



Braun 3746: Waterproofing Around Button Replacement

When the rubber waterproofing fails water gets inside and causes problems. Fix these problems and prevent them recurring by re-making a new waterproof seal.

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INTRODUCTION

Symptoms:

The power won't reliably turn on/off and the 'pressure alert' LED often comes on in error.

Cause:

The rubbery plastic waterproofing around the power button has broken down and split allowing water to get into the case.

Repair:

Open up the casing, repair any damage and re-make the waterproofing before reassembling.



TOOLS:

- [Sharp knife](#) (1)
- [Toothbrush charger](#) (1)
- [Wirestrippers](#) (1)
- [Alternative:Vice Grips](#) (1)



PARTS:

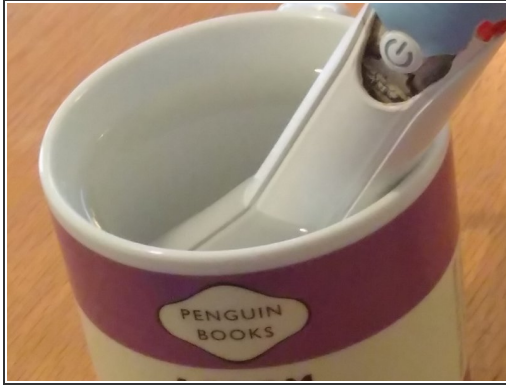
- [cellophane](#) (1)
- [Silicone Sealant](#) (1)
- [alternative: Sugru](#) (1)
- [Isopropyl Alcohol](#) (1)
- [Q-Tips](#) (1)
- [Descaler](#) (1)
- [Crazy Glue](#) (1)
- [Alternative: Glue Gun](#) (1)

Step 1 — Remove white seal ring



- Remove the small white seal ring with small grips, pliers or (as shown) wire-cutters.
- Take it slowly to avoid damaging anything. Ideally get the edge of the cutters under the ring and push it off from behind rather than deforming it too much by squeezing from the sides. If it's tough try heating the area in a cup of hot water to soften the plastic.

Step 2 — Remove base cap.



- Remove the base cap.
- Place the toothbrush on its stand and gently lever the base off by pressing the toothbrush backwards. If it's tough warm the area up in a cup of hot water for a few minutes to soften the plastic. Take it gently. If you break the little clips inside you can use a drop of glue to hold it when you reassemble if necessary.
- Don't lose the spring!

Step 3 — Remove mechanism



- Remove mechanism from casing
- Always push from the small metal prong at the the brush end (where you put the actual toothbrush head) rather than pulling from the base as the induction coil is very delicate.
- There are a lot of tiny copper wires both in the induction coil and elsewhere - take care not to snag them!

Step 4 — Trim away damaged seal



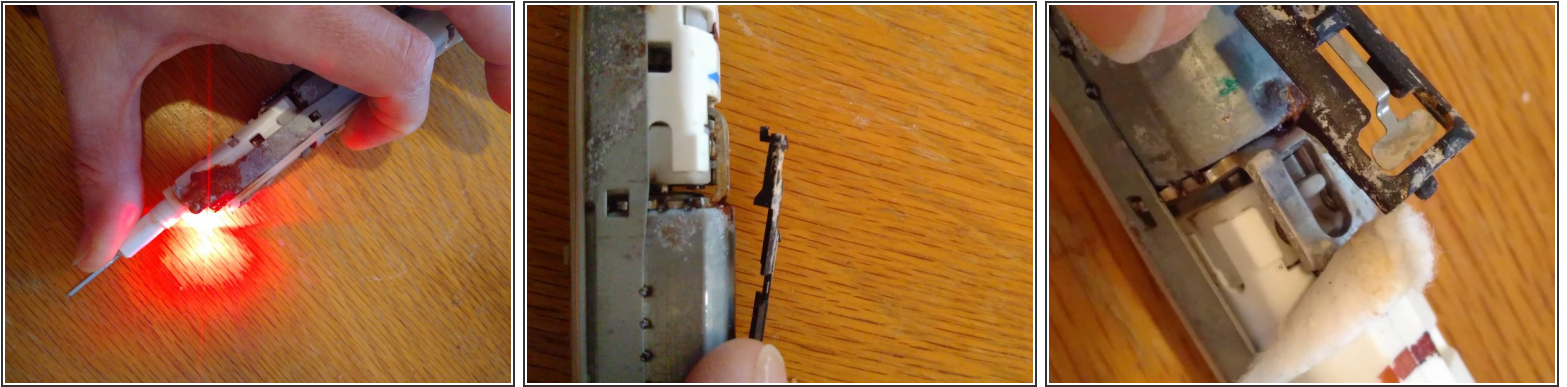
- Trim away any loose rubber seal around the power button with a sharp knife.
- You can either leave the tiny plastic button embedded within the seal. Or you can try and remove all the seal around it while managing to leave the button attached by the tiny hard white plastic tab to the main casing.
- The power button might turn out to be already broken off and thus will end up completely detached. If so you'll need to encapsulate it carefully in the right position within the new sealant when you reassemble - see step 11.

