




# GRAS RA0357

Random Incidence Corrector for 146AE



GRAS RA0357 is a random incidence corrector for 146AE.  
With RA0357 mounted, 146AE can be used as a random  
incidence microphone up to 10 kHz.



## Introduction

RA0357 is a random-incidence corrector for use with GRAS 146AE with the blue protection grid mounted. When it is mounted on the grid of the 146AE free-field microphone, the combination complies with ANSI Standard S1.4 Type 1 for diffuse field measurements in the audio-frequency range.

## Design

The combination is designed to measure the sound pressure as it existed before the microphone and corrector were introduced into a diffuse sound field. At higher frequencies, the presence of the microphone/corrector combination in the sound field will change the sound pressure. In general, this sound pressure will increase due to reflections and diffraction, but will vary with incidence angle. The RA0357 random-incidence corrector is designed so that its combination with a GRAS 146AE free-field microphone results in a diffraction response that compensates for the mechanical response of the free-field microphone, assuming that the sound waves arrive at random from all directions.

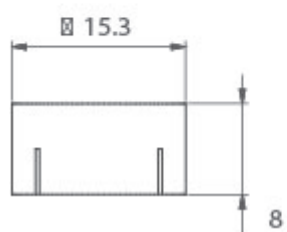
The RA0357 provides diffuse field correction up to 10 kHz.

## Typical Applications

The RA0357 adds flexibility to the already versatile 146AE which now can also be used in sound fields where the sound comes from all directions, that is in diffuse sound fields. This makes it ideal for measurements in car cabin, engine compartments and similar closed cavities.

Material		POM
Standard		IEC 60651, Appendix B

Dimensions in mm



# GRAS Worldwide

Subsidiaries and distributors in more  
than 40 countries

## HEAD OFFICE, DENMARK

### GRAS SOUND & VIBRATION

Skovlytoften 33  
2840 Holte  
Denmark  
Tel: +45 4566 4046  
[www.GRASacoustics.com](http://www.GRASacoustics.com)  
[gras@grasacoustics.com](mailto:gras@grasacoustics.com)

## USA

### GRAS SOUND & VIBRATION

9290 SW Nimbus Avenue  
Beaverton, OR 97008  
Tel: 503-627-0832  
Toll Free: 800-231-7350  
[www.GRASacoustics.com](http://www.GRASacoustics.com)  
[sales-usa@grasacoustics.com](mailto:sales-usa@grasacoustics.com)

## UK

### GRAS SOUND & VIBRATION

Unit 115, Gibson House,  
Ermine Business Park, Huntingdon,  
Cambridgeshire, PE29 6XU  
Tel: +44 (0) 7762 584 202  
[www.GRASacoustics.com](http://www.GRASacoustics.com)  
[sales-uk@grasacoustics.com](mailto:sales-uk@grasacoustics.com)

## CHINA

### GRAS SOUND & VIBRATION

Room 315, RuiBo Center(T1)  
Lane683, Shenhong Rd,  
Minhang District,  
Shanghai, China, 201107  
Tel: +86 21 64203370  
[www.GRASacoustics.cn](http://www.GRASacoustics.cn)  
[cnsales@grasacoustics.com](mailto:cnsales@grasacoustics.com)



## About GRAS Sound & Vibration

GRAS is a worldwide leader in the sound and vibration industry. We develop and manufacture state-of-the-art measurement microphones and related equipment for industries where acoustic measuring accuracy and repeatability are of the utmost importance. This includes applications and solutions for customers within the fields of aerospace, automotive, audiology, consumer electronics and other highly demanding industries. GRAS microphones are designed to live up to the high quality, durability and accuracy that our customers have come to expect, trust and require.

GRAS Sound & Vibration is represented through subsidiaries and distributors in more than 40 countries and is part of Axiometrix Solutions, a leading test solutions provider comprised of globally recognized measurement brands. Read more at [www.grasacoustics.com](http://www.grasacoustics.com)

[grasacoustics.com](http://grasacoustics.com)

**GRAS**  
An Axiometrix Solutions Brand