# Heating element and mounting kit installation manual

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**LAST MODIFIED:** 14-09-2016

Feedback on this guide is very welcome! Please send it to **support@brewpi.com**

# Heating element and mounting kit installation manual

**Duration:** 15 minutes

This manual explains how to install your heating element in a kettle using the BrewPi heating element mounting kit.

> ⚠️ Warning: always consult a qualified electrician to install your heating element and to connect it to your control panel. Always use a ground fault protected outlet or include a GFCI/RCD in your control panel.

## Parts

- Kettle (please check the element will fit your within your) diameter.
- Cable 2.5mm$^2$
- Heating element
- Enclosure kit, which consists of:
  - Cable gland
  - Enclosure Body
  - Enclosure lid
  - Locknut
  - Eye lugs 3x
  - Red O-ring (size 218)
  - Thin white washer (silicone)

## Tools

- Wire strippers
- Crimp tool or pliers
- Philips screwdriver
- Adjustable wrench (40mm)
- 1¼ hole punch
- Hand held Drill (low speed, high torque)
- Metal cutting drill bit (9.5 mm, cobalt head for stainless steel recommended)
- 8 mm (5/16") alan key
- Optional: hammer and centre punch to guide drill bit.

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## Legend

| | | |
|---|---|---|
| Brown | **Live** | |
| Green/Yellow | **Ground** | |
| Blue | **Neutral** | |

## Preparation: Cable stripping and eye lugs

**1**

**5 cm**
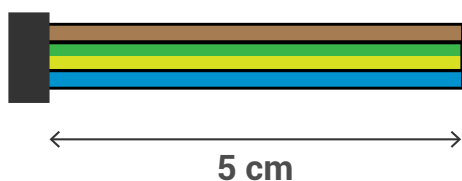
**Strip** cable jacket 5cm

**2**

**3 cm**
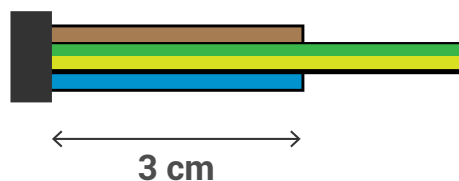
**Shorten** brown (live) and blue (neutral) to 3cm

**3**

**7mm**
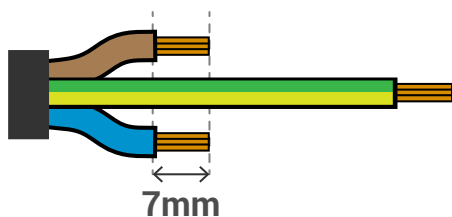
**Strip** all 3 wire insulation 7mm

**4**

Pinch    Pinch

Pinch
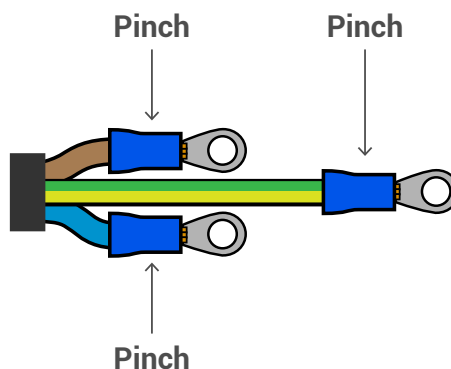
**Crimp** 3 eye lugs to wires, pull on them to test that they are **fastened well**

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## 1
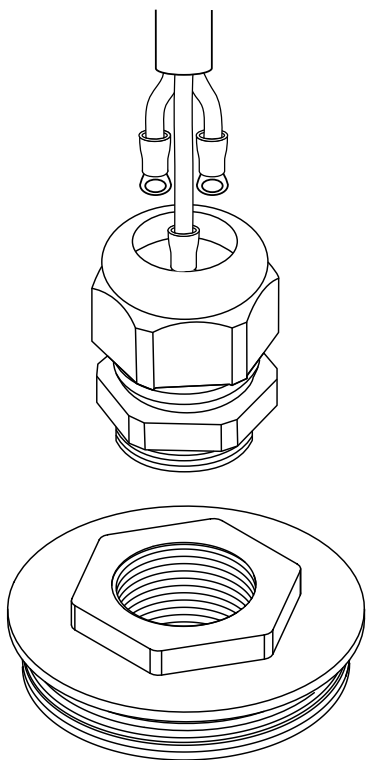
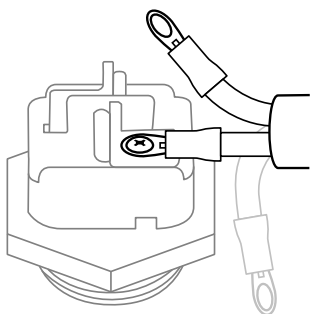**Screw** cable gland into enclosure lid
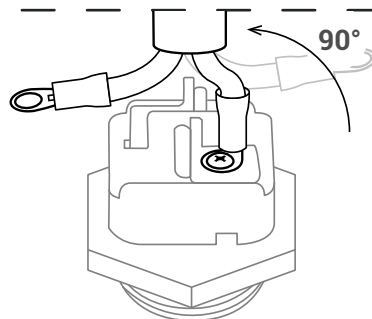
**Insert** cable through cable gland

