

# GRAS 43AC

Ear Simulator Kit According to IEC 60318-4



Connection: 200 V/LEMO  
Volume: 1260 @ 500 Hz  
Dyn range: 25 dB(A) to 164 dB  
ANSI: S3.7  
IEC: 60318-4

The GRAS 43AC Ear Simulator Kit is a complete test-jig for acoustical measurements on earphones coupled to the ear by inserts such as tubes and ear moulds.

The GRAS 43AC Ear Simulator Kit is a complete test jig for acoustically testing earphones coupled to the ear via inserts such as tubes and ear moulds and complies with the following international requirements:

- IEC 60318-4: Occluded-ear simulator for the measurement of earphones coupled to the ear by ear inserts.

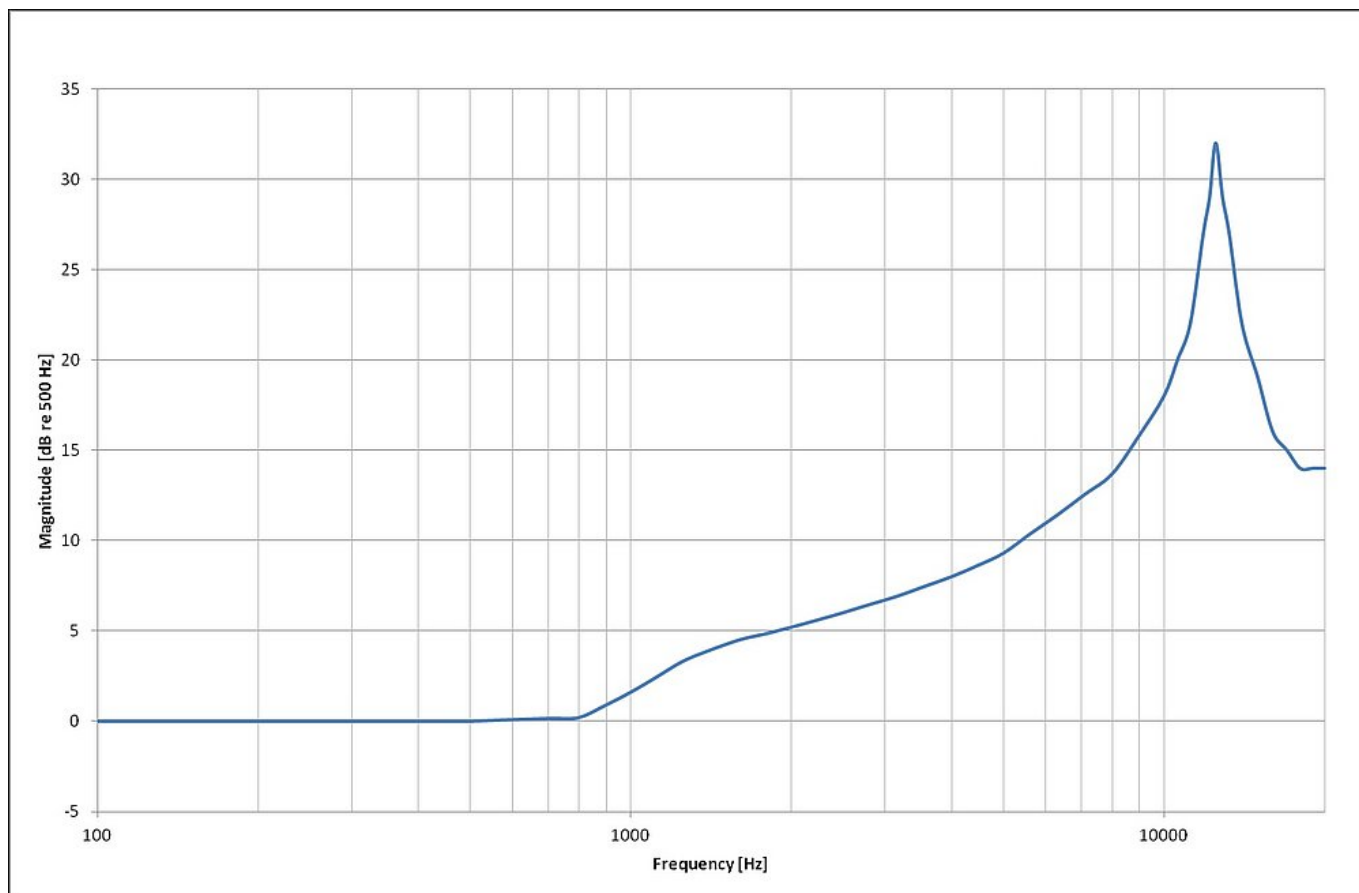
The 43AC comprises:

- [GRAS RA0045](#) Ear Simulator
- [GRAS 40AG](#) 1/2" Pressure Microphone
- GRAS 26AC 1/4" Preamplifier
- [GRAS RA0001](#) Right-angled Adapter
- [GRAS RA0052 Test Jig](#)

The Test Jig has an adjustable spring-loaded arm to exert a variable force on the test object.

