

Tefal Turbo Pro 400 Steam Iron Disassembly

Steam irons probably fail more often than not through water leaking where it shouldn't but disassembly can be challenging. This iron may be typical of many other models.

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INTRODUCTION

In my limited experience steam irons can be difficult to take apart. Maybe I just got lucky, but this one came apart quite easily allowing the fault to be identified if not fixed.

Very many different models of steam iron have appeared over the years (this one had been giving good service for around 25 years) and they all work on the same principles. Methods of construction are largely similar, the main challenge tending to be gaining access to a screw near the front, usually under the top handle cover, which itself can be tricky to find out how to remove.

Disassembly will allow you access to the thermostat and other electrical connections, which can then be cleaned up, possibly fixing the fault.

TOOLS:

• Essential Electronics Toolkit (1)

Step 1 — Rear cover removal - 1



• Remove a Torx security screw from the rear of the iron.

Step 2 — Rear cover removal - 2



- Using a nylon spudger, or with care a small flat screwdriver, ease the rear cover away from the main body of the iron on both sides, starting at the top near the cable entry.
- Once the rear cover starts to come away you can increase the gap created by inserting the spudger a little further down.
- Note the tab on the rear cover shown in the 3rd photo which was holding the rear cover in place.
 On reassembly this can't be re-inserted without lifting the top cover (see Step 7 later).

Step 3 — Releasing the mains cord



- You can now remove the mains cord inlet half-ball from its socket and the cord from the strain relief S-bend.
- If all you need to do is replace the mains cord you can now do so. Ensure you use heat-resistant cable of the same current carrying capacity.

Step 4 — Removing the steam buttons



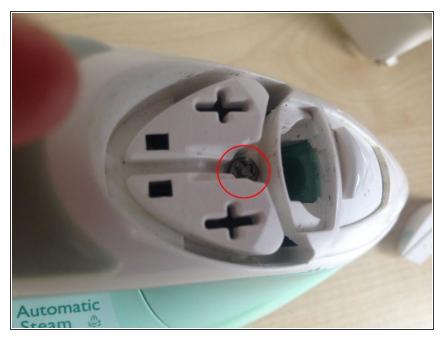
• Remove the two steam buttons. These just pull out. To get the first one out, press the other so you can grip the one you're trying to remove.

Step 5 — Removing the anti-calc valve



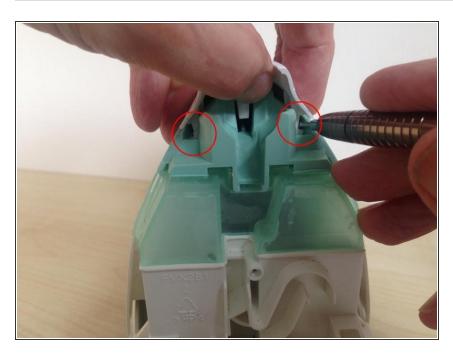
• Remove the anti-calc valve in front of the steam buttons.

Step 6 — Remove the top cover - 1



• Remove a Torx security screw which was hidden by the steam buttons.

Step 7 — Remove the top cover - 2



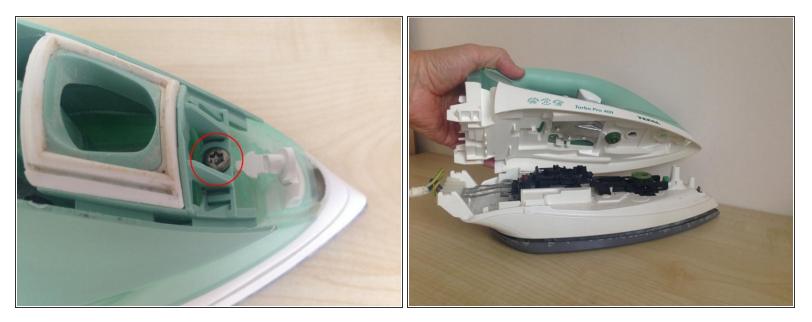
- Whilst lifting the rear of the top cover with one hand, release two clips, one each side, which retain it.
- If you went no further than removing the rear cover and want to replace it, you have to perform this step before you can re-insert its tabs.