**Do not tighten** cable gland pressure dome yet! This is the very last step...
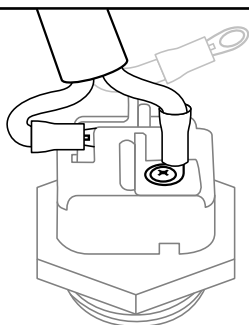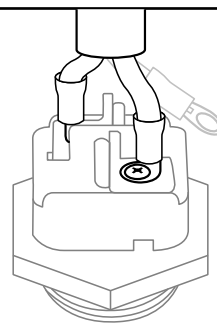
## 2

**Screw** brown wire (live) to the element
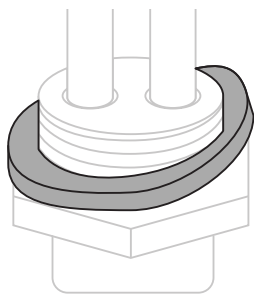
## 3

**Bend** eye lug 90°

90°

## 4

**Screw** blue wire (neutral) to the element

## 5

Again, **bend** eye lug 90°

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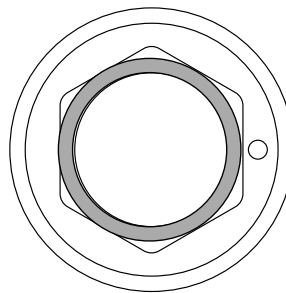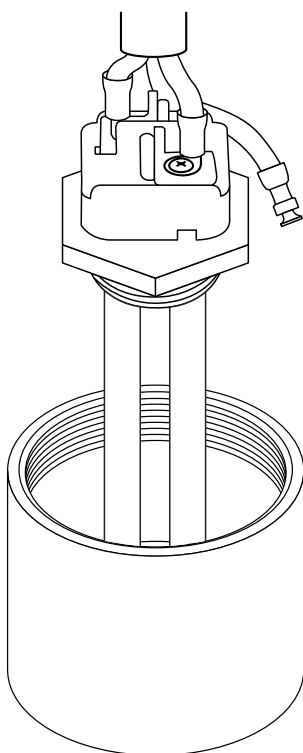
**6**

**Remove** thick gasket that came with the heating element. It is not used.
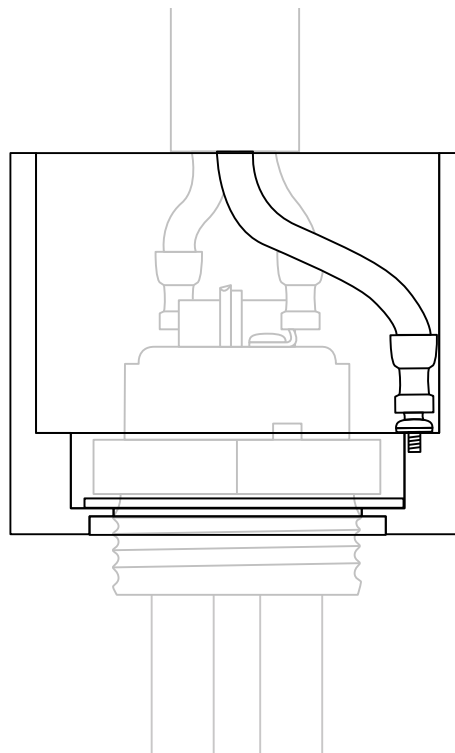
**7**

**Place** thin white gasket inside the housing
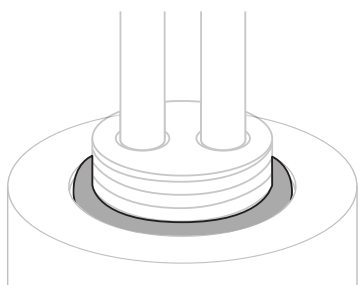
**8**
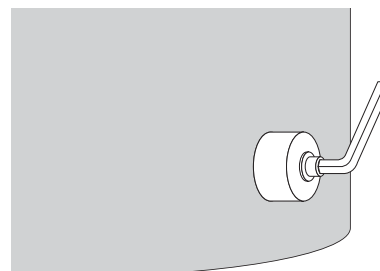
**Insert** element through the housing

