# **Dirac Live - Recommended Microphone**

Dirac Live requires an omnidirectional calibration microphone with an associated calibration file.

We suggest the miniDSP UMIK-1 microphone due to its ease of use and universal drivers.

Please note that the measurement microphone is not included in the Dirac Live® software purchase.

## What is an omnidirectional microphone?

An omnidirectional microphone is equally sensitive to sound from every angle. An omnidirectional microphone's polar pattern is a circle, indicating that gain is equal for any inclining angle relative to the microphone. In contrast to a bi-directional microphone, the omnidirectional microphone has only one side open to sound pressure.

## Why can't I use my cardioid or bi-directional microphone?

Dirac Live requires that sound pressure from the room's reflections and the speakers' lines-of-sight are measured with equal gain. A cardioid or bidirectional microphone will measure the sound with different gain depending on sound waves' inclining angles to the microphone. Measuring a surround system with a cardioid microphone pointing at the front speaker will measure lower gains for the speakers behind the microphone, preventing the system calibration from being robust.

## Where should I connect the microphone?

If the Dirac Live-enabled device comes with a calibration microphone, we recommend connecting the included calibration microphone to the device and not the computer, as Dirac Live fetches the calibration file from the device automatically. If using a third-party omnidirectional microphone, or if your Hi-Fi device is placed far away from your listening area, connect the microphone to your computer and ensure it is accessible. Download the relevant calibration file provided by your microphone manufacturer and load it into Dirac Live. **Applying proper calibration to your microphone is crucial to creating a reliable measurement.** 

### Non-compatible microphones.

Some microphones are not compatible with Dirac Live, unfortunately.

For example, the "Audyssey" mic (bundled with some devices) is not compatible.