

I dropped my microphone on the floor. How does it affect the sensitivity and frequency response?

Even though GRAS microphones are tested for Vibration and Mechanical Impulsive Stress tests during our [HALT \(Highly Accelerated Lifetime Test\)](#) procedure, every time a microphone set is dropped on the floor, there is the possibility of damage.

Depending on the violence of the impact, the damage can go from only aesthetic to complete failure. Impacts on the microphone capsule can destroy the microphone's diaphragm or cause change in sensitivity. Therefore, it is necessary to visually inspect the capsule after a drop and look for holes in the diaphragm (after carefully removing the protection grid). If no holes are found in the diaphragm, we can perform a sensitivity test with a sound calibrator or pistonphone. The measured sensitivity has to be compared with the previous calibration or the data in the calibration chart to check for abnormal changes.

A sensitivity change due to microphone drop doesn't necessarily mean that the microphone is not usable any longer, as it can be permanent but also stable over time.

If after the fall, there is no electrical output from the microphone set, there can be damage in the preamplifier's internal circuitry.

Whatever the case, if there are signs of damage or sensitivity change, it is advised to ship the unit back to our workshop, so our experts can check the extent of the damage.