**9**

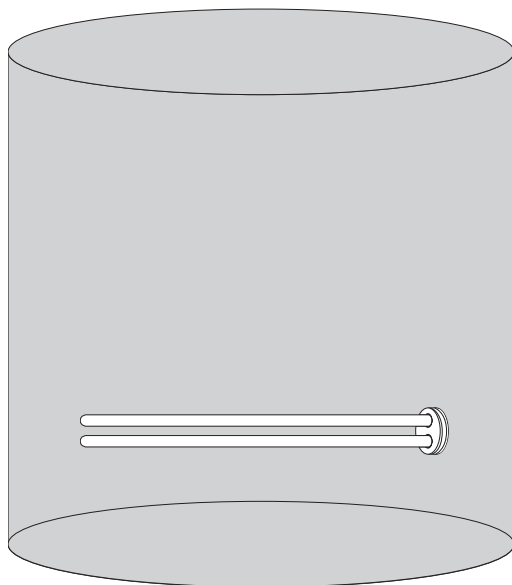**Screw** grounding eye lug to housing with short bolt (M4)

**10**

**Put** Red ring O-ring (size: 218) around thread of element. It will press against the kettle to seal.
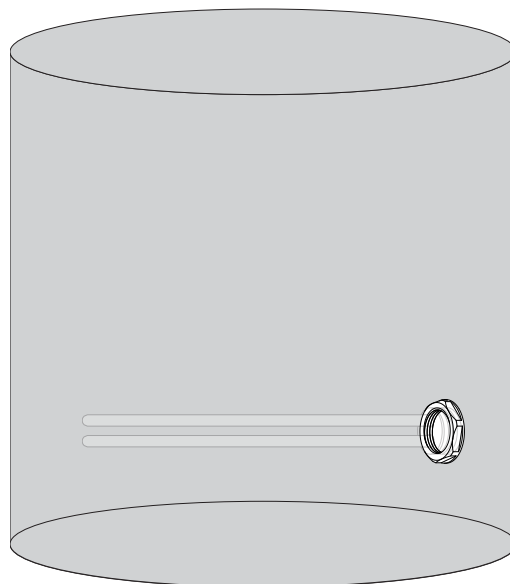
**11**

**Drill** a 9.5mm pilot hole and **punch** a hole in your kettle with 1¼ hole punch (31.75mm). It is recommended to cool your drill with oil or running water.
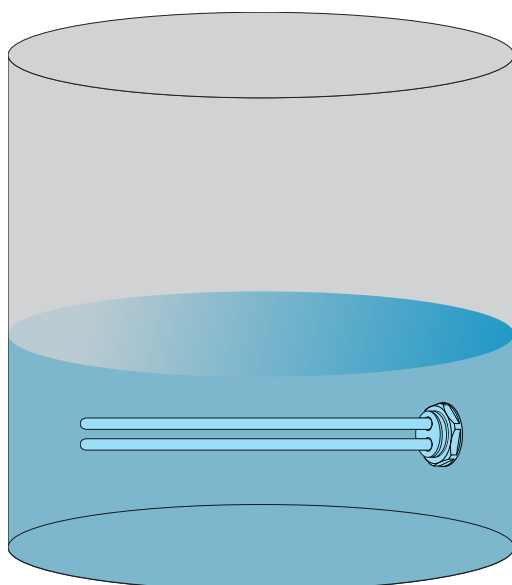
## 12

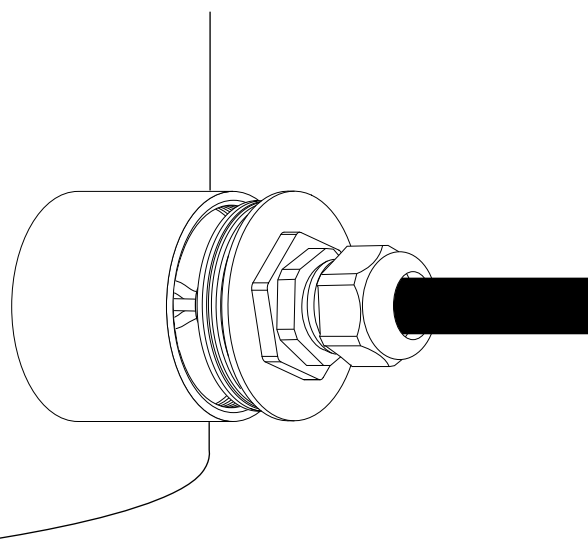**Insert** element through kettle

## 13

**Screw** on locknut. Tighten enough to flatten kettle wall.

## 14

**Fill** kettle with water. Check for leaks for at least 15 minutes.

## 15

**Screw** lid onto housing first, then tighten cable gland dome. Congrats, you are done.