

# GRAS 43AD-S1

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



Connection: 0 V/CCP

Volume: Complex

Dyn range: 25 dB(A) to 150 dB

ANSI: S3.7

IEC: 60318-1

GRAS Sound & Vibration  
Skovlytoften 33, 2840 Holte, Denmark  
[www.grasacoustics.com](http://www.grasacoustics.com)

The GRAS 43AD-S1 Artificial Ear with TEDS 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-S1 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-S1 comprises:

- IEC 60318 [GRAS RA0039 Ear Simulator](#)
- [GRAS 40AO ½" Pressure Microphone](#)
- [GRAS 26CA ¼" Preamplifier](#)
- Snap coupling GR0332 and RA0523
- Mounting plates for circum-aural and supra-aural headphones

An externally polarized version is available, [GRAS 43AD](#).

## TEDS Compatibility

43AD-S1 is IEEE 1451.4 TEDS v. 1.0 compliant. If your measurement platform supports Transducer Electronic Data Sheets (TEDS), you will be able to read and write data like properties and calibration data.

# Specifications

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	150
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
GRAS AA0034	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

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 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