

# GRAS 43AC-S1

CCP Ear Simulator Kit According to IEC 60318-4



Connection: 0 V/CCP  
Volume: 1260 @ 500 Hz  
Dyn range: 25 dB(A) to 150 dB  
ANSI: S3.7  
IEC: 60318-4

The GRAS 43AC-S1 CCP Ear Simulator Kit according to IEC 60318-4 with TEDS 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-S1 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-S1 comprises:

- [GRAS RA0045-S1](#) Ear Simulator
- [GRAS 40AO](#) 1/2" Prepolarized Pressure Microphone
- [GRAS 26CB](#) 1/4" CCP Standard Preamplifier with Microdot Connector
- [GRAS RA0001](#) Right-angled Adapter
- [GRAS RA0052](#) Test Jig
- GRAS AA0070 3m Microdot-BNC Cable

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

Click [GRAS RA0045-S1](#) for more information about the RA0045-S1 Ear Simulator.

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

## TEDS Compatibility

43AC-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.

Theoretical dynamic range lower limit with GRAS preamplifier	dB(A)	25
Theoretical dynamic range upper limit with GRAS CCP preamplifier	dB	150
Set sensitivity @ 250 Hz ( $\pm 2$ dB)	mV/Pa	12
Set sensitivity @ 250 Hz ( $\pm 2$ 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 75
ANSI standard		S3.7
IEC standard		60318-4 (former 60711)
CE/RoHS compliant/WEEE registered		Yes/Yes/Yes
Connector type		Microdot 10/32
Weight	g / oz	1.55 / 54.675

## Optional Items

<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 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