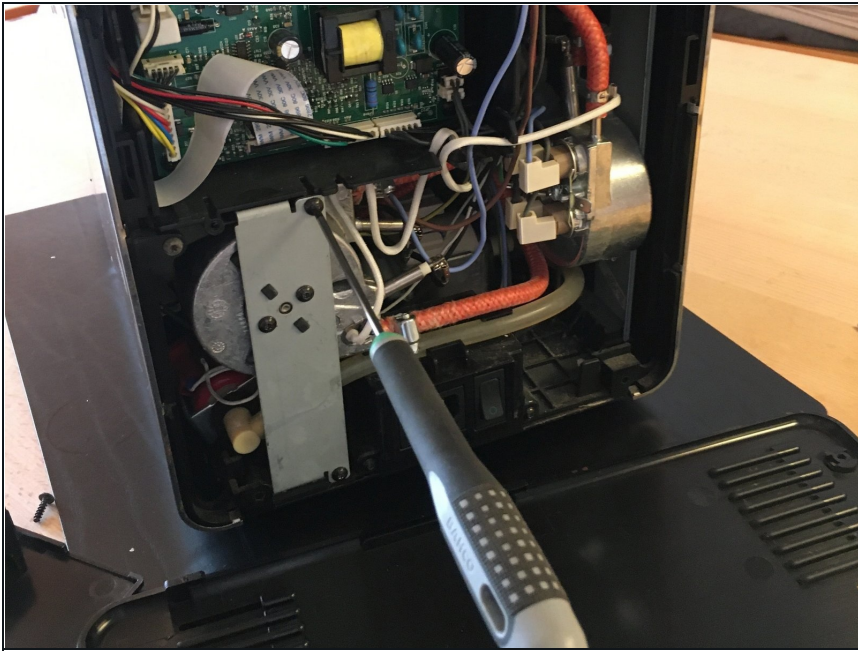
- Pop off the two covers with a small flat screw driver

Step 2 — Open the Machine



- Lift off the back panel, revealing the boiler to the left

Step 3 — Loosen the Boiler



⚠ Caution: Wait for the boiler to cool down before you continue working on it.

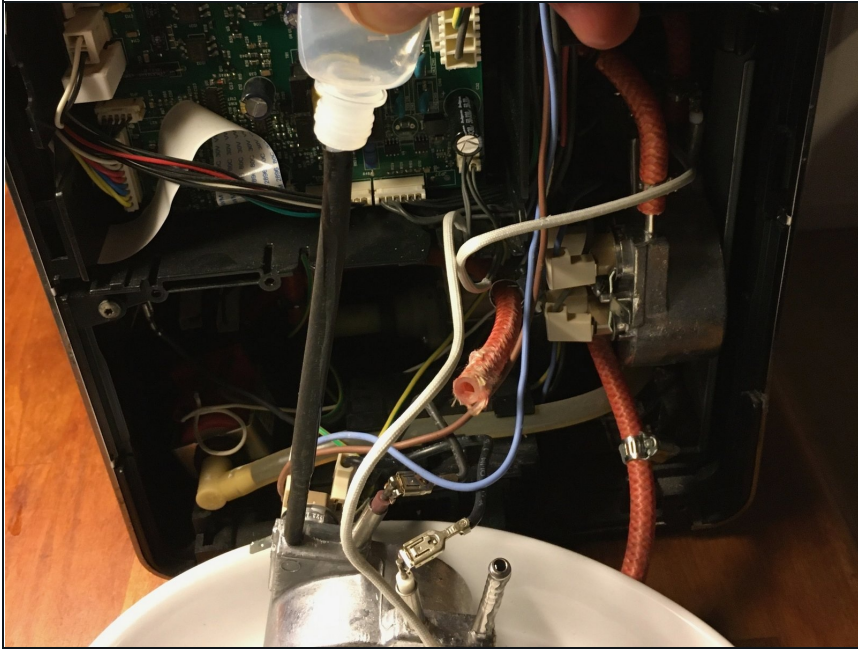
- Loosen the two Torx screws which holds the boiler. No need to take the leads off.

Step 4 — Oetiker Clamps



- Use pliers to destructively take off the Oetiker clamps on the boiler. This photo shows a different Oetiker clamp as I removed the ones on the boiler in a previous repair. You will need to buy some new 9 mm hose clamps instead. They can be fitted with a regular screw driver. You can go shopping while waiting for descaler to work.
- You may need to twist, push or pull fairly hard to get the hoses off.

Step 5 — Descaling



- If you can't blow air through the boiler you know it is clogged. A bicycle pump with a Presta valve has about the right size, although it will not lock on. You should also be able to blow air through with your mouth. Beware if the boiler is still hot.

ⓘ Be sure to wear gloves to protect your skin and safety glasses to protect your eyes. Descaling may not be easy.

- Attach a piece of hose or a straw and try to pour in a little bit of descaler. Gaffer tape could be useful. I have used heat shrink tube.
- Maybe you need to poke out air bubbles with some wire. Maybe you need to apply descaler from both ends.
- Warm descaler may work faster. Notice descaler is aggressive, and warm descaler even more so.
- The first time I did this repair I let the descaler work over night.

- If you manage to get the boiler descaled and to get water through it, you can assemble the machine again. And do a standard descaling.
 - You may also find a replacement boiler online.
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To reassemble your device, follow these instructions in reverse order.

Descal your machine normally.

