



## INFO

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This document briefly describes which changes have been released in the v15.5 version of the NightWatch since the v14.3 version. Seizure detection algorithms have not been changed.

## CHANGES

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1. In both versions, the arm module does a soft reboot every 30 seconds when it cannot communicate with a base station while not on the charger. In the v15.4 version, the arm module remembers its alarm state and heart rate/movement calculations after performing a soft reboot.
  - a. When the base station is being rebooted directly after an epilepsy alarm, the base station will startup in an alarm state flashing a red light (no sound), as long as the arm module is still in its alarm state.
  - b. If the arm module detects a seizure while the base station is off, the arm module will remain in a 'seizure alarm' state for three minutes. When the base station is powered on within that time, it will show a flashing red light (no sound) directly after startup. This indicates that it has detected a seizure while being offline.
  - c. The heart rate of the wearer is now remembered after performing a soft reboot. This could prevent a bug triggering a false alarm for persons with a higher resting heart rate (+95 BPM). The false alarm based on high heart rate was introduced because it could not remember the resting heart rate of the wearer after a soft reboot.
2. Improved pairing process. Some users accidentally triggered the pairing mode of the bracelet. We have made the actions that cause the arm module to go into pairing mode more difficult, so that users will less likely trigger the pairing mode accidentally.
3. New technical alarm: HardWare-Error. This alarm triggers when the motion sensor of the bracelet is defect.
4. Quicker response time (<15 sec) for the internet light (second orange LED) of the base station when connected to or disconnected from the internet.

5. Arm module does not do soft reboots anymore when placed on the charger and having no connection with base. It only does a soft reboot one time as soon as the base connection is recovered.
6. Multiple improvements in API messaging:
  - a. Added HW\_Error technical alarm: `8``</code>``<desc>HW-error</desc>`
  - b. No more 'End-record' `512``</code>` message after a base reboot when bracelet remained on charger.
  - c. Fixed memory leak in sending DailyReport over socket API
  - d. API connection split to use two threads for communication, one for Portal and one for API connections
7. Multiple improvements in the web interface of NightWatch:
  - a. Added RFPI, Frequency and Bandgap information of the base station
  - b. Lay-out improvement
  - c. Added NC (Not Charging) code for the relay settings. NC triggers when arm module is switched off and connected to a charger
8. Regulatory improvements:
  - a. Included warning messages in the web interface.
  - b. Increased fail safe use by disabling the possibility to change the 'LED Duty cycle' of the arm module in the webinterface.
  - c. When logged into the webinterface, you are now able to change the password needed to enter the webinterface of NightWatch. LivAssured owns a fallback password.
  - d. It is now possible to send the data to the Portal encrypted.
9. The default timeserver is changed to ipsrv.nightwatch.nl. It is now possible to change the timeserver.
10. The v15.5 version includes a Failsafe version. This allows the base station to be updated after it has crashed.
11. Base station contains new arm module firmware: PpWsm\_HR\_Cola\_r0227\_b0144.fws. Arm module version is now 144.