

Waterproofing of the Microstim.

The Microstim was designed in 1986 to be used in normal ambient conditions where the ingress of water or fluids would not be problematical.

Most of the Microstim except possibly the lead would never enter the sterile area and not be subjected to fluids whilst in use.

The main problem with devices such as the Microstim lay in the transportation from one location to the next leaving the battery switched on. This was removed totally by using state of the art switches

These have proved to be extremely reliable and able to take the general mistreatment of being dropped on concrete operating room floors. A full service record is available from 1986

When the Microstim case was redesigned circa 2004 it was done so as to incorporate a degree of waterproofing.

However it was extremely difficult to waterproof the switches to the same level.

Risk assessment reached the conclusion that full waterproofing should be sacrificed for reliability. The only option was to use membrane switches. These are prone to wearing out and due to the electrical limitations would require a separate on/off switch reverting us back to failing the original design criteria.

Considering its history and records of reliability it seems a retrograde step to redesign at a high cost and re-submitting to clinical trials and CE registration to produce a probably inferior instrument.

The continued success of the Microstim is due to its simplicity and reliability.

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