

# GRAS 43AE

Ear Simulator Kit According to ITU-T Rec. P57 Type 3.2



Connection: 200 V/LEMO  
Volume: Complex  
Dyn range: 26 dB(A) to 164 dB  
ANSI: S3.7

The GRAS 43AE Ear Simulator Kit according to ITU-T Rec. P57 Type 3.2 is for acoustically testing supra-aural earphones, telephone handsets and loudspeakers, and complies with the international requirements: ITU-T Recommendation P.57 (08/96) "Serie P: Telephone Transmission quality. Objective measuring apparatus: Artificial ears".

The 43AE is an IEC 60318-4 (60711) Ear Simulator for acoustical testing of supra-aural earphones, telephone handsets and loudspeakers in accordance with

- IEC60318-4 Occluded-ear simulator for the measurement of earphones coupled to the ear by ear inserts
- ITU-T Recommendations P57 (08/96) Series P: Telephone transmission quality, Objective measuring apparatus: Artificial ears

The 43AE comprises:

- IEC 60318-4 [GRAS RA0045 Ear Simulator](#)
- [GRAS 26AC-1 ¼" Preamplifier](#)
- [GRAS GR0010 ¼" - ½" Adapter](#)
- [GRAS RA0056 Low-leak Pinna Simulator](#)
- [GRAS RA0057 High-leak Pinna Simulator](#)

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	Low 713.8, High 1570
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 75
ANSI standard		S3.7
ITU-T recommendations		P.57 Type 1
CE/RoHS compliant/WEEE registered		Yes/Yes/Yes
Connector type		3 m 7-pin LEMO
Weight	g / oz	1.05 / 37.038

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

## Included

<a href="#">GRAS RA0045</a>	IEC 60711 coupler with microphone included
<a href="#">GRAS 26AC-1</a>	¼" Preamplifier
<a href="#">GRAS GR0010</a>	¼" - ½" Adapter
<a href="#">GRAS RA0056</a>	Low-leak Pinna Simulator
<a href="#">GRAS RA0057</a>	High-leak Pinna Simulator

## Optional

<a href="#">GRAS 12AK</a>	Power Module
<a href="#">GRAS 42AA</a>	Pistonphone

## Miscellaneous

<a href="#">GRAS RA0119</a>	Pistonphone adapter
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# GRAS Worldwide

Subsidiaries and distributors in more than 40 countries

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## 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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