

What is a random incidence corrector?

A random incidence corrector (aka diffuse field corrector) is an accessory that is placed on top of the microphone capsule. This is done in order to change the frequency response of the microphone, that was originally conceived from a specific sound field (i.e. free-field or pressure field), to a diffuse field. Therefore, a microphone with a random incidence corrector will now behave as a random incidence microphone. This is useful when we have, for example, a pressure microphone and we have to perform a measurement in a diffuse field environment (i.e. a reverberant chamber). In this situation, the measurement microphone equipped with a random incidence corrector will give us the possibility of performing the measurement without the need of doing any post-processing for correcting the microphone's frequency response.



Figure 1. GRAS RA0122 random incidence corrector for 1/2" free-field microphones.

GRAS offers [RA0122](#) random incidence corrector that can be used with any of our 1/2" Free-field microphones. We also have [RA0357](#) random incidence corrector, specially designed to be used with our [146AE](#) 1/2" rugged free-field microphone.



Figure 2. RA357 random incidence corrector placed on GRAS 146AE microphone set.