Step 5 — Remove On/Off lever.



- The button you press on the outside of the toothbrush is about 7cm from the button inside that actually turns the power on and off. There is a curved metal lever that transfers the 'press'
- Remove this lever by gently prying open the metal casing where the end of the lever hinges. A small screwdriver is ideal.

Step 6 — Optional: Fix pressure warning LED on error



- One problem the crud/water ingress seems to cause is clogging up a metal-to-metal connection that allows the red pressure warning light to stay off when there is only light pressure, or no pressure at all on the toothbrush head. When the LED is stuck ON the toothbrush works fine, but it's annoying and will drain the battery quicker than usual.
- The metal surfaces you need to clean up if you have this problem are about 2cm down from the external power button. Lift the black plastic channel (careful - don't damage the metal strip it's enclosing) and clean between this strip's T shaped end and the metal it should be making clean contact with underneath.
- You can try alcohol and a Q-tip first or if it's really cruddy abrade with a knife blade, emery board, sandpaper or similar. Take your time and be gentle!

Step 7 — Optional: Fix interior power button - intermittent



- The second problem my particular toothbrush had (again probably caused by water ingress) was that the power intermittently failed to turn on or off when the exterior button was pressed.
- Once i had access to the internal power button to test it directly it was clear that this was the problem. You can completely replace or re-solder this little switch if you wish (there is already a great repair guide specifically for that) but as mine was only intermittently failing I just gave it a clean.
- Drip or spray a tiny amount of isopropyl alcohol onto the switch and press it several times to try and get some alcohol inside. You will be turning the toothbrush on and off while doing this but that doesn't seem to do it any harm. I did this a few times and the switch became much more reliable.

Step 8 — Clean ready for new sealant or Sugru.



- Clean the casing near the power button thoroughly inside and out so the sealant will stick firmly and make a watertight seal.
- Soak in descaler or white vinegar, brush and rinse thoroughly. An old toothbrush is very useful.
- Allow to dry thoroughly.
- Clean with alcohol to remove any remaining grease.

Step 9 — Place 'shield' to separate sealant from mechanism



- Replace the power button lever and check the mechanism is working.
- We need a layer of something like thin plastic to stop sealant squeezing into the mechanism and gumming it all up. I used a bit of bread-bag.
- Cut a bit big enough to protect the parts of the mechanism that will be located just inside the hole in the casing with a good margin around for sealant to squeeze inside and spread a bit.
- Use a tiny bit of sellotape to hold the cellophane in place around the mechanism. I mustn't slide down as you push it in.

Step 10 — Partially reassemble ready for sealant



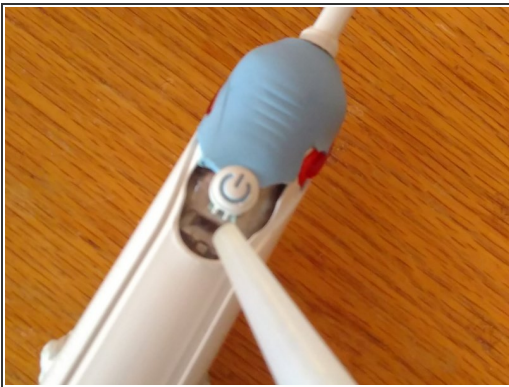
- Taking care not to the disturb the cellophane, thread the mechanism back into the casing. Pull it into place using the metal prong - don't push the induction coil.
- Replace the base cap using the charging stand if necessary.
- Replace the sealing ring.

Step 11 — If the power button came off in step 4...



- Glue the button in place temporarily to hold it steady before you add sealant. I used superglue, (crazy glue - USA) hot glue-gun might be better still.
- The button doesn't need to be in exactly the same place - the metal lever it presses underneath is quite big. And it doesn't need to be strong - just enough to hold it while the sealant goes around it and dries.
- Add sealant as in step 12.

Step 12 — Apply sealant and smooth.



- Squeeze in the sealant or you could try using Sugru if you have it.
- You are aiming to make a waterproof seal all around so smoosh some inside and underneath the edges a bit as well as overlapping on the outside.
- Leave it rough until you get about the right amount on and then smooth and press in a little with a wetted finger

Step 13 — Drying time.



- Let the sealant set thoroughly according to the instructions on whichever kind you are using.
- I'm not going to let a big split develop in the casing again since water getting inside the mechanism causes so many problems.
- I'm not sure how well silicone sealant will last but if it isn't hard wearing enough I'll try Sugru or something else next time as soon as that area looks like becoming a problem. Ideas or suggestions for alternative waterproofing materials? please comment!

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