

# GRAS 43AD

Ear Simulator Kit According to  
ITU-T Rec. P57 Type 1



Connection: 200 V/LEMO  
Volume: Complex  
Dyn range: 25 dB(A) to 164 dB  
ANSI S3.7  
IEC: 60318-1

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The GRAS 43AD Artificial Ear is a complete assembly for acoustical measurements on acoustical transmitters and loudspeakers. It can be integrated with a telephone test head or permanently installed on a production test line.

The GRAS 43AD is a complete assembly for acoustical measurements on acoustical transmitters and loudspeakers in accordance with:

- IEC 60318-1 & -2 Electroacoustics – Simulators of human head and ear – Part 1: Ear simulator for the calibration of supra-aural earphones, 1998-07
- ITU-T Recommendation P.57 (08/96) Series P: Telephone transmission quality, Objective measuring apparatus: Artificial ears.

It can be integrated with a telephone test head or permanently installed on a production test line.

The 43AD comprises:

- IEC 318 [GRAS RA0039 Ear Simulator](#)
- [GRAS 40AG ½" Pressure Microphone](#)
- [GRAS 26AK ¼" Preamplifier](#)
- Snap coupling GR0332 and GR0336
- Mounting plates for circum-aural and supra-aural headphones

A prepolarized version is available, [GRAS 43AD-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
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 80
ANSI standard		S3.7
IEC standard		60318-1 (former 60318)
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	1.65 / 58.202

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

## Included

<a href="#">GRAS RA0039</a>	IEC 318 Ear Simulator
<a href="#">GRAS 40AG</a>	½" Pressure Microphone, Wide Frequency
<a href="#">GRAS 26AK</a>	½" Preamplifier
<a href="#">GRAS AA0008</a>	3 m Extension Cable
GR0332	Snap Coupling (female)
GR0336	Snap Coupling (male)
GR0339	for testing earphones fitted with fluid cushions

## Optional

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

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# GRAS Worldwide

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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