A prepolarized version is available, [GRAS 43AC-S1](#).

|                                                                                            |                 |                        |
|--------------------------------------------------------------------------------------------|-----------------|------------------------|
| Theoretical dynamic range lower limit with GRAS preamplifier                               | dB(A)           | 25                     |
| Theoretical dynamic range upper limit with GRAS preamplifier @ +28 V / ±14 V power supply  | dB              | 153                    |
| Theoretical dynamic range upper limit with GRAS preamplifier @ +120 V / ±60 V power supply | dB              | 164                    |
| Set sensitivity @ 250 Hz (±2 dB)                                                           | mV/Pa           | 12                     |
| Set sensitivity @ 250 Hz (±2 dB)                                                           | dB re 1V/Pa     | -38.5                  |
| Coupler volume                                                                             | mm <sup>3</sup> | 1260 @ 500 Hz          |
| Resonance frequency                                                                        | kHz             | 13.5                   |
| Temperature range, operation                                                               | °C / °F         | -30 to 60 / -22 to 140 |
| Temperature coefficient @250 Hz                                                            | dB/°C / dB/°F   | -0.01 / -0.006         |
| Humidity range non condensing                                                              | % RH            | 0 to 90                |
| ANSI standard                                                                              |                 | S3.7                   |
| IEC standard                                                                               |                 | 60318-4 (former 60711) |
| CE/RoHS compliant/WEEE registered                                                          |                 | Yes/Yes/Yes            |
| Connector type                                                                             |                 | 3 m 7-pin LEMO         |
| Weight                                                                                     | g / oz          | 1550 / 54.675          |



Typical frequency response for RA0045

## Included

|                             |                                                  |
|-----------------------------|--------------------------------------------------|
| <a href="#">GRAS RA0045</a> | IEC 60711 Ear Simulator with microphone included |
| GRAS 26AC                   | ¼" Preamplifier                                  |
| <a href="#">GRAS RA0052</a> | Test Jig                                         |
| GRAS GR0435                 | In-ear Adapter                                   |
| GRAS GR0436                 | Tube stud                                        |
| GRAS GR0437                 | Ear-mould Simulator                              |
| GRAS GR0438                 | Union nut                                        |
| GRAS GR0440                 | Tube stud                                        |
| GRAS GR0433                 | Calibration Adapter                              |
| GRAS GR0434                 | Stop Washer                                      |

## Optional

|                             |                                   |
|-----------------------------|-----------------------------------|
| <a href="#">GRAS 12AK</a>   | Power Module                      |
| <a href="#">GRAS 42AA</a>   | Pistonphone                       |
| <a href="#">GRAS RA0196</a> | High-tension springs (set of two) |

GRAS Sound & Vibration reserves the right to change specifications and accessories without notice.

# 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

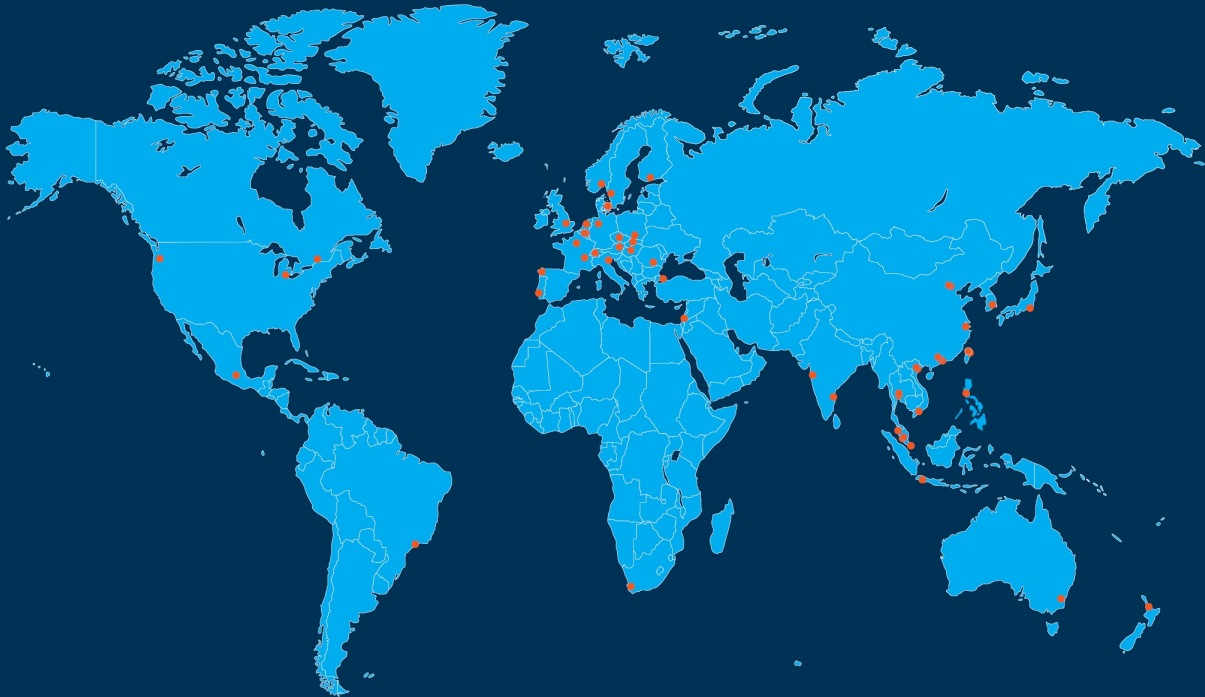
**GRAS SOUND & VIBRATION**  
9290 SW Nimbus Avenue  
Beaverton, OR 97008  
Tel: 503-627-0832  
Toll Free: 800-231-7350  
[www.GRASacoustics.com](http://www.GRASacoustics.com)  
[sales-usa@grasacoustics.com](mailto:sales-usa@grasacoustics.com)

## 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 502, Building T1,  
No.1398 Ali Center  
Shenchang Road,  
Minhang District,  
Shanghai, China, 201107  
Tel: +86 21 400-888-9826  
[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 to industries where acoustic measuring accuracy and repeatability is of utmost importance in R&D, QA and production. This includes applications and solutions for customers within the fields of aerospace, automotive, audiology, and consumer electronics. GRAS microphones are designed to live up to the high quality, durability and accuracy that our customers have come to expect and trust.

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)

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