

1. Electrode replacement

MagneW PLUS detector has a field replaceable electrode structure.

But the electrode is a wetted part and thus seal must be properly kept.

In order to secure proper seal at the time of electrode replacement, this procedure is limited to a service and maintenance specialist of MagneW.

From the above reason, this procedure is not written in the users manual.

If you need to replace the electrode, please refer to the following procedures.

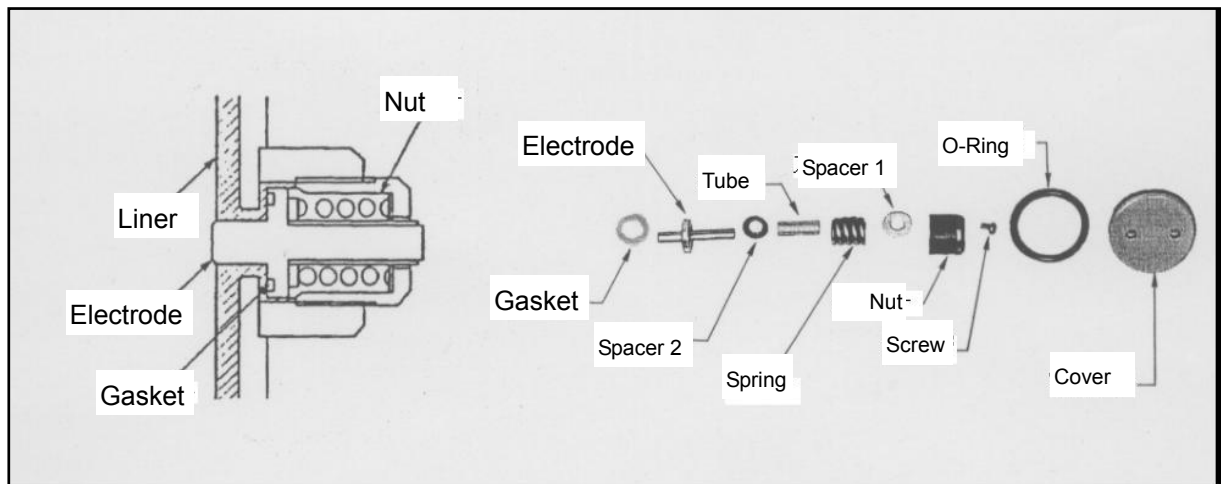
The electrode can not be replaced in the field for the following types of detectors.

- Multivariable type detector: MGM18
- Submersible type detector: MGG19
- Sanitary type detector: MGS28U
- Ceramic type detector: MGG18D-XXXX (XXX: size)

2. Electrode structure

The following is the structure of the electrode of MGG18 type detector.

The electrode is fixed by tightening the nut through a spring and seal is kept by the teflon gasket.



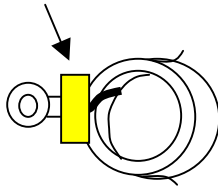
3. Functions of the electrode parts

- 1) Gasket => Process fluid is sealed.
- 2) Electrode => Detect the electromotive force.
- 3) Spacer 2 => Insulator between the electrode and the spring
- 4) Tube => Insulator between the electrode and the spring
- 5) Spacer 1 => Insulator between the nut and the spring
- 6) Nut => Fix the electrode to the measuring pipie.
- 7) Screw => Fix the electrode wire.
- 8) O-ring => Prevent penetration of moisture or water from the outside.
- 9) Cover => Cover for the electrode

4. Electrode replacement procedure

Before the electrode replacement, verify if the detector is empty and no residual process fluid exists.

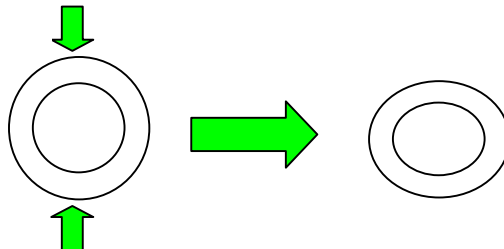
- 1) Remove the electrode cover. Pincers will be suitable for the tool.
- 2) Untighten the screw and separate the electrode and the electrode wire.
- 3) Remove the nut. The removal tool is supplied with the detector.
 - When removing the nut, the electrode wire might be damaged. Please put the electrode wire on the detector case by tape as shown below.



- 4) Remove the electrode. By removing the nut, all electrode parts can be removed.
Make sure that the Gasket and the Spacer 1 are consumable parts. Please replace them with new one.

- 5) Install the gasket

- **At first, please check the gasket if there is no scratch on the surface of the gasket. And nothing adheres on the gasket.**
- Put the gasket in the groove of the electrode.
- It is suggested to press the gasket as shown below so that the gasket does not fall from the groove of the electrode.



- 6) Electrode assembly

Before assemble the electrode, check the surface of the electrode hole, especially the surface where the gasket is touched. Nothing must be on the surface for the proper seal.

Insert the electrode with the gasket to the electrode hole of the detector and assemble the tube, Spacer 2, Spring and Spacer 1 with this order. Make sure that the gasket and the Spacer 1 are new

- 7) Nut assembly

After assembling all above mentioned parts, tighten the nut. The fastening torque of the nut is 5.88 N·m (60 kgf·cm). The gasket is teflon so **make sure to tighten the nut again twelve hour after the electrode assembly.**

- 8) Assemble the electrode wire. **Make sure not to damage the electrode wire when tightening the screw.**

- 9) Assemble the cover. Make sure nothing adheres on the O-ring.