Step 8 — Remove the top cover - 3



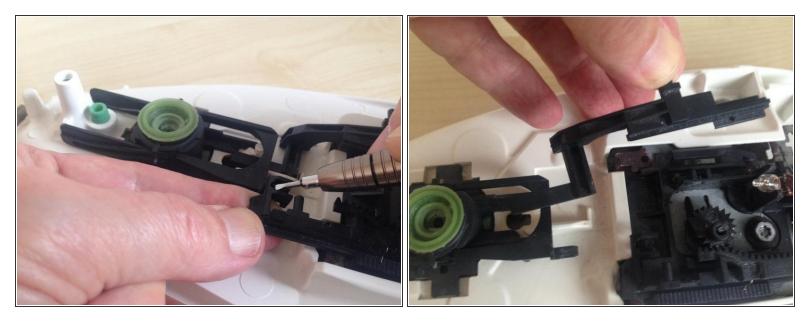
- Push the top cover in the direction shown by the arrow in order to release the four tabs shown in the second photo.
- List the top cover off.

Step 9 — Removing the iron top



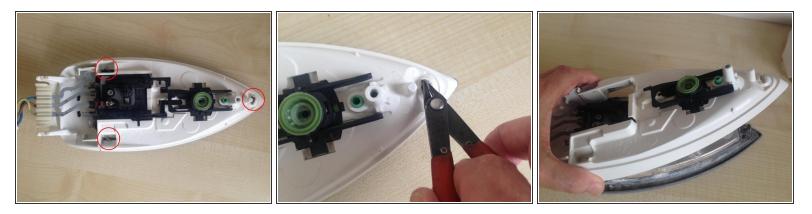
- Remove a Torx security screw from near the front of the iron, revealed by the removal of the top cover.
- Lift off the top of the iron.

Step 10 — Removing the plastic base - 1



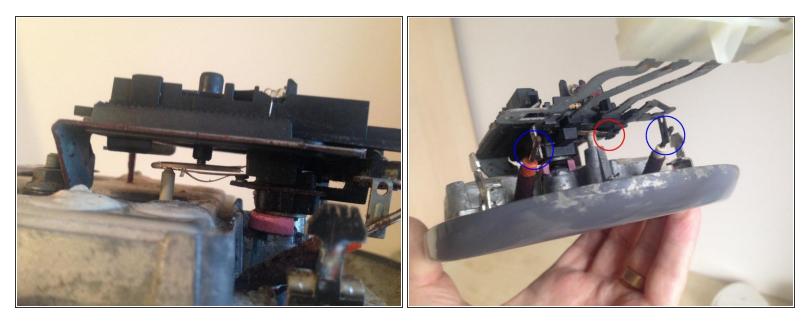
- Disconnect a linkage between the temperature control mechanism and the steam valve. You can
 do this by pressing one part with a small flat-blade screwdriver while supporting the other
 underneath. Take care as these small plastic parts could easily be broken.
- A linkage on the other side operated by the automatic steam control simply lifts off.
- Slide both mechanisms back as far as they will go.
- Note that on reassembly both mechanisms and the knobs controlling them must all be in their rear-most positions to ensure they re-connect correctly.

Step 11 — Removing the plastic base - 2



- There are 3 twisted metal tabs holding the plastic base to the sole plate assembly. Twist each with pliers to line it up with its slot.
- You can now lift the plastic base away from the sole plate assembly.

Step 12 — Checking the thermostat



- You can now inspect the thermostat. This comprises a bimetallic strip which opens or closes a pair of contacts. The contacts may need cleaning as a result of ingress of water.
- You can clean the contacts with switch cleaner fluid (available in an aerosol) and a small piece of fine emery paper. Ensure that the contacts snap open and closed when you apply light pressure to one side or the other of the bimetallic strip.
- On this iron, perhaps slightly unusually, there is a second pair of normally closed contacts which may have suffered corrosion. If you know what these are for, please leave a comment on this Instructable. My guess is that they are a safety cut-out to prevent overheating and fire if the iron is left standing flat while switched on.
- Identify the connections to the element and test the resistance between them with a multimeter. It should be around 30 ohms (this iron is rated at 240V 2KW).

To reassemble your device, follow these instructions in reverse order.