



Source: fobizz AI-generated

Submodule 2: Problem and conflict resolution on the solar thermal system

→ The solar pump no longer delivers solar fluid

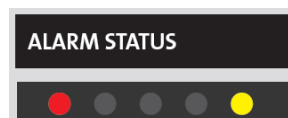
Initial scenario

In the meantime, the solar thermal system has been fully installed, tested for function and put into operation. After one year, you carry out maintenance on the solar thermal system.

You realise that the solar pump is malfunctioning (see message below!). When removing the pump, you notice that the pump is stuck and that the solar fluid has changed considerably. The pH value of the solar fluid has dropped to pH=4.



Source: Viessmann (2008) Solar thermal planning manual,
<https://community.viessmann.de/viessmann/attachments/viessmann/customers-solar/139/1/Planungshandbuch%20Solarthermie.pdf>; accessed 25.02.2025



Source: Grundfos (2020) Instructions UPM3(K) Auto

When asked, the customer describes the operation of the system since commissioning:

- The first summer was very warm with many hours of sunshine. On many summer days, there was more solar heat available than the customer could use. The system therefore often switched off even though the sun was shining.
- The following winter, there were very few hours of sunshine, so the system was not in operation over the winter months.

Your job is to describe to the customer in writing how the poor condition of the system could have come about. You also give the customer a list of tips on how to minimise these problems in the future.