

Lamp Replacement in the BMT 964 AQ

Rev. 1.0 - 19. June 2015

The OZONE-IN-WATER SENSOR BMT 964 AQ for high concentration ozone dissolved in ultra pure water has a lamp housing to which the cuvette is attached. The lamp housing's cover can be removed in order to replace the UV lamp.

Note: The UV lamp comes with a five year warranty. There is no need to replace the UV lamp before a Lamp Low Warning is issued by the instrument!

For disassembly please read the following instructions to make sure the correct screws are loosened. It applies to instruments starting with serial number #140544224.

Preparation

You will need: 1 UV lamp
1 1.5 mm Allen wrench (included with the UV lamp)
some LOCTITE or similar

Note: Replacement of a UV lamp for serial numbers below #060940989 invalidates the calibration!

Before attempting to open the lamp housing it is highly recommended to create a Diagnostic Report, to be sent to BMT for documentation purposes. Then remove power from the analyser.

Opening the lamp housing

Warning: Dangerous voltages inside! Disconnect the analyser from mains power before opening the cover!

- Remove the blue cover of the analyser housing by loosening the four top screws - watch the grounding wire connecting housing and cover
- Loosen the two knurled nuts **B** until the lamp housing cover **A** comes free - do not take the nuts off
- Lift lamp housing cover **A** by pulling it upwards - watch the mirror **D**!

The cuvette **E** and the plate **C** both remain in the analyser.

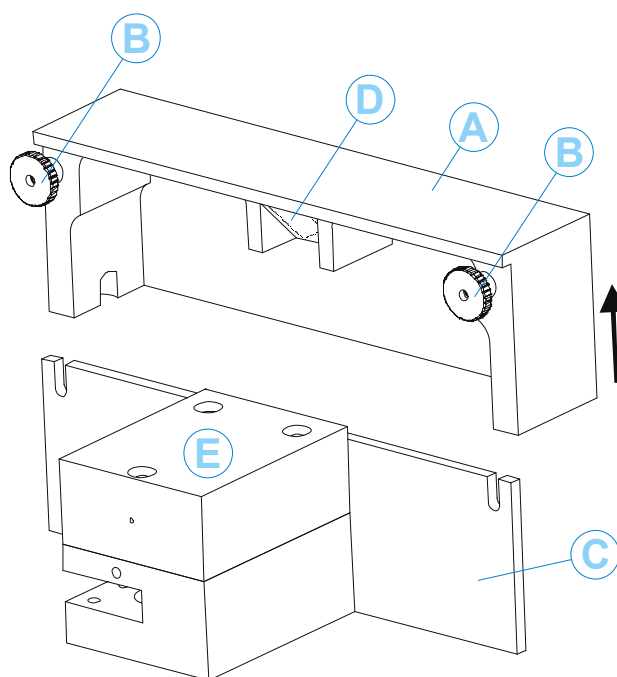


Fig. 1: cuvette assembly - lamp housing cover **A** removed

Replacing the UV lamp

The UV lamp itself is held by two lamp holders **F** and **G** which are not identical. They are directly mounted to the electronics (pcb).

Lamp holder **F** has a slot **L** (figure 3, next page), which holds the lamp wire by a grub screw **M** reaching into the slot. The opposite lamp holder **G** has a plug-in contact, which in turn holds the UV lamp's wire.

Note: Do not touch the grub screw on the lamp holder **G !**

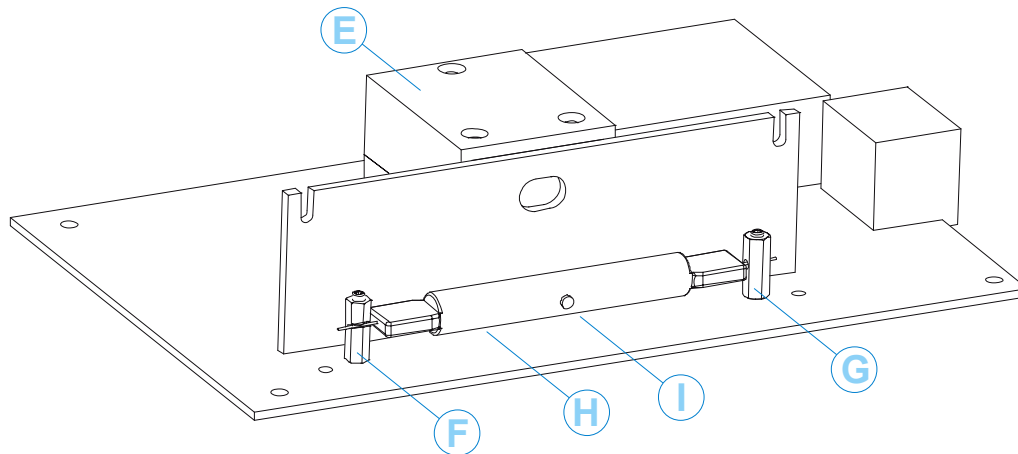
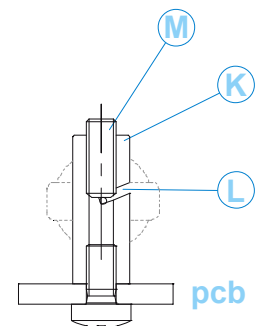


Fig. 2: lamp with holders mounted on pcb

- Using the 1.5 mm Allen wrench, loosen the grub screw of the slotted lamp holder **F** only **do not touch the grub screw of holder G !**
- Grab the UV lamp **H** at the left end and carefully take it out of the slotted lamp holder, **at the same time** pull the lamp out of the contact in the opposite holder **G**
Care must be taken to not bend the lamp's wire in holder G
- Take the new UV lamp out of the box and note its serial number on the box
Attention: Do not touch the radiating area, or use textile gloves
- First, carefully insert one end of the UV lamp into the contact in holder **G**, and second, place the other end of the UV lamp into the slot of holder **F**
- Turn the UV lamp until the exhaust nipple **I** points away from plate **C**
- Now slightly tighten the grub screw in holder **F**: limit the force, by using two fingers, only
- Apply some LOCTITE or similar to the grub screw in holder **F**

Fig. 3: Holder **F**

Reassembling

Assembly after replacement is done in the reverse order. Some remarks:

- **Do not forget to re-attach the grounding wire to the analyser's cover**
- After reassembly, warm-up the analyser for at least 30 minutes, then create a second Diagnostics report
- Please send us both the serial number of the analyser and that of the new UV lamp, plus the two Diagnostic Reports mentioned above.

In case of any problems do not hesitate to contact us:

BMT Messtechnik GmbH, Güterfelder Damm 87-91, D-14532 Stahnsdorf
Tel.: +49-3329-696 77-0, Fax: +49-3329-696 77-29
service@bmt-berlin.de

Klaus Tiedemann,
Service BMT